

TIMSS SA Newsletter

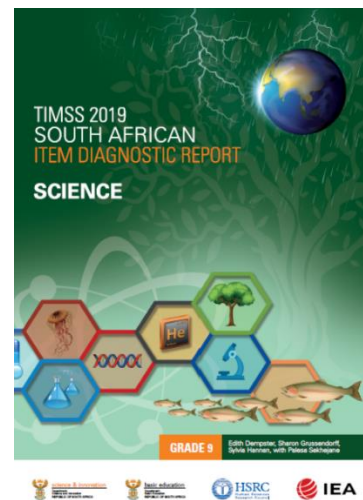


Inclusive Economic Development Research Division
Human Sciences Research Council

April 2022
Volume 7; Issue 3

TIMSS 2019 South African Science Item Diagnostic Reports

We are pleased to announce the publication of the [TIMSS 2019 South African Item Diagnostic Report: Grade 5 Science](#) and the [TIMSS 2019 South African Item Diagnostic Report: Grade 9 Science](#).



At the end of each TIMSS cycle, a few items are released for research use. We analysed learner performance of each released science item to understand the difficulties learners have and gaps in their knowledge. We also provided suggestions for remediation to improve the teaching and learning of science in our classrooms.

South African learners performed well on some items

GRADE 5 ITEM:

Which animal has a backbone?



Percentages of learner responses

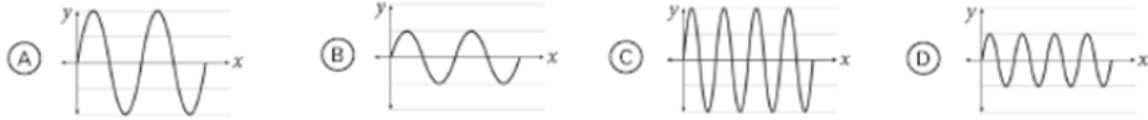
	A	B	C	D	Omitted	No-fee schools correct	Fee-paying schools correct
South Africa	7	10	5	58	20	68	84
International average (n=11)*	8	8	8	70	7		

*The 'international' average used here is the average percentage correct of a group of 11 countries that participated in the TIMSS Math Lite version.

GRADE 9 ITEM:

Each graph below represents a musical note. Time is represented on the x-axis and magnitude is represented on the y-axis. All of the graphs have the same scale.

Which graph represents the note that has both the softest volume and the lowest pitch?



Percentages of learner responses

	A	B	C	D	Omitted	No-fee schools correct	Fee-paying schools correct
South Africa	9	48	16	25	3	49	51
International average (n=17)**	11	53	16	19	3		

**The international average is the average percentage correct of a group of 17 countries that participated in the paper-TIMSS 2019.

However, they performed poorly on others

GRADE 5 ITEM

Tom has a bucket full of sand and small stones. How can he quickly separate the sand from the stones?

Percentages of learner responses

	Correct	Incorrect	Omitted	No-fee schools correct	Fee-paying schools correct
South Africa	8	81	11	7	17
International average (n=11)	19	52	29		

GRADE 9 ITEM

Describe one important geographic factor that a country must consider when selecting the safest location for a new nuclear power plant.

Percentages of learner responses

	Correct	Incorrect	Omitted	No-fee schools correct	Fee-paying schools correct
South Africa	10	70	20	10	23
International average (n=11)	29	41	30		

Interested in using TIMSS South Africa data for research?

If you are interested in working with us on publications based on the TIMSS data, please [contact us](#).

If you would prefer not to receive this newsletter, please [unsubscribe](#).