

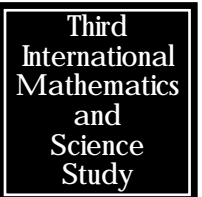
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Variables Derived from the  
Student and Teacher  
Questionnaires  
Populations 1 and 2

User Guide for the TIMSS  
International Database

Primary and Middle School Years – 1995 Assessment



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# Supplement 4

## Variables Derived from the Student and Teacher Questionnaires – Populations 1 and 2

### Overview

This supplement contains documentation on all of the derived variables contained in the international background data files that are based on the student and teacher background questionnaire variables. These variables were used to report contextual data in the TIMSS international reports, and may also be used in secondary analyses. Tables S4.1 through S4.4 list all of the derived variables published in the international reports:

*Mathematics Achievement in the Primary School Years* (Mullis, et. al., 1996)

*Science Achievement in the Primary School Years* (Martin, et. al., 1996)

*Mathematics Achievement in the Middle School Years* (Beaton, et. al., 1997)

*Science Achievement in the Middle School Years* (Beaton, et. al., 1997)

Following Tables S4.1 through S4.4, there are four sections of this supplement corresponding to the background questionnaire type from which the reporting variables are derived:

- Section 1: Population 1 Student
- Section 2: Population 1 Teacher
- Section 3: Population 2 Student
- Section 4: Population 2 Teacher

Each of these sections includes specific documentation for each derived variable. Each section is organized in alphabetical order by derived variable name<sup>1</sup> and contains the following information about each of the derived contextual variables:

- Derived Variable Name
- Derived Variable Label
- Description
- Table/Figure Reference
- Source Variable(s) Used from the Background Questionnaire Items  
(Listed by both Questionnaire Item Location and International Background Variable Name)

<sup>1</sup> See Chapter 7 of the User Guide for descriptions of the variable naming system used.

- Analysis Notes  
(Descriptions of how the derived variables were computed based on associated source variables)
- Table of National Exclusion or Adaptation Documentation  
(List of countries that are either excluded from derived variables or for which some documentation is provided regarding national adaptations in their background questionnaire items)

The documentation for derived variables reflects general analysis rules applied on the basis of the internationally-defined background questions. Due to national adaptations in the background questionnaires, some countries are omitted or handled somewhat differently for certain report variables. Documentation describing how national deviations were handled in the international derived variables is provided for any country where any adaptation in their background questionnaire resulted in some modification to either the general analysis method or the interpretation of the derived variable. In the Tables of National Exclusion or Adaptation Documentation, countries are given one of two different data codes with the following definitions:

**Code D: Data for country are included in the derived variable but with documentation.**

The comment lines clarify any differences between the national data and what is expected based on the international definition of the derived and/or source variables.

**Code X: Data for country are NOT included in the derived variable.**

In general, these are due to source variable(s) that are not available for the country. There are some variables where data are excluded for other reasons, such as small sample size or data deleted from the report by request of the NRC, as indicated in the comment line.

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## General Documentation Issues

### Derived Variables Based On Student Background Data – Population 1

In contrast to Population 2, only a single version of the student questionnaire was administered to Population 1 students. The source variables and analysis notes for Population 1 reference the use of specific background questionnaire items (SQ1-\*\*). The derived variables pertaining to general background questions (ASDG\*\*\*\*), mathematics-related questions (ASDM\*\*\*\*), and science-related questions (ASDS\*\*\*\*) are computed for all students.

### Derived Variables Based On Teacher Background Data – Population 1

For Population 1, there was a single teacher questionnaire, since in most countries both mathematics and science are taught by a single classroom teacher. The source variables and analysis notes reference the use of the appropriate teacher questionnaire items (TQ1-\*\*). In general, the derived variables based on general background or classroom-related questions (ATDG\*\*\*\* or ATDC\*\*\*\*), mathematics-related questions (ATDM\*\*\*\*), and science-related questions (ATDS\*\*\*\*) are included for all teachers. In some countries, however, there are separate teachers for mathematics and science, and either one or the other teacher answered only the portion of the background questions relevant to the subject that they teach. In these cases, data in derived variables related to either mathematics or science will not be included for teachers of the other subjects. In a few of the countries with separate mathematics and science teachers, some of the general background or classroom-related questions were asked only of the mathematics teacher. Wherever possible, missing classroom data for science teachers were copied from the mathematics teacher in the same classroom. These cases are described in Supplement 3 and also are indicated in this supplement in the Tables of National Exclusion and Adaptation Documentation.

## Derived Variables Based On Student Background Data – Population 2

For Population 2, derived variables related to students' attitudes and classroom activities are computed either for science as an integrated subject or for specific science subject areas (biology, chemistry, earth science, physics), depending on whether the non-specialized (SQ2) or specialized (SQ2(s)) version of the student questionnaire was administered. In the documentation, the source variables and analysis notes refer to the student background questionnaire items by the following definitions:

- SQ2-\*\* = General student background questions or questions pertaining to mathematics contained in both the specialized and non-specialized versions.
- SQ2G-\*\* = Questions pertaining to general/integrated science contained in only the non-specialized version.
- SQ2S-\*\* = Questions pertaining to separate science subject areas contained in only the specialized version.

For Population 2, there are three types of derived variables based on student background data, depending on the questionnaire source:

- 1) Variables related to general/integrated science (BSDS\*\*\*\*); these variables contain data only for students in countries that administered the non-specialized form of the questionnaire.
- 2) Variables related to separate science subject areas (biology or biological science = BSDB\*\*\*\*, chemistry = BSDC\*\*\*\*, earth science = BSDE\*\*\*\*, and physics or physical science = BSDP\*\*\*\*); these variables contain data only for students in countries that administered the SQ2(s) form of the questionnaire.
- 3) Variables related to mathematics or general background information; these variables contain data for all countries administering either version of the questionnaire.

Table 2.8 of the user Guide indicates which countries administered the specialized and non-specialized versions of the student questionnaire, based on whether the series of questions related to activities in science classes are asked about integrated science classes or separate science subject areas. A few countries modified the questionnaire to include questions for only some of the science subject areas, for combined subject-area classes, or that combined questions from both the specialized and non-specialized versions. These special cases are described in Supplement 3, which documents the national adaptations of the background questionnaire items. The effect of these national adaptations on the derived variables are indicated in this supplement in the corresponding Tables of National Exclusion and Adaptation Documentation.

## Derived Variables Based On Teacher Background Data – Population 2

Since there were two types of Population 2 teacher questionnaires, the source variables and analysis notes reference specific background questionnaires according to the following definitions:

TQM2***	=	Mathematics Teacher Questionnaire Item
TQS2***	=	Science Teacher Questionnaire Item

For Population 2, there are three types of derived variables based on teacher background data, depending on the questionnaire source:

- 1) Variables asked only of mathematics teachers related to mathematics classes/teaching (BTDM\*\*\*\*); these variables will contain data for mathematics teachers only.
- 2) Variables asked only of science teacher related to science classes/teaching (BTDS\*\*\*\*); these variables will contain data for science teachers only.
- 3) Variables asked of both mathematics and science teachers related to general background or classroom questions (BTDG\*\*\*\* or BTDC\*\*\*\*); these variables will contain data for both mathematics and science teachers.

**Table S4.1**  
**Index of Derived Variables Included in the International Report for Mathematics**  
**Population 1**

Report Table/Figure	Table/Figure Reference Location*	Derived Variable	Label
Figure 4.3	AMRF4.3	ASDGMATT	GEN\OVERALL ATTITUDE\TOWARDS MATHEMATICS
Figure 5.1	AMRF5.1a	ATDMAGR2	MAT\FORMAL REPRESENTATION OF WORLD
	AMRF5.1b	ATDMAGR5	MAT\NATURAL TALENT FOR MATH
	AMRF5.1c	ATDGAGR4	GEN\PRACTICE TO OVERCOME DIFFICULTY
	AMRF5.1d	ATDMAGR6	MAT\USE MORE THAN 1 REPRESENTATION
Figure 5.2	AMRF5.2a	ATDMIMP1	MAT\GD\IMPT\REMEMBER FORMULAS
	AMRF5.2b	ATDMIMP4	MAT\GD\IMPT\THINK CREATIVELY
	AMRF5.2c	ATDMIMP5	MAT\GD\IMPT\HOW USED IN REAL WORLD
	AMRF5.2d	ATDMIMP6	MAT\GD\IMPT\SUPPORT SOLUTIONS
Figure 5.4	AMRF5.4a	ATDGLM01	GEN\CLSS\DIFFERENT ACADEMIC ABILITY
	AMRF5.4b	ATDGLM03	GEN\CLSS\SPECIAL NEEDS
	AMRF5.4c	ATDGLM05	GEN\CLSS\DISRUPTIVE STUDENTS
	AMRF5.4d	ATDGLM11	GEN\CLSS\SHORTGE OF DEMNSTR EQUIPMNT
	AMRF5.4e	ATDGLM12	GEN\CLSS\INADEQUATE PHYSICL FACILITS
	AMRF5.4f	ATDGLM13	GEN\CLSS\HIGH STUDENT TEACHER RATIO
Figure 5.5	AMRF5.5a	ATDMLES4	MAT\WORK TOGETHER\STUDENTS INTERACT
	AMRF5.5b	ATDMLES3	MAT\WORK TOGETHER\TEACHER TEACHES
	AMRF5.5c	ATDMLES2	MAT\INDIVIDUAL WORK\ASSISTANCE
	AMRF5.5d	ATDMLES1	MAT\INDIVIDUAL WORK\NO ASSISTANCE
	AMRF5.5e	ATDMLES6	MAT\WORK IN GROUPS\ASSISTANCE
	AMRF5.5f	ATDMLES5	MAT\WORK IN GROUPS\NO ASSISTANCE
Table 1.1	AMRT1.1c	ASDAGE	GEN\STUDENT'S AGE
Table 4.1	AMRT4.1a	ASDGPSA	GEN\HOME\POSSESS ALL\COMPUTER\DESK\DICTI
	AMRT4.1b	ASDGPSN	GEN\HOME\NOT POSSESS ALL\COMPUTER\DESK\ID
Table 4.4	AMRT4.4	ASDGBRNP	GEN#\ BORN IN COUNTRY\PARENTS
Table 4.9	AMRT4.9	ASDSTUDM	GEN\DAILY HOURS SPENT STUDYING MATH
Table 4.10	AMRT4.10a	ASDGDAY1	GEN\OUTSIDE SCHL\WATCH TV OR VIDEOS
	AMRT4.10b	ASDGDAY2	GEN\OUTSIDE SCHL\PLAY COMPUTER GAMES
	AMRT4.10c	ASDGDAY3	GEN\OUTSIDE SCHL\PLAY WITH FRIENDS
	AMRT4.10d	ASDGDAY4	GEN\OUTSIDE SCHL\DOING JOBS AT HOME
	AMRT4.10e	ASDGDAY5	GEN\OUTSIDE SCHL\PLAYING SPORTS
	AMRT4.10f	ASDGDAY6	GEN\OUTSIDE SCHL\READING A BOOK
Table 4.11	AMRT4.11	ASDGDTV	GEN\OUTSIDE SCHL\WATCH TV OR VIDEOS
Table 4.13	AMRT4.13a	ASDMDOW1	MAT\DO WELL\NATURAL TALENT
	AMRT4.13b	ASDMDOW2	MAT\DO WELL\GOOD LUCK
	AMRT4.13c	ASDMDOW3	MAT\DO WELL\HARD WORK STUDYING
	AMRT4.13d	ASDMDOW4	MAT\DO WELL\MEMORIZE NOTES
Table 4.15	AMRT4.15	ASDGMATT	GEN\OVERALL ATTITUDE\TOWARDS MATHEMATICS
Table 5.2	AMRT5.2a	ATDGAGE	GEN\AGE OF TEACHER
Table 5.3	AMRT5.3	ATDGTAUG	GEN\YEARS BEEN TEACHING
Table 5.4	AMRT5.4	ATDMTIME	MAT\CLSS\LENGTH OF MATH CLASS

\*The international table or figure reference location included for each derived variable is based on the general definitions described in Table 7.5 in the User Guide.

Note: One derived variable (ASDGPS) not reported in any international tables or figures is not included in the index.

**Table S4.1**  
**Index of Derived Variables Included in the International Report for Mathematics Population 1 (Continued)**

Report Table/Figure	Table/Figure Reference Location*	Derived Variable	Label
Table 5.5	AMRT5.5a	ATDGACT1	GEN\OUTSIDE SCHL\PREPARE TEST
	AMRT5.5b	ATDGACT2	GEN\OUTSIDE SCHL\READ STUDENT WORK
	AMRT5.5c	ATDGACT3	GEN\OUTSIDE SCHL\PLAN LESSONS
	AMRT5.5d	ATDGACT4	GEN\OUTSIDE SCHL\MEET STUDENTS
	AMRT5.5e	ATDGACT5	GEN\OUTSIDE SCHL\MEET PARENTS
	AMRT5.5g	ATDGACT7	GEN\OUTSIDE SCHL\UPDATE STUD RECORDS
	AMRT5.5h	ATDGACT8	GEN\OUTSIDE SCHL\ADMINISTRATIVE TASKS
	Table 5.6	AMRT5.6	ATDGMEEET
Table 5.7	AMRT5.7	ATDCSIZE	GEN\CLSS\NUMBER OF BOYS & GIRLS IN CLASS
Table 5.8	AMRT5.8a	ATDMFAM1	MAT\NATIONAL CURRICULUM GUIDE
	AMRT5.8b	ATDGFAM3	MAT\REGIONAL CURRICULUM GUIDE
Table 5.9	AMRT5.9a	ATDMSRC1	MAT\SOURCE\WHICH TOPIC TO TEACH
	AMRT5.9b	ATDMSRC2	MAT\SOURCE\HOW TO PRESENT A TOPIC
Table 5.14	AMRT5.14	ATDMCALU	MAT\FREQUENCY STUDENTS USE CALCS
Table 5.15	AMRT5.15b	ATDGCAL1	GEN\CALCS FOR CHECKING ANSWERS
	AMRT5.15c	ATDGCAL2	GEN\CALCS FOR TESTS AND EXAMS
	AMRT5.15d	ATDGCAL3	GEN\CALCS FOR ROUTINE COMPUTATIONS
	AMRT5.15e	ATDGCAL4	GEN\CALCS FOR COMPLEX PROBLEMS
	AMRT5.15f	ATDGCAL5	GEN\CALCS FOR NUMBER CONCEPTS
	Table 5.17	AMRT5.17	ATDMASK4
Table 5.19	AMRT5.19	ATDMHWK	MAT\AVERAGE TIME NEEDED FOR HOMEWK

\*The international table or figure reference location included for each derived variable is based on the general definitions described in Table 7.5 in the User Guide.

Note: One derived variable (ASDGPS) not reported in any international tables or figures is not included in the index.



**Table S4.2**  
**Index of Derived Variables Included in the International Report for Science Population 1**

Report Table/Figure	Table/Figure Reference Location*	Derived Variable	Label
Figure 4.3	ASRF4.3	ASDGSATT	GEN\OVERALL ATTITUDE\TOWARDS SCIENCE
Figure 5.2	ASRF5.2a	ATDGLM01	GEN\CLSS\DIFFERENT ACADEMIC ABILITY
	ASRF5.2b	ATDGLM03	GEN\CLSS\SPECIAL NEEDS
	ASRF5.2c	ATDGLM05	GEN\CLSS\DISRUPTIVE STUDENTS
	ASRF5.2d	ATDGLM11	GEN\CLSS\SHORTGE OF DEMNSTR EQUIPMNT
	ASRF5.2e	ATDGLM12	GEN\CLSS\INADEQUATE PHYSICL FACILITS
	ASRF5.2f	ATDGLM13	GEN\CLSS\HIGH STUDENT TEACHER RATIO
Figure 5.3	ASRF5.3a	ATDSLES4	SCI\WORK TOGETHER\STUDENTS INTERACT
	ASRF5.3b	ATDSLES3	SCI\WORK TOGETHER\TEACHER TEACHES
	ASRF5.3c	ATDSLES2	SCI\INDIVIDUAL WORK\ASSISTANCE
	ASRF5.3d	ATDSLES1	SCI\INDIVIDUAL WORK\NO ASSISTANCE
	ASRF5.3e	ATDSLES6	SCI\WORK IN GROUPS\ASSISTANCE
	ASRF5.3f	ATDSLES5	SCI\WORK IN GROUPS\NO ASSISTANCE
Table 1.1	ASRT1.1c	ASDAGE	GEN\STUDENT'S AGE
Table 4.1	ASRT4.1a	ASDGPSA	GEN\HOME\POSSESS ALL\COMPUTER\DESK\DICTI
	ASRT4.1b	ASDGPSN	GEN\HOME\NOT POSSESS ALL\COMPUTER\DESK\DI
Table 4.4	ASRT4.4	ASDGBRNP	GEN#\ BORN IN COUNTRY\PARENTS
Table 4.9	ASRT4.9	ASDSTUDS	GEN\DAILY HOURS SPENT STUDYING SCIENCE
Table 4.10	ASRT4.10a	ASDGDAY1	GEN\OUTSIDE SCHL\WATCH TV OR VIDEOS
	ASRT4.10b	ASDGDAY2	GEN\OUTSIDE SCHL\PLAY COMPUTER GAMES
	ASRT4.10c	ASDGDAY3	GEN\OUTSIDE SCHL\PLAY WITH FRIENDS
	ASRT4.10d	ASDGDAY4	GEN\OUTSIDE SCHL\DOING JOBS AT HOME
	ASRT4.10e	ASDGDAY5	GEN\OUTSIDE SCHL\PLAYING SPORTS
	ASRT4.10f	ASDGDAY6	GEN\OUTSIDE SCHL\READING A BOOK
Table 4.11	ASRT4.11	ASDGDTV	GEN\OUTSIDE SCHL\WATCH TV OR VIDEOS
Table 4.13	ASRT4.13a	ASDSDOW1	SCI\DO WELL\NATURAL TALENT
	ASRT4.13b	ASDSDOW2	SCI\DO WELL\GOOD LUCK
	ASRT4.13c	ASDSDOW3	SCI\DO WELL\HARD WORK STUDYING
	ASRT4.13d	ASDSDOW4	SCI\DO WELL\MEMORIZE NOTES
Table 4.15	ASRT4.15	ASDGSATT	GEN\OVERALL ATTITUDE\TOWARDS SCIENCE
Table 5.2	ASRT5.2a	ATDGAGE	GEN\AGE OF TEACHER
Table 5.3	ASRT5.3	ATDGTAUG	GEN\YEARS BEEN TEACHING
Table 5.4	ASRT5.4	ATDSTIME	SCI\SCIENCE TIME PER WEEK
Table 5.6	ASRT5.6a	ATDGACT1	GEN\OUTSIDE SCHL\PREPARE TEST
	ASRT5.6b	ATDGACT2	GEN\OUTSIDE SCHL\READ STUDENT WORK
	ASRT5.6c	ATDGACT3	GEN\OUTSIDE SCHL\PLAN LESSONS
	ASRT5.6d	ATDGACT4	GEN\OUTSIDE SCHL\MEET STUDENTS
	ASRT5.6e	ATDGACT5	GEN\OUTSIDE SCHL\MEET PARENTS
	ASRT5.6f	ATDGACT6	GEN\OUTSIDE SCHL\PROFESSIONL READING
	ASRT5.6f	ATDGACT6	GEN\OUTSIDE SCHL\PROFESSIONL READING
	ASRT5.6g	ATDGACT7	GEN\OUTSIDE SCHL\UPDATE STUD RECORDS
ASRT5.6h	ATDGACT8	GEN\OUTSIDE SCHL\ADMINISTRATVE TASKS	

\*The international table or figure reference location included for each derived variable is based on the general definitions described in Table 7.5 in the User Guide.

Note: One derived variable (ASDGPS) not reported in any international tables or figures is not included in the index.

**Table S4.2**  
**Index of Derived Variables Included in the International Report for Science**  
**Population 1 (Continued)**

Report Table/Figure	Table/Figure Reference Location*	Derived Variable	Label
Table 5.7	ASRT5.7	ATDGMEET	GEN\MEETINGS WITH OTHER TEACHERS
Table 5.8	ASRT5.8a	ATDSFAM2	SCI\NATIONAL CURRICULUM GUIDE
	ASRT5.8b	ATDGFAM3	MAT\REGIONAL CURRICULUM GUIDE
Table 5.9	ASRT5.9	ATDCSIZE	GEN\CLSS\NUMBER OF BOYS & GIRLS IN CLASS

\*The international table or figure reference location included for each derived variable is based on the general definitions described in Table 7.5 in the User Guide.

Note: One derived variable (ASDGPS) not reported in any international tables or figures is not included in the index.

**Table S4.3**  
**Index of Derived Variables Included in the International Report for Mathematics**  
**Population 2**

Report Table/Figure	Table/Figure Reference Location*	Derived Variable	Label
Figure 4.3	BMR4.3	BSDMLIKE	MAT\LIKE MATHEMATICS
Figure 4.4	BMR4.4	BSDGMATT	GEN\OVERALL ATTITUDE\TOWARD MATHEMATICS
Figure 5.1	BMR5.1a	BTDAGR2	MAT\FORMAL REPRESENTATION OF WORLD
	BMR5.1b	BTDAGR5	MAT\NATURAL TALENT FOR MATH
	BMR5.1c	BTDAGR4	GEN\PRACTICE TO OVERCOME DIFFICULTY
	BMR5.1d	BTDAGR6	MAT\USE MORE THAN 1 REPRESENTATION
Figure 5.2	BMR5.2a	BTDIMP1	MAT\GD\IMPT\REMEMBER FORMULAS
	BMR5.2b	BTDIMP4	MAT\GD\IMPT\THINK CREATIVELY
	BMR5.2c	BTDIMP5	MAT\GD\IMPT\HOW USED IN REAL WORLD
	BMR5.2d	BTDIMP6	MAT\GD\IMPT\SUPPORT SOLUTIONS
Figure 5.3	BMR5.3a	BTDMLSE4	MAT\WORK TOGETHER\STUDENTS INTERACT
	BMR5.3b	BTDMLSE3	MAT\WORK TOGETHER\TEACHER TEACHES
	BMR5.3c	BTDMLSE2	MAT\INDIVIDUAL WORK\ASSISTANCE
	BMR5.3d	BTDMLSE1	MAT\INDIVIDUAL WORK\NO ASSISTANCE
	BMR5.3e	BTDMLSE6	MAT\WORK IN GROUPS\ASSISTANCE
	BMR5.3f	BTDMLSE5	MAT\WORK IN GROUPS\NO ASSISTANCE
Table 1.1	BMRT1.1c	BSDAGE	GEN\STUDENT'S AGE
Table 4.1	BMDT4.1a	BSDGPSA	GEN\HOME\POSSESS ALL\COMPUTER\DESK\DICTI
	BMDT4.1b	BSDGPSN	GEN\HOME\NOT POSSESS ALL\COMPUTER\DESK\DI
Table 4.3	BMRT4.3	BSDGEDUP	GEN\HIGHEST EDUC LEVEL\PARENTS
Table 4.4	BMRT4.4a	BSDMSIP2	MAT\SELF IMPT\DO WELL IN MATH
	BMRT4.4b	BSDSSIP1	SCI\SELFS IMPT\DO WELL IN SCIENCE
	BMRT4.4c	BSDGSIP3	GEN\SELF IMPT\DO WELL IN LANGUAGE
	BMRT4.4d	BSDGSIP4	GEN\SELF IMPT\HAVE TIME FOR FUN
	BMRT4.4e	BSDGSIP5	GEN\SELF IMPT\GOOD IN SPORTS
Table 4.5	BMRT4.5a	BSDMMIP2	MAT\MOTHERS IMPT\DO WELL IN MATH
	BMRT4.5b	BSDSMIP1	SCI\MOTHERS IMPT\DO WELL IN SCIENCE
	BMRT4.5c	BSDGMIP3	GEN\MOTHERS IMPT\DO WELL IN LANGUAGE
	BMRT4.5d	BSDGMIP5	GEN\MOTHERS IMPT\HAVE TIME FOR FUN
	BMRT4.5e	BSDGMIP4	GEN\MOTHERS IMPT\GOOD IN SPORTS
Table 4.6	BMRT4.6a	BSDMFIP2	MAT\FRIENDS IMPT\DO WELL IN MATH
	BMRT4.6b	BSDSFIP1	SCI\FRIENDS IMPT\DO WELL IN SCIENCE
	BMRT4.6c	BSDGFIP3	GEN\FRIENDS IMPT\DO WELL IN LANGUAGE
	BMRT4.6d	BSDGFIP4	GEN\FRIENDS IMPT\HAVE TIME FOR FUN
	BMRT4.6e	BSDGFIP5	GEN\FRIENDS IMPT\GOOD IN SPORTS
Table 4.7	BMRT4.7a	BSDMDAY7	MAT\OUTSIDE SCHL\STUDYING MATH
	BMRT4.7b	BSDSDAY8	SCI\OUTSIDE SCHL\STUDYING SCIENCE
	BMRT4.7c	BSDGDAY9	GEN\OUTSIDE SCHL\STUDYING OTHER SUBJ
	BMRT4.7d	BSDSTUDT	GEN\DAILY HOURS SPENT STUDYING(CATEGORY)

\*The international table or figure reference location included for each derived variable is based on the general definitions described in Table 7.5 in the User Guide.

Note: One derived variable (BSDGPS) not reported in any international tables or figures is not included in the index.

