

**Exhibit 24. The five topics emphasized most in Population 2 science textbooks.** At Population 2, U.S. science books, other than single-area textbooks, were much less focused than their international counterparts. About 50 percent of their content was accounted for by the five most emphasized topics compared to an international average of about 60 percent. US single-area textbooks in physical science, life science, or earth science —were highly focused with the five most emphasized topics accounting for more of the books together than was true internationally. [Data collection partitioned each textbook into "blocks" — small segments used as units of analysis. Each bar shows the cumulative percentage of textbook "blocks" for the five topics with the largest percentages of blocks devoted to them. These data are country or multi-country averages for science textbooks at the upper grade of Population 2 (U.S. grade 8). Bars are for the average over all TIMSS countries, for Japan, Germany, and for the U.S. For the U.S., Germany, and Japan, each segment's specific TIMSS framework topic (e.g., 'rocks and soil') could be determined and is shown. Internationally, the five topics varied among countries. We show them only as most emphasized (highest percentage of blocks), second most emphasized, etc.]

