



TIMSS 2015 Curriculum Questionnaire— Eighth Grade





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TIMSS 2015 Curriculum Questionnaire

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TIMSS 2015 Curriculum Questionnaire - Eighth Grade

TIMSS 2015 Curriculum Questionnaire - Eighth Grade

The TIMSS 2015 Curriculum Questionnaire is designed to collect basic information about the structure of the education system as well as the organization, content, and implementation of the mathematics and/or science curricula in each country.

The questionnaire should be completed by the National Research Coordinators, drawing on the expertise of curriculum specialists and educators. Please submit this questionnaire no later than **August 31, 2015**.

To begin the questionnaire, please click on the "Next" button. When navigating through the questionnaire, make sure to confirm your responses by clicking on the "Next" or "Previous" button. To go to a particular section or item, please click on the corresponding link in the "Table of Contents."

Please note that the General Module is the same across the fourth and eighth grades, and therefore National Research Coordinators of countries participating in TIMSS 2015 at both the fourth and eighth grade are advised to complete the General Module at only one of the grade levels. The Mathematics and Science Modules should be completed at both grade levels.

If you have any questions about the content of this questionnaire, please contact the TIMSS & PIRLS International Study Center at Boston College: timss@bc.edu

If you have any technical questions on how to complete this questionnaire, please contact the IEA Data Processing & Research Center (DPC): timss@iea-dpc.de

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TIMSS 2015 Curriculum Questionnaire - Eighth Grade - GENERAL MODULE

GENERAL MODULE

To be completed by all countries participating in TIMSS

Please note: if you already have completed the General Module of the Grade 4 Curriculum Questionnaire, please skip the General Module using the Table of Contents.

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Grade Structure an	d Student Flow	
G1. What is your country's 8)?	s name for the grade(s) tested in TIMSS 2015, in	ո English (e.g., grade 4, grade
0):		



TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Grade Structure and Student Flow

G2. A. In your country, what is the stated official policy or regulation on students' age primary school (ISCED Level 1)?	of entry to
Examples: "Children begin school during the calendar year of their 6th birthday"; "Children must be 6 years old begin school the following September." B. If the official policy allows some parental discretion or choice, please describe the example: "Even though the official policy is that students can begin school in the year when they turn 6 years of begin primary school at age 7 because their parents feel they will benefit from being more mature."	usual practice.



G3. A. Has the stated off	icial policy changed in t	ne last 10 years?	
Check one circle only.			
○ Yes			
○ No			
B. How did the policy cha	ange, and when was the	change made :	



TIMSS - 2015 - English You are logged in as: 9911 Logout TIMSS 2015 Curriculum Question	nnaire – Eighth Grade - Grade Structure and Student Flow	
G4. What are the ages and Example: "Ages 6-16; Grades 1-5	d/or grades of compulsory education in your coun	ntry?
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ample: "Grades 1-12."	i5. Beginning with ISCED evel 3 (upper secondary)	Level 1, what grades of schooling are provided	d to students through ISCED
		,	
	Zaampio. Grades 7 72.		
		6/40 Table of Contents	Next



G6. Does your country have a policy Example: "Automatic promotion for grades 1-5,	•	
Check one circle only. Yes No		
Please describe:		



G7. Does your country have	a nationally mandated number of school days	per year?	
Check one circle only.			
Yes No			
Please describe:			
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TIMSS 2015 Curriculum Questionnaire - Eighth Grade - Early Childhood Education

moo 2010 Guiriculum Questionnume – Lighti	TOTAGE - Larry C		
Early Childhood Education			
Early childhood education (ISCED Level 0) is su Early childhood educational development (i Pre-primary education (PPE) programs included.	ECED) programs		
G8. A. Does your country provide uni	versal ECED	or PPE coverage?	
Programs with universal coverage are accessib enroll their children.	le and available	to all children, although in some cases parent	s may choose not to
C	heck one circle t	for each line.	
	Yes	No	
a) ECED programs for children under 3		0	
b) PPE programs for children age 3 or older	\bigcirc	0	
B. How many years can children atter	nd these pro	grams altogether?	
Check one circle only.			
1 year			
2 years			
3 years			
4 or more years			
. Si moro youro			
Comments:			
C. Does your country provide targete Programs with targeted coverage are only avail where the language spoken at home is different Check one circle only. Yes No	able for certain s	subgroups (e.g., for children from low-income t	amilies, for children
Please describe:			
Comments:			
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99. A. Does your country have national curriculum gu	idance docu	mente for as	rly childhes	d aducation?
•	idance docu	ments for ea	arry childriddo	a education?
heck one circle only.				
○ Yes				
○ No				
f Yes				
B. Do the curriculum guidance documents cover any o	of the followi	ing topic are	as?	
Check one circle for ECED programs, AND one circle for PPE progra	ms.			
	ECED pr	rograms	PPE pro	ograms
	Yes	No	Yes	No
a) Socio-emotional development	0	0		0
b) Physical development and health education	Ö	Ö	ő	0
c) Oral language development and communication skills	Ö	Ö	O	0
d) Reading and literacy skills	Õ	Õ	ő	0
e) Mathematics and numeracy skills	Ö	Õ	Ö	0
f) Science including understanding the natural world (e.g., weather)	_	Õ	ŏ	0
g) Other	Ö	Ö	O	0
Please specify below:	Ü	_		Ü
Comments:			<i>A</i>	