**Table S4.3**  
**Index of Derived Variables Included in the International Report for Science**  
**Population 2 (Continued)**

Report Table/Figure	Table/Figure Reference Location*	Derived Variable	Label
Table 4.8	BMRT4.8a	BSDGDAY1	GEN\OUTSIDE SCHL\WATCH TV OR VIDEOS
	BMRT4.8b	BSDGDAY2	GEN\OUTSIDE SCHL\PLAY COMPUTER GAMES
	BMRT4.8c	BSDGDAY3	GEN\OUTSIDE SCHL\PLAY WITH FRIENDS
	BMRT4.8d	BSDGDAY4	GEN\OUTSIDE SCHL\DOING JOBS AT HOME
	BMRT4.8e	BSDGDAY5	GEN\OUTSIDE SCHL\PLAYING SPORTS
	BMRT4.8f	BSDGDAY6	GEN\OUTSIDE SCHL\READING A BOOK
Table 4.9	BMRT4.9	BSDSTUD	GEN\DAILY HOURS SPENT STUDYING
Table 4.10	BMRT4.10	BSDGDTV	GEN\OUTSIDE SCHL\WATCH TV OR VIDEOS
Table 4.12	BMRT4.12a	BSDMDOW1	MAT\DO WELL\NATURAL TALENT
	BMRT4.12b	BSDMDOW2	MAT\DO WELL\GOOD LUCK
	BMRT4.12c	BSDMDOW3	MAT\DO WELL\HARD WORK STUDYING
	BMRT4.12d	BSDMDOW4	MAT\DO WELL\MEMORIZE NOTES
Table 4.13	BMRT4.13a	BSDMJOB	MAT\DO WELL\TO GET DESIRED JOB
	BMRT4.13b	BSDMPRNT	MAT\DO WELL\TO PLEASE PARENTS
	BMRT4.13c	BSDMSCHL	MAT\DO WELL\TO ENTER DESIRED SCHOOL
Table 4.14	BMRT4.14	BSDMLIKE	MAT\LIKE MATHEMATICS
Table 5.2	BMRT5.2	BTDGAGE	GEN\AGE OF TEACHER
Table 5.3	BMRT5.3	BTDGTAUG	GEN\YEARS BEEN TEACHING
Table 5.4	BMRT5.4	BTDMTST	MAT\MATH TEACHING SCHEDULE TIME
Table 5.5	BMRT5.5	BTDMTIME	MAT\CLSS\LENGTH OF MATH CLASS
Table 5.6	BMRT5.6a	BTDGACT1	GEN\OUTSIDE SCHL\PREPARE TEST
	BMRT5.6b	BTDGACT2	GEN\OUTSIDE SCHL\READ STUDENT WORK
	BMRT5.6c	BTDGACT3	GEN\OUTSIDE SCHL\PLAN LESSONS
	BMRT5.6d	BTDGACT4	GEN\OUTSIDE SCHL\MEET STUDENTS
	BMRT5.6e	BTDGACT5	GEN\OUTSIDE SCHL\MEET PARENTS
	BMRT5.6f	BTDGACT6	GEN\OUTSIDE SCHL\PROFESSIONL READING
	BMRT5.6g	BTDGACT7	GEN\OUTSIDE SCHL\UPDATE STUD RECORDS
	BMRT5.6h	BTDGACT8	GEN\OUTSIDE SCHL\ADMINISTRATVE TASKS
Table 5.7	BMRT5.7	BTDGMEET	GEN\MEETING WITH OTHER TEACHERS
Table 5.8	BMRT5.8	BTDCSIZE	GEN\CLSS\NUMBER OF BOYS & GIRLS IN CLASS
Table 5.9	BMRT5.9a	BTDMSRC1	MAT\SOURCE\WHICH TOPIC TO TEACH
	BMRT5.9b	BTDMSRC2	MAT\SOURCE\HOW TO PRESENT A TOPIC
Table 5.14	BMRT5.14	BTDMCALU	MAT\FREQUENCY STUDENTS USE CALCS
Table 5.15	BMRT5.15b	BTDMCAL1	MAT\CALCS FOR CHECKING ANSWERS
	BMRT5.15c	BTDMCAL2	MAT\CALCS FOR TESTS AND EXAMS
	BMRT5.15d	BTDMCAL3	MAT\CALCS FOR ROUTINE COMPUTATIO
	BMRT5.15e	BTDMCAL4	MAT\CALCS FOR COMPLEX PROBLEMS
	BMRT5.15f	BTDMCAL5	MAT\CALCS FOR NUMBER CONCEPTS
	Table 5.17	BMRT5.17	BTDMASK4
Table 5.18	BMRT5.18	BSDMCOMP	MAT\USE COMPUTERS
Table 5.19	BMRT5.19	BTDMHWRK	MAT\AVERAGE TIME NEEDED FOR HOMEWK

\*The international table or figure reference location included for each derived variable is based on the general definitions described in Table 7.5 in the User Guide.

Note: One derived variable (BSDGPS) not reported in any international tables or figures is not included in the index.

**Table S4.3**  
**Index of Derived Variables Included in the International Report for Mathematics**  
**Population 2 (Continued 2)**

Report Table/Figure	Table/Figure Reference Location *	Derived Variable	Label
Table 5.21	BMRT5.21a	BTDMWGT1	MAT\ASSMNT WEIGHT\STANDARD TESTS
	BMRT5.21b	BTDMWGT2	MAT\ASSMNT WEIGHT\REASONING TESTS
	BMRT5.21c	BTDMWGT3	MAT\ASSMNT WEIGHT\MULTIPLE CHOICE
	BMRT5.21d	BTDMWGT4	MAT\ASSMNT WEIGHT\HOMEWORK PERFORMNCE
	BMRT5.21e	BTDMWGT5	MAT\ASSMNT WEIGHT\PROJECT PERFORMNCE
	BMRT5.21f	BTDMWGT6	MAT\ASSMNT WEIGHT\OBSERVATION
	BMRT5.21g	BTDMWGT7	MAT\ASSMNT WEIGHT\RESPONSES IN CLASS
Table 5.22	BMRT5.22a	BTDGASS1	GEN\FREQUENCY\PROVIDE GRADES
	BMRT5.22b	BTDGASS2	GEN\FREQUENCY\PROVIDE FEEDBACK
	BMRT5.22c	BTDGASS3	GEN\FREQUENCY\DIAGNOSE PROBLEMS
	BMRT5.22d	BTDGASS4	GEN\FREQUENCY\REPORT TO PARENTS
	BMRT5.22e	BTDGASS5	GEN\FREQUENCY\ASSIGN DIFFERNT TRACKS
	BMRT5.22f	BTDGASS6	GEN\FREQUENCY\PLAN FUTURE LESSONS
Table 5.23	BMRT5.23	BSDMTEST	MAT\HAVE A QUIZ OR TEST
Table 5.22	BMRT5.22a	BTDGASS1	GEN\FREQUENCY\PROVIDE GRADES
	BMRT5.22b	BTDGASS2	GEN\FREQUENCY\PROVIDE FEEDBACK
	BMRT5.22c	BTDGASS3	GEN\FREQUENCY\DIAGNOSE PROBLEMS
	BMRT5.22d	BTDGASS4	GEN\FREQUENCY\REPORT TO PARENTS
	BMRT5.22e	BTDGASS5	GEN\FREQUENCY\ASSIGN DIFFERNT TRACKS
	BMRT5.22f	BTDGASS6	GEN\FREQUENCY\PLAN FUTURE LESSONS
Table 5.23	BMRT5.23	BSDMTEST	MAT\HAVE A QUIZ OR TEST

\*The international table or figure reference location included for each derived variable is based on the general definitions described in Table 7.5 in the User Guide.

Note: One derived variable (BSDGPS) not reported in any international tables or figures is not included in the index.

**Table S4.4**  
**Index of Derived Variables Included in the International Report for Science**  
**Population 2**

Report Table/Figure	Table/Figure Reference Location*	Derived Variable	Label
Figure 4.2	BSRF4.2a	BSDSGOOD	SCIUSUALLY DO WELL IN SCIENCE
	BSRF4.2b	BSDBGOOD	BIOUSUALLY DO WELL IN BIOLOGY
	BSRF4.2c	BSDEGOOD	EARUSUALLY DO WELL IN EARTH SCIENCES
	BSRF4.2d	BSDPGOOD	PHYUSUALLY DO WELL IN PHYSICAL SCIENCES
Figure 4.3	BSRF4.3a	BSDSLIKE	SCI LIKE SCIENCE
	BSRF4.3b	BSDBLIKE	BIO LIKE BIOLOGICAL SCIENCE
	BSRF4.3c	BSDELIKE	EAR LIKE EARTH SCIENCE
	BSRF4.3d	BSDPLIKE	PHY LIKE PHYSICAL SCIENCE
Figure 5.1	BSRF5.1a	BTDSAGR2	SCI FORMAL REPRESENTATION OF WORLD
	BSRF5.1b	BTDSAGR3	SCI PRACTICAL AND STRUCTURED GUIDE
	BSRF5.1c	BTDSAGR4	SCI NATURAL TALENT FOR SCIENCE
	BSRF5.1d	BTDSAGR5	SCI IMPORTANCE OF SEQNTAL DIRECTIONS
Figure 5.2	BSRF5.2a	BTDSIMP2	SCI GD\IMPT\SEQUENTIAL & PROCEDURAL
	BSRF5.2b	BTDSIMP4	SCI GD\IMPT\THINK CREATIVELY
	BSRF5.2c	BTDSIMP5	SCI GD\IMPT\HOW USED IN REAL WORLD
	BSRF5.2d	BTDSIMP6	SCI GD\IMPT\SUPPORT SOLUTIONS
Figure 5.3	BSRF5.3a	BTDSLES4	SCI WORK TOGETHER\STUDENTS INTERACT
	BSRF5.3b	BTDSLES3	SCI WORK TOGETHER\TEACHER TEACHES
	BSRF5.3c	BTDSLES2	SCI INDIVIDUAL WORK\ASSISTANCE
	BSRF5.3d	BTDSLES1	SCI INDIVIDUAL WORK\NO ASSISTANCE
	BSRF5.3e	BTDSLES6	SCI WORK IN GROUPS\ASSISTANCE
	BSRF5.3f	BTDSLES5	SCI WORK IN GROUPS\NO ASSISTANCE
Table 1.1	BSRT1.1c	BSDAGE	GEN\STUDENT'S AGE
Table 4.1	BSDT4.1a	BSDGPSA	GEN\HOME\POSSESS ALL\COMPUTER\DESK\DICTI
	BSDT4.1b	BSDGPSN	GEN\HOME\NOT POSSESS ALL\COMPUTER\DESK\ID
Table 4.3	BSRT4.3	BSDGEDUP	GEN\HIGHEST EDUC LEVEL\PARENTS
Table 4.4	BSRT4.4a	BSDSSIP1	SCI SELF\IMPT\DO WELL IN SCIENCE
	BSRT4.4b	BSDMSIP2	MAT\SELF IMPT\DO WELL IN MATH
	BSRT4.4c	BSDGSIP3	GEN\SELF IMPT\DO WELL IN LANGUAGE
	BSRT4.4d	BSDGSIP4	GEN\SELF IMPT\HAVE TIME FOR FUN
	BSRT4.4e	BSDGSIP5	GEN\SELF IMPT\GOOD IN SPORTS
Table 4.5	BSRT4.5a	BSDSMIP1	SCI MOTHERS IMPT\DO WELL IN SCIENCE
	BSRT4.5b	BSDMMIP2	MAT\MOTHERS IMPT\DO WELL IN MATH
	BSRT4.5c	BSDGMIP3	GEN\MOTHERS IMPT\DO WELL IN LANGUAGE
	BSRT4.5d	BSDGMIP5	GEN\MOTHERS IMPT\HAVE TIME FOR FUN
	BSRT4.5e	BSDGMIP4	GEN\MOTHERS IMPT\GOOD IN SPORTS
Table 4.6	BSRT4.6a	BSDSFIP1	SCI FRIENDS IMPT\DO WELL IN SCIENCE
	BSRT4.6b	BSDMFIP2	MAT\FRIENDS IMPT\DO WELL IN MATH
	BSRT4.6c	BSDGFIP3	GEN\FRIENDS IMPT\DO WELL IN LANGUAGE
	BSRT4.6d	BSDGFIP4	GEN\FRIENDS IMPT\HAVE TIME FOR FUN
	BSRT4.6e	BSDGFIP5	GEN\FRIENDS IMPT\GOOD IN SPORTS

\*The international table or figure reference location included for each derived variable is based on the general definitions described in Table 7.5 in the User Guide.

Note: One derived variable (BSDGPS) not reported in any international tables or figures is not included in the index.

**Table S4.4**  
**Index of Derived Variables Included in the International Report for Science**  
**Population 2 (Continued)**

Report Table/Figure	Table/Figure Reference Location*	Derived Variable	Label
Table 4.7	BSRT4.7a	BSDSDAY8	SCI\OUTSIDE SCHL\STUDYING SCIENCE
	BSRT4.7b	BSDMDAY7	MAT\OUTSIDE SCHL\STUDYING MATH
	BSRT4.7c	BSDGDAY9	GEN\OUTSIDE SCHL\STUDYING OTHER SUBJ
	BSRT4.7d	BSDSTUDT	GEN\DAILY HOURS SPENT STUDYING(CATEGORY)
Table 4.8	BSRT4.8a	BSDGDAY1	GEN\OUTSIDE SCHL\WATCH TV OR VIDEOS
	BSRT4.8b	BSDGDAY2	GEN\OUTSIDE SCHL\PLAY COMPUTER GAMES
	BSRT4.8c	BSDGDAY3	GEN\OUTSIDE SCHL\PLAY WITH FRIENDS
	BSRT4.8d	BSDGDAY4	GEN\OUTSIDE SCHL\DOING JOBS AT HOME
	BSRT4.8e	BSDGDAY5	GEN\OUTSIDE SCHL\PLAYING SPORTS
	BSRT4.8f	BSDGDAY6	GEN\OUTSIDE SCHL\READING A BOOK
Table 4.9	BSRT4.9	BSDSTUD	GEN\DAILY HOURS SPENT STUDYING
Table 4.10	BSRT4.10	BSDGDTV	GEN\OUTSIDE SCHL\WATCH TV OR VIDEOS
Table 4.11	BSRT4.11a	BSDSGOOD	SCI\USUALLY DO WELL IN SCIENCE
	BSRT4.11b	BSDBGGOOD	BIO\USUALLY DO WELL IN BIOLOGY
	BSRT4.11c	BSDEGOOD	EAR\USUALLY DO WELL IN EARTH SCIENCES
	BSRT4.11d	BSDPGOOD	PHY\USUALLY DO WELL IN PHYSICAL SCIENCES
Table 4.12	BSRT4.12a	BSDSDOW1	SCI\DO WELL\NATURAL TALENT
	BSRT4.12b	BSDSDOW2	SCI\DO WELL\GOOD LUCK
	BSRT4.12c	BSDSDOW3	SCI\DO WELL\HARD WORK STUDYING
	BSRT4.12d	BSDSDOW4	SCI\DO WELL\MEMORIZE NOTES
	BSRT4.13a	BSDSJOB	SCI\DO WELL\TO GET DESIRED JOB
Table 4.13	BSRT4.13b	BSDBJOB	BIO\DO WELL\TO GET DESIRED JOB
	BSRT4.13c	BSDCJOB	CHE\DO WELL\TO GET DESIRED JOB
	BSRT4.13d	BSDEJOB	EAR\DO WELL\TO GET DESIRED JOB
	BSRT4.13e	BSDPJOB	PHY\DO WELL\TO GET DESIRED JOB
Table 4.14	BSRT4.14a	BSDSSCHL	SCI\DO WELL\TO ENTER DESIRED SCHOOL
	BSRT4.14b	BSDBSCHL	BIO\DO WELL\TO ENTER DESIRED SCHOOL
	BSRT4.14c	BSDCSCHL	CHE\DO WELL\TO ENTER DESIRED SCHOOL
	BSRT4.14d	BSDESCHL	EAR\DO WELL\TO ENTER DESIRED SCHOOL
	BSRT4.14e	BSDPSCHL	PHY\DO WELL\TO ENTER DESIRED SCHOOL
Table 4.15	BSRT4.15a	BSDSPRNT	SCI\DO WELL\TO PLEASE PARENTS
	BSRT4.15b	BSDBPRNT	BIO\DO WELL\TO PLEASE PARENTS
	BSRT4.15c	BSDCPRNT	CHE\DO WELL\TO PLEASE PARENTS
	BSRT4.15d	BSDEPRNT	EAR\DO WELL\TO PLEASE PARENTS
	BSRT4.15e	BSDPPRNT	PHY\DO WELL\TO PLEASE PARENTS
Table 4.16	BSRT4.16a	BSDSLIKE	SCI\LIKE SCIENCE
	BSRT4.16b	BSDBLIKE	BIO\LIKE BIOLOGICAL SCIENCE
	BSRT4.16c	BSDELIKE	EAR\LIKE EARTH SCIENCE
	BSRT4.16d	BSDPLIKE	PHY\LIKE\PHYSICAL SCIENCE
Table 5.2	BSRT5.2a	BTDGAGE	GEN\AGE OF TEACHER
Table 5.3	BSRT5.3	BTDGTAUG	GEN\YEARS BEEN TEACHING

\*The international table or figure reference location included for each derived variable is based on the general definitions described in Table 7.5 in the User Guide.

Note: One derived variable (BSDGPS) not reported in any international tables or figures is not included in the index.

**Table S4.4**  
**Index of Derived Variables Included in the International Report for Science**  
**Population 2 (Continued 2)**

Report Table/Figure	Table/Figure Reference Location*	Derived Variable	Label
Table 5.4	BSRT5.4	BTDSTST	MAT\MATH TEACHING SCHEDULE TIME
Table 5.5	BSRT5.5	BTDSTIME	SCI\CLSS\LENGTH OF MATH CLASS
Table 5.6	BSRT5.6a	BTDGACT1	GEN\OUTSIDE SCHL\PREPARE TEST
	BSRT5.6b	BTDGACT2	GEN\OUTSIDE SCHL\READ STUDENT WORK
	BSRT5.6c	BTDGACT3	GEN\OUTSIDE SCHL\PLAN LESSONS
	BSRT5.6d	BTDGACT4	GEN\OUTSIDE SCHL\MEET STUDENTS
	BSRT5.6e	BTDGACT5	GEN\OUTSIDE SCHL\MEET PARENTS
	BSRT5.6f	BTDGACT6	GEN\OUTSIDE SCHL\PROFESSIONL READING
	BSRT5.6g	BTDGACT7	GEN\OUTSIDE SCHL\UPDATE STUD RECORDS
	BSRT5.6h	BTDGACT8	GEN\OUTSIDE SCHL\ADMINISTRATVE TASKS
Table 5.7	BSRT5.7	BTDGMEET	GEN\MEETING WITH OTHER TEACHERS
Table 5.8	BSRT5.8	BTDCSIZE	GEN\CLSS\NUMBER OF BOYS & GIRLS IN CLASS
Table 5.9	BSRT5.9a	BTDSSRC1	SCI\SOURCE\WHICH TOPIC TO TEACH
	BSRT5.9b	BTDSSRC2	SCI\SOURCE\HOW TO PRESENT A TOPIC
Table 5.11	BSRT5.11a	BSDSEMO	SCI\TEACHER GIVERS DEMONSTRATION
	BSRT5.11b	BSDBDEMO	BIO\TEACHER GIVES DEMONSTRATION
	BSRT5.11c	BSDCDEMO	CHE\TEACHER GIVES DEMONSTRATION
	BSRT5.11d	BSDEDEMO	EAR\TEACHER GIVES DEMONSTRATION
	BSRT5.11e	BSDPDEMO	PHY\TEACHER GIVES DEMONSTRATION
Table 5.12	BSRT5.12a	BSDSEXPR	SCI\STUDENTS DO EXPERIMENTS IN CLASS
	BSRT5.12b	BSDBEXPR	BIO\STUDENTS DO EXPERIMENTS IN CLASS
	BSRT5.12c	BSDCEXP	CHE\STUDENTS DO EXPERIMENTS IN CLASS
	BSRT5.12d	BSDEEXPR	EAR\STUDENTS DO EXPERIMENTS IN CLASS
	BSRT5.12e	BSDPEXP	PHY\STUDENTS DO EXPERIMENTS IN CLASS
Table 5.13	BSRT5.13a	BSDSEVLF	SCI\SOLVE WITH EVERYDAY LIFE THINGS
	BSRT5.13b	BSDBEVLF	BIO\SOLVE WITH EVERYDAY LIFE THINGS
	BSRT5.13c	BSDCEVLF	CHE\SOLVE WITH EVERYDAY LIFE THINGS
	BSRT5.13d	BSDEEVLF	EAR\SOLVE WITH EVERYDAY LIFE THINGS
	BSRT5.13e	BSDPEVLF	PHY\SOLVE WITH EVERYDAY LIFE THINGS
Table 5.15	BSRT5.15	BTDSALU	SCI\FREQUENCY STUDENTS USE CALCS
Table 5.16	BSRT5.16b	BTDSAL1	SCI\CALCS FOR CHECKING ANSWERS
	BSRT5.16c	BTDSAL2	SCI\CALCS FOR TESTS AND EXAMS
	BSRT5.16d	BTDSAL3	SCI\CALCS FOR ROUTINE COMPUTATIO
	BSRT5.16e	BTDSAL4	SCI\CALCS FOR COMPLEX PROBLEMS
	BSRT5.16f	BTDSAL5	SCI\CALCS FOR NUMBER CONCEPTS
	Table 5.17	BSRT5.17	BTDSASK4
Table 5.18	BSRT5.18a	BSDSCOMP	SCI\USE COMPUTERS
	BSRT5.18b	BSDBCOMP	BIO\USE COMPUTERS
	BSRT5.18c	BSDCCOMP	CHE\USE COMPUTERS
	BSRT5.18d	BSDECOMP	EAR\USE COMPUTERS
	BSRT5.18e	BSDPCOMP	PHY\USE COMPUTERS

\*The international table or figure reference location included for each derived variable is based on the general definitions described in Table 7.5 in the User Guide.

Note: One derived variable (BSDGPS) not reported in any international tables or figures is not included in the index.



**Table S4.4**  
**Index of Derived Variables Included in the International Report for Science**  
**Population 2 (Continued 3)**

Report Table/Figure	Table/Figure Reference Location*	Derived Variable	Label
Table 5.19	BSRT5.19	BTDSHWK	SCIAVERAGE TIME NEEDED FOR HOMEWK
Table 5.21	BSRT5.21a	BTDSWGT1	SCIASSMNT WEIGHT\STANDARD TESTS
	BSRT5.21b	BTDSWGT2	SCIASSMNT WEIGHT\REASONING TESTS
	BSRT5.21c	BTDSWGT3	SCIASSMNT WEIGHT\MULTIPLE CHOICE
	BSRT5.21d	BTDSWGT4	SCIASSMNT WEIGHT\HOMEWORK PERFORMNCE
	BSRT5.21e	BTDSWGT5	SCIASSMNT WEIGHT\PROJECT PERFORMNCE
	BSRT5.21f	BTDSWGT6	SCIASSMNT WEIGHT\OBSERVATION
	BSRT5.21g	BTDSWGT7	SCIASSMNT WEIGHT\RESPONSES IN CLASS
Table 5.22	BSRT5.22a	BTDGASS1	GEN\FREQUENCY\PROVIDE GRADES
	BSRT5.22b	BTDGASS2	GEN\FREQUENCY\PROVIDE FEEDBACK
	BSRT5.22c	BTDGASS3	GEN\FREQUENCY\DIAGNOSE PROBLEMS
	BSRT5.22d	BTDGASS4	GEN\FREQUENCY\REPORT TO PARENTS
	BSRT5.22e	BTDGASS5	GEN\FREQUENCY\ASSIGN DIFFERNT TRACKS
	BSRT5.22f	BTDGASS6	GEN\FREQUENCY\PLAN FUTURE LESSONS
Table 5.23	BSRT5.23a	BSDSTEST	SCI\HAVE A QUIZ OR TEST
	BSRT5.23b	BSDBTEST	BIO\HAVE A QUIZ OR TEST
	BSRT5.23c	BSDCTEST	CHE\HAVE A QUIZ OR TEST
	BSRT5.23d	BSDETEST	EAR\HAVE A QUIZ OR TEST
	BSRT5.23e	BSDPTEST	PHY\HAVE A QUIZ OR TEST

\*The international table or figure reference location included for each derived variable is based on the general definitions described in Table 7.5 in the User Guide.

Note: One derived variable (BSDGPS) not reported in any international tables or figures is not included in the index.

# Section 1

---

**Derived Variable Name:** ASDAGE      **Label:** GEN\STUDENT'S AGE

---

**Description:** Student's age in years**Table / Figure Reference:** AMRT1.1c, AMRT1.2c / ASRT1.1c, ASRT1.2c**Source Variable(s):** SQ1-1/2,1/3      (ASGBIRM,ASGBIRY)**Notes:** Derived from date-of-birth variables (month = ASGBIRM; year = ASGBIRY) and date-of-testing variables (ITDATEY, ITDATEM) according to the following formula:  
$$\text{ASDGAGE} = (\text{ITDATEY} - \text{ASGBIRY}) + (\text{ITDATEM} - \text{ASGBIRM})/12$$
If the month of testing was not known, the expected month of testing for the particular country was substituted.  
If the month of birth was not know, the value of 6.5 was substituted.  
If the year of birth was not known, ASDAGE was set to missing.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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---

**Derived Variable Name:** ASDGBRNP      **Label:** GEN#\# BORN IN COUNTRYPARENTS

---

**Description:** Students' reports on whether or not their parents were born in the country**Table / Figure Reference:** AMRT4.4/ASRT4.4**Source Variable(s):** SQ1-9a,b      (ASGBRNM,ASGBRNF)**Notes:** Based on combined responses to two separate questions about whether the student's mother (SQ1-9a) and father (SQ1-9b) were born in the country. Coded into 3 response categories, depending on the number of parents born in the country:  
0 = neither parent born in country (9a and 9b = No (2))  
1 = one parent born in country (either 9a or 9b (but not both) = Yes (1))  
2 = both parents born in country (9a and 9b = Yes (1))  
ASDGBRNP is coded as missing if either of the source variables are missing.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Japan	X	Data not available for source variable(s).

