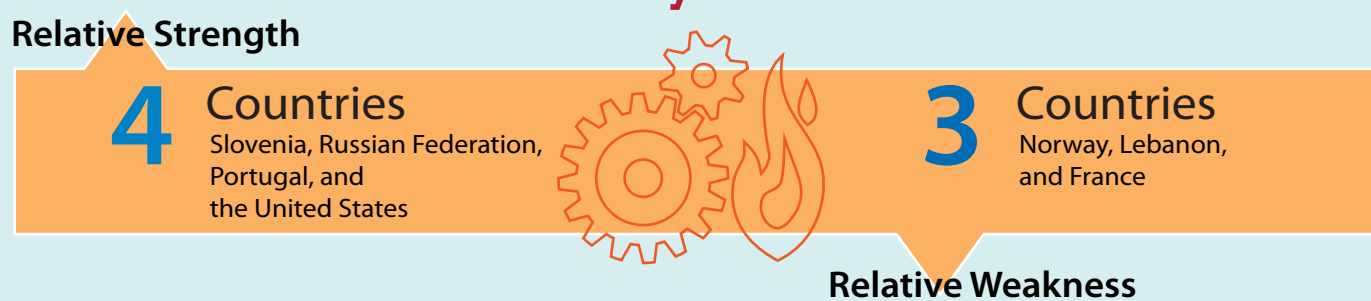


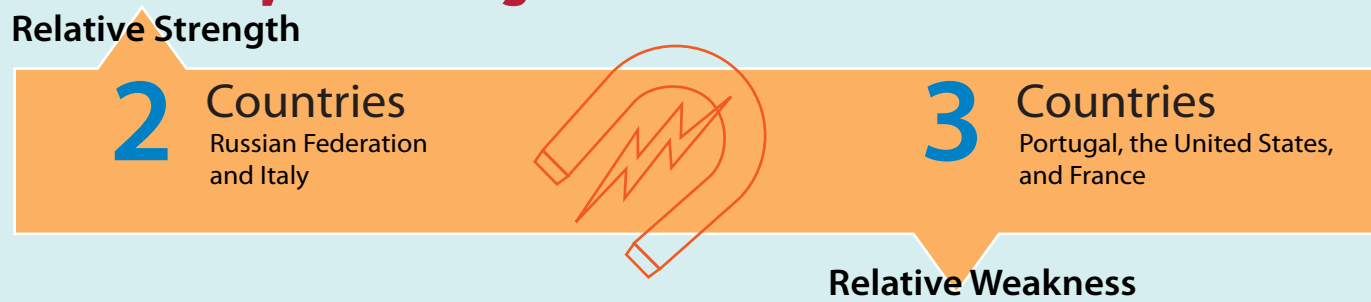
Achievement by Content Domains

Within physics, TIMSS Advanced provided results for three content domains— Mechanics and Thermodynamics, Electricity and Magnetism, and Wave Phenomena and Atomic/ Nuclear Physics. Most countries demonstrated strengths in one or two content domains compared to physics achievement overall, and weaknesses in one or two content domains.

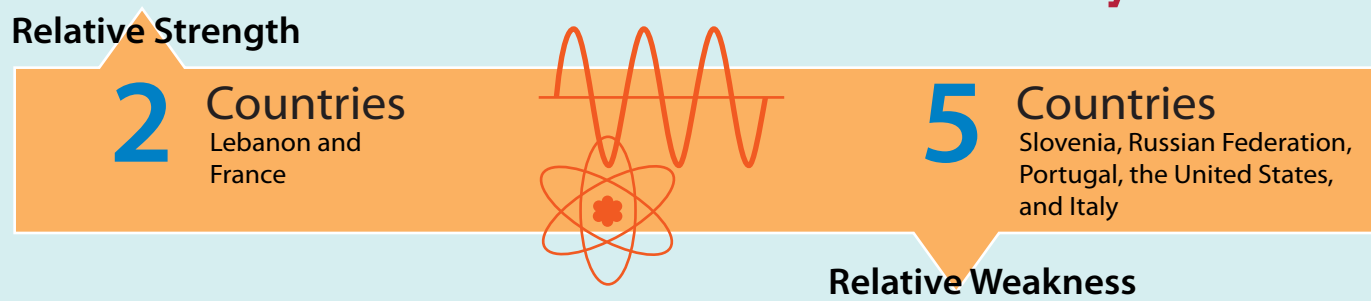
Mechanics and Thermodynamics



Electricity and Magnetism

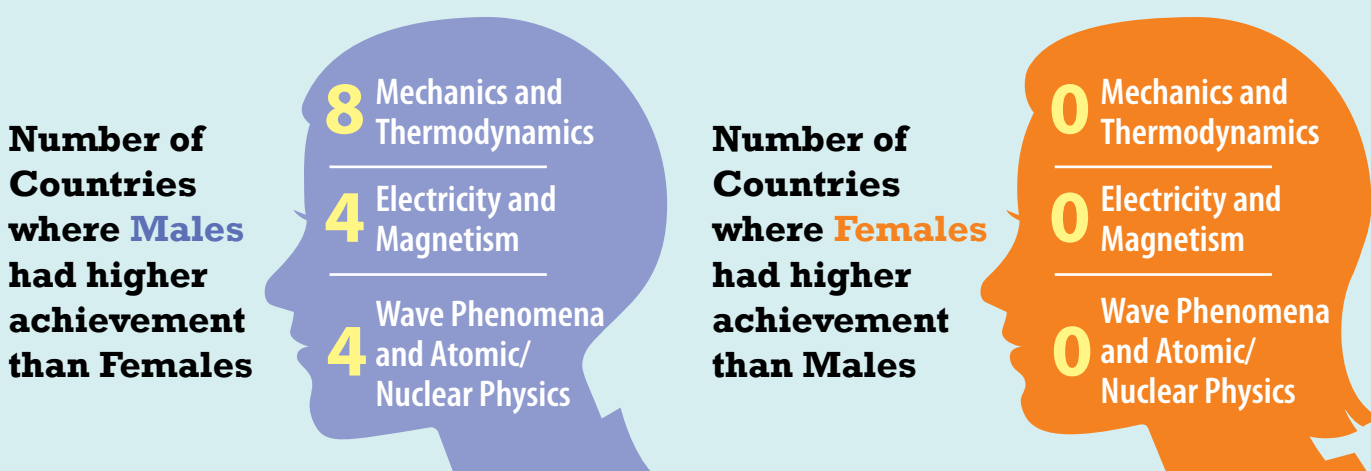


Wave Phenomena and Atomic/Nuclear Physics



Differences reflected in Achievement by Gender

Achievement differences in content domains by gender reflect males' higher achievement in 8 countries in physics overall.



Achievement by Cognitive Domains

TIMSS Advanced provided results for three cognitive domains—Knowing, Applying, and Reasoning. Although there was some balance in achievement across cognitive domains, most countries had at least one strength and one weakness compared to physics achievement overall.

Knowing



Applying



Reasoning



Differences reflected in Achievement by Gender

Besides reflecting males' higher achievement in 8 countries in physics overall, achievement differences in the cognitive domains by gender show a male advantage, especially in Knowing and Reasoning.