0. A. Does an educational authority in your country (e.g., National Ministry of Educa aminations that have consequences for individual students, such as entry to a higher try to a university, and/or exiting or graduating from secondary school?	•
	er school system
eck one circle only.	
Yes No	
imple: "There is an exam including language and mathematics given at the end of grade 8 to determine place ondary school."	ement for entry to
	/



IMSS 2015 Curriculum Questionna	ire – Eighth Grade - Ex	aminations			
G11. A. Does your country h	nave a policy on usi		to assign students to	classes	
Check one circle only.	,				
Yes No					
If Yes B. Please describe. Include to classes and at what grade let			its to mathematics ar	d science	

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Teacher Preparation

12. A. What is the <u>main</u> preparation route(s) for teacl	hers of students i	n the <u>fourth grade</u> ?
rample: "Most teachers receive their education through a university ogram, but that is becoming less common."	degree program. Some	e have attended a teacher college
According to the main teacher preparation route, w	hat are the currer	nt requirements for being a
acher of students in the fourth grade?		
	Chec	k one circle for each line.
-	Yes	No
Supervised practicum during the teacher education program.	0	0
If Yes How long is this period?		
Passing a qualifying examination (e.g., licensing, certification).	0	0
Completion of a probationary teaching period.	Ö	0
If Yes How long is this period?		
Completion of a mentoring or induction program (e.g., experienced teachers work with novice teachers to provide instructional guidance).	0	0
Other	0	0
Please specify below:		
. Has the stated official policy for <u>fourth grade</u> teach	ers changed in th	e last 10 years?
neck one circle only.		
Yes		
○ No		
Yes		
. How did the policy change, and when was the chan	ge made?	



TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Teacher Preparation

Yes		
○ No		
Yes If the main preparation route(s) for teachers of stude tain preparation route?	ents in the <u>eighth</u>	grade is different, what is their
. If the requirements are different than the fourth grad acher of students in the <u>eighth grade</u> ?	le, what are the c	urrent requirements for being a
_		one circle for each line.
Supervised practicum during the teacher education program.	Yes	No
If Yes		
How long is this period?		
) Passing a qualifying examination (e.g., licensing, certification).	0	0
) Completion of a probationary teaching period.	\circ	\odot
If Yes		
How long is this period? Completion of a mentoring or induction program (e.g., experienced teachers work with novice teachers to provide instructional guidance).	0	0
Other Please specify below:	0	0
	de teachers in the	e last 10 years?
heck one circle only. Yes	de teachers in the	e last 10 years?
heck one circle only. Yes No	de teachers in the	e last 10 years?
heck one circle only. Yes No		e last 10 years?
		e last 10 years?

TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Principal Preparation

Principal Preparation G14. A. What is the main preparation route(s) for principals of Example: "In addition to receiving their teaching qualifications, most principals to the main principal preparation route, what are principal of a school with fourth grade students? Check one Yes a) Teaching experience b) Completion of a specialized school leadership training program (including a school leadership degree program) c) Other Please specify below: C. Has the stated official policy changed in the last 10 years for students? Check one circle only. Yes No If Yes D. How did the policy change, and when was the change made.	e a degree in ed		
B. According to the main principal preparation route, what are principal of a school with fourth grade students? Check one Yes a) Teaching experience b) Completion of a specialized school leadership training program (including a school leadership degree program) c) Other Please specify below: C. Has the stated official policy changed in the last 10 years for students? Check one circle only. Yes No	e a degree in ed		
B. According to the main principal preparation route, what are principal of a school with fourth grade students? Check one Yes a) Teaching experience b) Completion of a specialized school leadership training program (including a school leadership degree program) c) Other Please specify below: C. Has the stated official policy changed in the last 10 years for students? Check one circle only. Yes No		lucational leaders	hip."
Check one Check one	ne current re	li.	
Check one Yes a) Teaching experience b) Completion of a specialized school leadership training program (including a school leadership degree program) c) Other Please specify below: C. Has the stated official policy changed in the last 10 years for students? Check one circle only. Yes No	ne current re	la la	
Check one Check one	ne current re		
Check one Yes a) Teaching experience b) Completion of a specialized school leadership training program (including a school leadership degree program) c) Other Please specify below: C. Has the stated official policy changed in the last 10 years for students? Check one circle only. Yes No	ne current re		
Check one Yes a) Teaching experience b) Completion of a specialized school leadership training program (including a school leadership degree program) c) Other Please specify below: C. Has the stated official policy changed in the last 10 years for students? Check one circle only. Yes No	ne current re		
Check one Yes a) Teaching experience b) Completion of a specialized school leadership training program (including a school leadership degree program) c) Other Please specify below: C. Has the stated official policy changed in the last 10 years for students? Check one circle only. Yes No	ie cuitelitie	auiremente fo	or being a
Yes a) Teaching experience b) Completion of a specialized school leadership training program (including a school leadership degree program) c) Other Please specify below: C. Has the stated official policy changed in the last 10 years festudents? Check one circle only. Yes No If Yes		quirements io	n being a
a) Teaching experience b) Completion of a specialized school leadership training program (including a school leadership degree program) c) Other Please specify below: C. Has the stated official policy changed in the last 10 years festudents? Check one circle only. Yes No	cle for each line.		
b) Completion of a specialized school leadership training program (including a school leadership degree program) c) Other Please specify below: C. Has the stated official policy changed in the last 10 years for students? Check one circle only. Yes No	No		
(including a school leadership degree program) c) Other Please specify below: C. Has the stated official policy changed in the last 10 years for students? Check one circle only. Yes No	0		
Please specify below: C. Has the stated official policy changed in the last 10 years for students? Check one circle only. Yes No	\circ		
C. Has the stated official policy changed in the last 10 years for students? Check one circle only. Yes No	0		
check one circle only. Yes No			
	principals of	f schools with	fourth grade
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TIMSS - 2015 - English You are logged in as: 9911 Logout TIMSS 2015 Curriculum Questionnaire - Eighth Grade - Principal Preparation G15. A. Is the main preparation route(s) for principals of schools with eighth grade students different from the main preparation route(s) for principals of schools with fourth grade students? Check one circle only. O Yes ○ No If Yes B. If the main preparation route(s) for principals of schools with eighth grade students is different, what is their main preparation route? Example: "In addition to receiving their teaching qualifications, most principals have a degree in educational leadership." C. According to the main principal preparation route, what are the current requirements for being a principal of a school with eighth grade students? Check one circle for each line. a) Teaching experience b) Completion of a specialized school leadership training program (including a school leadership degree program) c) Other Please specify below: D. Has the stated official policy changed in the last 10 years for principals of schools with eighth grade students? Check one circle only. O Yes ○ No If Yes.... E. How did the policy change, and when was the change made? Table of Contents Previous Next © IEA Online SurveySystem 2015 - Help





TIMSS - 2015 - English

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TIMSS 2015 Curriculum Questionnaire - Eighth Grade - MATHEMATICS MODULE - GRADE 8

MATHEMATICS MODULE - GRADE 8

To be completed by all countries participating in TIMSS at the eighth grade

This mathematics module refers to the national curriculum that was in effect for the eighth grade students assessed in TIMSS 2015—the curriculum that covers mathematics instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

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TIMSS 2015 Curriculum Questionnaire – Eighth Grade - About the Eighth Grade Mathematics Curriculum

About the Eighth Grade Mathema	tics Curriculum	
	ulum that was in effect for the eighth grade students assessed tion at the eighth grade of formal schooling for the majority of s your state or provincial curricula.	
M1. Does your country have a national cu grade of formal schooling?	rriculum that covers mathematics instruction at	the eighth
Check one circle only.		
○ Yes		
○ No		
If Yes		
Comments:		
If No What is the highest level of decision-maki	ng authority (e.g., state or province) that provide	es a
	uction at the eighth grade of formal schooling?	
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CURRICULUM QUESTIONNAIRE



TIMSS - 2015 - English You are logged in as: 9911 Logout TIMSS 2015 Curriculum Questionnaire - Eighth Grade - About the Eighth Grade Mathematics Curriculum M2. A. In what year was the 2014/2015 mathematics curriculum introduced? Comments: B. Is the mathematics curriculum currently being revised? Check one circle only. Yes ○ No If Yes... Please explain: If No... Comments: 19/40 <u>Table of Contents</u> Previous Next © IEA Online SurveySystem 2015 - Help





		atics curriculum, what is the	grade structure?	
Examples: "Grades 1-8"; "Grade	s 4-8"; "Grades 6-8"; "Grades 7-9.			
Comments:				

