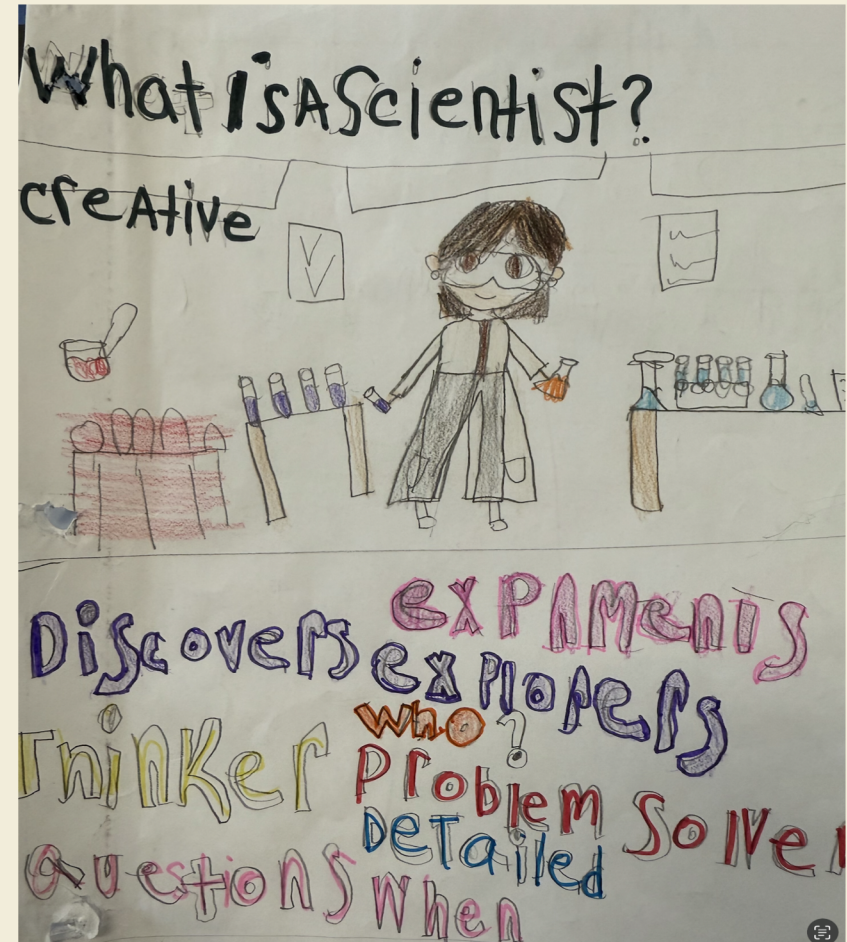


Grade 3 Science



Part of being a scientist is building your knowledge by:

- collecting data
- comparing data
- developing and asking questions
- finding solutions



One way you can do this is by using books, websites, Elders or Knowledge Keepers, completing investigations, observing, and asking community members.

You are going to practice being a scientist and investigate a material of your choosing.

Grade 3

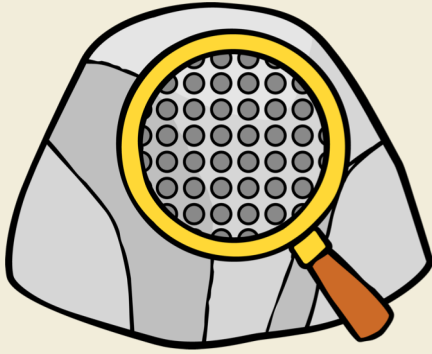


Matter: Understandings of the physical world are deepened by investigating matter and energy.

Learning Outcome:

Students investigate and analyze how materials have the potential to be changed.

