



## What type of assessment is TIMSS?

TIMSS is developed through an international consensus building process involving input from U.S. and international experts in mathematics, science, and measurement. The assessment contains a mix of questions: some require students to select appropriate responses, while others require that students solve problems and provide written answers. TIMSS 2023 will be a digitally-based assessment administered on supplied tablets.

## Other information collected by TIMSS

TIMSS also considers the context in which learning occurs. Students, teachers, and schools are asked about a variety of aspects of the environments in which content is taught, learned, practiced, and applied. In this way, TIMSS provides each country with information on the factors related to mathematics and science achievement.

## Trends in International Mathematics and Science Study (TIMSS) 2023



### Contact Information

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Learn more at:  
<https://surveys.nces.ed.gov/TIMSS>



Data collected by RTI International on behalf of the U.S. Department of Education

OMB Control Number: 1850-0695

NCES is authorized to conduct TIMSS under the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543).

Information collected will help the U.S. Department of Education's ongoing efforts to benchmark student achievement in the United States. Participation is voluntary. All of the information provided by school staff and students may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151). The U.S. Office of Management and Budget has approved the data collection under OMB#1850-0695. Individual responses will be combined with those from other participants to produce summary statistics and reports.

## Trends in International Mathematics and Science Study (TIMSS) 2023

*The National Center for Education Statistics at IES*



## What is TIMSS?

The Trends in International Mathematics and Science Study (TIMSS) 2023 is an international assessment and research project designed to measure trends in mathematics and science achievement at the fourth- and eighth-grade levels as well as school and teacher practices. Since 1995, TIMSS has been administered every 4 years. TIMSS 2023 will involve students from approximately 65 countries, including the United States.

TIMSS is sponsored by the International Association for the Evaluation of Educational Achievement (IEA) and conducted in the United States by the National Center for Education Statistics (NCES), part of the U.S. Department of Education.

## Why is TIMSS important?

TIMSS provides a unique opportunity to compare U.S. students' math and science knowledge and skills with that of their peers in countries around the world. TIMSS complements state and national assessments by identifying the strengths and weaknesses of student performance relative to students around the world.

TIMSS provides benchmark information on how U.S. students compare to students around the world, allows educators and policymakers to examine other educational systems for practices that could have application to the United States, and contributes to ongoing discussions about educational equity and improvement for all students.

## How does the United States compare internationally?

### Results from TIMSS 2019



#### Scores and score gaps:

- The U.S. had higher average scores than most participating countries in mathematics and science at both the 4th and 8th grades.
- The U.S. had relatively large score gaps between the top- and bottom-performing students.



#### U.S. average scores 1995-2019:

- In mathematics, in both 4th and 8th grades, average scores increased over the long term.
- In science, in 4th and 8th grades, there were no significant changes over the long term.



#### Gender differences:

- Boys outperformed girls in 4th grade in both mathematics and science; there were no gender differences in the 8th grade in either subject.

Additional TIMSS 2019 results can be found at <https://nces.ed.gov/timss/results19>

## Participating education systems in TIMSS 2019

### Countries

#### North and South America

Canada  
Chile  
United States

#### Asia and Middle East

Armenia  
Azerbaijan  
Bahrain  
Chinese Taipei  
Georgia  
Hong Kong SAR  
Iran, Islamic Rep. of  
Israel  
Japan  
Jordan  
Kazakhstan  
Korea, Rep. of  
Kuwait  
Lebanon  
Malaysia  
Oman  
Pakistan  
Philippines  
Qatar  
Russian Federation  
Saudi Arabia  
Singapore  
United Arab Emirates

#### Africa

Egypt  
Morocco  
South Africa

#### Australia and Oceania

Australia  
New Zealand

#### Europe

Albania  
Austria  
Belgium (Flemish)  
Bosnia & Herzegovina  
Bulgaria  
Croatia  
Cyprus  
Czech Republic  
Denmark  
England  
Finland  
France  
Germany  
Hungary  
Ireland  
Italy  
Kosovo  
Latvia  
Lithuania  
Malta  
Montenegro  
The Netherlands  
North Macedonia  
Northern Ireland-GBR  
Norway  
Poland  
Portugal  
Romania  
Serbia  
Slovak Republic  
Spain  
Sweden  
Turkey

### Benchmarking participants

Abu Dhabi-UAE  
Dubai-UAE  
Gauteng-ZAF  
Madrid-ESP

Moscow City-RUS  
Ontario-CAN  
Quebec-CAN  
Western Cape-ZAF

Source: <https://nces.ed.gov/timss/participation.asp>