TIMSS 2015 Curriculum Questionnaire - Eighth Grade - Curriculum Specifications

nis mathematics module refers to the national curriculum 115—the curriculum that covers mathematics instruction to the constant of the constan	n at the eigh	th grade of forma	I schooling for the ma		do
ot have a national curriculum, please summarize for yo					
M4. What does the mathematics curriculum	prescribe	?			
<u>c</u>	heck one circ	cle for each line.			
	Yes	No			
a) Goals and objectives	0	0			
Instructional processes or methods	0	0			
c) Materials (e.g., textbooks, instructional materials)	0	0			
d) Assessment methods/activities	0	0			
e) Other	0	0			
Please specify below:					
Comments:				<u> </u>	
Comments:					



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IMSS 2015 Curriculum Questionnaire – Eigl	hth Grade - Curriculum Specifications		
M5. Does the curriculum or any oth time to be devoted to mathematics	er official document prescribe the per instruction at the eighth grade of forn	centage of <u>total</u> instructional nal schooling?	
Check one circle only.			
Yes No			
If Yes Please specify the percentage:			
Comments:			
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TIMSS - 2015 - English You are logged in as: 9911 Logout TIMSS 2015 Curriculum Questionnaire - Eighth Grade - Curriculum Specifications M6. How is the mathematics curriculum implementation evaluated? Check one circle for each line. Yes No a) Visits by inspectors 0 0 b) Research programs 0 \odot c) School self-evaluation d) National or regional examinations \bigcirc 0 e) Other Please specify below: 0 Comments:

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TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Instructional Materials and Use of Technology

Instructional Materials and Use of Technology This mathematics module refers to the national curriculum that was in effect for the eighth grade students assessed in TIMSS 2015—the curriculum that covers mathematics instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula. M7. A. Is there a process for approving the mathematics instructional materials? Check one circle only: Yes No If Yes Please describe the process, and what materials (e.g., textbooks, workbooks, online materials) must be approved through this process: B. Does the national curriculum contain statements/policies about the use of technology (e.g., computers, tablets, calculators) in grade 8 mathematics instruction? Check one circle only. Yes No If Yes Yes No If Yes What are the statements/policies?		
2015—the curriculum that covers mathematics instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula. M7. A. Is there a process for approving the mathematics instructional materials? Check one circle only. Yes No If Yes Please describe the process, and what materials (e.g., textbooks, workbooks, online materials) must be approved through this process: B. Does the national curriculum contain statements/policies about the use of technology (e.g., computers, tablets, calculators) in grade 8 mathematics instruction? Check one circle only. Yes No If Yes	Instructional Materials and Use of Technology	
Check one circle only: Yes No If Yes Please describe the process, and what materials (e.g., textbooks, workbooks, online materials) must be approved through this process: B. Does the national curriculum contain statements/policies about the use of technology (e.g., computers, tablets, calculators) in grade 8 mathematics instruction? Check one circle only: Yes No	1015—the curriculum that covers mathematics instruction at the eighth grade of formal schooling for the majority of students. If	you do
Yes No If Yes Please describe the process, and what materials (e.g., textbooks, workbooks, online materials) must be approved through this process: B. Does the national curriculum contain statements/policies about the use of technology (e.g., computers, tablets, calculators) in grade 8 mathematics instruction? Check one circle only. Yes No	17. A. Is there a process for approving the mathematics instructional materials?	
MY Yes Please describe the process, and what materials (e.g., textbooks, workbooks, online materials) must be approved through this process: B. Does the national curriculum contain statements/policies about the use of technology (e.g., computers, tablets, calculators) in grade 8 mathematics instruction? Check one circle only. Yes No	check one circle only.	
If Yes Please describe the process, and what materials (e.g., textbooks, workbooks, online materials) must be approved through this process: B. Does the national curriculum contain statements/policies about the use of technology (e.g., computers, tablets, calculators) in grade 8 mathematics instruction? Check one circle only. Yes No	○ Yes	
Please describe the process, and what materials (e.g., textbooks, workbooks, online materials) must be approved through this process: B. Does the national curriculum contain statements/policies about the use of technology (e.g., computers, tablets, calculators) in grade 8 mathematics instruction? Check one circle only. Yes No	○ No	
B. Does the national curriculum contain statements/policies about the use of technology (e.g., computers, tablets, calculators) in grade 8 mathematics instruction? Check one circle only. Yes No	f Yes	
Computers, tablets, calculators) in grade 8 mathematics instruction? Check one circle only. Yes No	, , , , , , , , , , , , , , , , , , , ,	st be
Computers, tablets, calculators) in grade 8 mathematics instruction? Check one circle only. Yes No		
Computers, tablets, calculators) in grade 8 mathematics instruction? Check one circle only. Yes No		
Computers, tablets, calculators) in grade 8 mathematics instruction? Check one circle only. Yes No		
Computers, tablets, calculators) in grade 8 mathematics instruction? Check one circle only. Yes No		
Computers, tablets, calculators) in grade 8 mathematics instruction? Check one circle only. Yes No		
Yes No		
No No If Yes	check one circle only.	
If Yes	Yes	
	○ No	
What are the statements/policies?	f Yes	
	Vhat are the statements/policies?	