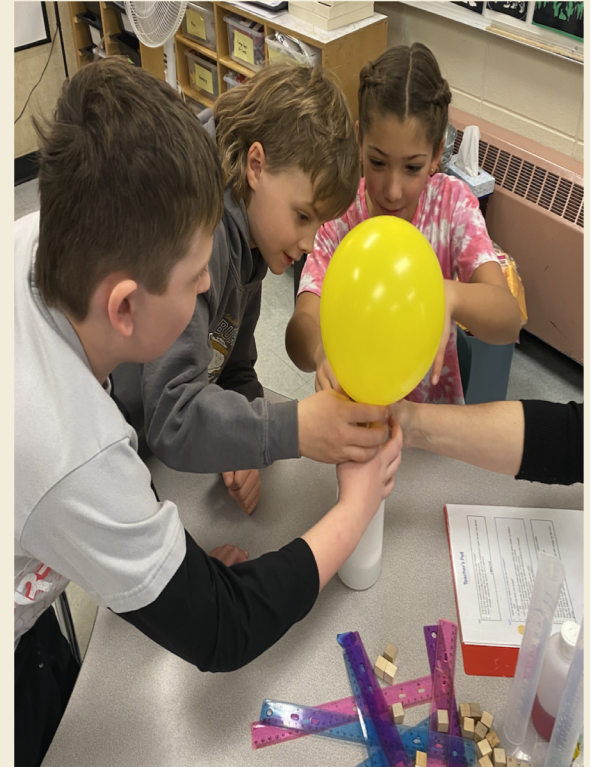
What do you notice?
What do you wonder?



Everything is made up of matter. These three (3) states of matter are made up of tiny particles. These particles can be in a solid state, a liquid state or a gas state.

What Did You Notice? What Do You Wonder?

- I notice that the orange in the glass is a liquid. Maddox
- I notice the kettle is gas. Bruce
- I notice the chair and the rock is a solid and the kettle and the glass of orange and milk is a liquid. I wonder why the balloon is in there? Cameron
- I wonder if you pour the milk into the orange juice glass if it would still be the same amount? Archer
- I notice the balloon and the kettle both have a gas. Sulli
- I notice that they all have a match for example: the chair and the rock are solid, the milk glass and the orange juice glass is liquid and the kettle and the balloon both have gas. Gemma
- I wonder why is there only solids, liquids and gases? Luke
- I wonder if it is the same kind of gas in the kettle as the balloon? Casen



- I can safely perform simple experiments to demonstrate changes of state.
- I can discuss examples of daily activities that include heating and cooling.
- I can describe solid, liquid and gas states of matter in terms of shape and volume.

Teacher's Pet

In-school Field Trip: What's the Matter

Description: Our detective's dog, Buddy, was splashing in mud and is now a Muddy Buddy. You might be wondering, why does this matter? Anything on earth that takes up space and has mass is made up of matter. Well, to fully understand how materials have the potential to be changed, we must understand the characteristics of the three states of matter – solid, liquid and gas. This interactive experience will be filled with lots of hands-on activities that will leave you with practical knowledge of how matter can be altered in materials you use in your daily life and how some changes are irreversible. You will even explore the effects of temperature on the different states of matter so you can apply this information learned to understand the water cycle. As you explore the states of matter you will discover how to help Muddy Buddy get clean again. So, what's the matter? Let's start investigating!



- I can identify examples of natural and processed materials in the local environment.
- I can investigate how a natural material is processed to make a new material.
- I can compare natural and processed materials.
- I can discuss how the use and selection of materials is guided by relationships with the land for First Nations, Métis, and Inuit communities.

1



Sheeps are sheared
in the springtime.

2



Their wool is then
cleaned and
prepared to be
spun into yarn.

3



The yarn has been
spun and it can
colored with dye to
make a variety of
colors!

4

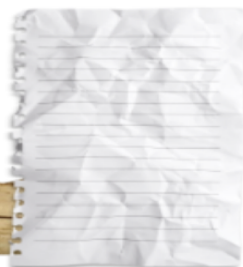


The yarn is then
used to make a
multitude of things,
such as this knitted
sweater.

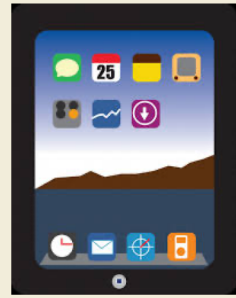
**Natural
Material**

**Processed
Material**

Turn and talk to a partner. Decide which of these are natural materials and which are processed materials.

