

**Pictou County Forest School - Grade 2 Pre-Visit Lesson Plans**  
**Earth and Space Science: Air and Water in the Environment**

**Activity:** Water Filters

**Overall Curriculum Outcome:** Learners will analyse the interconnectiveness of air and water in the environment, inclusive of a Mi'kmaw perspective.

**Specific Curriculum connections:**

- Interconnective relationship of Mi'kmaw people with air and water
  - How are air and water important to Mi'kmaw people?
  - How can we keep water clean?
- Personal actions can contribute to a healthy environment
  - How is water important to me?
  - How can I keep the environment healthy?

**Materials:**

- Plastic bottles
- Common household materials: cotton balls, tissue, towels, etc.
- Natural materials: sand, gravel, charcoal etc.
- Basic instructions for creating the water filter:  
<https://kids.nationalgeographic.com/books/article/water-wonders>
- A great video illustrating the power of plants to stop erosion/filter water:  
<https://youtu.be/im4HVXMG168>

**Context:**

Ask any students who live in the country where their household water comes from? How does well water remain so clear and clean? What forces are at work? Many households use water filtration devices inside the house to filter out microscopic microbes or particles, but this experiment seeks to illustrate that all the different layers of soil help filter out lots of harmful particulates too. Kids think that because our well water comes from the ground that it must be dirty, where this experiment hopes to prove that it is in fact all the different layers of sediment that create an amazing filter system for the water we drink.

**Instructions/Activity:**

Depending on time and preference, students can create one filter or two using different materials. Natural materials vs household materials.