

<p><b>Science Grade 1/2</b></p>	<p><b>What are the objects and materials around me?</b></p>	<p><b>Ms. Nameth</b></p>
<p><b>Stage 1: Identify Desired Results</b></p>		
<p><b>Outcome(s)/Indicator(s):</b></p> <p>OM1.1 - Investigate observable characteristics and uses of natural and constructed objects and materials in their environment.</p> <p>(b) Distinguish between objects and materials found in nature and those constructed by humans.</p> <p>(c) Observe natural and constructed objects and materials in their environment in a safe and respectful manner using all their senses as well as technologies, such as hand lenses, cameras, and microphones, which enhance the senses.</p> <p>(d) Record relevant observations about common objects and materials using written language, pictures, and tables.</p>		
<p><b>Key Understandings: ('I Can' statements)</b></p> <p>I can point out the difference between natural and constructed materials</p> <p>I can respectfully observe objects and materials</p> <p>I can use pictures to record observations of materials</p>	<p><b>Essential or Key Questions:</b></p> <p><b>How can I find the difference between natural and constructed materials</b></p> <p><b>How do I respectfully observe objects and materials</b></p> <p><b>How can I use pictures to record observations of materials</b></p>	
<p><b>Prerequisite Learning:</b></p> <p>N/A</p>		
<p><b>Instructional Strategies:</b></p> <p>(What strategy(ies) will you use throughout the lesson to engage students in the learning process?)</p> <ul style="list-style-type: none"> <li>- Anchor Chart</li> <li>- Group Discussion</li> <li>- Partner Work</li> <li>- Exploration</li> <li>- Outdoor Learning</li> </ul>		
<p><b>Stage 2: Determine Evidence for Assessing Learning</b></p>		
<p>Formative:</p> <ul style="list-style-type: none"> <li>- Examine the photos that students took of various objects &amp; materials found around them</li> </ul>		
<p><b>Stage 3: Build Learning Plan</b></p>		

**Set (Engagement):****Length of Time:** 5 mins

Today we are starting a science unit on materials and motion!

Since it is only our first lesson we are going to first going to focus on materials.

So, let's think! What are materials?

Quiet hands up, does anyone have any ideas what a material might be?

- A material is a thing used to create something new

**Discussion:**

There are actually two kinds of materials. Materials found in nature and those constructed by humans.

- Natural Materials: something that we get straight from our environment. An example of this is wood and rocks!
- Man-made Materials: something that we can not get from nature. An example of this is glass and paper

Let's brainstorm more examples of each together!

- Natural: Wool, gold, cotton, coal, sand
- Man-made: Plastic, Fabric, concrete, rubber

Okay this is a great list that will help you out during our activity.

**Development:****Length of Time:** 25 mins**Activity:**

For our activity we are going to be doing a little scavenger hunt to look for man-made materials around the classroom! You are going to be in a group and will take turns using the iPad's to take pictures of the man-made materials you find!

Before we get started, We just need to remember that we need to be very careful with the iPads and we are going to make sure each group member gets to take at least 1 picture. Also, just a reminder that we are going to stay out of the zen den during this activity and we need to make sure we are staying on task because we are going to come back and share what we found! I want everyone to try and get at least 5 different man-made materials!

\*\*Sticky notes with grouping on (once we figure out how many ipads there are)\*\*

**Materials/Resources:**

- Example pictures of materials
- Whiteboard
- Anchor chart paper
- Markers
- iPad's (1 per pair of students)

**Possible Adaptations/  
Differentiation:**

- Challenge stronger students to try and find some materials we haven't thought about yet
- For students who need more help you can help them revisit our list

**Management Strategies:**

- Quiet hands up
- Find a good learning spot

**Safety Considerations:**

- Everyone needs to stay on the same side of the playground as me for outside learning to work
- We need to be sure we are only using the iPads for the purpose of this activity.

After 5ish mins call everyone back to the carpet and have them give me their Ipads as they come to the carpet

Students will pass me their iPads before they sit down and then I will choose a few to show a picture of and then we will discuss:

- Is this a man-made material?

Then, students challenge students to think about if there is any natural materials in the classrooms

Depending on time if they think there is they can have the iPad's back go around the classroom and try to find any sort of natural materials

If they can't find any, and the weather is good, we can leave the iPads in the classroom and go outside to look for natural materials as a group, this will lead right into recess.

After students are done we will meet back on the carpet (or in a circle outside) and students will share some of the natural materials they found.