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CURRICULUM QUESTIONNAIRE



	naire – Eighth Grade - Instructional Materia	is and use of rechnology	
	culum contain statements/policies		cal aids
	calculators) in grade 8 mathematic	s tests or examinations?	
Check one circle only.			
Yes No			
If Yes			
What are the statements/p	olicies?		
		//	
Comments:			
Comments.			



TIMSS 2015 Curriculum Questionnaire - Eighth Grade - Eighth Grade Mathematics Topics Covered

This mathematics module refers to the 2015—the curriculum that covers man not have a national curriculum, pleas	thematics	instruction	at the eighth	grad	de of	forma	al sch									u do			
M8. (i) According to the nationave been taught each of the										grac	le 8	stu	den	ts sh	oul	d			
Be sure to include curriculum expect example, if "Year 9" in your country o	ations for	all grades ι	up to and incl	uding	g grad	de 8.	Grad	les re	pres				mal	schoo	oling.	For			
ii) Across grades from preporimarily intended to be taug	•	hrough u	ipper seco	nda	ary e	duc	atio	n, a	t wh	at g	rade	e(s)	are	the	topi	cs			
there are not any specifications to to ot apply [e.g., fractions in part A top						ions t	o the	best	of yo	our a	bility.	If pa	rt of	a topi	c doe	es			
	(i) Proportion of grade 8 students expected to be taught topic				(ii) Grade(s) topic is expected to be taught preprimary (PP) through the end of upper secondary (G12) Check the corresponding grade(s) for each topic.														
A Monton	All or almost all	Only the more able	curriculum through													0.40			
A. Number a) Computing with whole numbers	Students	students	grade 8		G	GZ	GS	G4	Go	Go		G	G	G10	GTT	G12			
b) Comparing and ordering rational numbers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
 c) Computing with rational numbers (fractions, decimals, and integers) 	0	0	0	0															
d) Concepts of irrational numbers	\circ	\circ	\circ																
Problem solving involving percents or proportions	0	0	0																
Comments:																			

TIMSS 2015 Curriculum Questionnaire - Eighth Grade - Eighth Grade Mathematics Topics Covered

M8. (continued) (i) According to the national been taught each of the folio					•	•			grad	le 8	stud	dent	s sl	noul	d ha	ive
Be sure to include curriculum expect example, if "Year 9" in your country of the sample of the sampl													rmal	scho	oling.	For
(ii) Across grades from prep primarily intended to be tau	•	nrough u	pper seco	nda	ry e	duc	atio	n, a	t wh	nat g	jrad	e(s)	are	the	topi	ics
If there are not any specifications to not apply [e.g., fractions in part A to						ons t	o the	bes	t of y	our a	bility.	If pa	rt of	a top	ic do	es
	stude	portion of nts expect taught top	ted to be	(ii) Grade(s) topic is expected to be taught preprimary (PP) through the end of upper secondary (G12)												
	Check o	ne circle fo	r each line. Not	Check the corresponding grade(s) for each topic.												
	All or almost all	able	included in the curriculum through													
Algebra Simplifying and evaluating	students	students	grade 8	PP	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
algebraic expressions b) Simple linear equations and	0	0	0	0												
inequalities c) Simultaneous (two variables) equations	0	0	0	0												
d) Numeric, algebraic, and geometric patterns or sequences (extension, missing terms, generalization of patterns)	0	0	0	0												
e) Representation of functions as ordered pairs, tables, graphs, words, or equations	0	0	0	0												
 f) Properties of functions (slopes, intercepts, etc.) 	\circ	0	0		0											
Comments:																
													4			
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TIMSS 2015 Curriculum Questionnaire - Eighth Grade - Eighth Grade Mathematics Topics Covered

example, if "Year 9" in your country co (ii) Across grades from prepri primarily intended to be taugl If there are not any specifications to the	imary th ht? his detail,	s to the eig nrough u please indi	pper seco	ormai onda	ry e	duc	atio	ase o	t wh	at g	ade 8 Jrad	3. e(s)	are	the	topi	cs
not apply [e.g., fractions in part A topi	(i) Pro stude						opic i							12)		
	All or almost all	Only the more able	Not included in the curriculum through						spond							
 Geometry a) Geometric properties of angles and geometric shapes (triangles, quadrilaterals, and other common polygons) 	students	students	grade 8	PP	G1				G5		G7		G9		G11	G12
 b) Congruent figures and similar triangles 	\bigcirc	\circ	\circ													
c) Relationship between three– dimensional shapes and their two-dimensional representations	0	0	0	0												
 d) Using appropriate measurement formulas for perimeters, circumferences, areas, surface areas, and volumes 	0	0	0													
e) Points on the Cartesian plane	0	0	0	0												
f) Translation, reflection, and rotation	0	0	0													
Comments:																

