

Grade 1 Science, Topic C Building Things



Overview

Students learn about shapes and materials by using them to construct a variety of objects, including model buildings, toys, boats and vehicles. Students can cut and shape, fold, join parts, and pile materials on top of one another, while trying different techniques to achieve their desired object. In the process, they learn to look at objects that are similar to what they are trying to construct and, with guidance, begin to recognize the component parts that make up the whole.

Rationale

Children have a natural curiosity about their surroundings – a desire to explore and investigate, see inside objects, learn about how things work and find answers to their questions. Learning about science provides a framework for students to understand and interpret the world around them.

An elementary science program engages students in a process of inquiry and problem solving in which they develop both knowledge and skills. The purpose of the program is to encourage and stimulate children’s learning by nurturing their sense of wonderment, by developing their skills and confidence in investigating their surroundings, and by building a foundation of experience and understanding upon which later learning can be based.

Elementary and secondary science programs help prepare students for life in a rapidly changing world – a world of expanding knowledge and technology in which new challenges and opportunities continually arise. Tomorrow’s citizens will live in a changing environment where increasingly complex questions and issues will need to be addressed. The decisions and actions of our future citizens need to be based on awareness and understanding of their world and on the ability to ask relevant questions, seek answers, define problems and find solutions.

Problem solving through Technology (Learner Expectations)

<p>General Learner Expectations <i>Students will:</i> 1-3</p> <ul style="list-style-type: none">➤ Construct, with guidance, an object that achieves a given purpose using materials that are provided.	<p>Specific Learner Expectations <i>Students will:</i> Focus</p> <ul style="list-style-type: none">➤ identify the problem or task: What structure do we need to make? <p>Explore and Investigate</p> <ul style="list-style-type: none">➤ attempt, with guidance, one or more strategies to complete the task➤ engage in all parts of the task➤ identify materials used➤ recognize and describe steps followed, as based on independent activity, on directed activity and on observing the activity of others
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	<p>Reflect and Interpret</p> <ul style="list-style-type: none"> ➤ describe the product of the activity using pictures and oral language ➤ identify processes by which the product was made ➤ identify how the product might be used
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Topic C: Building Things

General Learner Expectations	Specific Learner Expectations
<p><i>Students will:</i></p> <p>1-7</p> <ul style="list-style-type: none"> ➤ Construct objects and models of objects using a variety of materials. 	<p><i>Students will:</i></p> <ol style="list-style-type: none"> 1. Select appropriate materials, such as papers, plastics, woods, and design and build objects based on the following kinds of constructions tasks: <ul style="list-style-type: none"> ➤ Construct model buildings: e.g., homes (human, animal, from other cultures), garages, schools. 2. Identify component parts of personally constructed objects, and describe the purpose of each part. 3. Compare two objects that have been constructed for the same purpose, identify parts in one object that correspond to parts in another and identify similarities and differences between these parts. 4. Recognize that products are often developed for specific purposes and identify the overall purpose for each model and artefact constructed.