**Learning Closure:**

**Length of Time:** 5 mins

We will end with a quick discussion of students sharing some of the different natural and constructed materials they found in their exploration.

#### **Stage 4: Reflection**

*(This part of the lesson is completed after the lesson has been delivered; this is where you can record how it went, what you would keep, and what would you change for next time)*

Lesson #2 - Wednesday, March 9th

Science Grade 1/2	What are the objects and materials around me?	Ms. Nameth
<b>Stage 1: Identify Desired Results</b>		
<b>Outcome(s)/Indicator(s):</b>  OM1.1 - Investigate observable characteristics and uses of natural and constructed objects and materials in their environment.  (f) Distinguish between the materials used to construct an object and the object itself.  (k) Analyze how common objects and materials are depicted in texts, pictures, and videos.  OM1.2 - Examine methods of altering and combining materials to create objects that meet student- and/or teacher-specified criteria.  (c) Examine methods (e.g., gluing, stapling, taping, and buttoning) of joining materials of the same and different types.  (d) Use appropriate tools (e.g., glue, scissors, and stapler) correctly and safely for manipulating and observing materials and when constructing useful objects.  Arts Education Connection:  CP2.8 - Create art works using a variety of visual art concepts (e.g., secondary colours), forms (e.g., collage, drawing, painting, sculpture, mobile, traditional art), and media (e.g., paper, found objects, paint, crayons).		
<b>Key Understandings: ('I Can' statements)</b>  I can think of questions about common materials  I can think about how common objects and materials are depicted in texts, pictures, and videos.  I can use different methods of joining materials  I can use appropriate tools correctly and safely	<b>Essential or Key Questions:</b>  <b>What do I wonder about characteristics of common materials?</b>  <b>How are common objects and materials depicted in texts, pictures, and videos?</b>  <b>What are different ways of joining materials</b>  <b>How can I use tools correctly and safely</b>	
<b>Prerequisite Learning:</b> <ul style="list-style-type: none"><li>- What materials and objects are</li><li>- What the difference between man-made and constructed materials are</li></ul>		
<b>Instructional Strategies:</b> <ul style="list-style-type: none"><li>- Group Discussion</li><li>- Anchor Chart</li><li>- Direct Instruction</li><li>- Individual Work</li></ul>		

## Stage 2: Determine Evidence for Assessing Learning

Formative:

- Examine the completed graphic organizer

## Stage 3: Build Learning Plan

**Set (Engagement):**

**Length of Time:** 5 mins

Recall from previous lesson

- Yesterday we learned what materials are and we also learned two different kinds of materials! Does anyone remember what the two kinds were?
- Yes! Natural and Man-Made

Well today we are going to be learning a little more about materials BUT we are also going to be learning about objects!

So, if we look at our chart we made yesterday we can see that materials are used to make something new!

Now let's think about objects? Quiet hands up, does anyone have an idea of what they think an object is?

An object is the new thing that was created from the materials!

So, if I have a bunch of fabric at home that is my material. But if I use my sewing skills to make that fabric into a shirt then my shirt is the object!

Let's think of a different example. What about this markers? Do we think it's an object or a material?

- No, The marker is an object but it is made up of different materials!
- Does anyone have any idea what some of the materials might be?
- Right, the plastic and ink it's made of are both materials!

Hmm... What about the wood on top of the desk? Is the wood an object or a material?

- Right! The wood is a material!

Now that we've looked at a few examples I think you are ready to try it out on your own!

**Development:**

**Length of Time:** 25 mins

**Materials/Resources:**

- Example pictures of objects
- Anchor chart paper
- Markers
- Picture to cut out worksheet x19
- Graphic organizer worksheet x19

**Possible Adaptations/**

**Differentiation:**

**Management Strategies:**

**Safety Considerations:**

Here I have two different pieces of paper. One paper has a bunch of different pictures of objects and materials all mixed together. And the other has a little organizer on it. One side says “objects” and the other side says “materials.”

So, what you are going to do is you are going to cut out one square and then think about which side it will go on to. Then, you are going to take your glue and glue it onto the correct side!

We will do the first one together before you can try it yourself!

I am going to call you all back to your desks by table, but before you go find your seat I want you to stop at your cubby and grab your scissors and your glue sticks!

**\*\*Make list of each table\*\***

Okay! Let’s try this first one together. I need everyone to remember to be very careful using your scissors and make sure you are only cutting the paper with them.

So, Let’s cut out the first one. Hmm.. where do we think this is going to go? Okay, let’s glue it down then! Once you are done gluing add your name on this page! Now, everyone try it out on your own!

