

Exhibit 30. Number of periods grade 8 science teachers covered specific topics. Grade 8 science teachers surveyed in Germany, Japan, and the U.S. indicated that they taught at least a few periods of most every topic listed. Grade 8 physical and general science teachers indicated that there was no topic on which they spent more than 13 instructional periods. A few topics received more extensive coverage in Japan and Germany, as well as by U.S. earth and life science teachers. [We asked teachers to report within specified ranges the number of periods that they had devoted to specific science topics. We surveyed teachers from both grades of Population 2. We obtained the topics used for our survey by combining more specific topics from the TIMSS' science framework to yield a list of familiar topics broadly appropriate to these grade levels. The instrument given teachers to gather these data provided brief descriptions of each topic. We use four different icons here to show which ranges of intended content coverage grade 8 teachers reported on average for each of the countries.]

	Average Number of Periods					
	Grade 8					
	Germany	Japan	U.S. Earth	U.S. Life	U.S. Physical	U.S. General
Earth Features	○	○	◐	○	○	○
Earth Processes	○	○	○	○	○	○
Earth in the Universe	○	○	○	○	○	○
Div., Org. & Struc. of Living Things	◐	◐	○	◐	○	○
Life Processes & Systems	◐	◐	○	◐	○	○
Life Spirals, Genetic Continuity & Div.	○	○	○	◐	○	○
Interactions of Living Things	○	○	○	○	○	○
Human Biology & Health	○	○	○	○	○	○
Matter	○	○	○	○	○	○
Structure of Matter	○	○	○	○	○	○
Energy & Physical Processes	○	○	○	○	○	○
Physical Transformations	○	○	○	○	○	○
Chemical Transformations	○	○	○	○	○	○
Forces & Motion	○	○	○	○	○	○
Science, Technology & Society	○	○	○	○	○	○
History of Science & Technology	○	○	○	○	○	○
Environmental & Resource Issues	○	○	○	○	○	○
Nature of Science	○	○	○	○	○	○

Legend: ○ = <1 period
 ◐ = 1 - 13 periods
 ◑ = 14 -19 periods
 ● = >19 periods