M8. (continued) (i) According to the national been taught each of the follo					-	-			grad	e 8	stud	lent	s sl	noul	d ha	ive
Be sure to include curriculum expects example, if "Year 9" in your country c	ations for	all grades u	p to and incl	luding	grad	le 8.	Grad	es re					mal	scho	oling.	For
ii) Across grades from prepr primarily intended to be taug	•	hrough u	pper seco	onda	ry e	duc	atio	n, a	t wh	at g	rade	e(s)	are	the	topi	ics
if there are not any specifications to t not apply [e.g., fractions in part A top						ons t	o the	best	of yo	our a	bility.	If pa	rt of	a top	ic do	es
	(i) Proportion of grade 8 students expected to be taught topic			(ii) Grade(s) topic is expected to be taught preprimary (PP) through the end of upper secondary (G12)												
			Not included		Check the corresponding grade(s) for each topic.											
D. Data and Chance	All or almost all students		in the curriculum through grade 8	PP	G1	G2	G3	G4	G5	G6	G 7	G8	G9	G10	G11	G12
Characteristics of data sets (mean, median, mode, and shape of distributions)	0	0	0	0												
 b) Interpreting data sets (e.g., draw conclusions, make predictions, and estimate values between and beyond given data points) 	0	0	0	0												
c) Judging, predicting, and determining the chances of possible outcomes	0	0	0													
Comments:																
													a 			
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TIMSS - 2015 - English

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TIMSS 2015 Curriculum Questionnaire - Eighth Grade - SCIENCE MODULE - GRADE 8

SCIENCE MODULE - GRADE 8

To be completed by all countries participating in TIMSS at the eighth grade

This science module refers to the national curriculum that was in effect for the eighth grade students assessed in TIMSS 2015—the curriculum that covers science instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula.

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About the Eighth	Grade Science Curric	culum		
	nstruction at the eighth grade	s in effect for the eighth grade stude of formal schooling for the majority o ncial curricula.		
61. Does your country ha	ive a national curriculu	ım that covers science instru	uction at the eighth gr	ade of
check one circle only.				
Yes No				
f Yes Comments:				
		thority (e.g., state or provinc	ce) that provides a	
hat is the highest level		e eighth grade of formal sch		
What is the highest level				
f No What is the highest level curriculum that covers so				
Vhat is the highest level				



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t is the grade structure?
<i>A</i>



TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Curriculum Specifications

is science module refers to the national curriculum th rriculum that covers science instruction at the eighth tional curriculum, please summarize for your state or	grade of for provincial o	mal schooling for th	
4. What does the science curriculum pres		ircle for each line.	
-	Yes	No	
i) Goals and objectives	O		
Instructional processes or methods	Õ	0	
:) Materials (e.g., textbooks, instructional materials)	O	Ö	
) Assessment methods/activities	Ö	0	
e) Other Please specify below:	0	0	
mments:			_//
Comments:			
Comments:			

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International Study Center
Lynch School of Education, Boston College



S5. Does the curriculum or a time to be devoted to science	any other official document prese <u>e</u> instruction at the eighth grade	cribe the percentage of <u>total</u> in of formal schooling?	structional
Check one circle only.			
Yes No			
If Yes Please specify the percentag	ge:		
Comments:			
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hat are the statements/p	oolicies?			
Yes				
Yes No				
eck one circle only.				
Does the national curric mputers, tablets, calcul		nents/policies about the us ence instruction?	e of technology (e.g.,	
proved through this pro	ocess:			
Yes ease describe the proce	ess, and what materia	als (e.g., textbooks, workbo	ooks, online materials) i	nust be
) No				
Yes				
eck one circle only.				
. A. Is there a process for	or approving the scie	ence instructional material	s?	
riculum that covers science ins ional curriculum, please summ		e of formal schooling for the major	ity of students. If you do not h	ave a
		as in effect for the eighth grade st		



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TIMSS 2015 Curriculum Questionnaire - Eighth Grade - Eighth Grade Science Topics Covered