**Learning Closure:**

**Length of Time: 5 mins**

Okay everyone if you didn’t get to them all that’s perfectly fine as long as you sorted at least 6 different objects! If you are done 6, you can start to clean up your things. Make sure to put your scrap paper in the recycling and I will come around and collect your paper that you glued the pictures onto!

Have everyone come back to the circle for an end of class wrap up.

Now that you’ve thought about objects and materials for a couple days, does anyone have any questions they want to add to our list?

**Stage 4: Reflection**

# Materials and Objects

Oh no! My list of materials and objects got all mixed up! Can you help me sort through them?

Wood



Pencil



Metal



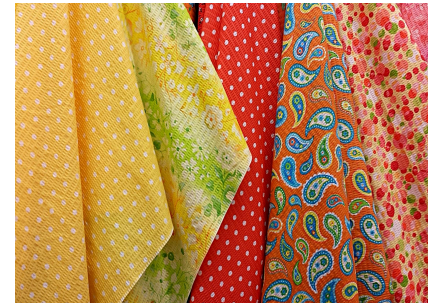
Toy



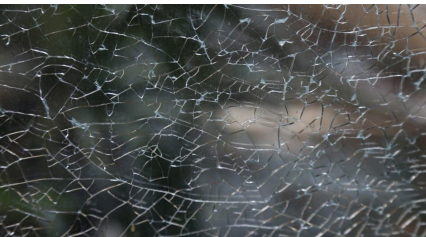
Paper



Fabric



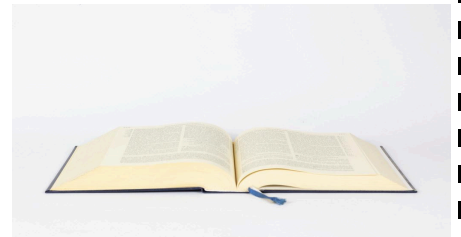
Glass



Bike



Book



Wool



Plastic



Rubber



# Materials

(Reminder! For a material think, "is it used to make something?")

# Objects

(Reminder! For an object think, "is it thing made out of different materials?")

Lesson #3 - Thursday, March 10th

<b>Science Grade 1/2</b>	<b>What are the properties of objects and materials?</b>	<b>Ms. Nameth</b>
<b>Stage 1: Identify Desired Results</b>		
<p><b>Outcome(s)/Indicator(s):</b></p> <p>OM1.1 - Investigate observable characteristics and uses of natural and constructed objects and materials in their environment.</p> <p>(e) Compare the properties (e.g., texture, colour, smell, hardness, and lustre) of materials that appear in familiar natural (e.g., tree, lawn, rock, and creek) and constructed (e.g., clothing, toys, electronics, furniture, and buildings) objects.</p>		
<p><b>Key Understandings: ('I Can' statements)</b></p> <p>I can compare the properties of natural and constructed materials</p>	<p><b>Essential or Key Questions:</b></p> <p><b>What are the different properties of materials?</b>  <b>How can I compare properties?</b></p>	
<p><b>Prerequisite Learning:</b></p> <ul style="list-style-type: none"> <li>- What materials and objects are</li> <li>- What the difference between man-made and constructed materials are</li> <li>- 5 Senses</li> </ul>		
<p><b>Instructional Strategies:</b></p> <ul style="list-style-type: none"> <li>- Direct instruction</li> <li>- Stations</li> <li>- Graphic Organiser</li> </ul>		
<b>Stage 2: Determine Evidence for Assessing Learning</b>		
<p>Formative:</p> <ul style="list-style-type: none"> <li>- Observation: Are students on task? What keywords are you hearing?</li> <li>- Worksheet: What properties did they observe for each object? Were they on the right track?</li> </ul>		
<b>Stage 3: Build Learning Plan</b>		
<p><b>Set (Engagement):</b></p> <p>Yesterday we were learning all about both objects and materials</p> <p>Today we are going to learn a little bit more about objects and materials and this lesson also connects back to 5 senses that I taught you way back in october!</p> <p>It connects because today we are going to be comparing properties of objects and materials.</p> <p>There are 5 different properties we are going to be focusing on and they are all connected to different senses!</p>	<p><b>Length of Time:</b> 5 mins</p>	<p><b>Materials/Resources:</b></p> <ul style="list-style-type: none"> <li>- Rocks</li> <li>- Sand</li> <li>- Plastic Toy</li> <li>- Toque</li> <li>- 19 Copies of the Observation guide</li> </ul> <p><b>Possible Adaptations/ Differentiation:</b></p>

**\*\*Write on anchor chart\*\***

- texture: What does it feel like?
  - Brainstorm: Bumpy, Fluffy, Scratchy, Pointy, Smooth, Hard, Soft
- Size: What size is it?
  - Brainstorm: Thin, skinny, small, thick, big, wide
- colour: What colour is it look like?
- smell: What does it smell like?
- lustre: How shiny is it?

