74: The Green Home Project

Classroom Activity: To create a model home that is friendly to the environment.

Grade: 1

Strand(s): Understanding Structures and Mechanisms

This task addresses the following overall expectations:

- investigate structures that are built for a specific purpose to see how their design and materials suit the purpose;
- demonstrate an understanding that objects and structures have observable characteristics and are made from materials with specific properties that determine how they are used.

and the following specific expectations:

- use technological problem-solving skills, and knowledge acquired from previous investigations, to design, build, and test a structure for a specific purpose;
- use appropriate science and technology vocabulary, including experiment, explore, purpose, rigid, flexible, solid, and smooth, in oral and written communication;
- use a variety of forms (e.g., oral, written, graphic, multimedia) to communicate with different audiences and for a variety of purposes;
- describe the function/purpose of the observable characteristics of various objects and structures, using information gathered through their senses;
- identify the materials that make up objects and structures;
- describe the properties of materials that enable the objects and structures made from them to perform their intended function.

Assessment Categories:

- Knowledge and Understanding
- Thinking and Investigation
- Communication

Cross-discipline connections: Geography (types of Rock), Art (Sculpting)

Type of Activity: Classroom

Preparation: Varies

Materials/Resources for teachers:

None required

Materials/Resources for students

Shoe box with lid

Paper

Scissors

Glue

Found materials (plastic, craft papers, etc.)

Activity Description:

1.) Using a shoe box with a lid to serve as the house, students will create paper products for the house that would function in theory. Students may use other materials - such as plastic or craft papers. The inside should be painted to suggest a real home. Students can work individually or in groups.

Theoretical materials that students could use can include:

- Salvaged products - Reused products instead of a new one from raw materials (bricks)
- Products made from recycled content - Rubber mats made from automobile tires
- Products made of industrial waste - Iron slag used to make mineral wool insulation
- Products made of agricultural waste- Straw bales used as building blocks, reinforce plastics
- Students give an oral presentation on their houses.