Eighth Grade Science Topics Covered This science module refers to the national curriculum that was in effect for the eighth grade students assessed in TIMSS 2015—the curriculum that covers science instruction at the eighth grade of formal schooling for the majority of students. If you do not have a national curriculum, please summarize for your state or provincial curricula. S8. (i) According to the national science curriculum, what proportion of grade 8 students should have been taught each of the following topics or skills by the end of grade 8? Be sure to include curriculum expectations for all grades up to and including grade 8. Grades represent years of formal schooling. For example, if "Year 9" in your country corresponds to the eighth year of formal schooling, please choose grade 8. (ii) Across grades from preprimary through upper secondary education, at what grade(s) are the topics primarily intended to be taught? If there are not any specifications to this detail, please indicate national expectations to the best of your ability. If part of a topic does not apply [e.g., energy flow in part A topic (f)], please explain in the comment field. (i) Proportion of grade 8 students expected to be (ii) Grade(s) topic is expected to be taught taught topic preprimary (PP) through the end of upper secondary (G12) Check one circle for each line. Check the corresponding grade(s) for each topic included All or Only the in the almost more curriculum able through PP G1 G2 G3 G4 G5 G6 G7 G8 G9 G10 G11 G12 A. Biology students students grade 8 a) Differences among major taxonomic groups of organisms (plants, animals, fungi, mammals, birds, reptiles, fish, amphibians) b) Major organs and organ systems 0 in humans and other organisms (structure/function, life processes that maintain stable bodily conditions) c) Cells, their structure and functions, including respiration and photosynthesis as cellular processes d) Life cycles, sexual reproduction, and heredity (passing on of traits, inherited versus acquired/learned characteristics) e) Role of variation and adaptation in survival/extinction of species in a changing environment (including fossil evidence for changes in life on Earth over time) f) Interdependence of populations 0 of organisms in an ecosystem (e.g., energy flow, food webs, competition, predation) and factors affecting population size in an ecosystem g) Human health (causes of 0 0 0 0 0 0 0 0 0 0 0 0 infectious diseases, methods of

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infection, prevention, immunity) and the importance of diet and exercise in maintaining health







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TIMSS 2015 Curriculum Questionnaire – Eighth Grade - Eighth Grade Science Topics Covered

example, if "Year 9" in your country corresponds to the eighth year of formal schooling, please choose grade 8. (ii) Across grades from preprimary through upper secondary education, at what grade(s) are the topics primarily intended to be taught? If there are not any specifications to this detail, please indicate national expectations to the best of your ability. If part of a topic does not apply [e.g., energy flow in part A topic (fl), please explain in the comment field. (i) Proportion of grade 8 students expected to be taught topic check one circle for each line. Not included All or Only the In the almost more curriculum all able through students without the through students students grade 8 a) Classification, composition, and particulate structure of matter (elements, compounds, mixtures, molecules, atoms, protons, neutrons, electrons) b) Physical and chemical properties of matter (of metal change (transformation of reactions - combustion, rusting, transishing) f) Proportion of grade 8 students with the comment field. Check one circle for each line. Not included All or Only the In the almost more curriculum all able through students students grade 8 are commented to the comment of properties of matter (elements, compounds, mixtures, molecules, atoms, protons, neutrons, electrons) b) Physical and chemical properties of matter (of metal change (transformation of reactants, evidence of chemical change (transformation of reactants, evidence of chemical change, conservation of matter, common oxidation reactions - combustion, rusting, transishing) f) The role of electrons in chemical bonds Comments:	(i) According to the national taught each of the following Be sure to include curriculum expects	topics o	r skills b	y the end	of g	rad	e 8?										
## Properties and uses of common acids and bases Chemistry Chemical concentration of matter (elements, compounds, mixtures, molecules, atoms, protons, neutrons, electrons)	example, if "Year 9" in your country c	orrespond	s to the eig	hth year of f	orma	sch	ooling	g, ple	ase o	hoos	se gra	ade 8	3.				
Check one circle for each line. Check the corresponding grade(s) for each topic		-	rough u	pper seco	onda	ry e	duc	atio	n, a	t wh	at g	rad	e(s)	are	the	topi	CS
Ci) Proportion of grade 8 students expected to be taught topic Check one circle for each line. Not included almost all able students s								o the	best	of y	our a	bility.	If pa	rt of	a top	ic do	es
All or almost all students stu		(i) Pro	portion of	f grade 8 ted to be			(ii) G										12)
All or almost all students students, compounds, mixtures, molecules, atoms, protons, neutrons, electrons) b) Physical and chemical properties of matter c) Mixtures and solutions (solvent, solute, concentration/dilution, effect of temperature on solubility) d) Properties and uses of common acids and bases e) Chemical change (transformation of reactants, evidence of chemical change, conservation of matter, common oxidation reactions – combustion, rusting, tarnishing) f) The role of electrons in chemical bonds															_		
a) Classification, composition, and particulate structure of matter (elements, compounds, mixtures, molecules, atoms, protons, neutrons, electrons) b) Physical and chemical properties of matter c) Mixtures and solutions (solvent, solute, concentration/dilution, effect of temperature on solubility) d) Properties and uses of common acids and bases e) Chemical change (transformation of reactants, evidence of chemical change, conservation of matter, common oxidation reactions – combustion, rusting, tarnishing) f) The role of electrons in chemical bonds		almost all	more able	included in the curriculum through						-		-					
of matter c) Mixtures and solutions (solvent, solute, concentration/dilution, effect of temperature on solubility) d) Properties and uses of common acids and bases e) Chemical change (transformation of reactants, evidence of chemical change, conservation of matter, common oxidation reactions – combustion, rusting, tarnishing) f) The role of electrons in chemical bonds	Classification, composition, and particulate structure of matter (elements, compounds, mixtures, molecules, atoms, protons,	0	-					_	_	_	_	_	_	_		_	
solute, concentration/dilution, effect of temperature on solubility) d) Properties and uses of common acids and bases e) Chemical change (transformation of reactants, evidence of chemical change, conservation of matter, common oxidation reactions – combustion, rusting, tarnishing) f) The role of electrons in chemical bonds		\circ	\circ	\circ													
acids and bases e) Chemical change (transformation of reactants, evidence of chemical change, conservation of matter, common oxidation reactions – combustion, rusting, tarnishing) f) The role of electrons in chemical bonds	solute, concentration/dilution, effect of temperature on	0	0	0	0												
of reactants, evidence of chemical change, conservation of matter, common oxidation reactions – combustion, rusting, tarnishing) f) The role of electrons in chemical bonds		\circ	\circ	\circ	0												
f) The role of electrons in chemical bonds	of reactants, evidence of chemical change, conservation of matter, common oxidation reactions – combustion, rusting,		0	0	0						0						
Comments:	f) The role of electrons in chemical	0	0	0													
	Comments:																