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---

**Derived Variable Name:** ASDGDAY1      **Label:** GEN\OUTSIDE SCHL\WATCH TV OR VIDEOS

---

**Description:** Students' reports on hours each day spent watching television or videos**Table / Figure Reference:** AMRT4.10a/ASRT4.10a**Source Variable(s):** SQ1-6a      (ASBGDAY1)**Notes:** Hours based on SQ1-6a response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-4 hours = 3.5; more than 4 hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Israel	D	Average computed based on modified options: 3-5 hours = 4; more than 5 hours = 7.
Latvia	D	Average computed based on modified options: 3-5 hours = 4; more than 5 hours = 7.
Singapore	X	Not internationally comparable due to open-ended response format; data omitted from report variable but retained in original variable (SQ1-6a).

---

---

**Derived Variable Name:** ASDGDAY2      **Label:** GEN\OUTSIDE SCHL\PLAY COMPUTER GAMES

---

**Description:** Students' reports on hours each day spent playing computer games

**Table / Figure Reference:** AMRT4.10b/ASRT4.10b

**Source Variable(s):** SQ1-6b                              (ASBGDAY2)

**Notes:** Hours based on SQ1-6b response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-4 hours = 3.5; more than 4 hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Israel	D	Average computed based on modified options: 3-5 hours = 4; more than 5 hours = 7.
Latvia	D	Average computed based on modified options: 3-5 hours = 4; more than 5 hours = 7.
Singapore	X	Not internationally comparable due to open-ended response format; data omitted from report variable but retained in original variable (SQ1-6b).

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---

**Derived Variable Name:** ASDGDAY3      **Label:** GEN\OUTSIDE SCHL\PLAY WITH FRIENDS

---

**Description:** Students' reports on hours each day spent playing or talking with friends

**Table / Figure Reference:** AMRT4.10c/ASRT4.10c

**Source Variable(s):** SQ1-6c                              (ASBGDAY3)

**Notes:** Hours based on SQ1-6c response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-4 hours = 3.5; more than 4 hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Israel	D	Average computed based on modified options: 3-5 hours = 4; more than 5 hours = 7.
Latvia	D	Average computed based on modified options: 3-5 hours = 4; more than 5 hours = 7.
Singapore	X	Not internationally comparable due to open-ended response format; data omitted from report variable but retained in original variable (SQ1-6c).

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---

**Derived Variable Name:** ASDGDAY4      **Label:** GEN\OUTSIDE SCHL\DOING JOBS AT HOME

---

**Description:** Students' reports on hours each day spent doing jobs at home

**Table / Figure Reference:** AMRT4.10d/ASRT4.10d

**Source Variable(s):** SQ1-6d                              (ASBGDAY4)

**Notes:** Hours based on SQ1-6d response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-4 hours = 3.5; more than 4 hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Israel	D	Average computed based on modified options: 3-5 hours = 4; more than 5 hours = 7.
Latvia	D	Average computed based on modified options: 3-5 hours = 4; more than 5 hours = 7.
Singapore	X	Not internationally comparable due to open-ended response format; data omitted from report variable but retained in original variable (SQ1-6d).

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**Derived Variable Name:** ASDGDAY5      **Label:** GEN\OUTSIDE SCHL\PLAYING SPORTS

---

**Description:** Students' reports on hours each day spent playing sports

**Table / Figure Reference:** AMRT4.10e/ASRT4.10e

**Source Variable(s):** SQ1-6e                      (ASBGDAY5)

**Notes:** Hours based on SQ1-6e response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-4 hours = 3.5; more than 4 hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Israel	D	Average computed based on modified options: 3-5 hours = 4; more than 5 hours = 7.
Latvia	D	Average computed based on modified options: 3-5 hours = 4; more than 5 hours = 7.
Singapore	X	Not internationally comparable due to open-ended response format; data omitted from report variable but retained in original variable (SQ1-6e).

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---

**Derived Variable Name:** ASDGDAY6      **Label:** GEN\OUTSIDE SCHL\READING A BOOK

---

**Description:** Students' reports on hours each day spent reading a book for enjoyment

**Table / Figure Reference:** AMRT4.10f/ASRT4.10f

**Source Variable(s):** SQ1-6f                      (ASBGDAY6)

**Notes:** Hours based on SQ1-6f response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-4 hours = 3.5; more than 4 hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Israel	D	Average computed based on modified options: 3-5 hours = 4; more than 5 hours = 7.
Latvia	D	Average computed based on modified options: 3-5 hours = 4; more than 5 hours = 7.
Singapore	X	Not internationally comparable due to open-ended response format; data omitted from report variable but retained in original variable (SQ1-6f).

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**Derived Variable Name:** ASDGDTV      **Label:** GEN\OUTSIDE SCHL\WATCH TV OR VIDEOS

**Description:** Students' reports on time spent on a normal school day watching television or videos - reporting categories

**Table / Figure Reference:** AMRT4.11/ASRT4.11

**Source Variable(s):** SQ1-6a                      (ASBGDAY1)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ1-6a:  
1 = <1 hour (No time or < 1 hour: option 1 or 2);  
3 = 1-2 hours (option 3);  
4 = 3-4 hours (option 4);  
5 = > 4 hours (option 5).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Israel	D	Modified response categories: 3 = 3-5 hours; 5 = More than 5 hours.
Latvia	D	Modified response categories: 3 = 3-5 hours; 5 = More than 5 hours.
Singapore	X	Not internationally comparable due to open-ended response format; data omitted from report variable but retained in original variable (SQ1-6a).

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**Derived Variable Name:** ASDGMATT      **Label:** GEN\OVERALL ATTITUDE\TOWARDS MATHEMATICS

**Description:** Students' overall attitude toward mathematics - index based on 3 variables

**Table / Figure Reference:** AMRT4.15/AMRF4.3

**Source Variable(s):** SQ1-19a;21a,b              (ASBMLIKE,ASBMENJY,ASBMBORE)

**Notes:** Index of overall attitude towards mathematics based on the average response to three questions: How much do you like mathematics (SQ1-19a); I enjoy learning mathematics (SQ1-21a); and Mathematics is boring (SQ1-21b). The ASDGMATT index variable is based on a 4-point Likert-type scale ranging from most negative to most positive. In computing averages, reverse-scale values were used for SQ1-19a and 21a. The index variable contains integer values based on the following rounding rules:  
1 = Strongly Negative (1 - <1.5);  
2 = Negative (1.5 - <2.5);  
3 = Positive (2.5 - <3.5);  
4 = Strongly Positive (3.5 - 4).  
Students were coded as missing on the index variable only if all three of the source variables were missing.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Did not administer all items in index; omitted SQ1-21a,b.

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**Derived Variable Name:** ASDGPS      **Label:** GEN\NUMBER OF ITEMS AT STUDENT'S HOME

---

**Description:** Students' reports of the total number of items in the home

**Table / Figure Reference:**

**Source Variable(s):** SQ1-11a-p                      (ASBGPS01- ASBGPS16)

**Notes:** Included as an indicator of socioeconomic status based on a set of nationally-defined variables related to possessions contained in students' homes. ASDGPS is an integer value computed as the total number of YES (1) responses to the set of questions regarding possessions in the home (SQ1-11a-p), with a maximum value of 16. In some countries, less than 16 items were included, so the maximum value is not comparable across countries. The possessions in SQ1-11a-d are comparable across countries (calculator, computer, study desk/table, dictionary). The nationally-defined possessions (SQ1-11e-p) asked in each country are listed in the national adaptation documentation in Supplement 3.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Not included in international reports.

---

---

**Derived Variable Name:** ASDGPSA      **Label:** GEN\HOME\POSSESS ALL\COMPUTER\DESK\DICTI

---

**Description:** Students' reports about having all of three educational aids in the home: dictionary, study desk/table, and computer

**Table / Figure Reference:** AMRT4.1a/ASRT4.1a

**Source Variable(s):** SQ1-11b,c,d                      ASBGPS02,ASBGPS03,ASBGPS04

**Notes:** Coded into 2 categories based on student responses to three separate questions about having a dictionary (11b), study desk/table (11c), and computer (11d) in the home:  
1 = Yes if all 3 responses to SQ1-11b,c,d are Yes (1);  
2 = No if any of SQ1-11b,c,d are No (2).  
Coded as missing if any of the three source variables are coded as missing.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Japan	X	Data not available for source variable(s).

---

---

**Derived Variable Name:** ASDGSATT      **Label:** GEN\OVERALL ATTITUDE\TOWARDS SCIENCE

---

**Description:** Students' overall attitude toward science - index based on 3 variables

**Table / Figure Reference:** ASRT4.15/ASRF4.3

**Source Variable(s):** SQ1-19b;21d,e      (ASBSLIKE,ASBSENJY,ASBSBORE)

**Notes:** Index of overall attitude towards science based on the average response to three questions: How much do you like science (SQ1-19b); I enjoy learning science (SQ1-21d); and Science is boring (SQ1-21e). The ASDGSATT index variable is based on a 4-point Likert-type scale ranging from most negative to most positive. In computing averages, reverse-scale values were used for SQ1-19b and 21d. The index variable contains integer values based on the following rounding rules:  
1 = Strongly Negative (1 - <1.5);  
2 = Negative (1.5 - <2.5);  
3 = Positive (2.5 - <3.5);  
4 = Strongly Positive (3.5 - 4).  
Students were coded as missing on the index variable only if all three of the source variables were missing.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Did not administer all items in index; omitted SQ1-21d,e.

---

---

**Derived Variable Name:** ASDMDAY7      **Label:** GEN\DAILY HOURS SPENT STUDYING MATH

---

**Description:** Students' reports on hours each day spent studying math or doing math homework after school

**Table / Figure Reference:** AMRT4.9b

**Source Variable(s):** SQ1-6g      (ASBMDAY7)

**Notes:** Hours based on SQ1-6g response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-4 hours = 3.5; more than 4 hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Israel	D	Average computed based on modified options: 3-5 hours = 4; more than 5 hours = 7.
Latvia	D	Average computed based on modified options: 3-5 hours = 4; more than 5 hours = 7.

---

---

**Derived Variable Name:** ASDMDOW1      **Label:** MAT\DO WELL\NATURAL TALENT

---

**Description:** Students' reports about whether you need lots of natural talent/ability to do well in mathematics at school

**Table / Figure Reference:** AMRT4.13a

**Source Variable(s):** SQ1-17a      (ASBMDOW1)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ1-17a:  
1 = Yes (Strongly Agree or Agree - option 1 or 2);  
2 = No (Disagree or Strongly Disagree - option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

---



---

**Derived Variable Name:** ASDMDOW2      **Label:** MAT\DO WELL\GOOD LUCK

**Description:** Students' reports about whether you need good luck to do well in mathematics at school

**Table / Figure Reference:** AMRT4.13b

**Source Variable(s):** SQ1-17b                      (ASBMDOW2)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ1-17b:  
1 = Yes (Strongly Agree or Agree - option 1 or 2 );  
2 = No (Disagree or Strongly Disagree - option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

---

---

**Derived Variable Name:** ASDMDOW3      **Label:** MAT\DO WELL\HARD WORK STUDYING

**Description:** Students' reports about whether you need lots of hard work studying at home to do well in mathematics at school

**Table / Figure Reference:** AMRT4.13c

**Source Variable(s):** SQ1-17c                      (ASBMDOW3)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ1-17c:  
1 = Yes (Strongly Agree or Agree - option 1 or 2 );  
2 = No (Disagree or Strongly Disagree - option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

---

---

**Derived Variable Name:** ASDMDOW4      **Label:** MAT\DO WELL\MEMORIZE NOTES

**Description:** Students' reports about whether you need to memorize the textbook or notes to do well in mathematics at school

**Table / Figure Reference:** AMRT4.13d

**Source Variable(s):** SQ1-17d                      (ASBMDOW4)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ1-17d:  
1 = Yes (Strongly Agree or Agree - option 1 or 2 );  
2 = No (Disagree or Strongly Disagree - option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

---

---

**Derived Variable Name:** ASDMSTUD      **Label:** GEN\DAI\LY HOURS SPENT STUDYING MATH (CATEGORIE

**Description:** Students' reports about the amount of time spent studying math or doing math homework - reporting categories

**Table / Figure Reference:** AMRT4.9a

**Source Variable(s):** SQ1-6g                      (ASBMDAY7)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ1-6g:  
1 = No Time (option 1);  
2 = Less Than 1 Hour (option 2);  
3 = 1 Hour or More (1-2 hours, 3-4 hours, or more than 4 hours: option 3, 4 or 5).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Singapore	X	Not internationally comparable due to open-ended response format; data omitted from report variable but retained in original variable (SQ1-6g).

---

---

**Derived Variable Name:** ASDSDAY8      **Label:** GEN\DAI\LY HOURS SPENT STUDYING SCIENCE

**Description:** Students' reports on hours each day spent studying science or doing science homework after school

**Table / Figure Reference:** ASRT4.9b

**Source Variable(s):** SQ1-6h                      (ASBSDAY8)

**Notes:** Hours based on SQ1-6h response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-4 hours = 3.5; more than 4 hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Israel	D	Average computed based on modified options: 3-5 hours = 4; more than 5 hours = 7.
Latvia	D	Average computed based on modified options: 3-5 hours = 4; more than 5 hours = 7.

---

---

**Derived Variable Name:** ASDSDOW1      **Label:** SC\DO WELL\NATURAL TALENT

**Description:** Students' reports about whether you need lots of natural talent/ability to do well in science at school

**Table / Figure Reference:** ASRT4.13a

**Source Variable(s):** SQ1-18a                      (ASBSDOW1)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ1-18a:  
1 = Yes (Strongly Agree or Agree - option 1 or 2 );  
2 = No (Disagree or Strongly Disagree - option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

---

---

**Derived Variable Name:** ASDSDOW2 **Label:** SC\DO WELL\GOOD LUCK

---

**Description:** Students' reports about whether you need good luck to do well in science at school

**Table / Figure Reference:** ASRT4.13b

**Source Variable(s):** SQ1-18b (ASBSDOW2)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ1-18b:  
1 = Yes (Strongly Agree or Agree - option 1 or 2 );  
2 = No (Disagree or Strongly Disagree - option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

---

---

**Derived Variable Name:** ASDSDOW3 **Label:** SC\DO WELL\HARD WORK STUDYING

---

**Description:** Students' reports about whether you need lots of hard work studying at home to do well in science at school

**Table / Figure Reference:** ASRT4.13c

**Source Variable(s):** SQ1-18c (ASBSDOW3)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ1-18c:  
1 = Yes (Strongly Agree or Agree - option 1 or 2 );  
2 = No (Disagree or Strongly Disagree - option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

---

---

**Derived Variable Name:** ASDSDOW4 **Label:** SC\DO WELL\MEMORIZE NOTES

---

**Description:** Students' reports about whether you need to memorize the textbook or notes to do well in science at school

**Table / Figure Reference:** ASRT4.13d

**Source Variable(s):** SQ1-18d (ASBSDOW4)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ1-18d:  
1 = Yes (Strongly Agree or Agree - option 1 or 2 );  
2 = No (Disagree or Strongly Disagree - option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

---

---

**Derived Variable Name:** ASDSSTUD      **Label:** GEN\DAAILY HOURS SPENT STUDYING SCIENCE (CATEGO

**Description:** Students' reports about the amount of time spent studying science or doing science homework - reporting categories

**Table / Figure Reference:** ASRT4.9a

**Source Variable(s):** SQ1-6h                      (ASBSDAY8)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ1-6h:  
1 = No Time (option 1);  
2 = Less Than 1 Hour (option 2);  
3 = 1 Hour or More (1-2 hours, 3-4 hours, or more than 4 hours: option 3, 4 or 5).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Singapore	X	Not internationally comparable due to open-ended response format; data omitted from report variable but retained in original variable (SQ1-6h).

---

# Section 2

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**Derived Variable Name:** ATDCSIZE      **Label:** GEN\CLSS\NUMBER OF BOYS & GIRLS IN CLASS

---

**Description:** Teachers' reports about the number of students in their class

**Table / Figure Reference:** AMRT5.7/ASRT5.9

**Source Variable(s):** TQ1-14/1-2      (ATBGBOY,ATBGGIRL)

**Notes:** Total number of students reported in four categories based on the sum of number of boys (TQ1-14/1) and number of girls (TQ1-14/2) reported by teachers in the open-ended questions:  
1 = 1-20;  
2 = 21-30;  
3 = 31-40;  
4 = >40.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Czech Republic	D	Not asked of science-only teachers; data copied from math teacher record for matching classes.
Hong Kong	D	Not asked of science-only teachers; data copied from math teacher record for matching classes.
Singapore	D	Data obtained at ministry.

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---

**Derived Variable Name:** ATDGACT1      **Label:** GEN\OUTSIDE SCHL\PREPARE TEST

---

**Description:** Teachers' reports about hours per week spent preparing or grading student tests

**Table / Figure Reference:** AMRT5.5a/ASRT5.6a

**Source Variable(s):** TQ1-9a      (ATBGACT1)

**Notes:** Hours based on TQ1-9a response categories recoded to numerical values:  
None = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-4 Hours = 3.5; and More Than 4 Hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

---

---

**Derived Variable Name:** ATDGACT2      **Label:** GEN\OUTSIDE SCHL\READ STUDENT WORK

---

**Description:** Teachers' reports about hours per week spent reading and grading student work

**Table / Figure Reference:** AMRT5.5b/ASRT5.6b

**Source Variable(s):** TQ1-9b      (ATBGACT2)

**Notes:** Hours based on TQ1-9b response categories recoded to numerical values:  
None = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-4 Hours = 3.5; and More Than 4 Hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

---

---

**Derived Variable Name:** ATDGACT3      **Label:** GEN\OUTSIDE SCHL\PLAN LESSONS

---

**Description:** Teachers' reports about hours per week spent planning lessons by self

**Table / Figure Reference:** AMRT5.5c/ASRT5.6c

**Source Variable(s):** TQ1-9c                      (ATBGACT3)

**Notes:** Hours based on TQ1-9c response categories recoded to numerical values:  
None = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-4 Hours = 3.5; and More Than 4 Hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

---

---

**Derived Variable Name:** ATDGACT4      **Label:** GEN\OUTSIDE SCHL\MEET STUDENTS

---

**Description:** Teachers' reports about hours per week spent meeting with students outside classroom time

**Table / Figure Reference:** AMRT5.5d/ASRT5.6d

**Source Variable(s):** TQ1-9d                      (ATBGACT4)

**Notes:** Hours based on TQ1-9d response categories recoded to numerical values:  
None = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-4 Hours = 3.5; and More Than 4 Hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

---

---

**Derived Variable Name:** ATDGACT5      **Label:** GEN\OUTSIDE SCHL\MEET PARENTS

---

**Description:** Teachers' reports about hours per week spent meeting with parents

**Table / Figure Reference:** AMRT5.5e/ASRT5.6e

**Source Variable(s):** TQ1-9e                      (ATBGACT5)

**Notes:** Hours based on TQ1-9e response categories recoded to numerical values:  
None = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-4 Hours = 3.5; and More Than 4 Hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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---

**Derived Variable Name:** ATDGACT6      **Label:** GEN\OUTSIDE SCHL\PROFESSIONL READING

**Description:** Teachers' reports about hours per week spent on professional reading and development

**Table / Figure Reference:** AMRT5.5f/ASRT5.6f

**Source Variable(s):** TQ1-9f                      (ATBGACT6)

**Notes:** Hours based on TQ1-9f response categories recoded to numerical values:  
None = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-4 Hours = 3.5; and More Than 4 Hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

---

---

**Derived Variable Name:** ATDGACT7      **Label:** GEN\OUTSIDE SCHL\UPDATE STUD RECORDS

**Description:** Teachers' reports about hours per week spent on keeping students' records

**Table / Figure Reference:** AMRT5.5g/ASRT5.6g

**Source Variable(s):** TQ1-9g                      (ATBGACT7)

**Notes:** Hours based on TQ1-9g response categories recoded to numerical values:  
None = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-4 Hours = 3.5; and More Than 4 Hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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---

**Derived Variable Name:** ATDGACT8      **Label:** GEN\OUTSIDE SCHL\ADMINISTRATVE TASKS

**Description:** Teachers' reports about hours per week spent on administrative tasks

**Table / Figure Reference:** AMRT5.5h/ASRT5.6h

**Source Variable(s):** TQ1-9h                      (ATBGACT8)

**Notes:** Hours based on TQ1-9h response categories recoded to numerical values:  
None = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-4 Hours = 3.5; and More Than 4 Hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** ATDGAGE      **Label:** GEN\AGE OF TEACHER**Description:** Teachers' age**Table / Figure Reference:** AMRT5.2a/ASRT5.2a**Source Variable(s):** TQ1-1                      (ATBGAGE)**Notes:** Teachers' age reported in 4 collapsed categories based on teachers' responses to TQ1-1:  
1 = 29 or Younger (Under 25 or 25-29: option 1 or 2)  
2 = 30-39 (option 3)  
3 = 40-49 (option 4)  
4 = 50 or Older (50-59 or 60 or more: option 5 or 6)

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** ATDGAGR4      **Label:** GEN\PRACTICE TO OVERCOME DIFFICULTY**Description:** Teachers' reports about the extent to which they agree that if students are having difficulty an effective approach is to give them more practice by themselves during class**Table / Figure Reference:** AMRF5.1c**Source Variable(s):** TQ1-12d                      (ATBGAGR4)**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-12d:  
1 = Agree or Strongly Agree (option 3 or 4);  
2 = Disagree or Strongly Disagree (option 2 or 1).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Hungary	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

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---

**Derived Variable Name:** ATDGCAL1      **Label:** GEN\CALCS FOR CHECKING ANSWERS**Description:** Teachers' reports about how often students use calculators to check answers in class**Table / Figure Reference:** AMRT5.15b**Source Variable(s):** TQ1-22a                      (ATBGCAL1)**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-22a:  
1 = At Least Once or Twice a Week (Almost Every Day or Once/Twice a Week: option 1 or 2);  
2 = Less Than Once a Week (Once/Twice a Month or Never/Hardly Ever: option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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---

**Derived Variable Name:** ATDGCAL2      **Label:** GEN\CALCS FOR TESTS AND EXAMS

---

**Description:** Teachers' reports about how often students use calculators during tests and exams in class

**Table / Figure Reference:** AMRT5.15c

**Source Variable(s):** TQ1-22b                      (ATBGCAL2)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-22b:  
1 = At Least Once or Twice a Week (Almost Every Day or Once/Twice a Week: option 1 or 2);  
2 = Less Than Once a Week (Once/Twice a Month or Never/Hardly Ever: option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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---

**Derived Variable Name:** ATDGCAL3      **Label:** GEN\CALCS FOR ROUTINE COMPUTATIONS

---

**Description:** Teachers' reports about how often students use calculators to do routine computation in class

**Table / Figure Reference:** AMRT5.15d

**Source Variable(s):** TQ1-22c                      (ATBGCAL3)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-22c:  
1 = At Least Once or Twice a Week (Almost Every Day or Once/Twice a Week: option 1 or 2);  
2 = Less Than Once a Week (Once/Twice a Month or Never/Hardly Ever: option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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---

**Derived Variable Name:** ATDGCAL4      **Label:** GEN\CALCS FOR COMPLEX PROBLEMS

---

**Description:** Teachers' reports about how often students use calculators to solve complex problems in class

**Table / Figure Reference:** AMRT5.15e

**Source Variable(s):** TQ1-22d                      (ATBGCAL4)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-22d:  
1 = At Least Once or Twice a Week (Almost Every Day or Once/Twice a Week: option 1 or 2);  
2 = Less Than Once a Week (Once/Twice a Month or Never/Hardly Ever: option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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---

**Derived Variable Name:** ATDGCAL5      **Label:** GEN\CALCS FOR NUMBER CONCEPTS

---

**Description:** Teachers' reports about how often students use calculators to explore number concepts in class

**Table / Figure Reference:** AMRT5.15f

**Source Variable(s):** TQ1-22e                      (ATBGCAL5)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-22e:  
1 = At Least Once or Twice a Week (Almost Every Day or Once/Twice a Week: option 1 or 2);  
2 = Less Than Once a Week (Once/Twice a Month or Never/Hardly Ever: option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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---

**Derived Variable Name:** ATDGFAM3      **Label:** MAT\REGIONAL CURRICULUM GUIDE

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**Description:** Teachers' reports about their degree of familiarity with their regional curriculum guides

**Table / Figure Reference:** AMRT5.8b/ASRT5.8b

**Source Variable(s):** TQ1-13c                      (ATBGFAM3)

**Notes:** Coded into 3 collapsed categories based on teachers' responses to TQ1-13c:  
1 = Not familiar or No Such Document (option 1 or 2);  
2 = Fairly Familiar (option 3);  
3 = Very Familiar (option 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Australia	D	Includes Math State Curriculum Guide.
Canada	D	Combines provincial curriculum guides for math and science.
Cyprus	X	Data not available for source variable(s).
England	X	Data not available for source variable(s).
Greece	X	Data not available for source variable(s).
Hong Kong	X	Data not available for source variable(s).
Hungary	X	Data not available for source variable(s).
Iceland	X	Data not available for source variable(s).
Iran	X	Data not available for source variable(s).
Ireland	X	Data not available for source variable(s).
Kuwait	X	Data not available for source variable(s).
Netherlands	X	Data not available for source variable(s).
Portugal	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).
Singapore	X	Data not available for source variable(s).
United States	D	Includes State Curriculum Guide.

