



Lesson 1: Building Shelters

In this lesson, students explore the reasons for making buildings and how they might build a shelter.

Support material: Information Sheet 1, “Scrapbook Instructions”



Spotlight

Using natural resources



Key Concepts

Shelter. Protection. Materials.

Brainstorming

- Why do we need buildings? Think of as many reasons as possible.
- What range of materials is suitable for building? (See Lesson 7 in Option A, “My Home”, for more information.) Class could divide into groups to compile information and report back to the teacher.
- What important features would you look for in a well-designed building — space, light, comfort. . .?



Activity — “Lost in the Jungle”

Divide the class into teams, with 3 or 4 students per team. Then present them with the following scenario.

“On an adventure holiday along the Amazon River, you and your friends have become separated from the group and are lost in the jungle. You decide to stay where you are to make it easier for your group to be rescued. Meanwhile, you need a shelter. The only materials available are natural ones — trees, sand, stone, leaves, grasses, water. Your only tools are a knife, some paper and a pencil. What do you do?”

Each team must:

1. Decide what they need protection and shelter from.
2. Decide what materials to use. Students should examine the materials provided and talk about their characteristics and suitability.
3. Make a drawing of their idea for the shelter.
4. Build a small-scale model, using any of the materials supplied.

Materials: builder’s sand, twigs and small branches, gravel, leaves, grass, stones, water, knives, some short pieces of planking to use as cutting boards (to avoid damage to table tops).



Desks/tables should be covered with newspaper, or students should work on boards which can be cleaned easily afterwards. The project could be done outdoors, if circumstances permit. Students could negotiate the possibility of making a video of their efforts. Their models could also be photographed to keep a record of ideas, then filed in their folders.

Review of work

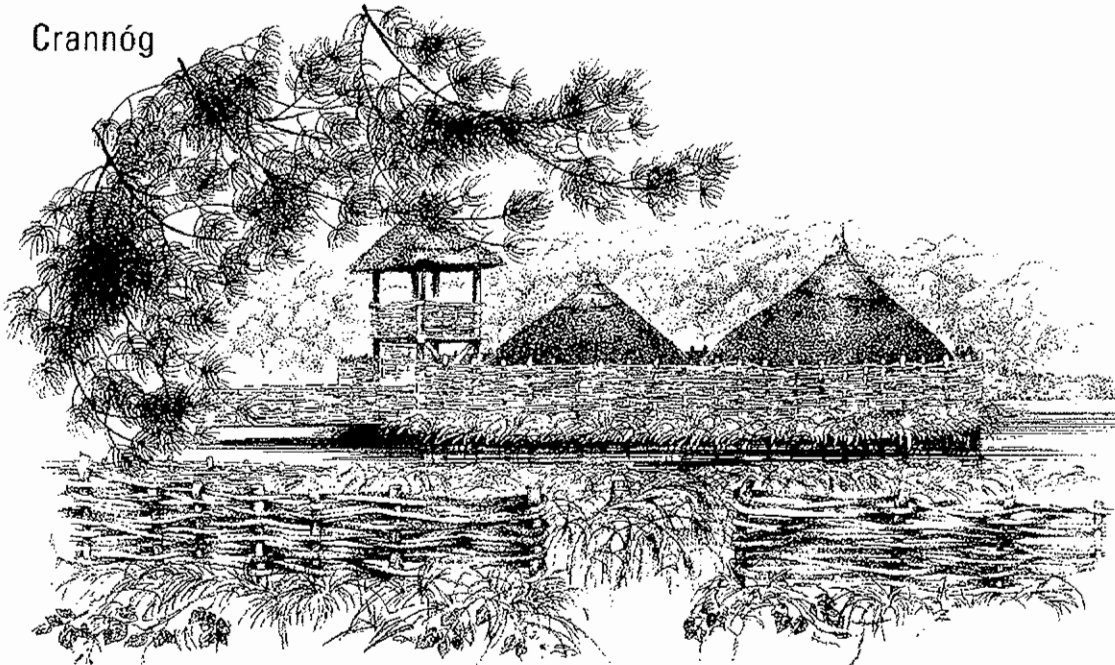
Each team presents its drawing and model. Discuss.

- What materials were best for building the shelter? Why?
- Was any material not very useful? Name it and explain why.
- Ask students to vote on the best design and give reasons for their choice.

Homework

In Ireland there are many examples of ancient buildings constructed from natural materials. Using history books for reference, make a drawing of a crannóg. Find out when and why crannógs were built, how their buildings were constructed and what materials were used.

Crannóg



Drawing: Hilary Gilmore



Scrapbook

To complement the work they are doing, tell students to start collecting material for a Scrapbook. Distribute and discuss Information Sheet 1 “Scrapbook Instructions”.

Dedicate a page/section in the Scrapbook to **Shelters**. Students collect and label pictures of buildings constructed from natural materials from different parts of the world. Use the school library as a resource centre.



Vocabulary File

Students also start their own Vocabulary Files. These should be updated with each lesson.

Cross-Curricular Connections

1. Art — Build a model of a crannóg.
2. Gaeilge — Study crannógs through the Irish language.
3. History — Visit a reconstruction of a crannóg if there is one in your area (heritage parks such as Ferrycarraig, Co. Wexford). Take photographs and make drawings. Take notes on what you observe. What was life like in a crannóg?
4. Technical Drawing/Construction Studies — Conduct a survey of the crannóg. Refer to “Surveying Guidelines”. Complete your drawings when you are back in the classroom.
5. History/Construction Studies — Make a study of early shelters in Europe, Africa, Asia and/or South America.
6. Geography — Study people in the world today who use natural materials for their shelters. You may want to base your research on one continent or a particular group of people.
7. Mathematics/Natural History — Investigate the geometry of an animal “dwelling” such as a snail shell or a wasps’ nest.