Revisions to the REPA Standards for General Science were guided by recommendations made during the alignment study, by Indiana state educator reviewer comments, and by review of the Indiana Academic Science Standards (Grades 5–12) and the Next Generation Science Standards (NGSS).

Revisions include:

- updating language for consistency;
- updating language to match terminology used in the Indiana Academic Science Standards and the NGSS standards;
- clarifying topics to remove ambiguity (e.g., that the origin of major landforms includes general landforms as well as those in Indiana);
- expanding upon topics to remove restrictive language (e.g., "processes involved in the formation of igneous, metamorphic, and sedimentary rocks" became "processes involved in the rock cycle");
- removing topics to eliminate redundancy (e.g., the use of renewable and nonrenewable energy resources is no longer mentioned twice);
- removing topics to reflect appropriateness of topics for middle school educators (e.g., de-emphasizing genetic engineering, removal of "methods of genetic engineering," de-emphasizing the use of energy in homes);
- changing emphasis of topics to reflect national standards (e.g., modifications to include a standard on engineering design, combining chemistry and physics into physical science, examining human impacts); and
- including topics important to Indiana state educators (e.g., effect of viruses and bacteria on humans, examining state and national standards, science and engineering instructional strategies in real-world scenarios).