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**Derived Variable Name:** ATDGLM01      **Label:** GEN\CLSS\DIFFERENT ACADEMIC ABILITY

**Description:** Teachers' reports about the extent to which students with different academic abilities limit how they teach their class

**Table / Figure Reference:** AMRF5.4a/ASRF5.2a

**Source Variable(s):** TQ1-20a      (ATBGLM01)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-20a:  
1 = Not At All or A Little (option 1 or 2);  
2 = Quite A Lot or A Great Deal (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Hong Kong	D	Not asked of science-only teachers; data included only for math and math/science teachers.
Singapore	D	Not asked of science-only teachers; data included only for math and math/science teachers.

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**Derived Variable Name:** ATDGLM03      **Label:** GEN\CLSS\SPECIAL NEEDS

**Description:** Teachers' reports about the extent to which students with special needs limit how they teach their class

**Table / Figure Reference:** AMRF5.4b/ASRF5.2b

**Source Variable(s):** TQ1-20c      (ATBGLM03)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-20c:  
1 = Not At All or A Little (option 1 or 2);  
2 = Quite A Lot or A Great Deal (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Hong Kong	D	Not asked of science-only teachers; data included only for math and math/science teachers.
Japan	X	Data not available for source variable(s).
Singapore	D	Not asked of science-only teachers; data included only for math and math/science teachers.

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**Derived Variable Name:** ATDGLM05      **Label:** GEN\CLSS\DISRUPTIVE STUDENTS

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**Description:** Teachers' reports about the extent to which disruptive students limit how they teach their class

**Table / Figure Reference:** AMRF5.4c/ASRF5.2c

**Source Variable(s):** TQ1-20e                      (ATBGLM05)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-20e:  
1 = Not At All or A Little (option 1 or 2);  
2 = Quite A Lot or A Great Deal (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Hong Kong	D	Not asked of science-only teachers; data included only for math and math/science teachers.
Japan	X	Data not available for source variable(s).
Singapore	D	Not asked of science-only teachers; data included only for math and math/science teachers.

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**Derived Variable Name:** ATDGLM11      **Label:** GEN\CLSS\SHORTGE OF DEMNSTR EQUIPMNT

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**Description:** Teachers' reports about the extent to which shortage of equipment for use in demonstrations and other exercises limits how they teach their class

**Table / Figure Reference:** AMRF5.4d/ASRF5.2d

**Source Variable(s):** TQ1-20k                      (ATBGLM11)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-20k:  
1 = Not At All or A Little (option 1 or 2);  
2 = Quite A Lot or A Great Deal (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Hong Kong	D	Not asked of science-only teachers; data included only for math and math/science teachers.
Singapore	D	Not asked of science-only teachers; data included only for math and math/science teachers.

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**Derived Variable Name:** ATDGLM12      **Label:** GEN\CLSS\INADEQUATE PHYSICL FACILITS

**Description:** Teachers' reports about the extent to which inadequate physical facilities limits how they teach their class

**Table / Figure Reference:** AMRF5.4e/ASRF5.2e

**Source Variable(s):** TQ1-20l                      (ATBGLM12)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-20l:  
1 = Not At All or A Little (option 1 or 2);  
2 = Quite A Lot or A Great Deal (option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Hong Kong	D	Not asked of science-only teachers; data included only for math and math/science teachers.
Singapore	D	Not asked of science-only teachers; data included only for math and math/science teachers.

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**Derived Variable Name:** ATDGLM13      **Label:** GEN\CLSS\HIGH STUDENT TEACHER RATIO

**Description:** Teachers' reports about the extent to which high student/teacher ratio limits how they teach their class

**Table / Figure Reference:** AMRF5.4f/ASRF5.2f

**Source Variable(s):** TQ1-20m                      (ATBGLM13)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-20m:  
1 = Not At All or A Little (option 1 or 2);  
2 = Quite A Lot or A Great Deal (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Hong Kong	D	Not asked of science-only teachers; data included only for math and math/science teachers.
Japan	X	Data not available for source variable(s).
Singapore	D	Not asked of science-only teachers; data included only for math and math/science teachers.

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**Derived Variable Name:** ATDGMEET      **Label:** GEN\MEETINGS WITH OTHER TEACHERS

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**Description:** Teachers' reports about how often they meet with other teachers in their subject area to discuss curriculum

**Table / Figure Reference:** AMRT5.6/ASRT5.7

**Source Variable(s):** TQ1-10                      (ATBGMEET)

**Notes:** Coded into 4 collapsed frequency categories based on teachers' responses to TQ1-10:  
1 = Never or Once/ Twice a Year (option 1 or 2)  
2 = Monthly or Every Other Month (option 3 or 4)  
3 = Once, Twice or Three Times a Week (option 5 or 6)  
4 = Almost Every Day (option 7)

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Australia	D	Once/Month also includes Once/Fortnight.
Singapore	D	Every Other Month changed to Once/Term.

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**Derived Variable Name:** ATDGTAUG      **Label:** GEN\YEARS BEEN TEACHING

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**Description:** Teachers' reports about years of teaching experience

**Table / Figure Reference:** AMRT5.3/ASRT5.3

**Source Variable(s):** TQ1-7                      (ATBGTAUG)

**Notes:** Years of teaching experience reported in 4 categories based on teachers' responses to open-ended question (TQ1-7):  
1 = <5 years;  
2 = 6-10 years;  
3 = 11-20 years;  
4 = >20 years.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** ATDMAGR2      **Label:** MAT\FORMAL REPRESENTATION OF WORLD

---

**Description:** Teachers' reports about the extent to which they agree that mathematics is primarily a formal way of representing the real world

**Table / Figure Reference:** AMRF5.1a

**Source Variable(s):** TQ1-12b                      (ATBMAGR2)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-12b:  
1 = Agree or Strongly Agree (option 3 or 4);  
2 = Disagree or Strongly Disagree (option 2 or 1).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** ATDMAGR5      **Label:** MAT\NATURAL TALENT FOR MATH

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**Description:** Teachers' reports about the extent to which they agree that some students have a natural talent for mathematics and others do not

**Table / Figure Reference:** AMRF5.1b

**Source Variable(s):** TQ1-12e                      (ATBMAGR5)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-12e:  
1 = Agree or Strongly Agree (option 3 or 4);  
2 = Disagree or Strongly Disagree (option 2 or 1).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** ATDMAGR6      **Label:** MAT\USE MORE THAN 1 REPRESENTATION

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**Description:** Teachers' reports about the extent to which they agree that more than one representation should be used in teaching a mathematics topic

**Table / Figure Reference:** AMRF5.1d

**Source Variable(s):** TQ1-12f                      (ATBMAGR6)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-12f:  
1 = Agree or Strongly Agree (option 3 or 4);  
2 = Disagree or Strongly Disagree (option 2 or 1).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** ATDMASK4      **Label:** MAT\TASKS\USE COMPUTERS

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**Description:** Teachers' reports about how often they ask students to use computers to solve exercises or problems in mathematics class

**Table / Figure Reference:** AMRT5.17

**Source Variable(s):** TQ1-28d      (ATBMASK4)

**Notes:** Coded into 3 collapsed categories based on teachers' responses to TQ1-28d:

- 1 = Never or Almost Never (option 1);
- 2 = Some Lessons (option 2);
- 3 = Most or Every Lesson (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Hungary	X	Data not available for source variable(s).
Iceland	X	Data not available for source variable(s).
Israel	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** ATDMCALU      **Label:** MAT\FREQUENCY STUDENTS USE CALCS

---

**Description:** Teachers' reports about how often students use calculators in class for different activities

**Table / Figure Reference:** AMRT5.14

**Source Variable(s):** TQ1-22a,b,c,d,e      (ATBGCAL1 - ATBGCAL5)

**Notes:** Based on the most frequent response category reported by teachers across the five separate questions regarding calculator use: checking answers (TQ1-22a), tests and exams (TQ1-22b), routine computation (TQ1-22c), solving complex problems (TQ1-22d), exploring number concepts (TQ1-22e). Coded according to the original source variable frequency categories:

- 1 = Almost Every Day;
  - 2 = Once or Twice a Week;
  - 3 = Once or Twice a Month;
  - 4 = Never or Hardly Ever.
- Coded as missing if all five source variables are missing.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** ATDMFAM1      **Label:** MAT\NATIONAL CURRICULUM GUIDE

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**Description:** Teachers' reports about their degree of familiarity with their national curriculum guide for mathematics

**Table / Figure Reference:** AMRT5.8a

**Source Variable(s):** TQ1-13a                      (ATBMFAM1)

**Notes:** Coded into 3 collapsed categories based on teachers' responses to TQ1-13a:  
1 = Not familiar or No Such Document (option 1 or 2);  
2 = Fairly Familiar (option 3);  
3 = Very Familiar (option 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Canada	X	Data not available for source variable(s).
England	X	Data not available for source variable(s).
Ireland	D	Curriculum Book 1 and 2 includes math and science; same data in ATDSFAM2.
Scotland	X	Data not available for source variable(s).
United States	X	Data not available for source variable(s).

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**Derived Variable Name:** ATDMHWRK      **Label:** MAT\AVERAGE TIME NEEDED FOR HOMEWK

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**Description:** Teachers' reports about the amount of mathematics homework assigned

**Table / Figure Reference:** AMRT5.19

**Source Variable(s):** TQ1-31;32                      (ATBMHMW2,ATBMHWT2)

**Notes:** Derived from teachers' responses to two questions regarding how often mathematics homework is assigned (TQ1-31) and how many minutes of mathematics homework is assigned (TQ1-32). Coded into 7 categories of homework amount/frequency:  
1 = No Homework (TQ1-32 = 1);  
2 = Assign 30 minutes or less/less than once a week (TQ1-31 = 2 and TQ1-32 = 2 or 3);  
3 = Assign more than 30 minutes/less than once a week (TQ1-31 = 2 and TQ1-32 = 4, 5 or 6);  
4 = Assign 30 minutes or less/once or twice a week (TQ1-31 = 3 and TQ1-32 = 2 or 3);  
5 = Assign more than 30 minutes/once or twice a week (TQ1-31 = 3 and TQ1-32 = 4, 5 or 6);  
6 = Assign 30 minutes or less/three times a week or more (TQ1-31 = 4 or 5 and TQ1-32 = 2 or 3);  
7 = Assign more than 30 minutes/three times a week or more (TQ1-31 = 4 or 5 and TQ1-32 = 4, 5 or 6).  
ATDMHWRK is coded as missing if either of the source variables is missing.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).

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**Derived Variable Name:** ATDMIMP1      **Label:** MAT\GD\IMPT\REMEMBER FORMULAS

---

**Description:** Teachers' reports about how important it is for students to remember formulas and procedures to be good at mathematics at school

**Table / Figure Reference:** AMRF5.2a

**Source Variable(s):** TQ1-11a      (ATBMIMP1)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-11a:  
1 = Very Important (option 3);  
2 = Somewhat/Not Important (option 2 or 1).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** ATDMIMP4      **Label:** MAT\GD\IMPT\THINK CREATIVELY

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**Description:** Teachers' reports about how important it is for students to be able to think creatively to be good at mathematics at school

**Table / Figure Reference:** AMRF5.2b

**Source Variable(s):** TQ1-11d      (ATBMIMP4)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-11d:  
1 = Very Important (option 3);  
2 = Somewhat/Not Important (option 2 or 1).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** ATDMIMP5      **Label:** MAT\GD\IMPT\HOW USED IN REAL WORLD

---

**Description:** Teachers' reports about how important it is for students to understand how mathematics is used in the real world to be good at mathematics at school

**Table / Figure Reference:** AMRF5.2c

**Source Variable(s):** TQ1-11e      (ATBMIMP5)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-11e:  
1 = Very Important (option 3);  
2 = Somewhat/Not Important (option 2 or 1).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** ATDMIMP6      **Label:** MAT\GD\IMPT\SUPPORT SOLUTIONS

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**Description:** Teachers' reports about how important it is for students to be able to provide reasons to support their solutions to be good at mathematics at school

**Table / Figure Reference:** AMRF5.2d

**Source Variable(s):** TQ1-11f      (ATBMIMP6)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-11f:  
1 = Very Important (option 3);  
2 = Somewhat/Not Important (option 2 or 1).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** ATDMLES1      **Label:** MAT\INDIVIDUAL WORK\NO ASSISTANCE

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**Description:** Teachers' reports about how often students work individually without assistance from the teacher in math lessons

**Table / Figure Reference:** AMRF5.5d

**Source Variable(s):** TQ1-30a      (ATBMLES1)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-30a:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** ATDMLES2      **Label:** MAT\INDIVIDUAL WORK\ASSISTANCE

---

**Description:** Teachers' reports about how often students work individually with assistance from the teacher in math lessons

**Table / Figure Reference:** AMRF5.5c

**Source Variable(s):** TQ1-30b      (ATBMLES2)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-30b:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** ATDMLES3      **Label:** MAT\WORK TOGETHER\TEACHER TEACHES

**Description:** Teachers' reports about how often students work together as a class with the teacher teaching the whole class in math lessons

**Table / Figure Reference:** AMRF5.5b

**Source Variable(s):** TQ1-30c                      (ATBMLES3)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-30c:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** ATDMLES4      **Label:** MAT\WORK TOGETHER\STUDENTS INTERACT

**Description:** Teachers' reports about how often students work together as a class with students responding to one another in math lessons

**Table / Figure Reference:** AMRF5.5a

**Source Variable(s):** TQ1-30d                      (ATBMLES4)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-30d:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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---

**Derived Variable Name:** ATDMLES5      **Label:** MAT\WORK IN GROUPS\NO ASSISTANCE

**Description:** Teachers' reports about how often students work in pairs or small groups without assistance from the teacher in math lessons

**Table / Figure Reference:** AMRF5.5f

**Source Variable(s):** TQ1-30e                      (ATBMLES5)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-30e:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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---

**Derived Variable Name:** ATDMLES6      **Label:** MAT\WORK IN GROUPS\ASSISTANCE

**Description:** Teachers' reports about how often students work in pairs or small groups with assistance from the teacher in math lessons

**Table / Figure Reference:** AMRF5.5e

**Source Variable(s):** TQ1-30f      (ATBMLES6)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-30f:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** ATDMSRC1      **Label:** MAT\SOURCE\WHICH TOPIC TO TEACH

**Description:** Teachers' reports about their main source of written information when deciding which topics to teach in their mathematics lessons

**Table / Figure Reference:** AMRT5.9a

**Source Variable(s):** TQ1-24a      (ATBMSRC1)

**Notes:** Coded into 3 collapsed categories based on teachers' responses to TQ1-24a:  
1 = Curriculum Guides (School Curriculum Guide or National/Regional Curriculum Guide - option 4 or 5);  
2 = Textbook (Other Resource Books, Student Edition of Textbook, or Teacher Edition of Textbook - Option 1, 2 or 3);  
3 = Examination Specifications (National/Regional Examination Specifications - option 6).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Australia	D	Exam Specifications Not Included.
Canada	X	Data not available for source variable(s).
Czech Republic	D	Exam Specifications Not Included.
England	D	Option 2 combines Subject Association Materials with Other Resource Materials and Textbooks; Exam Specifications Not Included.
Greece	D	Exam Specifications Not Included.
Ireland	D	Exam Specifications Not Included.
Kuwait	X	Only included Textbooks and Other Resource Materials.
Netherlands	D	Exam Specifications Not Included.
New Zealand	D	Exam Specifications Not Included.
Norway	D	Exam Specifications Not Included.
Portugal	D	Exam Specifications Not Included.
Scotland	D	Exam Specifications Not Included.

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**Derived Variable Name:** ATDMSRC2      **Label:** MAT\SOURCE\HOW TO PRESENT A TOPIC

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**Description:** Teachers' reports about their main source of written information when deciding how to present a topic in their mathematics lessons

**Table / Figure Reference:** AMRT5.9b

**Source Variable(s):** TQ1-24b      (ATBMSRC2)

**Notes:** Coded into 3 collapsed categories based on teachers' responses to TQ1-24b:  
1 = Curriculum Guides (School Curriculum Guide or National/Regional Curriculum Guide - option 4 or 5);  
2 = Textbook (Other Resource Books, Student Edition of Textbook or Teacher Edition of Textbook - Option 1, 2 or 3);  
3 = Examination Specifications (National/Regional Examination Specifications - option 6).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Australia	D	Exam Specifications Not Included.
Canada	X	Data not available for source variable(s).
Czech Republic	D	Exam Specifications Not Included.
England	D	Option 2 combines subject association materials with Other Resource Materials and Textbooks; Exam Specifications Not Included.
Greece	D	Exam Specifications Not Included.
Ireland	D	Exam Specifications Not Included.
Kuwait	X	Only included Textbooks and Other Resource Materials.
Netherlands	D	Exam Specifications Not Included.
New Zealand	D	Exam Specifications Not Included.
Norway	D	Exam Specifications Not Included.
Portugal	D	Exam Specifications Not Included.
Scotland	D	Exam Specifications Not Included.

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**Derived Variable Name:** ATDMTIME      **Label:** MAT\CLSS\LENGTH OF MATH CLASS

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**Description:** Teachers' reports about the number of hours mathematics is taught weekly to their mathematics class

**Table / Figure Reference:** AMRT5.4

**Source Variable(s):** TQ1-16      (ATBMTIME)

**Notes:** Computed from the number of minutes reported by teachers' responses to the open-ended question (TQ1-16) divided by 60. Coded into 4 categories:  
1 = <2 hours;  
2 = 2 - <3.5 hours;  
3 = 3.5 - 5 hours;  
4 = >5 hours.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Greece	X	Omitted from report variable but retained in original variable (TQ1-16).
Iran	X	Data not available for source variable(s).

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**Derived Variable Name:** ATDSFAM2      **Label:** SCINATIONAL CURRICULUM GUIDE

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**Description:** Teachers' reports about their degree of familiarity with their national curriculum guide for science

**Table / Figure Reference:** ASRT5.8a

**Source Variable(s):** TQ1-13b                      (ATBSFAM2)

**Notes:** Coded into 3 collapsed categories based on teachers' responses to TQ1-13b:  
1 = Not familiar or No Such Document (option 1 or 2);  
2 = Fairly Familiar (option 3);  
3 = Very Familiar (option 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Austria	X	Data not available for source variable(s).
Canada	X	Data not available for source variable(s).
England	X	Data not available for source variable(s).
Hong Kong	X	Not asked of science teachers; small sample of math/science teachers not reported.
Hungary	X	Data not available for source variable(s).
Ireland	D	Curriculum Book 1 and 2 includes math and science; same data in ATDMFAM1.
Scotland	X	Data not available for source variable(s).
United States	X	Data not available for source variable(s).

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**Derived Variable Name:** ATDSLES1      **Label:** SCIINDIVIDUAL WORK/NO ASSISTANCE

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**Description:** Teachers' reports about how often students work individually without assistance from the teacher in science lessons

**Table / Figure Reference:** ASRF5.3d

**Source Variable(s):** TQ1-36a                      (ATBSLES1)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-36a:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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---

**Derived Variable Name:** ATDSLES2      **Label:** SCI\INDIVIDUAL WORK\ASSISTANCE

---

**Description:** Teachers' reports about how often students work individually with assistance from the teacher in science lessons

**Table / Figure Reference:** ASRF5.3c

**Source Variable(s):** TQ1-36b                      (ATBSLES2)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-36b:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

---

---

**Derived Variable Name:** ATDSLES3      **Label:** SCI\WORK TOGETHER\TEACHER TEACHES

---

**Description:** Teachers' reports about how often students work together as a class with the teacher teaching the whole class in science lessons

**Table / Figure Reference:** ASRF5.3b

**Source Variable(s):** TQ1-36c                      (ATBSLES3)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-36c:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** ATDSLES4      **Label:** SCI\WORK TOGETHER\STUDENTS INTERACT

---

**Description:** Teachers' reports about how often students work together as a class with students responding to one another in science lessons

**Table / Figure Reference:** ASRF5.3a

**Source Variable(s):** TQ1-36d                      (ATBSLES4)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-36d:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** ATDSLES5      **Label:** SCIWORK IN GROUPS\NO ASSISTANCE

**Description:** Teachers' reports about how often students work in pairs or small groups without assistance from the teacher in science lessons

**Table / Figure Reference:** ASRF5.3f

**Source Variable(s):** TQ1-36e                      (ATBSLES5)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-36e:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** ATDSLES6      **Label:** SCIWORK IN GROUPS\ASSISTANCE

**Description:** Teachers' reports about how often students work in pairs or small groups with assistance from the teacher in science lessons

**Table / Figure Reference:** ASRF5.3e

**Source Variable(s):** TQ1-36f                      (ATBSLES6)

**Notes:** Coded into 2 collapsed categories based on teachers' responses to TQ1-36f:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** ATDSTIME      **Label:** SCI SCIENCE TIME PER WEEK (CATEGORIES)**Description:** Teachers' reports about the number of hours science is taught weekly - reporting categories**Table / Figure Reference:** ASRT5.4**Source Variable(s):** TQ1-35a,b      (ATBSYTMW,ATBSNTMW)**Notes:** Derived from open-ended variables containing teachers' reports of the number of minutes science is taught as integrated science (TQ1-35a) or as a separate subject (TQ1-35b). ATDSTIME is the total hours of science taught ( $ATDSTIME = (35a + 35b)/60$ ) divided into 4 reporting categories:

- 1 = <1 hour;
- 2 = 1 - <2 hours;
- 3 = 2 - <3 hours;
- 4 = 3 or more hours.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Austria	X	Data not available for source variable(s).
Czech Republic	D	Not asked of science-only teachers; data copied from math teacher records for matching classes.
Greece	X	Data not available for source variable(s).
Iran	X	Data not available for source variable(s).
Iran	X	Data not available for source variable(s).
Singapore	D	Data obtained from ministry based on teachers' personal time tables.

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**Derived Variable Name:** ATDSTIMT      **Label:** SCI SCIENCE TIME PER WEEK**Description:** Teachers' reports about the number of hours science is taught weekly to their class**Table / Figure Reference:** ASRT5.5**Source Variable(s):** TQ1-35a,b      (ATBSYTMW,ATBSNTMW)**Notes:** Derived from open-ended variables containing teachers' reports of the number of minutes science is taught as integrated science (TQ1-35a) or as a separate subject (TQ1-35b). ATDSTIMT is the total hours of science taught computed based on the sum of the number of minutes in 35a and 35b divided by 60.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Austria	X	Data not available for source variable(s).

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# Section 3

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**Derived Variable Name:** BSDAGE      **Label:** GEN\STUDENT'S AGE

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**Description:** Student's age in years

**Table / Figure Reference:** BMRT1.1c, BMRT1.2c / BSRT1.1c, BSRT1.2c

**Source Variable(s):** SQ2-1/2,1/3      (BSBGBIRM,BSBGBIRY)

**Notes:** Derived from date-of-birth variables (month = BSBGBIRM; year = BSBGBIRY) and date-of-testing variables (ITDATEY, ITDATEM) according to the following formula:  
$$\text{BSDGAGE} = (\text{ITDATEY} - \text{BSBGBIRY}) + (\text{ITDATEM} - \text{BSBGBIRM})/12$$
If the month of testing was not known, the expected month of testing for the particular country was substituted.  
If the month of birth was not known, the value of 6.5 was substituted.  
If the year of birth was not known, BSDAGE was set to missing.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BSDBCOMP      **Label:** BIOUSE COMPUTERS

---

**Description:** Students' reports on frequency of using computers in biology class

**Table / Figure Reference:** BSRT5.18b

**Source Variable(s):** SQ2S-31g      (BSBBCOMP)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ2S-31g:  
1 = At Least Once in a While (Almost Always, Pretty Often, or Once in a While - option 1, 2, or 3);  
2 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Integrated science students coded as Not Administered.
France	D	Reported data are for students taking Biology/Geology classes.
Greece	X	Deleted small sample of Biology students in upper-grade.
Portugal	D	Reported data are for students taking Natural Science classes.

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---

**Derived Variable Name:** BSDBDEMO **Label:** BIOTEACHER GIVES DEMONSTRATION

---

**Description:** Students' reports on frequency of teacher giving demonstration of an experiment in biology class

**Table / Figure Reference:** BSRT5.11b

**Source Variable(s):** SQ2S-31o (BSBBDEMO)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-31o:  
1 = Pretty Often or Almost Always (option 1 or 2);  
3 = Once in a While (option 3);  
4 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Integrated science students coded as Not Administered.
France	D	Reported data are for students taking Biology/Geology classes.
Greece	X	Deleted small sample of Biology students in upper-grade.
Portugal	X	Data not available for source variable(s).

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---

**Derived Variable Name:** BSDBEVLF **Label:** BIOSOLVE WITH EVERYDAY LIFE THINGS

---

**Description:** Students' reports on frequency of using things from everyday life in solving problems in biology class

**Table / Figure Reference:** BSRT5.13b

**Source Variable(s):** SQ2S-31h (BSBBEVLF)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-31h:  
1 = Pretty Often or Almost Always (option 1 or 2);  
3 = Once in a While (option 3);  
4 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Integrated science students coded as Not Administered.
France	D	Reported data are for students taking Biology/Geology classes.
Greece	X	Deleted small sample of Biology students in upper-grade.
Portugal	D	Reported data are for students taking Natural Science classes.