i) According to the national aught each of the following							_	rade	8 s	tude	ents	sho	uld	hav	e be	een	
e sure to include curriculum expec xample, if "Year 9" in your country (mal :	schoo	oling.	For	
i) Across grades from prep rimarily intended to be tau	-	rough u	pper seco	nda	ry e	duc	atio	n, a	t wh	at g	rad	e(s)	are	the	topi	cs	
there are not any specifications to ot apply [e.g., energy flow in part A							o the	best	of y	our a	bility.	If pa	rt of	a topi	ic do	es	
	stude	portion of nts expect taught top															
	Check o	ne circle fo	r each line.	Check the corresponding grade(s) for each topic													
	All or almost all	Only the more able	included in the curriculum through														
C. Physics a) Physical states and changes in	students	students	grade 8	_	_	_	_	_	_	_	_	_	_	_	_	G12	
matter (explanations of properties in terms of movement and distance between particles; phase change, thermal expansion, and changes in volume and/or pressure)		0	0														
b) Energy forms, transformations, heat, and temperature	\circ	\circ	\circ	0													
c) Basic properties/ behaviors of light (reflection, refraction, light and color, simple ray diagrams) and sound (transmission through media, loudness, pitch, amplitude, frequency)	0	0	0	0													
 Electric circuits (flow of current; types of circuits - parallel/ series) and properties and uses of permanent magnets and electromagnets 	0	0	0														
 Forces and motion (types of forces, basic description of motion, effects of density and pressure) 	0	0	0														
Comments:																	
													<i>a</i>				
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TIMSS 2015 Curriculum Questionnaire - Eighth Grade - Eighth Grade Science Topics Cov

Be sure to include curriculum expect example, if "Year 9" in your country of (ii) Across grades from prepi primarily intended to be taug	correspond	s to the eig	hth year of f	orma	l sch	ooling	g, ple	ase (choos	e gr	ade 8	t.			
If there are not any specifications to not apply [e.g., energy flow in part A	topic (f)], r		ain in the cor grade 8 led to be	mmer	nt fiel	d. (ii) G	irade	e(s) to	opic	s ex	pect	ed to	be t	augh	
D. Earth Science	All or almost all	Only the	Not included in the curriculum through grade 8	pp				corre							G12
a) Earth's structure and physical features (Earth's crust, mantle, and core; composition and relative distribution of water, and composition of air)	O	Students	Grade 6												
 b) Earth's processes, cycles, and history (rock cycle; water cycle; weather versus climate; major geological events; formation of fossils and fossil fuels) 	0	0	0												
 c) Earth's resources, their use and conservation (e.g., renewable/ nonrenewable resources, human use of land/soil, water resources) 	0	0	0	0						0					
d) Earth in the solar system and the universe (phenomena on Earth - day/night, tides, phases of moon, eclipses, seasons; physical features of Earth compared to other bodies)		0	0												
Comments:													7		



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	This completes the Curriculum Questionnaire - Grade 8 Module. To submit your completed questionnaire, please click the Finish button.							
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