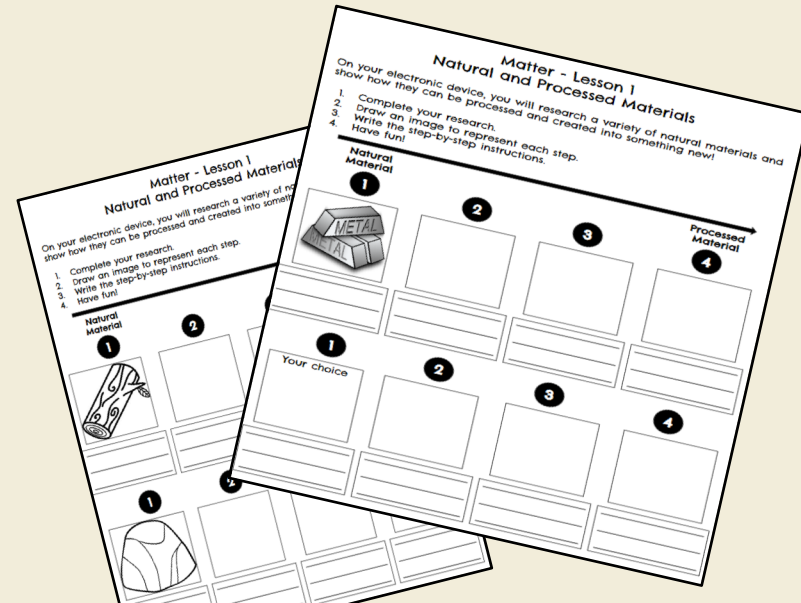


As a scientist you will need:



On your iPad, you will research a variety of natural materials and show how they can be processed and created into something new!

1. Complete your research.
1. Draw an image to represent each step.
1. Write the step-by-step instructions.
1. Have fun!



First Nations, Métis and Inuit people are guided by their relationship with nature. They are guided through living in harmony and balance with the land and each other.

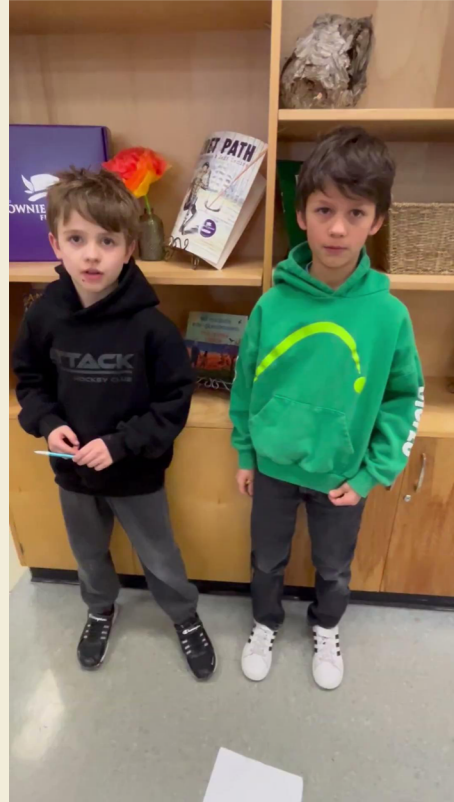
What do you think harmony and balance mean?



"Harmony means living together without fighting and struggle. Balance means they only took what they needed from the earth."