---

---

**Derived Variable Name:** BSDBEXPR **Label:** BIOSTUDENTS DO EXPERIMENTS IN CLASS

---

**Description:** Students' reports on frequency of doing an experiment or practical investigation in biology class

**Table / Figure Reference:** BSRT5.12b

**Source Variable(s):** SQ2S-31p (BSBBEXPR)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-31p:  
1 = Pretty Often or Almost Always (option 1 or 2);  
3 = Once in a While (option 3);  
4 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Integrated science students coded as Not Administered.
France	D	Reported data are for students taking Biology/Geology classes.
Greece	X	Deleted small sample of Biology students in upper-grade.
Portugal	D	Reported data are for students taking Natural Science classes.

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**Derived Variable Name:** BSDBGOOD **Label:** BIOUSUALLY DO WELL IN BIOLOGY

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**Description:** Students' self-perceptions about usually doing well in biological science

**Table / Figure Reference:** BSRT4.11b/BSRF4.2b

**Source Variable(s):** SQ2S-17b (BSBBGOOD)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-17b:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	X	Asked integrated science question; data reported in BSDSGOOD.
France	D	Reported data are for students taking Biology/Geology classes.
Greece	X	Asked integrated science question; data for upper-grade students reported in Physical Science (BSDPGOOD).
Portugal	D	Reported data are for students taking Natural Science classes.

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**Derived Variable Name:** BSDBJOB      **Label:** BIO\DO WELL\TO GET DESIRED JOB

---

**Description:** Students' perceptions about the need to do well in biology to get their desired job

**Table / Figure Reference:** BSRT4.13b

**Source Variable(s):** SQ2S-30a      (BSBBJOB)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-30a:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Integrated science students coded as Not Administered.
France	D	Reported data are for students taking Biology/Geology classes.
Greece	X	Deleted small sample of Biology students in upper-grade.
Portugal	D	Reported data are for students taking Natural Science classes.

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**Derived Variable Name:** BSDBLIKE      **Label:** BIO\LIKE BIOLOGICAL SCIENCE

---

**Description:** Students' reports about liking biological science

**Table / Figure Reference:** BSRT4.16b/BSRF4.3b

**Source Variable(s):** SQ2S-21b      (BSBBLIKE)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-21b:  
1 = Dislike a Lot (option 1);  
2 = Dislike (option 2);  
3 = Like or Like A Lot (option 3 or 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	X	Asked integrated science question; data reported in BSDSLIKE.
France	D	Reported data are for students taking Biology/Geology classes.
Greece	X	Asked integrated science question; data for upper-grade students reported in Physical Science (BSDPLIKE).
Portugal	D	Reported data are for students taking Natural Science classes.

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**Derived Variable Name:** BSDBPRNT      **Label:** BIODO WELL\TO PLEASE PARENTS

---

**Description:** Students' perceptions about the need to do well in biology to please their parents

**Table / Figure Reference:** BSRT4.15b

**Source Variable(s):** SQ2S-30b                      (BSBBPRNT)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-30b:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Integrated science students coded as Not Administered.
France	D	Reported data are for students taking Biology/Geology classes.
Greece	X	Deleted small sample of Biology students in upper-grade.
Portugal	D	Reported data are for students taking Natural Science classes.

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---

**Derived Variable Name:** BSDBSCHL      **Label:** BIODO WELL\TO ENTER DESIRED SCHOOL

---

**Description:** Students' perceptions about the need to do well in biology to get into their preferred university or secondary school

**Table / Figure Reference:** BSRT4.14b

**Source Variable(s):** SQ2S-30c                      (BSBBSCHL)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-30c:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Integrated science students coded as Not Administered.
France	D	Reported data are for students taking Biology/Geology classes.
Greece	X	Deleted small sample of Biology students in upper-grade.
Portugal	D	Reported data are for students taking Natural Science classes.

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---

**Derived Variable Name:** BSDBTEST      **Label:** BIOHAVE A QUIZ OR TEST

---

**Description:** Students' reports on frequency of having a quiz or test in biology class

**Table / Figure Reference:** BSRT5.23b

**Source Variable(s):** SQ2S-31c                      (BSBBTEST)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-31c:  
1 = Pretty Often or Almost Always (option 1 or 2);  
2 = Once in a While (option 3);  
3 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Integrated science students coded as Not Administered.
France	D	Reported data are for students taking Biology/Geology classes.
Greece	X	Deleted small sample of Biology students in upper-grade.
Portugal	D	Reported data are for students taking Natural Science classes.

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**Derived Variable Name:** BSDCCOMP      **Label:** CHE\USE COMPUTERS

---

**Description:** Students' reports on frequency of using computers in chemistry class

**Table / Figure Reference:** BSRT5.18c

**Source Variable(s):** SQ2S-35g                      (BSBCCOMP)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ2S-35g:  
1 = At Least Once in a While (Almost Always, Pretty Often, or Once in a While - option 1, 2, or 3);  
2 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fl)	X	Deleted chemistry data; small sample size.
Belgium (Fr)	X	Data not available for source variable(s).
Denmark	X	Chemistry not asked. Physics/Chemistry reported in Physics (BSDPCOMP).
France	X	Chemistry not asked; Physics/Chemistry reported in Physics (BSDPCOMP).
Netherlands	X	Deleted chemistry data; small sample size. Physics/Chemistry reported in Physics (BSDPCOMP).
Portugal	X	Data not available for source variable(s).

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**Derived Variable Name:** BSDCDEMO    **Label:** CHE\TEACHER GIVES DEMONSTRATION

**Description:** Students' reports on frequency of teacher giving demonstration of an experiment in chemistry class

**Table / Figure Reference:** BSRT5.11c

**Source Variable(s):** SQ2S-35o                      (BSBCDEMO)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-35o:  
1 = Pretty Often or Almost Always (option 1 or 2);  
3 = Once in a While (option 3);  
4 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fl)	X	Deleted chemistry data; small sample size.
Belgium (Fr)	X	Data not available for source variable(s).
Denmark	X	Chemistry not asked. Physics/Chemistry reported in Physics (BSDPDEMO).
France	X	Chemistry not asked; Physics/Chemistry reported in Physics (BSDPDEMO).
Netherlands	X	Deleted chemistry data; small sample size. Physics/Chemistry reported in Physics (BSDPDEMO).
Portugal	X	Data not available for source variable(s).

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---

**Derived Variable Name:** BSDCEVLF    **Label:** CHE\SOLVE WITH EVERYDAY LIFE THINGS

**Description:** Students' reports on frequency of using things from everyday life in solving problems in chemistry class

**Table / Figure Reference:** BSRT5.13c

**Source Variable(s):** SQ2S-35h                      (BSBCEVLF)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-35h:  
1 = Pretty Often or Almost Always (option 1 or 2);  
3 = Once in a While (option 3);  
4 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fl)	X	Deleted chemistry data; small sample size.
Belgium (Fr)	X	Data not available for source variable(s).
Denmark	X	Chemistry not asked. Physics/Chemistry reported in Physics (BSDPEVLF).
France	X	Chemistry not asked; Physics/Chemistry reported in Physics (BSDPEVLF).
Netherlands	X	Deleted chemistry data; small sample size. Physics/Chemistry reported in Physics (BSDPEVLF).
Portugal	X	Data not available for source variable(s).

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---

**Derived Variable Name:** BSDCEXP **Label:** CHE\STUDENTS DO EXPERIMENTS IN CLASS

---

**Description:** Students' reports on frequency of doing an experiment or practical investigation in chemistry class

**Table / Figure Reference:** BSRT5.12c

**Source Variable(s):** SQ2S-35p (BSBCEXP)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-35p:  
1 = Pretty Often or Almost Always (option 1 or 2);  
3 = Once in a While (option 3);  
4 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fl)	X	Deleted chemistry data; small sample size.
Belgium (Fr)	X	Data not available for source variable(s).
Denmark	X	Chemistry not asked. Physics/Chemistry reported in Physics (BSDPEXP).
France	X	Chemistry not asked; Physics/Chemistry reported in Physics (BSDPEXP).
Netherlands	X	Deleted chemistry data; small sample size. Physics/Chemistry reported in Physics (BSDPEXP).
Portugal	X	Data not available for source variable(s).

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---

**Derived Variable Name:** BSDCJOB **Label:** CHE\DO WELL TO GET DESIRED JOB

---

**Description:** Students' perception about the need to do well in chemistry to get their desired job

**Table / Figure Reference:** BSRT4.13c

**Source Variable(s):** SQ2S-34a (BSBCJOB)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-34a:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fl)	X	Deleted chemistry data; small sample size.
Belgium (Fr)	X	Data not available for source variable(s).
Denmark	X	Chemistry not asked. Physics/Chemistry reported in Physics (BSDPJOB).
France	X	Chemistry not asked; Physics/Chemistry reported in Physics (BSDPJOB).
Netherlands	X	Deleted chemistry data; small sample size. Physics/Chemistry reported in Physics (BSDPJOB).
Portugal	X	Data not available for source variable(s).

---

---

**Derived Variable Name:** BSDCPRNT      **Label:** CHE\DO WELL\TO PLEASE PARENTS

---

**Description:** Students' perceptions about the need to do well in chemistry to please their parents

**Table / Figure Reference:** BSRT4.15c

**Source Variable(s):** SQ2S-34b                      (BSBCPRNT)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-34b:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fl)	X	Deleted chemistry data; small sample size.
Belgium (Fr)	X	Data not available for source variable(s).
Denmark	X	Chemistry not asked. Physics/Chemistry reported in Physics (BSDPPRNT).
France	X	Chemistry not asked; Physics/Chemistry reported in Physics (BSDPPRNT).
Netherlands	X	Deleted chemistry data; small sample size. Physics/Chemistry reported in Physics (BSDPPRNT).
Portugal	X	Data not available for source variable(s).

---

---

**Derived Variable Name:** BSDCSCHL      **Label:** CHE\DO WELL\TO ENTER DESIRED SCHOOL

---

**Description:** Students' perceptions about the need to do well in chemistry to get into their preferred university or secondary school

**Table / Figure Reference:** BSRT4.14c

**Source Variable(s):** SQ2S-34c                      (BSBCSCHL)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-34c:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fl)	X	Deleted chemistry data; small sample size.
Belgium (Fr)	X	Data not available for source variable(s).
Denmark	X	Chemistry not asked. Physics/Chemistry reported in Physics (BSDPSCHL).
France	X	Chemistry not asked; Physics/Chemistry reported in Physics (BSDPSCHL).
Netherlands	X	Deleted chemistry data; small sample size. Physics/Chemistry reported in Physics (BSDPSCHL).
Portugal	X	Data not available for source variable(s).

---

---

**Derived Variable Name:** BSDCTEST      **Label:** CHE\HAVE A QUIZ OR TEST

---

**Description:** Students' reports on frequency of having a quiz or test in chemistry class

**Table / Figure Reference:** BSRT5.23c

**Source Variable(s):** SQ2S-35c                      (BSBCTEST)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-35c:  
1 = Pretty Often or Almost Always (option 1 or 2);  
2 = Once in a While (option 3);  
3 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fl)	X	Deleted chemistry data; small sample size.
Belgium (Fr)	X	Data not available for source variable(s).
Denmark	X	Chemistry not asked. Physics/Chemistry reported in Physics (BSDPTEST).
France	X	Chemistry not asked; Physics/Chemistry reported in Physics (BSDPTEST).
Netherlands	X	Deleted chemistry data; small sample size. Physics/Chemistry reported in Physics (BSDPTEST).
Portugal	X	Data not available for source variable(s).

---

---

**Derived Variable Name:** BSDECOMP      **Label:** EAR\USE COMPUTERS

---

**Description:** Students' reports on frequency of using computers in earth science class

**Table / Figure Reference:** BSRT5.18d

**Source Variable(s):** SQ2S-39g                      (BSBECOMP)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ2S-39g:  
1 = At Least Once in a While (Almost Always, Pretty Often, or Once in a While - option 1, 2, or 3);  
2 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	X	Data not available for source variable(s).
France	X	Earth Science not asked; Biology/Geology reported in Biology (BSDBCOMP).
Germany	X	Data not available for source variable(s).
Latvia	X	Data not available for source variable(s).
Portugal	X	Data not available for source variable(s).
Slovenia	X	Data not available for source variable(s).

---

---

**Derived Variable Name:** BSDEDEMO **Label:** EAR\TEACHER GIVES DEMONSTRATION

---

**Description:** Students' reports on frequency of teacher giving demonstration of an experiment in earth science class

**Table / Figure Reference:** BSRT5.11d

**Source Variable(s):** SQ2S-39o (BSBEDEMO)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-39o:  
1 = Pretty Often or Almost Always (option 1 or 2);  
3 = Once in a While (option 3);  
4 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	X	Data not available for source variable(s).
France	X	Earth Science not asked; Biology/Geology reported in Biology (BSDBDEMO).
Germany	X	Data not available for source variable(s).
Latvia	X	Data not available for source variable(s).
Portugal	X	Data not available for source variable(s).
Slovenia	X	Data not available for source variable(s).

---

---

**Derived Variable Name:** BSDEEVLF **Label:** EAR\SOLVE WITH EVERYDAY LIFE THINGS

---

**Description:** Students' reports on frequency of using things from everyday life in solving problems in earth science class

**Table / Figure Reference:** BSRT5.13d

**Source Variable(s):** SQ2S-39h (BSBEEVLF)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-39h:  
1 = Pretty Often or Almost Always (option 1 or 2);  
3 = Once in a While (option 3);  
4 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	X	Data not available for source variable(s).
France	X	Earth Science not asked; Biology/Geology reported in Biology (BSDBEVLF).
Germany	X	Data not available for source variable(s).
Latvia	X	Data not available for source variable(s).
Portugal	X	Data not available for source variable(s).
Slovenia	X	Data not available for source variable(s).

---

---

**Derived Variable Name:** BSDEEXPR **Label:** EAR\STUDENTS DO EXPERIMENTS IN CLASS

---

**Description:** Students' reports of the frequency of doing an experiment or practical investigation in earth science class

**Table / Figure Reference:** BSRT5.12d

**Source Variable(s):** SQ2S-39p (BSBEEEXPR)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-39p:  
1 = Pretty Often or Almost Always (option 1 or 2);  
3 = Once in a While (option 3);  
4 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	X	Data not available for source variable(s).
France	X	Earth Science not asked; Biology/Geology reported in Biology (BSDBEXPR).
Germany	X	Data not available for source variable(s).
Latvia	X	Data not available for source variable(s).
Portugal	X	Data not available for source variable(s).
Slovenia	X	Data not available for source variable(s).

---

---

**Derived Variable Name:** BSDEGOOD **Label:** EAR\USUALLY DO WELL IN EARTH SCIENCES

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**Description:** Students' self-perceptions about usually doing well in earth science

**Table / Figure Reference:** BSRT4.11c/BSRF4.2c

**Source Variable(s):** SQ2S-17c (BSBEGOOD)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-17c:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	X	Asked integrated science question; data reported in BSDSGOOD.
France	X	Earth Science not asked; Biology/Geology reported in Biology (BSDBGOOD).
Greece	X	Asked integrated science question; data for upper-grade students reported in Physical Science (BSDPGOOD).
Latvia	X	Data not available for source variable(s).
Portugal	X	Data not available for source variable(s).
Slovenia	X	Data not available for source variable(s).

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**Derived Variable Name:** BSDEJOB      **Label:** EAR\DO WELL\TO GET DESIRED JOB

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**Description:** Students' perceptions about the need to do well in earth science to get their desired job

**Table / Figure Reference:** BSRT4.13d

**Source Variable(s):** SQ2S-38a                      (BSBEJOB)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-38a:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	X	Data not available for source variable(s).
France	X	Earth Science not asked; Biology/Geology reported in Biology (BSDBJOB).
Germany	X	Data not available for source variable(s).
Latvia	X	Data not available for source variable(s).
Portugal	X	Data not available for source variable(s).
Slovenia	X	Data not available for source variable(s).

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**Derived Variable Name:** BSDELIKE      **Label:** EAR\LIKE EARTH SCIENCE

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**Description:** Students' reports about liking earth science

**Table / Figure Reference:** BSRT4.16c/BSRF4.3c

**Source Variable(s):** SQ2S-21c                      (BSBELIKE)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-21c:  
1 = Dislike a Lot (option 1);  
2 = Dislike (option 2);  
3 = Like or Like A Lot (option 3 or 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	X	Asked integrated science question; data reported in BSDSLIKE.
France	X	Earth Science not asked; Biology/Geology reported in Biology (BSDBLIKE).
Greece	X	Asked integrated science question; data for upper-grade students reported in Physical Science (BSDPLIKE).
Latvia	X	Data not available for source variable(s).
Portugal	X	Data not available for source variable(s).
Slovenia	X	Data not available for source variable(s).

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**Derived Variable Name:** BSDEPRNT **Label:** EAR\DO WELL\TO PLEASE PARENTS

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**Description:** Students' perceptions about the need to do well in earth science to please their parents

**Table / Figure Reference:** BSRT4.15d

**Source Variable(s):** SQ2S-38b (BSBEPRNT)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-38b:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	X	Data not available for source variable(s).
France	X	Earth Science not asked; Biology/Geology reported in Biology (BSDBPRNT).
Germany	X	Data not available for source variable(s).
Latvia	X	Data not available for source variable(s).
Portugal	X	Data not available for source variable(s).
Slovenia	X	Data not available for source variable(s).

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**Derived Variable Name:** BSDESCHL **Label:** EAR\DO WELL\TO ENTER DESIRED SCHOOL

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**Description:** Students' perceptions about the need to do well in earth science to get into their preferred university or secondary school

**Table / Figure Reference:** BSRT4.14d

**Source Variable(s):** SQ2S-38c (BSBESCHL)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-38c:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	X	Data not available for source variable(s).
France	X	Earth Science not asked; Biology/Geology reported in Biology (BSDBSCHL).
Germany	X	Data not available for source variable(s).
Latvia	X	Data not available for source variable(s).
Portugal	X	Data not available for source variable(s).
Slovenia	X	Data not available for source variable(s).

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**Derived Variable Name:** BSBDETEST      **Label:** EAR\HAVE A QUIZ OR TEST

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**Description:** Students' reports on frequency of having a quiz or test in earth science class

**Table / Figure Reference:** BSRT5.23d

**Source Variable(s):** SQ2S-39c                      (BSBETEST)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-39c:  
1 = Pretty Often or Almost Always (option 1 or 2);  
2 = Once in a While (option 3);  
3 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	X	Data not available for source variable(s).
France	X	Earth Science not asked; Biology/Geology reported in Biology (BSDBTEST).
Germany	X	Data not available for source variable(s).
Latvia	X	Data not available for source variable(s).
Portugal	X	Data not available for source variable(s).
Slovenia	X	Data not available for source variable(s).

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**Derived Variable Name:** BSDGDAY1      **Label:** GEN\OUTSIDE SCHLWATCH TV OR VIDEOS

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**Description:** Students' reports on hours each day spent watching television or videos

**Table / Figure Reference:** BMRT4.8a/BSRT4.8a

**Source Variable(s):** SQ2-6a                      (BSBGDAY1)

**Notes:** Hours based on SQ2-6a response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-5 hours = 4; more than 5 hours = 7.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Singapore	D	Original variable used open-ended format (hours on normal school day); coded to international categories during data entry. Computed average may be slightly inflated.

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**Derived Variable Name:** BSDGDAY2      **Label:** GEN\OUTSIDE SCHL\PLAY COMPUTER GAMES

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**Description:** Students' reports on hours each day spent playing computer games

**Table / Figure Reference:** BMRT4.8b/BSRT4.8b

**Source Variable(s):** SQ2-6b                      (BSBGDAY2)

**Notes:** Hours based on SQ2-6b response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-5 hours = 4; more than 5 hours = 7.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Singapore	D	Original variable used open-ended format (hours on normal school day); coded to international categories during data entry. Computed average may be slightly inflated.

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**Derived Variable Name:** BSDGDAY3      **Label:** GEN\OUTSIDE SCHL\PLAY WITH FRIENDS

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**Description:** Students' reports on hours each day spent playing or talking with friends

**Table / Figure Reference:** BMRT4.8c/BSRT4.8c

**Source Variable(s):** SQ2-6c                      (BSBGDAY3)

**Notes:** Hours based on SQ2-6c response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-5 hours = 4; more than 5 hours = 7.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Singapore	D	Original variable used open-ended format (hours on normal school day); coded to international categories during data entry. Computed average may be slightly inflated.

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**Derived Variable Name:** BSDGDAY4      **Label:** GEN\OUTSIDE SCHL\DOING JOBS AT HOME

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**Description:** Students' reports on hours each day spent doing jobs at home

**Table / Figure Reference:** BMRT4.8d/BSRT4.8d

**Source Variable(s):** SQ2-6d                      (BSBGDAY4)

**Notes:** Hours based on SQ2-6d response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-5 hours = 4; more than 5 hours = 7.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Singapore	D	Original variable used open-ended format (hours on normal school day); coded to international categories during data entry. Computed average may be slightly inflated.

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**Derived Variable Name:** BSDGDAY5      **Label:** GEN\OUTSIDE SCHL\PLAYING SPORTS

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**Description:** Students' reports on hours each day spent playing sports

**Table / Figure Reference:** BMRT4.8e/BSRT4.8e

**Source Variable(s):** SQ2-6e                      (BSBGDAY5)

**Notes:** Hours based on SQ2-6e response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-5 hours = 4; more than 5 hours = 7.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Singapore	D	Original variable used open-ended format (hours on normal school day); coded to international categories during data entry. Computed average may be slightly inflated.

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**Derived Variable Name:** BSDGDAY6      **Label:** GEN\OUTSIDE SCHL\READING A BOOK

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**Description:** Students' reports on hours each day spent reading a book for enjoyment

**Table / Figure Reference:** BMRT4.8f/BSRT4.8f

**Source Variable(s):** SQ2-6f                      (BSBGDAY6)

**Notes:** Hours based on SQ2-6f response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-5 hours = 4; more than 5 hours = 7.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Singapore	D	Original variable used open-ended format (hours on normal school day); coded to international categories during data entry. Computed average may be slightly inflated.

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**Derived Variable Name:** BSDGDAY9      **Label:** GEN\OUTSIDE SCHL\STUDYING OTHER SUBJ

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**Description:** Students' reports on hours each day spent studying or doing homework in subjects other than mathematics or science

**Table / Figure Reference:** BMRT4.7c/BSRT4.7c

**Source Variable(s):** SQ2-6i                      (BSBGDAY9)

**Notes:** Hours based on SQ2-6i response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-5 hours = 4; more than 5 hours = 7.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Singapore	D	Original variable used open-ended format (hours on normal school day); coded to international categories during data entry. Computed average may be slightly inflated.

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**Derived Variable Name:** BSDGDTV      **Label:** GEN\OUTSIDE SCHL\WATCH TV OR VIDEOS

**Description:** Students' reports on time spent on a normal school day watching television or videos - reporting categories

**Table / Figure Reference:** BMRT4.10/BSRT4.10

**Source Variable(s):** SQ2-6a                      (BSBGDAY1)

**Notes:** Coded into 4 collapsed categories based on students' responses to SQ1-6a:  
1 = <1 hour (No time or < 1 hour: option 1 or 2);  
3 = 1-2 hours (option 3);  
4 = 3-5 hours (option 4);  
5 = > 5 hours (option 5).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BSDGEDUP **Label:** GEN\HIGHEST EDUC LEVEL\PARENTS

**Description:** Students' reports of parents' education level

**Table / Figure Reference:** BMRT4.3/BSRT4.3

**Source Variable(s):** SQ2-9/1, 9/2 (BSBGEDUM,BSBGEDUF)

**Notes:** Derived from students' responses to two separate questions: highest level of education of mother (SQ2-9/1) and father (SQ2-9/2). The international definitions of response categories for SQ2-9/1,9/2 are: 1 = finished primary school; 2 = finished some secondary school (not equivalent to completion of an upper-secondary program); 3 = finished secondary school (equivalent to the completion of an ISCED Level 3 upper-secondary program, usually 11-13 grades); 4 = some vocational/technical education after secondary school (not equivalent to a university degree); 5 = some university; 6 = finished university; 7 = I don't know. Modified national response categories were used in some countries to conform to their own educational systems. In these cases, the national options were recoded to match as closely as possible the international definitions, and the national educational levels contained in each of the educational categories are described in the national adaptation documentation in Supplement 3.

For the derived parents' education variable (BSDGEDUP), the educational categories were combined into four reporting categories defined as:

1 = finished university (option 6)

2 = finished upper-secondary but not university (finished secondary, some vocational/technical after secondary, or some university - options 3,4,5)

3 = finished primary but not upper-secondary (finished primary or some secondary - options 1 and 2)

4 = Don't know (option 7)

BSDGEDUP is based on the higher education level reported for mother or father. Responses are coded as Don't Know (4) only if both SQ2-9/1 and 9/2 are Don't Know (7) or one is Don't Know and the other is missing.

BSDGEDUP is coded as missing only if both source variables are missing.

