

# Lesson Plan

**Description**  
 The innovation of Indigenous peoples across Canada have allowed us to use a variety of materials to make useful tools and structures. This lesson will explore traditional Indigenous materials and techniques used in building everyday objects.

- Learning Outcomes**
- Students will learn about the different tools Indigenous peoples created and used
  - Students will learn about the natural objects and materials that they see in their daily lives and how they have potential to be used as a tool or for other resources
  - Which materials are used to create modified materials

- Specific Expectations**
- A3.1** Describes practical applications of science and technology in their home and community.
- D2.1** Describe objects as things that are made of one or more materials
- D2.5** Identify properties of materials that enable the objects made from them to perform their intended function
- D2.8** Identify sources in nature of some common materials that are used to make various objects, including structures

**Introduction**  
 Aanii>Hello, my name is Shaylene Restoule. I am one of the Indigenous Program Interns at Science North, and I am also completing my Indigenous Studies degree at Laurentian University. I am an Anishinaabe kwe with relation to Dokis First Nation and Wikwemikong Unceded Reserve. I have gained a lot of knowledge through the years growing up, of our Indigenous worldviews and how we can live in balance and harmony with the land and all living things around us.

**Indigenous Peoples and the Nature they Protect**  
 Indigenous peoples' contributions to the environment are essential to implementing solutions to better the ecosystems. Our traditional knowledge contributes to the sustainability in our communities' ecological balances. When we are taking from the land, we must say our thanks by offering our sacred tobacco but remembering to only take what you need. Indigenous people's worldview differs from that of others because of the interconnected perspective of all living and non-living things. We work in harmony and balance with the environment around us and we provide for each other.

**Natural Materials and Resources**  
 Natural materials and resources are resources that are taken from nature to be modified into a useful resource, here are some examples:

#### Maple Tree Branches

- Often used to create spears because of their hardness and durability. Larger sticks and branches were also used to create tipis and sweat lodges

#### Stones

- Stones were used for various reasons; they can be used for grinding, spearing, cutting tools to prepare food or make clothing. Many of the stones used would have been flint, chert, or obsidian.

#### Animal Hide

- Moose and deer hide were used to make various materials including moccasins, mitts, medicine bags and sometimes jewelry.
- There is also a traditional practice that is labor-intensive for Indigenous peoples called moose hide tanning. It is the process of scraping, fleshing, and smoking of the moose hide.

#### Sweetgrass

- Sweetgrass is one of the four sacred medicines that is harvested and then braided. Sweetgrass is used for ceremonial practices and can be burned to cleanse yourself. It can also be used to create baskets and hats by using the weaving technique.

#### Birch Bark

- The most popular Indigenous-made object made from birch bark is the canoe. Using birchbark allowed the canoe to be lightweight, waterproof, and strong, lasting a lifetime if properly cared for.
- Other objects that have been made from birch bark includes baskets, quill boxes, frames, and it is often embodied into jewelry.

#### Antler Bone

- Bone attained from animals were modified to create a variety of tools such as: scraping, awls, needles, or wrenches. Inuit peoples also used antler bone to create snow goggles.

#### Cedar/Spruce Root

- Roots from cedar or spruce trees tend to have a long root which can be split and prepared and used for stitching because of its soft and pliable texture.

### **Modified Materials**

Modified materials are the natural resources that have been adjusted or improved for use, such as tools or clothing. Here are a few examples:

#### Snowshoes

- Frames are usually made from ash wood and the weaving is made using caribou or moose skin. The process of snowshoe making is quite time consuming, as one must wait for the caribou skin to hang and dry

#### Sweetgrass Baskets

- Sweetgrass baskets were used to harvest food and traditional medicines. They were also used for storing, rinsing and food preparation process.

### Birch Bark Canoe

- As mentioned above, birchbark was the most efficient material to create the canoe because of its lightweight, waterproof, and strong qualities. Although they were susceptible to damage from rocks, some were built sturdy enough to make it through rough waters.

### Materials

- Natural resources (sticks, stones, hide, birch bark, sweet grass)
- Any modified material that the students can visually see (use pictures if needed)
- Activity Sheet

### Action

In this activity we will be identifying the different objects and materials that Indigenous peoples used in their daily lives to hunt and gather, and to participate in their traditional practices and ceremonies.

#### Step 1 – Identify Natural Resources

- A. Bring students outside to collect materials that they think could be modified into a useful resource.
- B. Have students identify the natural materials (sticks, stones, birch bark, sweetgrass) and open a discussion asking the students what they think these materials can be modified into and what it is used for (tools, baskets, transportation).

After discussing with students their thoughts on the natural materials and resources, take a look at the various materials that Indigenous people have made. Are these tools similar to any of the tools we see being used today?

#### Step 2 – Activity Sheet

After discussing the natural materials and resource functions with the students, pass out the activity sheet and ask students to draw a natural resource with its man-made material beside it.

- Are there any other materials or resources that can be used to create any tools that were not discussed today?
- How many of these Indigenous-made materials have you seen before?
- Are these materials still being used by Indigenous peoples today?

#### Step 3– Indigenous Materials Card Game

Lay out all the cards up right so the students are able to see all of the resources and man-made materials. Following, flip the cards over so that you cannot see the materials anymore. Ask students to match the natural resource with the man-made material until all cards have found their pair.

**Pairs for Reference:**

- Sweetgrass - Sweetgrass basket
- Animal Hide – Moccasins (Or clothes)
- Flint - Arrowhead
- Sticks and Stones – Stone tool (Axe or spear)
- Birch Bark – Canoe
- Cedar Root – Fishing Nets
- Antler Bone – Snow Goggles (Often used by Inuit's)
- Cedar – Totem poles

**Consolidation/Extension**

**Review and Assess**

- Ask students if they have ever created something from natural materials before; did it turn out the way they wanted? Were all materials used from nature? What did they create?
- What do Indigenous people offer to the land when taking from the land?
- Remind students the importance of economic sustainability for Indigenous peoples and why it is important to only take what you need.

**Accommodations/Modifications**

- This activity can be done as a demonstration for the students by showing the different materials.
- If unable to collect natural resources from nature, then show students some pictures from the examples mentioned above.

**Assessment**

This activity and the guiding questions can be used as Assessment *for* Learning. Gather information from the students throughout the activity to gauge their level of understanding and if additional time will be needed for the topic.