Do we notice that there is a sense missing?

- Yes taste is missing which is actually important to note because objects and materials typically aren't safe to eat
- Hearing is missing because most objects and materials don't make sounds

**Development:**

**Length of Time: 20 mins**

Now we are going to do observation stations! Do you remember how we did stations back in the Fall? This is going to be set up similarly. Except this time we are looking for different things because we are doing observations.

So, each table is going to have a different object or material on it. Then, you are each going to get one of these observation guides. You are first going to write your name on the front in this green bubble. When you turn the page you will see what you will be filling in at each station. Let's try one together.

Let's look at this marker.

I'm feeling it for it's texture and it feels smooth so I am going to write smooth here. Then, for its size I think it's small and skinny. For the colour, it's a couple different colours. I think it smells sour. And I think the plastic makes it kinda shiny when the light hits it

**Learning Closure:**

**Length of Time: 5 mins**

Exit ticket on the back of the exploration guide asking their favourite material they observed and if it was natural or man-made

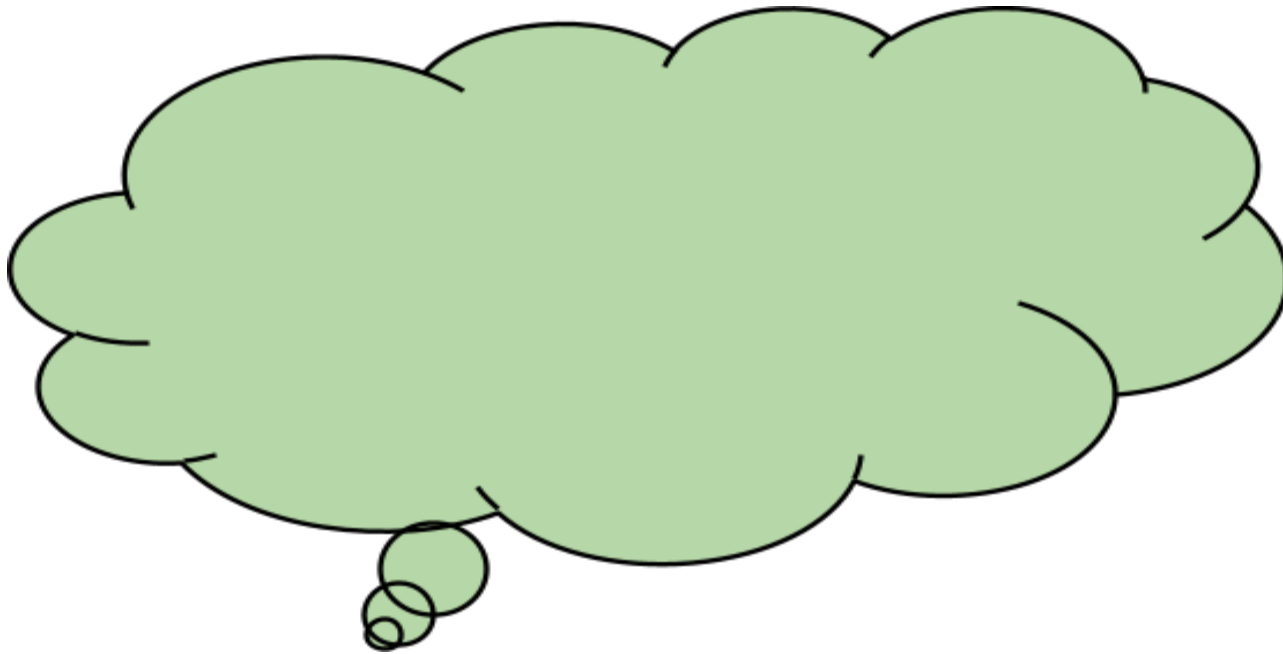
**Management Strategies:**

**Safety Considerations:**

**Stage 4: Reflection**

# My Scientific Observation Guide

This Guide Belongs To:




Today I am observing...

# OBJECTS & MATERIALS

### Station #1

Draw a picture of the object/material in the space below!