Country:	Code:	Comment:
Austria	D	Option 1 = University (master's); Option 2 combines four upper-secondary tracks (apprenticeship, medium vocational, higher academic, higher vocational); Option 3 = Compulsory (grades 1-9).
Belgium (Fl)	D	Option 2 includes secondary and higher education not part of university.
Belgium (Fr)	D	Option 2 includes secondary and higher education not part of university.
Canada	D	Option 1 = Finished University or College.
Cyprus	D	Option 1 combines Finished University and Post-Graduate Studies; Option 2 includes Finished College (not equivalent to university).
Denmark	D	Option 2 combines two upper-secondary tracks (Gymnasium or vocational) and medium-cycle higher education; Option 3 = Basic School (9 or 10 grades).
England	X	Data not available for source variable(s).
France	D	Option 1 = 4 years study after BAC (master's); Option 2 combines two upper-secondary levels (BEP or BAC) and 2 or 3 years study after BAC; Option 3 combines No School or Primary and Lower Secondary (CAP).
Germany	D	Option 1 = University or Technical University; Option 2 combines two upper secondary tracks (apprenticeship or gymnasium) and Tertiary non-university (Fachhochschule); Option 3 combines two lower or intermediate secondary levels (gr. 9-10).
Greece	D	Option 2 includes graduated from technical institute (4-year).
Hungary	D	Option 1 = University or College; Option 2 combines only two upper-secondary tracks (apprenticeship or academic); Option 3 includes some general school or finished general school (grade 8); Option 4 not included.
Japan	X	Data not available for source variable(s).
New Zealand	D	Option 1 = University or Teachers College.
Norway	D	Option 3 combines two levels: Finished Basic School (grades 1-9) or some upper secondary.
Scotland	D	Option 3 includes some secondary only.
Singapore	D	Not asked of students; data obtained from ministry. Option 2 includes secondary and Pre-University or Polytechnic; Option 3 includes primary only.

Sweden	D	Option 1 = 3 years university or more; Option 2 combines two upper-secondary tracks (academic or vocational) and <3 years university studies; Option 3 includes Compulsory School (grades 1-9) and starting upper-secondary.
Switzerland	D	Option 2 includes two upper-secondary tracks (academic and vocational), teacher training, and Applied Science University; Option 3 = Finished primary or lower secondary.
Thailand	D	Option 1 = Finished Tertiary (4 years); Option 2 combines two upper-secondary tracks (academic or vocational) and Finished Higher Certificate Level (2 years).
United States	D	Option 1 = Completed Bachelor's Degree at College or University.

**Derived Variable Name:** BSDGFIP3      **Label:** GEN\FRIENDS IMPT\DO WELL IN LANGUAGE

**Description:** Students' reports about whether their friends think it is important to do well in language at school

**Table / Figure Reference:** BMRT4.6c/BSRT4.6c

**Source Variable(s):** SQ2-15c                      (BSBGFIP3)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-15c:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).

Country:	Code:	Comment:
Hong Kong	D	Asked about English.

**Derived Variable Name:** BSDGFIP4      **Label:** GEN\FRIENDS IMPT\HAVE TIME FOR FUN

**Description:** Students' reports about whether their friends think it is important to have time to have fun

**Table / Figure Reference:** BMRT4.6d/BSRT4.6d

**Source Variable(s):** SQ2-15d                      (BSBGFIP4)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-15d:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).

Country:	Code:	Comment:
All		Data considered internationally comparable for reporting.



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**Derived Variable Name:** BSDGFIP5      **Label:** GEN\FRIENDS IMPT\GOOD IN SPORTS

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**Description:** Students' reports about whether their friends think it is important to be good at sports

**Table / Figure Reference:** BMRT4.6e/BSRT4.6e

**Source Variable(s):** SQ2-15e                      (BSBGFIP5)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-15e:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BSDGMATT      **Label:** GEN\OVERALL ATTITUDE\TOWARD MATHEMATICS

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**Description:** Students' overall attitude toward mathematics - index based on 5 variables

**Table / Figure Reference:** BMRT4.15/BMRF4.4

**Source Variable(s):** SQ2-21a;23a,b,d,e      (BSBMLIKE,BSBMENJY,BSBMBORE,BSBMLIFE,BSBMWORK)

**Notes:** Index of overall attitude towards mathematics based on the average response to five questions:  
How much do you like mathematics (SQ2-21a);  
I enjoy learning mathematics (SQ2-23a);  
Mathematics is boring (SQ2-23b);  
Mathematics is important to everyone's life (SQ2-23d);  
I would like a job that involved using mathematics (SQ2-23e).  
The BSDGMATT index variable is based on a 4-point Likert-type scale ranging from most negative to most positive. In computing averages, reverse-scale values were used for SQ2-23a,d,e. The index variable contains the following rounded integer values: 1 = Strongly Negative (1 - <1.5); 2 = Negative (1.5 - <2.5); 3 = Positive (2.5 - <3.5); 4 = Strongly Positive (3.5 - 4). Students were coded as missing on the index variable only if all five of the source variables were missing.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BSDGMIP3      **Label:** GEN\MOTHERS IMPT\DO WELL IN LANGUAGE

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**Description:** Students' reports about whether their mothers think it is important to do well in language at school

**Table / Figure Reference:** BMRT4.5c/BSRT4.5c

**Source Variable(s):** SQ2-13c                      (BSBGMIP3)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-13c:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Hong Kong	D	Asked about English.
Japan	X	Data not available for source variable(s).

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**Derived Variable Name:** BSDGMIP4      **Label:** GEN\MOTHERS IMPT\GOOD IN SPORTS

---

**Description:** Students' reports about whether their mothers think it is important to be good at sports

**Table / Figure Reference:** BMRT4.5e/BSRT4.5e

**Source Variable(s):** SQ2-13d                      (BSBGMP4)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-13d:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Japan	X	Data not available for source variable(s).

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---

**Derived Variable Name:** BSDGMIP5      **Label:** GEN\MOTHERS IMPT\HAVE TIME FOR FUN

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**Description:** Students' reports about whether their friends think it is important to have time to have fun

**Table / Figure Reference:** BMRT4.5d/BSRT4.5d

**Source Variable(s):** SQ2-13e                      (BSBGMP5)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-13e:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Japan	X	Data not available for source variable(s).

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**Derived Variable Name:** BSDGPS      **Label:** GEN\NUMBER OF ITEMS AT STUDENT'S HOME

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**Description:** Students' reports of the total number of items in the home

**Table / Figure Reference:**

**Source Variable(s):** SQ2-12a-p                      (BSBGPS01-BSBGPS16)

**Notes:** Included as an indicator of socioeconomic status based on a set of nationally-defined variables related to possessions contained in students' homes. BSDGPS is an integer value computed as the total number of Yes (1) responses to the set of questions regarding possessions in the home (SQ2-12a-p), with a maximum value of 16. In some countries, less than 16 items were included, so the maximum value is not comparable across countries. The possessions in SQ2-12a-d are comparable across countries (calculator, computer, study desk/table, dictionary). The nationally-defined possessions asked in each country (SQ2-12e-p) are listed in the national adaptation documentation in Supplement 3.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Not included in international reports.

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**Derived Variable Name:** BSDGPISA      **Label:** GEN\HOME\POSSESS ALL\COMPUTER\DESK\DICTIONARY

**Description:** Students' reports about having all of three educational aids in the home: dictionary, study desk/table, and computer

**Table / Figure Reference:** BMRT4.1a/BSRT4.1a

**Source Variable(s):** SQ2-12b,c,d      (BSBGPS02-BSBGPS04)

**Notes:** Coded into 2 categories based on student responses to three separate questions about having a dictionary (12b), study desk/table (12c), and computer (12d) in the home:  
1 = Yes if all 3 responses to SQ2-12b,c,d are Yes (1);  
2 = No if any of SQ2-12b,c,d are No (2).  
Coded as missing if any of the three source variables are coded as missing.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Japan	X	Data not available for source variable(s).

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**Derived Variable Name:** BSDGSIP3      **Label:** GEN\SELF IMPT\DO WELL IN LANGUAGE

**Description:** Students' reports about whether they think it is important to do well in language at school

**Table / Figure Reference:** BMRT4.4c/BSRT4.4c

**Source Variable(s):** SQ2-16c      (BSBGIP3)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-16c:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Hong Kong	D	Asked about English.

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**Derived Variable Name:** BSDGSIP4      **Label:** GEN\SELF IMPT\HAVE TIME FOR FUN

**Description:** Students' reports about whether they think it is important to have time to have fun

**Table / Figure Reference:** BMRT4.4d/BSRT4.4d

**Source Variable(s):** SQ2-16d      (BSBGIP4)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-16d:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BSDGSIP5      **Label:** GEN\SELF IMPTGOOD IN SPORTS

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**Description:** Students' reports about whether they think it is important to be good at sports

**Table / Figure Reference:** BMRT4.4e/BSRT4.4e

**Source Variable(s):** SQ2-16e                      (BSBGSIP5)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-16e:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BSDGSTDC      **Label:** GEN\DAILY HOURS SPENT STUDYING (CATEGORY)

---

**Description:** Students' reports on total hours each day spent studying - reporting categories

**Table / Figure Reference:** BMRT4.9/BSRT4.9

**Source Variable(s):** SQ2-6g,h,i                      (BSBMDAY7,BSBSDAY8,BSBGDAY9)

**Notes:** Total hours reported studying mathematics, science, or other subjects ( BSDSTUDT) broken into four categories by numerical range:  
1 = <1 hour; 2 = 1-2 hours; 3 = 2-3 hours; 4 = >3 hours.  
(Total hours based on the sum of SQ2-6g,h,i response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-5 hours = 4; more than 5 hours = 7.)

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Singapore	D	Original variable used open-ended format (hours on normal school day); coded to international categories during data entry. Total time may be slightly inflated.

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**Derived Variable Name:** BSDGSTDT      **Label:** GEN\DAILY HOURS SPENT STUDYING

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**Description:** Students' reports on total hours each day spent studying or doing homework in mathematics, science, or other subjects

**Table / Figure Reference:** BMRT4.7d/BSRT4.7d

**Source Variable(s):** SQ2-6g,h,i                      (BSBMDAY7,BSBSDAY8,BSBGDAY9)

**Notes:** Sum of the hours reported for mathematics (BSDMDAY7), science (BSDSDAY8), and other subjects (BSBGDAY9).  
Based on SQ2-6g,h,i response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-5 hours = 4; more than 5 hours = 7.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Singapore	D	Original variable used open-ended format (hours on normal school day); coded to international categories during data entry. Computed average may be slightly inflated.

---

---

**Derived Variable Name:** BSDMCOMP **Label:** MAT\USE COMPUTERS

---

**Description:** Students' reports on frequency of using computers in mathematics class

**Table / Figure Reference:** BMRT5.18

**Source Variable(s):** SQ2-25g (BSBMCOMP)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-25g:  
1 = Pretty Often or Always (option 1 or 2);  
2 = Once in a While (option 3);  
3 = Never (option 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

---

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**Derived Variable Name:** BSDMDAY7 **Label:** MAT\OUTSIDE SCHL\STUDYING MATH

---

**Description:** Students' reports on hours each day spent studying or doing homework in mathematics

**Table / Figure Reference:** BMRT4.7a/BSRT4.7b

**Source Variable(s):** SQ2-6g (BSBMDAY7)

**Notes:** Hours based on SQ2-6g response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-5 hours = 4; more than 5 hours = 7.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Singapore	D	Original variable used open-ended format (hours on normal school day); coded to international categories during data entry. Computed average may be slightly inflated.

---

---

**Derived Variable Name:** BSDMDOW1 **Label:** MAT\DO WELL\NATURAL TALENT

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**Description:** Students' reports about whether you need lots of natural talent/ability to do well in mathematics at school

**Table / Figure Reference:** BMRT4.12a

**Source Variable(s):** SQ2-19a (BSBMDOW1)

**Notes:** Notes: Coded into 2 collapsed categories based on students' responses to SQ2-19a:  
1 = Yes (Strongly Agree or Agree - option 1 or 2 );  
2 = No (Disagree or Strongly Disagree - option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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---

**Derived Variable Name:** BSDMDOW2 **Label:** MAT\DO WELL\GOOD LUCK

---

**Description:** Students' reports about whether you need good luck to do well in mathematics at school

**Table / Figure Reference:** BMRT4.12b

**Source Variable(s):** SQ2-19b (BSBMDOW2)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ2-19b:  
1 = Yes (Strongly Agree or Agree - option 1 or 2 );  
2 = No (Disagree or Strongly Disagree - option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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---

**Derived Variable Name:** BSDMDOW3 **Label:** MAT\DO WELL\HARD WORK STUDYING

---

**Description:** Students' reports about whether you need lots of hard work studying at home to do well in mathematics at school

**Table / Figure Reference:** BMRT4.12c

**Source Variable(s):** SQ2-19c (BSBMDOW3)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ2-19c:  
1 = Yes (Strongly Agree or Agree - option 1 or 2 );  
2 = No (Disagree or Strongly Disagree - option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BSDMDOW4 **Label:** MAT\DO WELL\MEMORIZE NOTES

---

**Description:** Students' reports about whether you need to memorize the textbook or notes to do well in mathematics at school

**Table / Figure Reference:** BMRT4.12d

**Source Variable(s):** SQ2-19d (BSBMDOW4)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ2-19d:  
1 = Yes (Strongly Agree or Agree - option 1 or 2 );  
2 = No (Disagree or Strongly Disagree - option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BSDMFIP2      **Label:** MAT\FRIENDS IMPT\DO WELL IN MATH

---

**Description:** Students' reports about whether their friends think it is important to do well in mathematics at school

**Table / Figure Reference:** BMRT4.6a/BSRT4.6b

**Source Variable(s):** SQ2-15b                      (BSBMFIP2)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-15b:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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---

**Derived Variable Name:** BSDMJOB      **Label:** MAT\DO WELL\TO GET DESIRED JOB

---

**Description:** Students' perceptions about the need to do well in mathematics to get their desired job

**Table / Figure Reference:** BMRT4.13a

**Source Variable(s):** SQ2-24a                      (BSBMJOB)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-24a:  
1 = Strongly Agree (option 1);  
2 = Agree (option 2);  
3 = Disagree or Strongly Disagree (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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---

**Derived Variable Name:** BSDMMIP2      **Label:** MAT\MOTHERS IMPT\DO WELL IN MATH

---

**Description:** Students' reports about whether their mothers think it is important to do well in mathematics at school

**Table / Figure Reference:** BMRT4.5a/BSRT4.5b

**Source Variable(s):** SQ2-13b                      (BSBMMIP2)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-13b:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Japan	X	Data not available for source variable(s).

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---

**Derived Variable Name:** BSDMPRNT **Label:** MAT\DO WELL\TO PLEASE PARENTS

---

**Description:** Students' perceptions about the need to do well in mathematics to please their parents

**Table / Figure Reference:** BMRT4.13b

**Source Variable(s):** SQ2-24b (BSBMPRNT)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-24b:  
1 = Strongly Agree (option 1);  
2 = Agree (option 2);  
3 = Disagree or Strongly Disagree (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BSDMSCHL **Label:** MAT\DO WELL\TO ENTER DESIRED SCHOOL

---

**Description:** Students' perceptions about the need to do well in mathematics to get into their preferred university or secondary school

**Table / Figure Reference:** BMRT4.13c

**Source Variable(s):** SQ2-24c (BSBMSCHL)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-24c:  
1 = Strongly Agree (option 1);  
2 = Agree (option 2);  
3 = Disagree or Strongly Disagree (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

---

---

**Derived Variable Name:** BSDMSIP2 **Label:** MAT\SELF IMPT\DO WELL IN MATH

---

**Description:** Students' reports about whether they think it is important to do well in mathematics at school

**Table / Figure Reference:** BMRT4.4a/BSRT4.4b

**Source Variable(s):** SQ2-16b (BSBMSIP2)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-16b:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BSDMTEST      **Label:** MAT\HAVE A QUIZ OR TEST

---

**Description:** Students' reports on frequency of having a quiz or test in mathematics class

**Table / Figure Reference:** BMRT5.23

**Source Variable(s):** SQ2-25c                      (BSBMTEST)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-25c:  
1 = Pretty Often or Almost Always (option 1 or 2);  
2 = Once in a While (option 3);  
3 = Never (option 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Hungary	D	Possible interpretation issue; asked about a special type of test.

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**Derived Variable Name:** BSDPCOMP      **Label:** PHY\USE COMPUTERS

---

**Description:** Students' reports on frequency of using computers in physics class

**Table / Figure Reference:** BSRT5.18e

**Source Variable(s):** SQ2S-43g                      (BSBPCOMP)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ2S-43g:  
1 = At Least Once in a While (Almost Always, Pretty Often, or Once in a While - option 1, 2, or 3);  
2 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Integrated science students coded as Not Administered.
Denmark	D	Reported data are for students taking Physics/Chemistry classes.
France	D	Reported data are for students taking Physics/Chemistry classes.
Netherlands	D	Reported data are for students taking Physics/Chemistry and Physics classes.
Portugal	D	Reported data are for students taking Physics/Chemistry classes.

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---

**Derived Variable Name:** BSDPDEMO **Label:** PHY\TEACHER GIVES DEMONSTRATION

---

**Description:** Students' reports on frequency of teacher giving demonstration of an experiment in physics classes

**Table / Figure Reference:** BSRT5.11e

**Source Variable(s):** SQ2S-43o (BSBPDEMO)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-43o:  
1 = Pretty Often or Almost Always (option 1 or 2);  
3 = Once in a While (option 3);  
4 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Integrated science students coded as Not Administered.
Denmark	D	Reported data are for students taking Physics/Chemistry classes.
France	D	Reported data are for students taking Physics/Chemistry classes.
Netherlands	D	Reported data are for students taking Physics/Chemistry and Physics classes.
Portugal	X	Data not available for source variable(s).

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---

**Derived Variable Name:** BSDPEVLF **Label:** PHY\SOLVE WITH EVERYDAY LIFE THINGS

---

**Description:** Students' reports on frequency of using things from everyday life in solving problems in physics class

**Table / Figure Reference:** BSRT5.13e

**Source Variable(s):** SQ2S-43h (BSBPEVLF)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-43h:  
1 = Pretty Often or Almost Always (option 1 or 2);  
3 = Once in a While (option 3);  
4 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Integrated science students coded as Not Administered.
Denmark	D	Reported data are for students taking Physics/Chemistry classes.
France	D	Reported data are for students taking Physics/Chemistry classes.
Netherlands	D	Reported data are for students taking Physics/Chemistry and Physics classes.
Portugal	D	Reported data are for students taking Physics/Chemistry classes.

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---

**Derived Variable Name:** BSDPEXPR **Label:** PHY\STUDENTS DO EXPERIMENTS IN CLASS

---

**Description:** Students' reports on frequency of doing an experiment or practical investigation in physics class

**Table / Figure Reference:** BSRT5.12e

**Source Variable(s):** SQ2S-43p (BSBPEXPR)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-43p:  
1 = Pretty Often or Almost Always (option 1 or 2);  
3 = Once in a While (option 3);  
4 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Integrated science students coded as Not Administered.
Denmark	D	Reported data are for students taking Physics/Chemistry classes.
France	D	Reported data are for students taking Physics/Chemistry classes.
Netherlands	D	Reported data are for students taking Physics/Chemistry and Physics classes.
Portugal	D	Reported data are for students taking Physics/Chemistry classes.

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**Derived Variable Name:** BSDPGOOD **Label:** PHY\USUALLY DO WELL IN PHYSICAL SCIENCES

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**Description:** Students' self-perceptions about usually doing well in physical science

**Table / Figure Reference:** BSRT4.11d/BSRF4.2d

**Source Variable(s):** SQ2S-17d (BSBPGOOD)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-17d:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	X	Asked integrated science question; data reported in BSDSGOOD.
France	D	Reported data are for students taking Physics/Chemistry classes.
Greece	D	Asked integrated science question; data for upper-grade students entered in Physical Science.
Latvia	D	Asked Physics and Chemistry; includes average of responses.
Netherlands	D	Includes data for questions about physics/chemistry, physics or chemistry classes.
Slovenia	D	Asked Physics and Chemistry; includes average of responses.

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---

**Derived Variable Name:** BSDPJOB      **Label:** PHY\DO WELL\TO GET DESIRED JOB

---

**Description:** Students' perceptions about the need to do well in physics to get their desired job

**Table / Figure Reference:** BSRT4.13e

**Source Variable(s):** SQ2S-42a      (BSBPJOB)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-42a:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Integrated science students coded as Not Administered.
Denmark	D	Reported data are for students taking Physics/Chemistry classes.
France	D	Reported data are for students taking Physics/Chemistry classes.
Netherlands	D	Reported data are for students taking Physics/Chemistry and Physics classes.
Portugal	D	Reported data are for students taking Physics/Chemistry classes.

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**Derived Variable Name:** BSDPLIKE      **Label:** PHY\LIKE\PHYSICAL SCIENCE

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**Description:** Students' reports about liking physical science

**Table / Figure Reference:** BSRT4.16d/BSRF4.3d

**Source Variable(s):** SQ2S-21d      (BSBPLIKE)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-21d:  
1 = Dislike a Lot (option 1);  
2 = Dislike (option 2);  
3 = Like or Like A Lot (option 3 or 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	X	Asked integrated science question; data reported in BSDSLIKE.
France	D	Reported data are for students taking Physics/Chemistry classes.
Greece	D	Asked integrated science question; data for upper-grade students entered in Physical Science.
Latvia	D	Asked Physics and Chemistry; includes average of responses.
Netherlands	D	Includes data for questions about physics/chemistry, physics or chemistry classes.
Slovenia	D	Asked Physics and Chemistry; includes average of responses.

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**Derived Variable Name:** BSDPPRNT      **Label:** PHY\DO WELL\TO PLEASE PARENTS

---

**Description:** Students' perceptions about the need to do well in physics to please their parents

**Table / Figure Reference:** BSRT4.15e

**Source Variable(s):** SQ2S-42b                      (BSBPPRNT)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-42b:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Integrated science students coded as Not Administered.
Denmark	D	Reported data are for students taking Physics/Chemistry classes.
France	D	Reported data are for students taking Physics/Chemistry classes.
Netherlands	D	Reported data are for students taking Physics/Chemistry and Physics classes.
Portugal	D	Reported data are for students taking Physics/Chemistry classes.

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**Derived Variable Name:** BSDPSCHL      **Label:** PHY\DO WELL\TO ENTER DESIRED SCHOOL

---

**Description:** Students' perceptions about the need to do well in physics to get into their preferred university or secondary school

**Table / Figure Reference:** BSRT4.14e

**Source Variable(s):** SQ2S-42c                      (BSBPSCHL)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-42c:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Integrated science students coded as Not Administered.
Denmark	D	Reported data are for students taking Physics/Chemistry classes.
France	D	Reported data are for students taking Physics/Chemistry classes.
Netherlands	D	Reported data are for students taking Physics/Chemistry and Physics classes.
Portugal	D	Reported data are for students taking Physics/Chemistry classes.

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---

**Derived Variable Name:** BSDPTEST **Label:** PHY\HAVE A QUIZ OR TEST

---

**Description:** Students' reports on frequency of having a quiz or test in physics classes

**Table / Figure Reference:** BSRT5.23e

**Source Variable(s):** SQ2S-43c (BSBPTEST)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2S-43c:  
1 = Pretty Often or Almost Always (option 1 or 2);  
2 = Once in a While (option 3);  
3 = Never (option 4).  
Only computed for students in countries where the SQ2(s) version of the questionnaire was administered; coded as not administered if SQ2 form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Integrated science students coded as Not Administered.
Denmark	D	Reported data are for students taking Physics/Chemistry classes.
France	D	Reported data are for students taking Physics/Chemistry classes.
Netherlands	D	Reported data are for students taking Physics/Chemistry and Physics classes.
Portugal	D	Reported data are for students taking Physics/Chemistry classes.

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**Derived Variable Name:** BSDSCOMP **Label:** SCIUSE COMPUTERS

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**Description:** Students' reports on frequency of using computers in science class

**Table / Figure Reference:** BSRT5.18a

**Source Variable(s):** SQ2G-31g (BSBSCOMP)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ2G-31g:  
1 = At Least Once in a While (Almost Always, Pretty Often, or Once in a While - option 1, 2, or 3);  
2 = Never (option 4).  
Only computed for students in countries where the SQ2 version of the questionnaire was administered; coded as not administered if SQ2(s) form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Biology/Physics students coded as Not Administered.
Sweden	X	Administered Integrated Science question to lower-grade only.

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**Derived Variable Name:** BSDSDAY8      **Label:** SCIOUTSIDE SCHL\STUDYING SCIENCE

---

**Description:** Students' reports on hours each day spent studying or doing homework in science

**Table / Figure Reference:** BMRT4.7b/BSRT4.7a

**Source Variable(s):** SQ2-6h                      (BSBSDAY8)

**Notes:** Hours based on SQ2-6h response categories recoded to numerical values:  
No time = 0; less than 1 hour = 0.5; 1-2 hours = 1.5; 3-5 hours = 4; more than 5 hours = 7.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
England	X	Data not available for source variable(s).
Singapore	D	Original variable used open-ended format (hours on normal school day); coded to international categories during data entry. Computed average may be slightly inflated.

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**Derived Variable Name:** BSDSDEMO      **Label:** SCITEACHER GIVERS DEMONSTRATION

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**Description:** Students' reports on frequency of teacher giving demonstration of an experiment in science class

**Table / Figure Reference:** BSRT5.11a

**Source Variable(s):** SQ2G-31o                      (BSBSDEMO)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2G-31o:  
1 = Pretty Often or Almost Always (option 1 or 2);  
3 = Once in a While (option 3);  
4 = Never (option 4).  
Only computed for students in countries where the SQ2 version of the questionnaire was administered; coded as not administered if SQ2(s) form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Biology/Physics students coded as Not Administered.
Sweden	X	Administered Integrated Science question to lower-grade only.

