

## Pictou County Forest School - Grade 5 Lesson Plans

### Earth and Space Science: Weather

**Activity:** Shelter building (suggested time: 90+ minutes)

**Overall Curriculum Outcome:** Learners will investigate how weather impacts daily life.

**Specific Curriculum connections:**

Weather conditions affect living and non-living things

- How does weather impact daily life?
- How do animals respond to weather in different seasons?

Weather-related technologies for preparing and responding to weather (umbrellas, showshoes, lightning rod, seawall)

- How do we use particular clothing or tools such as umbrellas, showshoes, lightning rod, and seawall to respond to weather conditions?
- How do we design structures to protect us from weather?

**Materials:**

- Rope, tarps
- Found natural materials for shelter building

**Intro/Activation:**

Ask students the question: How do *people* keep warm when it's cold outside?

- Possible answers: dress in warm clothes, exercise, stay inside, wear layers etc.

Ask students the question: How do *animals* keep warm when it's cold outside?

- Possible answers: grow thicker coats/fur, hibernate, stay in sheltered places, blubber etc.

Focus on the similarities between animals/humans (bulking up our outer protection, shelter, staying inside) and eventually leading students to the idea of insulation. What is it? How does it work? Where do we see it?

Tell the students that today we will be investigating how weather affects living things and how we/animals can prepare for these daily and seasonal weather changes.

**Instructions/Activities:**

Since animals have to use natural materials, have a quick brainstorm about what these could be:

- Nests and cavities: feathers, sticks, grasses, leaves, moss,
  - dens/burrows: using the stable temperature of the Earth as an insulative feature
1. Students scavenge the area around base camp looking for insulative materials.
    - Come back to circle for a show and share
    - How would these features work together to make, for example, a squirrel nest?
  2. Nature walk looking for animal homes and/or potential animal homes.
    - Either walk along trail (e.g., to hammock village) searching for animal homes, OR take students to a location rich with a diverse array of potential animal homes (burrows, dead standing trees for cavity nesters, blown over trees etc).

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- Send students off in groups looking for animal home sites followed by a gallery walk where students can show off their animal home site (e.g., “We thought this blown over tree would give good protection for a hare”).
  
- 3. Build a shelter: make up a fun scenario to set the tone (You are hiking on Fitzpatrick Mountain and a windstorm comes in...)
  - Based on group dynamics/goals of educators, students can be shown various knots and/or styles of shelters prior to sending them off.
  - Group brainstorm on the pros/cons of various natural materials for shelter building (e.g., spruce bows are great for bedding because they get us off the ground).

Two options:

Have students apply their knowledge of seasonal preparedness to create their own survival shelter using natural materials/tarps/rope followed by a gallery walk for further discussion and sharing.	Assign different groups a particular animal (e.g., snowshoe hare, chickadee, fox) and have students find/build a suitable shelter followed by a gallery walk for further discussion and sharing.
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#### **Reflection/further wonderings:**

Students can rotate to another shelter to analyze and offer suggestions for improvement.

Adults can visit each shelter, simulating various weather conditions: sprinkle water or throw snow onto their shelters.

What natural materials did we find most useful?