Research on Student Learning

Benchmarks in THE DESIGNED WORLD chapter are associated with knowledge and skills needed for other literacy goals. For example, they draw upon benchmarks in THE MATHEMATICAL WORLD chapter for knowledge of shapes, estimation, measure, and the ability to use scale, and upon benchmarks in THE PHYSICAL SETTING chapter for knowledge of materials and their properties, forces, and energy. As a result, the literature on student understanding of these topics provides some insight into when and how students may understand concepts of THE DESIGNED WORLD. For example, research on students understanding of materials suggests that the tasks of classifying objects according to what they are made of and of comparing properties of materials can be challenging for early elementary-school children. In addition, elementary-school children may have limited knowledge or hold misconceptions about the origins and transformations of materials. [1]

References

[1] Russell, T., Longden, K., McGuigan (1991). Materials. *Primary Space Project Research Report*.