---

---

**Derived Variable Name:** BSDSDOW1      **Label:** SCIDO WELL\NATURAL TALENT

---

**Description:** Students' reports about whether you need lots of natural talent/ability to do well in science at school

**Table / Figure Reference:** BSRT4.12a

**Source Variable(s):** SQ2-20a                      (BSBSDOW1)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ2-20a:  
1 = Yes (Strongly Agree or Agree - option 1 or 2);  
2 = No (Disagree or Strongly Disagree - option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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---

**Derived Variable Name:** BSDSDOW2 **Label:** SCIDO WELL\GOOD LUCK

---

**Description:** Students' reports about whether you need good luck to do well in science at school

**Table / Figure Reference:** BSRT4.12b

**Source Variable(s):** SQ2-20b (BSBSDOW2)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ2-20b:  
1 = Yes (Strongly Agree or Agree - option 1 or 2 );  
2 = No (Disagree or Strongly Disagree - option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BSDSDOW3 **Label:** SCIDO WELL\HARD WORK STUDYING

---

**Description:** Students' reports about whether you need lots of hard work studying at home to do well in science at school

**Table / Figure Reference:** BSRT4.12c

**Source Variable(s):** SQ2-20c (BSBSDOW3)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ2-20c:  
1 = Yes (Strongly Agree or Agree - option 1 or 2 );  
2 = No (Disagree or Strongly Disagree - option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BSDSDOW4 **Label:** SCIDO WELL\MEMORIZE NOTES

---

**Description:** Students' reports about whether you need to memorize the textbook or notes to do well in science at school

**Table / Figure Reference:** BSRT4.12d

**Source Variable(s):** SQ2-20d (BSBSDOW4)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ2-20d:  
1 = Yes (Strongly Agree or Agree - option 1 or 2 );  
2 = No (Disagree or Strongly Disagree - option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BSDSEVLF      **Label:** SCISOLVE WITH EVERYDAY LIFE THINGS

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**Description:** Students' reports on frequency of using things from everyday life in solving problems in science class

**Table / Figure Reference:** BSRT5.13a

**Source Variable(s):** SQ2G-31h      (BSBSEVLF)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2G-31h:  
1 = Pretty Often or Almost Always (option 1 or 2);  
3 = Once in a While (option 3);  
4 = Never (option 4).  
Only computed for students in countries where the SQ2 version of the questionnaire was administered; coded as not administered if SQ2(s) form was used.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Biology/Physics students coded as Not Administered.
Sweden	X	Administered Integrated Science question to lower-grade only.

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**Derived Variable Name:** BSDSEXPR      **Label:** SCI STUDENTS DO EXPERIMENTS IN CLASS

---

**Description:** Students' reports on frequency of doing an experiment or practical investigation in science class

**Table / Figure Reference:** BSRT5.12a

**Source Variable(s):** SQ2G-31p      (BSBSEXPR)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2G-31p:  
1 = Pretty Often or Almost Always (option 1 or 2);  
3 = Once in a While (option 3);  
4 = Never (option 4).  
Only computed for students in countries where the SQ2 version of the questionnaire was administered; coded as not administered if SQ2(s) form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Biology/Physics students coded as Not Administered.
Sweden	X	Administered Integrated Science question to lower-grade only.

---

---

**Derived Variable Name:** BSDSFIP1      **Label:** SCIFRIENDS IMPTDO WELL IN SCIENCE

---

**Description:** Students' reports about whether their friends think it is important to do well in science at school

**Table / Figure Reference:** BMRT4.6b/BSRT4.6a

**Source Variable(s):** SQ2-15a                      (BSBSFIP1)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-15a:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BSDSGOOD      **Label:** SCIUSUALLY DO WELL IN SCIENCE

---

**Description:** Students' self-perceptions about usually doing well in science

**Table / Figure Reference:** BSRT4.11a/BSRF4.2a

**Source Variable(s):** SQ2G-17b                      (BSBSGOOD)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2G-17b:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2 version of the questionnaire was administered; coded as not administered if SQ2(s) form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Austria	X	Integrated science question not administered; asked SQ2(S) form. Data reported in biology, earth science and physical science (BSDBGOOD, BSDEGOOD, BSDPGOOD).
Belgium (Fr)	D	Asked integrated science question. Biology/Physics students coded as Not Administered.
Greece	X	Asked integrated science question; data for upper-grade students reported in Physical Science (BSDPGOOD).
Sweden	X	Administered integrated science question to lower-grade only.

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**Derived Variable Name:** BSDSJOB      **Label:** SCIDO WELL\TO GET DESIRED JOB

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**Description:** Students' perceptions about the need to do well in science to get their desired job

**Table / Figure Reference:** BSRT4.13a

**Source Variable(s):** SQ2G-29a      (BSBSJOB)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2G-29a:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2 version of the questionnaire was administered; coded as not administered if SQ2(s) form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Biology/Physics students coded as Not Administered.
Sweden	X	Administered Integrated Science question to lower-grade only.

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**Derived Variable Name:** BSDSLIKE      **Label:** SCILIKE SCIENCE

---

**Description:** Students' reports about liking science

**Table / Figure Reference:** BSRT4.16a/BSRF4.3a

**Source Variable(s):** SQ2G-21b      (BSBSLIKE)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2G-21b:  
1 = Dislike a Lot (option 1);  
2 = Dislike (option 2);  
3 = Like or Like A Lot (option 3 or 4).  
Only computed for students in countries where the SQ2 version of the questionnaire was administered; coded as not administered if SQ2(s) form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Austria	X	Integrated science question not administered; asked SQ2(S) form. Data reported in biology, earth science and physical science (BSDBLIKE, BSDELIKE, BSDPLIKE).
Belgium (Fr)	D	Asked integrated science question. Biology/Physics students coded as Not Administered.
Greece	X	Asked integrated science question; data for upper-grade students reported in Physical Science (BSDPLIKE).
Sweden	X	Administered integrated science question to lower-grade only.

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---

**Derived Variable Name:** BSDSMIP1      **Label:** SCIMOTHERS IMPTDO WELL IN SCIENCE

---

**Description:** Students' reports about whether their mothers think it is important to do well in science at school

**Table / Figure Reference:** BMRT4.5b/BSRT4.5a

**Source Variable(s):** SQ2-13a                      (BSBSMIP1)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-13a:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Japan	X	Data not available for source variable(s).

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**Derived Variable Name:** BSDSPRNT      **Label:** SCIDO WELLTO PLEASE PARENTS

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**Description:** Students' perceptions about the need to do well in science to please their parents

**Table / Figure Reference:** BSRT4.15a

**Source Variable(s):** SQ2G-29b                      (BSBSPRNT)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2G-29b:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2 version of the questionnaire was administered; coded as not administered if SQ2(s) form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Biology/Physics students coded as Not Administered.
Sweden	X	Administered Integrated Science question to lower-grade only.

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**Derived Variable Name:** BSDSSCHL      **Label:** SCIDO WELL\TO ENTER DESIRED SCHOOL

---

**Description:** Students' perceptions about the need to do well in science to get into their preferred university or secondary school

**Table / Figure Reference:** BSRT4.14a

**Source Variable(s):** SQ2G-29c                      (BSBSSCHL)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2G-29c:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).  
Only computed for students in countries where the SQ2 version of the questionnaire was administered; coded as not administered if SQ2(s) form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Biology/Physics students coded as Not Administered.
Sweden	X	Administered Integrated Science question to lower-grade only.

---

---

**Derived Variable Name:** BSDSSIP1      **Label:** SCISELFS IMPT\DO WELL IN SCIENCE

---

**Description:** Students' reports about whether they think it is important to do well in science at school

**Table / Figure Reference:** BMRT4.4b/BSRT4.4a

**Source Variable(s):** SQ2-16a                      (BSBSSIP1)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2-16a:  
1 = Agree or Strongly Agree (option 1 or 2);  
3 = Disagree (option 3);  
4 = Strongly Disagree (option 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BSDSTEST      **Label:** SCIHAVE A QUIZ OR TEST

**Description:** Students' reports on frequency of having a quiz or test in science class

**Table / Figure Reference:** BSRT5.23a

**Source Variable(s):** SQ2G-31c      (BSBSTEST)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ2G-31c:

1 = Pretty Often or Almost Always (option 1 or 2);

2 = Once in a While (option 3);

3 = Never (option 4).

Only computed for students in countries where the SQ2 version of the questionnaire was administered; coded as not administered if SQ2(s) form was used.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	D	Asked both Integrated Science and Biology/Physics questions. Biology/Physics students coded as Not Administered.
Sweden	X	Administered Integrated Science question to lower-grade only.

---

# Section 4

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**Derived Variable Name:** BTDCSIZE      **Label:** GEN\CLSS\NUMBER OF BOYS & GIRLS IN CLASS

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**Description:** Teachers' reports about the number of students in their class

**Table / Figure Reference:** BMRT5.8/BSRT5.8

**Source Variable(s):** TQM2B1/1,1/2; TQS2B1/1,1/2 (BTBMBOY,BTBMGIRL,BTBSBOY,BTBSGIRL)

**Notes:** Total number of students reported in four categories based on the sum of number of boys and number of girls reported by teachers in the open-ended math or science teacher variables (TQS2B1/1,B1/2 or TQM2B1/1,B1/2):

- 1 = 1-20;
- 2 = 21-30;
- 3 = 31-40;
- 4 = >40.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Singapore	D	Data obtained from ministry.

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**Derived Variable Name:** BTDGACT1      **Label:** GEN\OUTSIDE SCHL\PREPARE TEST

---

**Description:** Teachers' reports about hours per week spent preparing or grading student tests

**Table / Figure Reference:** BMRT5.6a/BSRT5.6a

**Source Variable(s):** TQM2A12a; TQS2A12a (BTBGACT1)

**Notes:** Hours based on TQS2A12a or TQM2A12a response categories recoded to numerical values:  
None = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-4 Hours = 3.5; and More Than 4 Hours = 5.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Denmark	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDGACT2      **Label:** GEN\OUTSIDE SCHL\READ STUDENT WORK

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**Description:** Teachers' reports about hours per week spent reading and grading student work

**Table / Figure Reference:** BMRT5.6b/BSRT5.6b

**Source Variable(s):** TQM2A12b; TQS2A12b (BTBGACT2)

**Notes:** Hours based on TQS2A12b or TQM2A12b response categories recoded to numerical values:  
None = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-4 Hours = 3.5; and More Than 4 Hours = 5.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Denmark	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDGACT3      **Label:** GEN\OUTSIDE SCHL\PLAN LESSONS

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**Description:** Teachers' reports about hours per week spent planning lessons by self

**Table / Figure Reference:** BMRT5.6c/BSRT5.6c

**Source Variable(s):** TQM2A12c; TQS2A12c      (BTBGACT3)

**Notes:** Hours based on TQS2A12c or TQM2A12c response categories recoded to numerical values:  
None = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-4 Hours = 3.5; and More Than 4 Hours = 5.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Denmark	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDGACT4      **Label:** GEN\OUTSIDE SCHL\MEET STUDENTS

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**Description:** Teachers' reports about hours per week spent meeting with students outside classroom time

**Table / Figure Reference:** BMRT5.6d/BSRT5.6d

**Source Variable(s):** TQM2A12d; TQS2A12d      (BTBGACT4)

**Notes:** Hours based on TQS2A12d or TQM2A12d response categories recoded to numerical values:  
None = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-4 Hours = 3.5; and More Than 4 Hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Denmark	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDGACT5      **Label:** GEN\OUTSIDE SCHL\MEET PARENTS

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**Description:** Teachers' reports about hours per week spent meeting with parents

**Table / Figure Reference:** BMRT5.6e/BSRT5.6e

**Source Variable(s):** TQM2A12e; TQS2A12e      (BTBGACT5)

**Notes:** Hours based on TQS2A12e or TQM2A12e response categories recoded to numerical values:  
None = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-4 Hours = 3.5; and More Than 4 Hours = 5.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Denmark	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDGACT6      **Label:** GEN\OUTSIDE SCHL\PROFESSIONL READING

**Description:** Teachers' reports about hours per week spent on professional reading and development

**Table / Figure Reference:** BMRT5.6f/BSRT5.6f

**Source Variable(s):** TQM2A12f; TQS2A12f      (BTBGACT6)

**Notes:** Hours based on TQS2A12f or TQM2A12f response categories recoded to numerical values:  
None = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-4 Hours = 3.5; and More Than 4 Hours = 5.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Denmark	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDGACT7      **Label:** GEN\OUTSIDE SCHL\UPDATE STUD RECORDS

**Description:** Teachers' reports about hours per week spent on keeping students' records

**Table / Figure Reference:** BMRT5.6g/BSRT5.6g

**Source Variable(s):** TQM2A12g; TQS2A12g      (BTBGACT7)

**Notes:** Hours based on TQS2A12g or TQM2A12g response categories recoded to numerical values:  
None = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-4 Hours = 3.5; and More Than 4 Hours = 5.

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Denmark	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDGACT8      **Label:** GEN\OUTSIDE SCHL\ADMINISTRATVE TASKS

**Description:** Teachers' reports about hours per week spent on administrative tasks

**Table / Figure Reference:** BMRT5.6h/BSRT5.6h

**Source Variable(s):** TQM2A12h; TQS2A12h      (BTBGACT8)

**Notes:** Hours based on TQS2A12h or TQM2A12h response categories recoded to numerical values:  
None = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-4 Hours = 3.5; and More Than 4 Hours = 5.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Denmark	X	Data not available for source variable(s).

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<b>Derived Variable Name:</b> BTDGAGE	<b>Label:</b> GENAGE OF TEACHER
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**Description:** Teachers' age

**Table / Figure Reference:** BMRT5.2a/BSRT5.2a

**Source Variable(s):** TQM2A1; TQS2A1 (BTBGAGE)

**Notes:** Teachers' age reported in 4 collapsed categories based on teachers' reports in math or science teacher variables (TQS2A1 or TQM2A1):  
1 = 29 or Younger (Under 25 or 25-29: option 1 or 2)  
2 = 30-39 (option 3)  
3 = 40-49 (option 4)  
4 = 50 or Older (50-59 or 60 or more: option 5 or 6)

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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<b>Derived Variable Name:</b> BTDGASS1	<b>Label:</b> GEN\FREQUENCYPROVIDE GRADES
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**Description:** Teachers' reports about how often they use assessment information to provide student grades

**Table / Figure Reference:** BMRT5.22a/BSRT5.22a

**Source Variable(s):** TQM2B23a; TQS2B23a (BTBGASS1)

**Notes:** Coded into 2 collapsed frequency categories based on teachers' responses to TQS2B23a or TQM2B23a:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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<b>Derived Variable Name:</b> BTDGASS2	<b>Label:</b> GEN\FREQUENCYPROVIDE FEEDBACK
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**Description:** Teachers' reports about how often they use assessment information to provide feedback to students

**Table / Figure Reference:** BMRT5.22b/BSRT5.22b

**Source Variable(s):** TQM2B23b; TQS2B23b (BTBGASS2)

**Notes:** Coded into 2 collapsed frequency categories based on teachers' responses to TQS2B23b or TQM2B23b:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDGASS3      **Label:** GEN\FREQUENCY\DIAGNOSE PROBLEMS

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**Description:** Teachers' reports about how often they use assessment information to diagnose learning problems

**Table / Figure Reference:** BMRT5.22c/BSRT5.22c

**Source Variable(s):** TQM2B23c; TQS2B23c      (BTBGASS3)

**Notes:** Coded into 2 collapsed frequency categories based on teachers' responses to TQS2B23c or TQM2B23c:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDGASS4      **Label:** GEN\FREQUENCY\REPORT TO PARENTS

---

**Description:** Teachers' reports about how often they use assessment information to report to parents

**Table / Figure Reference:** BMRT5.22d/BSRT5.22d

**Source Variable(s):** TQM2B23d; TQS2B23d      (BTBGASS4)

**Notes:** Coded into 2 collapsed frequency categories based on teachers' responses to TQS2B23d or TQM2B23d:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDGASS5      **Label:** GEN\FREQUENCY\ASSIGN DIFFERNT TRACKS

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**Description:** Teachers' reports about how often they use assessment information to assign students to programs or tracks

**Table / Figure Reference:** BMRT5.22e/BSRT5.22e

**Source Variable(s):** TQM2B23e; TQS2B23e      (BTBGASS5)

**Notes:** Coded into 2 collapsed frequency categories based on teachers' responses to TQS2B23e or TQM2B23e:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fr)	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDGASS6 **Label:** GEN\FREQUENCY\PLAN FUTURE LESSONS

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**Description:** Teachers' reports about how often they use assessment information to plan future lessons**Table / Figure Reference:** BMRT5.22f/BSRT5.22f**Source Variable(s):** TQM2B23f; TQS2B23f (BTBGASS6)**Notes:** Coded into 2 collapsed frequency categories based on teachers' responses to TQS2B23f or TQM2B23f:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDGMEET **Label:** GEN\MEETING WITH OTHER TEACHERS

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**Description:** Teachers' reports about how often they meet with other teachers in their subject area to discuss curriculum**Table / Figure Reference:** BMRT5.7/BSRT5.7**Source Variable(s):** TQM2A13; TQS2A13 (BTBGMEET)**Notes:** Coded into 4 collapsed frequency categories based on teachers' responses to TQS2A13 or TQM2A13:  
1 = Never or Once/Twice a Year (option 1 or 2)  
2 = Monthly or Every Other Month (option 3 or 4)  
3 = Once, Twice or Three Times a Week (option 5 or 6)  
4 = Almost Every Day (option 7)

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Australia	D	Once/Month also includes and Once/Fortnight.
Denmark	X	Data not available for source variable(s).
England	D	Asked about teachers in own school and other schools;" calculated as sum.
Singapore	D	Every Other Month changed to Once/Term.

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**Derived Variable Name:** BTDGTAUG **Label:** GEN\YEARS BEEN TEACHING

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**Description:** Teachers' reports about years of teaching experience**Table / Figure Reference:** BMRT5.3/BSRT5.3**Source Variable(s):** TQM2A7; TQS2A7 (BTBGTAUG)**Notes:** Years of teaching experience reported in 4 categories based on teachers' reports in open-ended math or science teacher variables (TQS2A7 or TQM2A7):  
1 = <5 years;  
2 = 6-10 years;  
3 = 11-20 years;  
4 = >20 years.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BTDMAGR2      **Label:** MAT\FORMAL REPRESENTATION OF WORLD

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**Description:** Math teachers' reports about the extent to which they agree that mathematics is primarily a formal way of representing the real world

**Table / Figure Reference:** BMRF5.1a

**Source Variable(s):** TQM2A16b      (BTBMAGR2)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2A16b:  
1 = Agree or Strongly Agree (option 3 or 4);  
2 = Disagree or Strongly Disagree (option 2 or 1).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMAGR4      **Label:** GEN\PRACTICE TO OVERCOME DIFFICULTY

---

**Description:** Math teachers' reports about the extent to which they agree that if students are having difficulty an effective approach is to give them more practice by themselves during class

**Table / Figure Reference:** BMRF5.1c

**Source Variable(s):** TQM2A16d      (BTBGAGR4)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2A16d:  
1 = Agree or Strongly Agree (option 3 or 4);  
2 = Disagree or Strongly Disagree (option 2 or 1).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Hungary	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMAGR5      **Label:** MAT\NATURAL TALENT FOR MATH

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**Description:** Math teachers' reports about the extent to which they agree that some students have a natural talent for mathematics and others do not

**Table / Figure Reference:** BMRF5.1b

**Source Variable(s):** TQM2A16e      (BTBMAGR5)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2A16e:  
1 = Agree or Strongly Agree (option 3 or 4);  
2 = Disagree or Strongly Disagree (option 2 or 1).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMAGR6 **Label:** MATUSE MORE THAN 1 REPRESENTATION

---

**Description:** Math teachers' reports about the extent to which they agree that more than one representation should be used in teaching a mathematics topic

**Table / Figure Reference:** BMRF5.1d

**Source Variable(s):** TQM2A16f (BTBMAGR6)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2A16f:  
1 = Agree or Strongly Agree (option 3 or 4);  
2 = Disagree or Strongly Disagree (option 2 or 1).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMASK4 **Label:** MAT\TASKS\USE COMPUTERS TO SOLVE PROBL.

---

**Description:** Math teachers' reports about how often they ask students to use computers to solve exercises or problems in mathematics class

**Table / Figure Reference:** BMRT5.17

**Source Variable(s):** TQM2B15d (BTBMASK4)

**Notes:** Coded into 3 collapsed categories based on math teachers' responses to TQM2B15d:  
1 = Never or Almost Never (option 1);  
2 = Some Lessons (option 2);  
3 = Most or Every Lesson (option 3 or 4).

---

<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Hungary	X	Data not available for source variable(s).
Iceland	X	Data not available for source variable(s).
Israel	X	Data not available for source variable(s).
Netherlands	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMCAL1 **Label:** MAT\CALCS FOR CHECKING ANSWERS

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**Description:** Math teachers' reports about how often students use calculators to check answers in math class

**Table / Figure Reference:** BMRT5.15b

**Source Variable(s):** TQM2B9a (BTBMCAL1)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2B9a:  
1 = At Least Once or Twice a Week (Almost Every Day or Once/Twice a Week: option 1 or 2);  
2 = Less Than Once a Week (Once/Twice a Month or Never/Hardly Ever: option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMCAL2      **Label:** MATCALCS FOR TESTS AND EXAMS

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**Description:** Math teachers' reports about how often students use calculators during tests and exams in math class

**Table / Figure Reference:** BMRT5.15c

**Source Variable(s):** TQM2B9b      (BTBMCAL2)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2B9b:  
1 = At Least Once or Twice a Week (Almost Every Day or Once/Twice a Week: option 1 or 2);  
2 = Less Than Once a Week (Once/Twice a Month or Never/Hardly Ever: option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMCAL3      **Label:** MATCALCS FOR ROUTINE COMPUTATIO

---

**Description:** Math teachers' reports about how often students use calculators to do routine computation in math class

**Table / Figure Reference:** BMRT5.15d

**Source Variable(s):** TQM2B9c      (BTBMCAL3)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2B9c:  
1 = At Least Once or Twice a Week (Almost Every Day or Once/Twice a Week: option 1 or 2);  
2 = Less Than Once a Week (Once/Twice a Month or Never/Hardly Ever: option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMCAL4      **Label:** MATCALCS FOR COMPLEX PROBLEMS

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**Description:** Math teachers' reports about how often students use calculators to solve complex problems in math class

**Table / Figure Reference:** BMRT5.15e

**Source Variable(s):** TQM2B9d      (BTBMCAL4)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2B9d:  
1 = At Least Once or Twice a Week (Almost Every Day or Once/Twice a Week: option 1 or 2);  
2 = Less Than Once a Week (Once/Twice a Month or Never/Hardly Ever: option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMCAL5      **Label:** MATICALCS FOR NUMBER CONCEPTS

**Description:** Math teachers' reports about how often students use calculators to explore number concepts in math class

**Table / Figure Reference:** BMRT5.15f

**Source Variable(s):** TQM2B9e      (BTBMCAL5)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2B9e:  
1 = At Least Once or Twice a Week (Almost Every Day or Once/Twice a Week: option 1 or 2);  
2 = Less Than Once a Week (Once/Twice a Month or Never/Hardly Ever: option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMCALU      **Label:** MATFREQUENCY STUDENTS USE CALCS

**Description:** Math teachers' reports about how often students use calculators in math class for different activities

**Table / Figure Reference:** BMRT5.14

**Source Variable(s):** TQM2B9a-e      (BTBMCAL1- BTBMCAL5)

**Notes:** Based on the most frequent response category reported across five separate math teacher questions regarding calculator use: checking answers (TQM2B9a), tests and exams (TQM2B9b), routine computation (TQM2B9c), solving complex problems (TQM2B9d), exploring number concepts (TQM2B9e). Coded according to the original source variable frequency categories:  
1 = Almost Every Day;  
2 = Once or Twice a Week;  
3 = Once or Twice a Month;  
4 = Never or Hardly Ever.  
Coded as missing if all five source variables are missing.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMIMP5      **Label:** MAT\GD\IMPT\HOW USED IN REAL WORLD

**Description:** Math teachers' reports about how important it is for students to understand how mathematics is used in the real world to be good at mathematics at school

**Table / Figure Reference:** BMRF5.2c

**Source Variable(s):** TQM2A15e      (BTBMIMP5)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2A15e:  
1 = Very Important (option 3);  
2 = Somewhat/Not Important (option 2 or 1).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMIMP6      **Label:** MAT\GD\IMPT\SUPPORT SOLUTIONS

**Description:** Math teachers' reports about how important it is for students to be able to provide reasons to support their solutions to be good at mathematics at school

**Table / Figure Reference:** BMRF5.2d

**Source Variable(s):** TQM2A15f      (BTBMIMP6)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2A15f:  
1 = Very Important (option 3);  
2 = Somewhat/Not Important (option 2 or 1).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMLES1      **Label:** MAT\INDIVIDUAL WORK\NO ASSISTANCE

**Description:** Math teachers' reports about how often students work individually without assistance from the teacher in math lessons

**Table / Figure Reference:** BMRF5.3d

**Source Variable(s):** TQM2B17a      (BTBMLES1)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2B17a:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BTDMLES2      **Label:** MATINDIVIDUAL WORK\ASSISTANCE

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**Description:** Math teachers' reports about how often students work individually with assistance from the teacher in math lessons

**Table / Figure Reference:** BMRF5.3c

**Source Variable(s):** TQM2B17b      (BTBMLES2)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2B17b:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BTDMLES3      **Label:** MATWORK TOGETHER\TEACHER TEACHES

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**Description:** Math teachers' reports about how often students work together as a class with the teacher teaching the whole class in math lessons

**Table / Figure Reference:** BMRF5.3b

**Source Variable(s):** TQM2B17c      (BTBMLES3)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2B17c:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BTDMLES4      **Label:** MATWORK TOGETHER\STUDENTS INTERACT

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**Description:** Math teachers' reports about how often students work together as a class with students responding to one another in math lessons

**Table / Figure Reference:** BMRF5.3a

**Source Variable(s):** TQM2B17d      (BTBMLES4)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2B17d:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BTDMLES5      **Label:** MATWORK IN GROUPS\NO ASSISTANCE

**Description:** Math teachers' reports about how often students work in pairs or small groups without assistance from the teacher in math lessons

**Table / Figure Reference:** BMRF5.3f

**Source Variable(s):** TQM2B17e      (BTBMLES5)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2B17e:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BTDMLES6      **Label:** MATWORK IN GROUPS\ASSISTANCE

**Description:** Math teachers' reports about how often students work in pairs or small groups with assistance from the teacher in math lessons

**Table / Figure Reference:** BMRF5.3e

**Source Variable(s):** TQM2B17f      (BTBMLES6)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2B17f:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BTDMSRC1**Label:** MATSOURCEWHICH TOPIC TO TEACH**Description:** Math teachers' reports about their main source of written information when deciding which topics to teach**Table / Figure Reference:** BMRT5.9a**Source Variable(s):** TQM2B11a (BTBMSRC1)**Notes:** Coded into 3 collapsed categories based on math teachers' responses to TQM2B11a:  
1 = Curriculum Guides (School Curriculum Guide or National/Regional Curriculum Guide - option 4 or 5);  
2 = Textbook (Other Resource Books, Student Edition of Textbook or Teacher Edition of Textbook - Option 1, 2 or 3);  
3 = Examination Specifications (National/Regional Examination Specifications - option 6).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Australia	D	Exam Specifications Not Included.
Belgium (Fl)	D	Exam Specifications Not Included.
Belgium (Fr)	D	Exam Specifications Not Included.
Canada	X	Data not available for source variable(s).
Czech Republic	D	Exam Specifications Not Included.
Denmark	X	Data not available for source variable(s).
England	X	Omitted from report variable; data retained in original variable (TQS2-B11a).
Germany	D	Exam Specifications Not Included.
Greece	D	Exam Specifications Not Included.
Ireland	D	Exam Specifications Not Included.
Kuwait	X	Only asked Textbooks and Other Resource Books options.
Netherlands	D	Option 1 includes only School Curriculum Guide.
Norway	D	Exam Specifications Not Included.
Portugal	D	Exam Specifications Not Included; Option 1 combines two questions related to national curriculum guide.
Spain	X	Only asked Textbooks and Other Resource Books options.
Sweden	D	Exam Specifications Not Included; Option 1 combines two questions related to national curriculum guide.