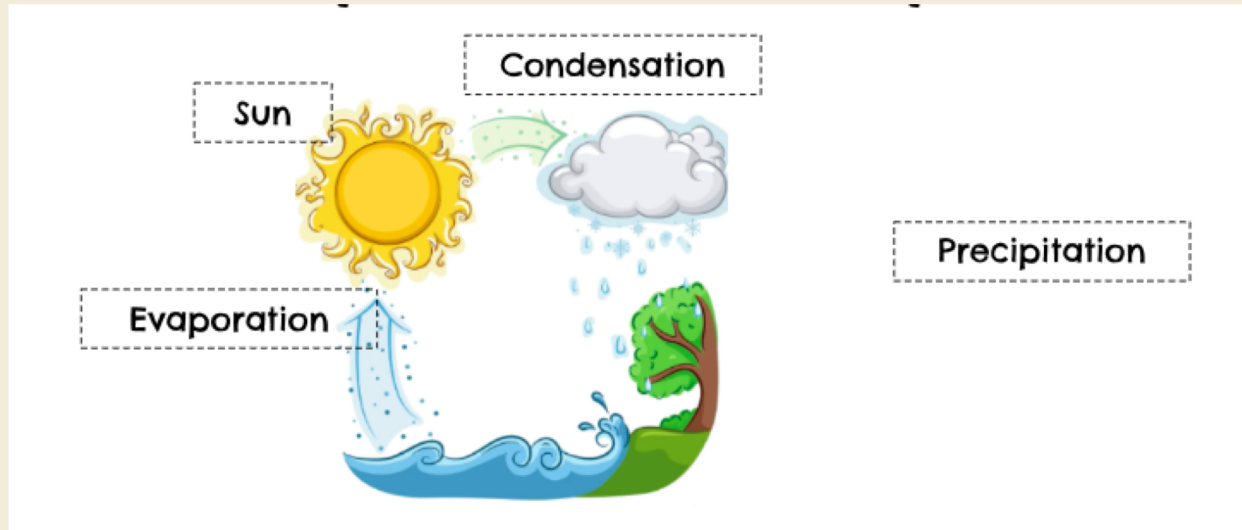
-Henry and Thomas

Student Understandings



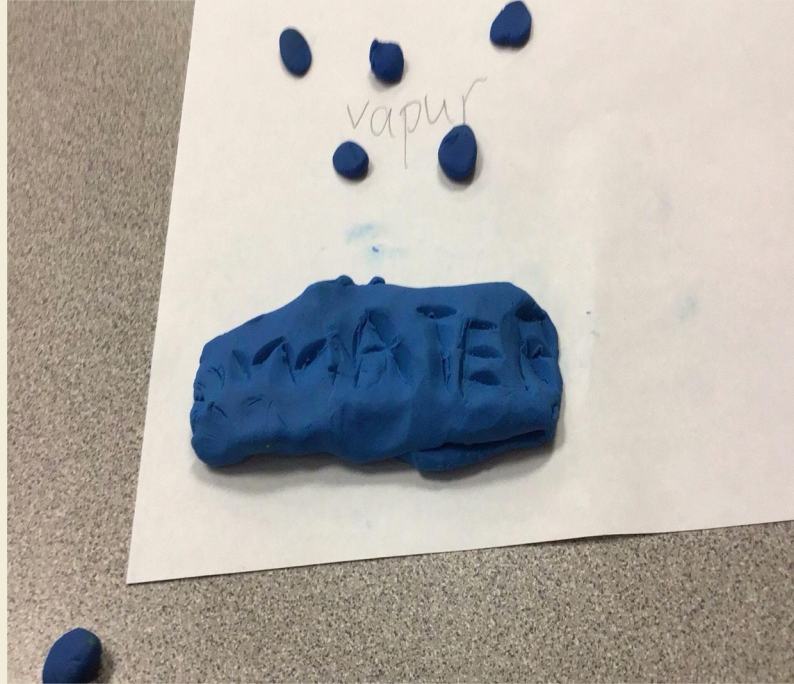
Stop-Motion Video of the Water Cycle

You and your group are tasked to create a stop-motion video that showcases all the different parts of the water cycle. It must include all the following parts:



- I can describe and diagram the changes of state of water in the environment using the water cycle.
- I can demonstrate respect for water in the local environment.

Stop Motion Video



Moving Forward

Grade 3 Organizing Idea

Energy: Understandings of the physical world are deepened by investigating matter and energy.

Next we will be exploring how can forces relate to changes in movement through:

- Strength and direction of forces
- Change of shape and size of objects due to force
- Stretching, pulling, squeezing, pushing
- Simple machines