### Observation Notes

**Texture:** What does it feel like? 


- 
- 
- 

**Size:** What size is it? 

- 

**Colour:** What colours is it? 

- 
- 

**Smell:** What does it smell like? 

- 
- 


**Lustre:** Is it shiny? 

-

## Station #2

Draw a picture of the object/material in the space below!

## Observation Notes

**Texture:** What does it feel like? 

- 

- 

- 

**Size:** What size is it? 

- 

**Colour:** What colours is it? 

- 

**Smell:** What does it smell like? 

- 

- 


**Lustre:** How shiny is it? 

-

### Station #3

Draw a picture of the object/material in the space below!

### Observation Notes

**Texture:** What does it feel like? 

- 
- 
- 

**Size:** What size is it? 


- 

**Colour:** What colours is it? 

- 

**Smell:** What does it smell like? 

- 
- 


**Lustre:** How shiny is it? 

-

### Station #4

Draw a picture of the object/material in the space below!

### Observation Notes

**Texture:** What does it feel like? 


- 
- 
- 

**Size:** What size is it? 


- 

**Colour:** What colours is it? 

- 

**Smell:** What does it smell like? 

- 
- 

**Lustre:** How shiny is it? 

-

## **BREAKING NEWS IN THE WORLD OF SCIENCE!**

What was my favourite material to observe?  
Why? Was it natural or man-made?



Science Grade 1/2	Does everyone use materials the same way?	Ms. Nameth
<b>Stage 1: Identify Desired Results</b>		
<p><b>Outcome(s)/Indicator(s):</b></p> <p>OM1.1 - Investigate observable characteristics and uses of natural and constructed objects and materials in their environment.</p> <p>(a) Pose questions about characteristics and uses of common materials.</p> <p>Treaty Education Connections:</p> <p>HC1 - Explore the many ways people meet their needs from nature and the land on which they live.</p> <ul style="list-style-type: none"> <li>● Compare how people, past and present, live on the land (e.g., agriculture, ranching, trapping, fishing, dwellings, and modes of transportation).</li> <li>● Explain how people helped and continue to help each other live on this land.</li> </ul> <p>Social Studies Connections:</p> <p>DR1.3 - Demonstrate awareness of humans' reliance on the natural environment to meet needs, and how location affects families in meeting needs and wants.</p> <p>RW2.2 - Analyze various worldviews regarding the natural environment.</p>		
<p><b>Key Understandings: ('I Can' statements)</b></p> <p>I can think of questions about common materials</p> <p>I can explore the ways people live off the land in the past and present</p> <p>I can analyze worldviews about the natural environment</p>	<p><b>Essential or Key Questions:</b></p> <p><b>What do I wonder about common materials?</b></p> <p><b>How have people lived off the land in the past and present?</b></p> <p><b>What are different worldviews from the natural environment?</b></p>	
<p><b>Prerequisite Learning:</b></p> <ul style="list-style-type: none"> <li>- What materials and objects are</li> <li>- What the difference between man-made and constructed materials are</li> </ul>		
<p><b>Instructional Strategies:</b></p> <p>(What strategy(ies) will you use throughout the lesson to engage students in the learning process?)</p> <p>Read-Aloud</p>		
<b>Stage 2: Determine Evidence for Assessing Learning</b>		

Formative

- Observation: Were students sharing ideas about past/present use of natural materials and objects?

### Stage 3: Build Learning Plan

**Set (Engagement):**

**Length of Time:** 5 mins

This week we have been talking all about objects and materials but today we are going to change our thinking just a little bit.

To start off I have a question for everyone that I would like to hear what you think.

Quiet hands up, do we think that everyone uses materials the same way? Why do you think that?

**Development:**

**Length of Time:** 25 mins

Today we are going to read a book that describes a Cree worldview about how people, past and present, live on the land.

As we go through the book we will occasionally stop to jot down some of the materials from the book

Since this book is from a Cree perspective it also contains some Cree words! Now, I am not a Cree speaker so I have made myself some little notes on how to pronounce some words! So, if you also don't know the words we can be learners together!

**Learning Closure:**

**Length of Time:** 5 mins

How are the materials we listed different or the same as the ones we've learned and explored other days this week? Does anyone have any ideas they want to share?

**Materials/Resources:**

- Anchor chart paper
- Markers
- Copy of "On the Trapline"

**Possible Adaptations/**

**Differentiation:**

- Audio version of the story is available

**Management Strategies:**

**Safety Considerations:**

### Stage 4: Reflection