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**Derived Variable Name:** BTDMSRC2**Label:** MATSOURCEHOW TO PRESENT A TOPIC**Description:** Math teachers' reports about their main source of written information when deciding how to present a topic**Table / Figure Reference:** BMRT5.9b**Source Variable(s):** TQM2B11b (BTBMSRC2)**Notes:** Coded into 3 collapsed categories based on math teachers' responses to TQM2B11b:  
1 = Curriculum Guides (School Curriculum Guide or National/Regional Curriculum Guide - option 4 or 5);  
2 = Textbook (Other Resource Books, Student Edition of Textbook or Teacher Edition of Textbook - Option 1, 2 or 3);  
3 = Examination Specifications (National/Regional Examination Specifications - option 6).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Australia	D	Exam Specifications Not Included.
Belgium (Fl)	D	Exam Specifications Not Included.
Belgium (Fr)	D	Exam Specifications Not Included.
Canada	X	Data not available for source variable(s).
Czech Republic	D	Exam Specifications Not Included.
Denmark	X	Data not available for source variable(s).
England	X	Omitted from report variable; data retained in original variable (TQS2-B11a).
Germany	D	Exam Specifications Not Included.
Greece	D	Exam Specifications Not Included.
Ireland	D	Exam Specifications Not Included.
Kuwait	X	Only asked Textbooks and Other Resource Books options.
Netherlands	D	Option 1 includes only School Curriculum Guide.
Norway	D	Exam Specifications Not Included.
Portugal	D	Exam Specifications Not Included; Option 1 combines two questions related to national curriculum guide.
Spain	X	Only asked Textbooks and Other Resource Books options.
Sweden	D	Exam Specifications Not Included; Option 1 combines two questions related to national curriculum guide.

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**Derived Variable Name:** BTDMTIME      **Label:** MAT\CLSS\LENGTH OF MATH CLASS

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**Description:** Math teachers' reports about the number of hours mathematics is taught weekly to their mathematics class

**Table / Figure Reference:** BMRT5.5

**Source Variable(s):** TQM2B3      (BTBMTIME)

**Notes:** Computed from the number of minutes reported by math teachers in the open-ended source question (TQM2B3) divided by 60. Coded into 4 categories:

- 1 = <2 hours;
- 2 = 2 - <3.5 hours;
- 3 = 3.5 - 5 hours;
- 4 = >5 hours.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Denmark	X	Data not available for source variable(s).
England	X	Omitted from report variable; data retained in original variable (TQM2-B3).
Iran	X	Data not available for source variable(s).
Singapore	D	Data obtained from ministry; derived from school questionnaire data.

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**Derived Variable Name:** BTDMTST      **Label:** MAT\MATH TEACHING SCHEDULE TIME

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**Description:** Math teachers' reports about the proportion of formally scheduled school time spent teaching mathematics

**Table / Figure Reference:** BMRT5.4

**Source Variable(s):** TQM2A9a-i;10a-f      (BTBMSUB1,BTBSSUB2- BTBSSUB8,  
BTBGSUB9,BTBGTSK1- BTBGTSK6)

**Notes:** Derived from math teachers' responses to open-ended questions about the number of hours/periods teaching mathematics, science and other subjects (TQM2A9a-i) and the hours/periods spent performing other formally-scheduled school-related responsibilities (TQM2A10a-f). The proportion teaching mathematics is the percentage of the total hours/periods of formally-scheduled school time spent teaching mathematics. It is computed from the hours/periods teaching mathematics (TQM2A9a) divided by the total hours/periods spent teaching all subjects (TQM2A9a-i) and the hours/period performing other responsibilities (TQM2A10a-f). BTDMTST is coded into 3 categories based on the computed percentages:

- 1 = <50%;
- 2 = 50% - <75%;
- 3 = 75% - 100%.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Greece	X	Data not available for source variable(s).
Hungary	X	Data not available for source variable(s).
Singapore	D	Data obtained from ministry based on teachers' personal time tables.

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**Derived Variable Name:** BTDMWGT1 **Label:** MAT\ASSMNT WEIGHT\STANDARD TESTS

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**Description:** Math teachers' reports about how much weight they give to standardized tests in assessing students in math class

**Table / Figure Reference:** BMRT5.21a

**Source Variable(s):** TQM2B22a (BTBMWGT1)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2B22a:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Russia	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).
Singapore	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMWGT2 **Label:** MAT\ASSMNT WEIGHT\REASONING TESTS

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**Description:** Math teachers' reports about how much weight they give to teacher-made tests requiring explanations in assessing students in math class

**Table / Figure Reference:** BMRT5.21b

**Source Variable(s):** TQM2B22b (BTBMWGT2)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2B22b:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMWGT3 **Label:** MAT\ASSMNT WEIGHT\MULTIPLE CHOICE

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**Description:** Math teachers' reports about how much weight they give to teacher-made objective tests in assessing students in math class

**Table / Figure Reference:** BMRT5.21c

**Source Variable(s):** TQM2B22c (BTBMWGT3)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2B22c:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMWGT4 **Label:** MAT\ASSMNT WEIGHT\HOMEWORK PERFRMNCE

**Description:** Math teachers' reports about how much weight they give to homework assignments in assessing students in math class

**Table / Figure Reference:** BMRT5.21d

**Source Variable(s):** TQM2B22d (BTBMWGT4)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2B22d:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMWGT5 **Label:** MAT\ASSMNT WEIGHT\PROJECT PERFORMNCE

**Description:** Math teachers' reports about how much weight they give to projects or practical exercises in assessing students in math class

**Table / Figure Reference:** BMRT5.21e

**Source Variable(s):** TQM2B22e (BTBMWGT5)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2B22e:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDMWGT6 **Label:** MAT\ASSMNT WEIGHT\OBSERVATION

**Description:** Math teachers' reports about how much weight they give to observations of students in assessing students in math class

**Table / Figure Reference:** BMRT5.21f

**Source Variable(s):** TQM2B22f (BTBMWGT6)

**Notes:** Coded into 2 collapsed categories based on math teachers' responses to TQM2B22f:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDSCAL1      **Label:** SCI\CALCS FOR CHECKING ANSWERS

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**Description:** Science teachers' reports about how often students use calculators to check answers in science class

**Table / Figure Reference:** BSRT5.16b

**Source Variable(s):** TQS2B9a      (BTBSCAL1)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2B9a:  
1 = At Least Once or Twice a Week (Almost Every Day or Once/Twice a Week: option 1 or 2);  
2 = Less Than Once a Week (Once/Twice a Month or Never/Hardly Ever: option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDSCAL2      **Label:** SCI\CALCS FOR TESTS AND EXAMS

---

**Description:** Science teachers' reports about how often students use calculators during tests and exams in science class

**Table / Figure Reference:** BSRT5.16c

**Source Variable(s):** TQS2B9b      (BTBSCAL2)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2B9b:  
1 = At Least Once or Twice a Week (Almost Every Day or Once/Twice a Week: option 1 or 2);  
2 = Less Than Once a Week (Once/Twice a Month or Never/Hardly Ever: option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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---

**Derived Variable Name:** BTDSCAL3      **Label:** SCI\CALCS FOR ROUTINE COMPUTATIO

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**Description:** Science teachers' reports about how often students use calculators to do routine computation in science class

**Table / Figure Reference:** BSRT5.16d

**Source Variable(s):** TQS2B9c      (BTBSCAL3)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2B9c:  
1 = At Least Once or Twice a Week (Almost Every Day or Once/Twice a Week: option 1 or 2);  
2 = Less Than Once a Week (Once/Twice a Month or Never/Hardly Ever: option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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---

**Derived Variable Name:** BTDSCAL4      **Label:** SCI\CALCS FOR COMPLEX PROBLEMS

---

**Description:** Science teachers' reports about how often students use calculators to solve complex problems in science class

**Table / Figure Reference:** BSRT5.16e

**Source Variable(s):** TQS2B9d      (BTBSCAL4)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2B9d:  
1 = At Least Once or Twice a Week (Almost Every Day or Once/Twice a Week: option 1 or 2);  
2 = Less Than Once a Week (Once/Twice a Month or Never/Hardly Ever: option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Norway	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDSCAL5      **Label:** SCI\CALCS FOR NUMBER CONCEPTS

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**Description:** Science teachers' reports about how often students use calculators to explore number concepts in science class

**Table / Figure Reference:** BSRT5.16f

**Source Variable(s):** TQS2B9e      (BTBSCAL5)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2B9e:  
1 = At Least Once or Twice a Week (Almost Every Day or Once/Twice a Week: option 1 or 2);  
2 = Less Than Once a Week (Once/Twice a Month or Never/Hardly Ever: option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Norway	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDSCALU      **Label:** SCI\FREQUENCY STUDENTS USE CALCS

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**Description:** Science teachers' reports about how often students use calculators in science class for different activities

**Table / Figure Reference:** BSRT5.15

**Source Variable(s):** TQS2B9a-e      (BTBSCAL1- BTBSCAL5)

**Notes:** Based on the most frequent response category reported across five separate science teacher questions regarding calculator use: checking answers (TQS2B9a), tests and exams (TQS2B9b), routine computation (TQS2B9c), solving complex problems (TQS2B9d), exploring number concepts (TQS2B9e). Coded into the original source variable frequency categories:

1 = Almost Every Day;

2 = Once or Twice a Week;

3 = Once or Twice a Month;

4 = Never or Hardly Ever.

Coded as missing if all five source variables are missing.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Norway	D	Did not include questions about Solving Complex Problems and Exploring Number Concepts.
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDSHWK      **Label:** SCIAVERAGE TIME NEEDED FOR HOMEWK

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**Description:** Science teachers' reports about the amount of science homework assigned

**Table / Figure Reference:** BSRT5.19

**Source Variable(s):** TQS2B18,19      (BTBSHMW2,BTBSHWT2)

**Notes:** Derived from science teachers' responses to two questions regarding how often science homework is assigned (TQS2B18) and how many minutes of science homework is assigned (TQS2B19). Coded into 7 categories of homework amount/frequency:

1 = No Homework (TQS2B19 = 1);

2 = Assign 30 minutes or less/less than once a week (TQS2B18 = 2 and TQS2B19 = 2 or 3);

3 = Assign more than 30 minutes/less than once a week (TQS2B18 = 2 and TQS2B19 = 4, 5 or 6);

4 = Assign 30 minutes or less/once or twice a week (TQS2B18 = 3 and TQS2B19 = 2 or 3);

5 = Assign more than 30 minutes/once or twice a week (TQS2B18 = 3 and TQS2B19 = 4, 5 or 6);

6 = Assign 30 minutes or less/three times a week or more (TQS2B18 = 4 or 5 and TQS2B19 = 2 or 3);

7 = Assign more than 30 minutes/three times a week or more (TQS2B18 = 4 or 5 and TQS2B19 = 4, 5 or 6).

BTDSHWK is coded as missing if either of the source variables is missing.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Australiatia	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDSIMP2      **Label:** SC\GD\IMPT\SEQUENTIAL & PROCEDURAL

**Description:** Science teachers' reports about how important it is for students to think in a sequential and procedural manner to be good at science at school

**Table / Figure Reference:** BSRF5.2a

**Source Variable(s):** TQS2A15b      (BTBSIMP2)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2A15b:  
1 = Very Important (option 3);  
2 = Somewhat/Not Important (option 2 or 1).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDSIMP4      **Label:** SC\GD\IMPT\THINK CREATIVELY

**Description:** Science teachers' reports about how important it is for students to think creatively to be good at science at school

**Table / Figure Reference:** BSRF5.2b

**Source Variable(s):** TQS2A15d      (BTBSIMP4)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2A15d:  
1 = Very Important (option 3);  
2 = Somewhat/Not Important (option 2 or 1).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDSIMP5      **Label:** SC\GD\IMPT\HOW USED IN REAL WORLD

**Description:** Science teachers' reports about how important it is for students to understand how science is used in the real world to be good at science at school

**Table / Figure Reference:** BSRF5.2c

**Source Variable(s):** TQS2A15e      (BTBSIMP5)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2A15e:  
1 = Very Important (option 3);  
2 = Somewhat/Not Important (option 2 or 1).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDSLES3      **Label:** SCI\WORK TOGETHER\TEACHER TEACHES

**Description:** Science teachers' reports about how often students work together as a class with the teacher teaching the whole class in science lessons

**Table / Figure Reference:** BSRF5.3b

**Source Variable(s):** TQS2B17c      (BTBSLES3)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2B17c:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BTDSLES4      **Label:** SCI\WORK TOGETHER\STUDENTS INTERACT

**Description:** Science teachers' reports about how often students work together as a class with students responding to one another in science lessons

**Table / Figure Reference:** BSRF5.3a

**Source Variable(s):** TQS2B17d      (BTBSLES4)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2B17d:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BTDSLES5      **Label:** SCI\WORK IN GROUPS\NO ASSISTANCE

**Description:** Science teachers' reports about how often students work in pairs or small groups without assistance from the teacher in science lessons

**Table / Figure Reference:** BSRF5.3f

**Source Variable(s):** TQS2B17e      (BTBSLES5)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2B17e:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BTDSLES6 **Label:** SCI\WORK IN GROUPS\ASSISTANCE

**Description:** Science teachers' reports about how often students work in pairs or small groups with assistance from the teacher in science lessons

**Table / Figure Reference:** BSRF5.3e

**Source Variable(s):** TQS2B17f (BTBSLES6)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2B17f:  
1 = Never or Some Lessons (option 1 or 2);  
2 = Most or Every Lesson (option 3 or 4).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
All		Data considered internationally comparable for reporting.

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**Derived Variable Name:** BTDSRRC1 **Label:** SCI\SOURCE\WHICH TOPIC TO TEACH

**Description:** Science teachers' reports about their main source of written information when deciding which topics to teach

**Table / Figure Reference:** BSRT5.9a

**Source Variable(s):** TQS2B11a (BTBSRRC1)

**Notes:** Coded into 3 collapsed categories based on science teachers' responses to TQS2B11a:  
1 = Curriculum Guides (School Curriculum Guide or National/Regional Curriculum Guide - option 4 or 5);  
2 = Textbook (Other Resource Books, Student Edition of Textbook or Teacher Edition of Textbook - Option 1, 2 or 3);  
3 = Examination Specifications (National/Regional Examination Specifications - option 6).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Australia	D	Exam Specifications Not Included.
Belgium (Fl)	D	Exam Specifications Not Included.
Belgium (Fr)	D	Exam Specifications Not Included.
Canada	X	Data not available for source variable(s).
Czech Republic	D	Exam Specifications Not Included.
Denmark	X	Data not available for source variable(s).
England	X	Omitted from report variable; data retained in original variable (TQS2-B11a).
Germany	D	Exam Specifications Not Included.
Greece	D	Exam Specifications Not Included.
Ireland	D	Exam Specifications Not Included.
Kuwait	X	Only asked Textbooks and Other Resource Books options.
Netherlands	D	Option 1 includes only School Curriculum Guide.
Norway	D	Exam Specifications Not Included.
Portugal	D	Exam Specifications Not Included; Option 1 combines two questions related to national curriculum guide.
Spain	X	Only asked Textbooks and Other Resource Books options.
Sweden	D	Exam Specifications Not Included; Option 1 combines two questions related to national curriculum guide.

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**Derived Variable Name:** BTDSSRC2**Label:** SCI\SOURCE\HOW TO PRESENT A TOPIC**Description:** Science teachers' reports about their main source of written information when deciding how to present a topic**Table / Figure Reference:** BSRT5.9b**Source Variable(s):** TQS2B11b

(BTBSSRC2)

**Notes:** Coded into 3 collapsed categories based on science teachers' responses to TQS2B11b:

1 = Curriculum Guides (School Curriculum Guide or National/Regional Curriculum Guide - option 4 or 5);

2 = Textbook (Other Resource Books, Student Edition of Textbook or Teacher Edition of Textbook - Option 1, 2 or 3);

3 = Examination Specifications (National/Regional Examination Specifications - option 6).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Australia	D	Exam Specifications Not Included.
Belgium (Fl)	D	Exam Specifications Not Included.
Belgium (Fr)	D	Exam Specifications Not Included.
Canada	X	Data not available for source variable(s).
Czech Republic	D	Exam Specifications Not Included.
Denmark	X	Data not available for source variable(s).
England	X	Omitted from report variable; data retained in original variable (TQS2-B11a).
Germany	D	Exam Specifications Not Included.
Greece	D	Exam Specifications Not Included.
Ireland	D	Exam Specifications Not Included.
Kuwait	X	Only asked Textbooks and Other Resource Books options.
Netherlands	D	Option 1 includes only School Curriculum Guide.
Norway	D	Exam Specifications Not Included.
Portugal	D	Exam Specifications Not Included; Option 1 combines two questions related to national curriculum guide.
Spain	X	Only asked Textbooks and Other Resource Books options.
Sweden	D	Exam Specifications Not Included; Option 1 combines two questions related to national curriculum guide.

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**Derived Variable Name:** BTDSTIME**Label:** SCI\CLASS\LENGTH OF SCIENCE CLASS

**Description:** Science teachers' reports about the number of hours integrated science is taught weekly to their science class

**Table / Figure Reference:** BSRT5.5

**Source Variable(s):** TQS2B3 (BTBSTIME)

**Notes:** Computed from the number of minutes reported by science teachers in the open-ended source question (TQS2B3) divided by 60. Coded into 4 categories:  
1 = <2 hours;  
2 = 2 - <3.5 hours;  
3 = 3.5 - 5 hours;  
4 = >5 hours.  
BTBSTIME included only for teachers in countries where science is taught as in integrated subject based on the administration of the integrated science form of the student questionnaire (SQ2); others coded as Not Administered.

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Belgium (Fl)	X	Used SQ2(s) form of student questionnaire.
Belgium (Fr)	X	Used SQ2(s) form of student questionnaire.
Bulgaria	X	Used SQ2(s) form of student questionnaire.
Czech Republic	X	Used SQ2(s) form of student questionnaire.
Denmark	X	Used SQ2(s) form of student questionnaire.
England	X	Omitted from report variable; data retained in original variable (TQS2-B3).
France	X	Used SQ2(s) form of student questionnaire.
Germany	X	Used SQ2(s) form of student questionnaire.
Greece	X	Used SQ2(s) form of student questionnaire.
Hungary	X	Used SQ2(s) form of student questionnaire.
Iceland	X	Used SQ2(s) form of student questionnaire.
Iran	X	Data not available for source variable(s).
Latvia	X	Used SQ2(s) form of student questionnaire.
Lithuania	X	Used SQ2(s) form of student questionnaire.
Netherlands	X	Used SQ2(s) form of student questionnaire.
Portugal	X	Used SQ2(s) form of student questionnaire.
Romania	X	Used SQ2(s) form of student questionnaire.
Russia	X	Used SQ2(s) form of student questionnaire.
Singapore	D	Data obtained from ministry; derived from school questionnaire data.
Slovak Republic	X	Used SQ2(s) form of student questionnaire.
Slovenia	X	Used SQ2(s) form of student questionnaire.
Sweden	X	Used SQ2(s) form of student questionnaire.

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**Derived Variable Name:** BTDDSTST      **Label:** SCI\SCIENCE TEACHING SCHEDULE TIME

**Description:** Science teachers' reports about the proportion of formally scheduled school time spent teaching science

**Table / Figure Reference:** BSRT5.4

**Source Variable(s):** TQS2A9a-i;10a-f      (BTBMSUB1,BTBSSUB2- BTBSSUB8, BTBGSUB9,BTBGTSK1- BTBGTSK6)

**Notes:** Derived from science teachers' responses to open-ended questions about the number of hours/period teaching mathematics, science and other subjects (TQS2A9a-i) and the hours/period spent performing other formally-scheduled school-related responsibilities (TQS2A10a-f). The proportion teaching science is the percentage of the total hours/periods of formally-scheduled school time spent teaching science subjects. It is computed from the sum of the hours/period teaching science subjects (TQS2A9b-h) divided by the total hours/periods spent teaching all subjects (TQS2A9a-i) and the hours/period performing other responsibilities (TQS2A10a-f). BTDDSTST is coded into 3 categories based on the computed percentages:

- 1 = <50%;
- 2 = 50% - <75%;
- 3 = 75% - 100%.

In the international version of the questionnaire, there are 7 science subjects asked: general/integrated science (9b), physical science (9c), earth science (9d), life science (9e), biology (9f), chemistry (9g), and physics (9h). Some countries omitted or modified some of these categories in accordance with the appropriate science courses taught in their schools. Any national adaptations to the included science subjects are documented in Supplement 3.

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Country:	Code:	Comment:
Greece	X	Data not available for source variable(s).
Hungary	X	Data not available for source variable(s).
Iran	X	Data not available for source variable(s).
Singapore	D	Data obtained from ministry based on teachers' personal time tables.

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**Derived Variable Name:** BTDSWGT1      **Label:** SCI\ASSMNT WEIGHT\STANDARD TESTS

**Description:** Science teachers' reports about how much weight they give to standardized tests in assessing students in science class

**Table / Figure Reference:** BSRT5.21a

**Source Variable(s):** TQS2B22a      (BTBSWGT1)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2B22a:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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Country:	Code:	Comment:
Russia	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).
Singapore	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDSWGT2      **Label:** SC\ASSMNT WEIGHT\REASONING TESTS

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**Description:** Science teachers' reports about how much weight they give to teacher-made tests requiring explanations in assessing students in science class

**Table / Figure Reference:** BSRT5.21b

**Source Variable(s):** TQS2B22b      (BTBSWGT2)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2B22b:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDSWGT3      **Label:** SC\ASSMNT WEIGHT\MULTIPLE CHOICE

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**Description:** Science teachers' reports about how much weight they give to teacher-made objective tests in assessing students in science class

**Table / Figure Reference:** BSRT5.21c

**Source Variable(s):** TQS2B22c      (BTBSWGT3)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2B22c:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDSWGT4      **Label:** SC\ASSMNT WEIGHT\HOMEWORK PERFRMNCE

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**Description:** Science teachers' reports about how much weight they give to homework assignments in assessing students in science class

**Table / Figure Reference:** BSRT5.21d

**Source Variable(s):** TQS2B22d      (BTBSWGT4)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2B22d:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDSWGT5 **Label:** SC\ASSMNT WEIGHT\PROJECT PERFORMNCE

**Description:** Science teachers' reports about how much weight they give to projects or practical exercises in assessing students in science class

**Table / Figure Reference:** BSRT5.21e

**Source Variable(s):** TQS2B22e (BTBSWGT5)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2B22e:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDSWGT6 **Label:** SC\ASSMNT WEIGHT\OBSERVATION

**Description:** Science teachers' reports about how much weight they give to observations of students in assessing students in science class

**Table / Figure Reference:** BSRT5.21f

**Source Variable(s):** TQS2B22f (BTBSWGT6)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2B22f:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Scotland	X	Data not available for source variable(s).

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**Derived Variable Name:** BTDSWGT7 **Label:** SC\ASSMNT WEIGHT\RESPONSES IN CLASS

**Description:** Science teachers' reports about how much weight they give to students' responses in class in assessing students in science class

**Table / Figure Reference:** BSRT5.21g

**Source Variable(s):** TQS2B22g (BTBSWGT7)

**Notes:** Coded into 2 collapsed categories based on science teachers' responses to TQS2B22g:  
1 = A Great Deal or Quite A Lot (option 3 or 4);  
2 = None or Little (option 1 or 2).

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<b>Country:</b>	<b>Code:</b>	<b>Comment:</b>
Russia	X	Data not available for source variable(s).
Scotland	X	Data not available for source variable(s).

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