



2

**Curriculum
Questionnaire**

Mathematics
<Grade 4>

General Directions

This questionnaire is addressed to National Research Coordinators, who are asked to supply information about their nation's intended curriculum in mathematics. This will help provide background information for interpretation of the school and achievement data collected in other parts of the TIMSS 2003 study. Your responses are very important in helping to provide a better understanding of the study results.

We ask that you or your nominee complete this questionnaire, working with others as necessary (e.g., curriculum supervisors of mathematics representative of those at the <grade 4> level in your country). It is important that you answer each question carefully and provide additional information where requested so that as accurate a picture as possible of your country's curriculum is presented in the final reports.

- Your cooperation in completing this questionnaire is greatly appreciated •

Contact Information

Country: _____

Name of Individual
Completing Report: _____

Position of Individual
Completing Report: _____

Address: _____

Email: _____

Phone: _____

Fax: _____

Others (and positions) involved in providing information in completing questionnaire:

IMPORTANT: Throughout this questionnaire, the term “national curriculum” is intended to include any centrally-supported curriculum. The curriculum need not be mandated but it should be strongly recommended or at least widely used.

1 _____

A. Does your country have a national curriculum that includes mathematics at <grade 4>?

3

Are any of the following methods used to help implement the national mathematics curriculum at <grade 4>?

Fill in one circle for each row

- | | Yes | No |
|---|-----------------------|-----------------------|
| a) Mandated or recommended textbook(s) ----- | <input type="radio"/> | <input type="radio"/> |
| b) Instructional or pedagogical guide ----- | <input type="radio"/> | <input type="radio"/> |
| c) Ministry notes and directives ----- | <input type="radio"/> | <input type="radio"/> |
| d) Curriculum evaluation during or after implementation ----- | <input type="radio"/> | <input type="radio"/> |
| e) Specifically developed or recommended instructional activities ----- | <input type="radio"/> | <input type="radio"/> |
| f) National assessments based on student samples ----- | <input type="radio"/> | <input type="radio"/> |
| g) A system of school inspection or audit ----- | <input type="radio"/> | <input type="radio"/> |
| h) Other ----- | <input type="radio"/> | <input type="radio"/> |

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5

Which best describes how the national mathematics curriculum at <grade 4> addresses the issue of students with different levels of ability?

Fill in one circle only

The same curriculum is prescribed for all students -----○

The same curriculum is prescribed for students of different ability levels, but at different levels of difficulty -----○

Different curricula are prescribed for students of different ability levels -----○

Comments: _____


Calculators and Computers

7

A. Does the national curriculum contain statements/policies about the use of calculators in <grade 4> mathematics?

Yes No

Fill in **one** circle only -----○-----○

If **No**, please go to question **8** 

B. If YES, what are the statements/policies?

8

A. Does the national curriculum contain statements/policies about the use of computers in <grade 4> mathematics?

Yes No

Fill in **one** circle only -----○-----○

If **No**, please go to question **9** 

B. If YES, what are the statements/policies?

Teacher Education and Certification

9

A. Do <grade 4> mathematics teachers receive specific preparation in how to teach the intended mathematics curriculum at <grade 4>?

Fill in **one** circle for each row

No
 Yes

- a) As part of pre-service education -----○ ---○
- b) As part of in-service education -----○ ---○

B. If you answered YES to either (a) or (b), describe the nature of the preparation.

10

Which are the current requirements for being a mathematics teacher at <grade 4>?

Fill in **one** circle for each row

No
 Yes

- a) Pre-practicum and supervised practicum in the field -----○ ---○
- b) Passing an examination -----○ ---○
- c) <ISCED 5A, first degree> -----○ ---○
- d) Completion of a probationary teaching period -----○ ---○

If **Yes**, how long is this period? _____

- e) Completion of a mentoring or induction program -----○ ---○
- f) Other -----○ ---○
(Please specify: _____)

11

A. Is there a process to license or certify <grade 4> mathematics teachers?

No
 Yes

Fill in **one** circle only -----○ ---○

If **No**, please go to question **12**

B. If YES, who certifies/licenses <grade 4> mathematics teachers?

Fill in **one** circle for each row

No
 Yes

- a) Minister/Ministry of Education -----○ ---○
- b) National/state licensing board -----○ ---○
- c) Universities/colleges -----○ ---○
- d) Teacher organization/union -----○ ---○
- e) Other -----○ ---○
(Please specify: _____)

Comments: _____

According to the national mathematics curriculum, what proportion of <grade 4> students should have been taught each of the following topics or skills by the end of <grade 4>?

Across grades K-12, at what grade(s) are the topics primarily intended to be taught?

Be sure to include curriculum expectations for all grades up to and including <grade 4>. 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., location on a number line in topic (f) below), please cross out that part and answer for the major part of the topic.

	Proportion of <grade 4> students expected to be taught topic			Grade(s) topic is expected to be taught K-12
	Not included in the curriculum through <grade 4>	Only the more able students	All or almost all students	
<i>Fill in one circle for each row</i>				
A. Number				
a) Whole numbers including place value and ordering -----	○	○	○	_____
b) Represent whole numbers using words, diagrams, or symbols -----	○	○	○	_____
c) Properties of whole numbers such as odd and even, multiples, or factors -----	○	○	○	_____
d) Computations with whole numbers -----	○	○	○	_____
e) Estimation with whole numbers -----	○	○	○	_____
f) Fractions (parts of a whole or a collection, location on a number line) -----	○	○	○	_____
g) Equivalent fractions -----	○	○	○	_____
h) Compare and order fractions -----	○	○	○	_____
i) Fractions or decimals represented by words, numbers, or models -----	○	○	○	_____
j) Adding and subtracting fractions with the same denominator -----	○	○	○	_____
k) Adding and subtracting with decimals (tenths and/or hundredths) -----	○	○	○	_____
l) Simple proportional reasoning -----	○	○	○	_____
B. Patterns, Equations, and Relationships				
a) Number patterns including extending sequences and finding missing terms of numeric and geometric patterns -----	○	○	○	_____
b) Equality using equations, areas, volumes, masses/weights -----	○	○	○	_____
c) Missing number in an equation (e.g., if $17 + \underline{\quad} = 29$, what number would go in the blank to make the equation true?) -----	○	○	○	_____
d) Modeling simple situations involving unknowns with an equation -----	○	○	○	_____
e) Pairs of numbers following a given rule (e.g., multiply the first number by 3 and add 2 to get the second number) -----	○	○	○	_____
f) Finding a rule for a relationship given some pairs of numbers -----	○	○	○	_____

Proportion of <grade 4> students expected to be taught topic
 Grade(s) topic is expected to be taught K-12

Fill in **one** circle for each row

Not included in the curriculum through <grade 4>

Only the more able students

All or almost all students

C. Measurement

- a) Non-standard units to measure length, area, volume, and time (e.g., paper clips for length, tiles for area, sugar cubes for volume)



Thank You

**for completing
this questionnaire**

