

Outcome(s) of Lesson:**Science**

1. **3-5-2** Given a description of the properties of a rock or mineral, identify a sample rock or mineral that matches those properties. Properties that students should be able to describe and interpret include:
 - colour
 - lustre or “shininess”; e.g., shiny, dull, glassy, metallic, earthy
 - texture; e.g., rough, smooth, uneven
 - hardness, based on scratch tests with available materials.
2. **3-5-3** Describe and classify a group of rocks and minerals, based upon the above properties.

Language Arts

1. **General Outcome 2** Students will listen, speak, read, write, view and represent to comprehend and respond personally and critically to oral, print and other media texts.
2. **2.4.1** Generate Ideas- experiment with ways of generating and organizing ideas prior to creating oral, print and other media texts.

How will I know the students have achieved the learning outcome?

- Student will use their knowledge of rocks and minerals to differentiate the characteristics and classification of a rock selected.
- Students will match the characteristic of a rock to that of their own personality and use this connection to generate a story of the journey their rock.

HOOK:

- “Have you ever held a rock in your hand and wondered where has it been? Or wondered who has held it before you? Is it scratchy and rough, or smooth and soft to the touch? Maybe that small rock was once part of a big mountain.”
- The above passage is from the book, *As Big as the Sky, as Tall as The Trees*, this can be used as a great jumping point for following journey of a rock lesson.

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Learning Opportunities:

Time	Learning Opportunity	Materials Needed
5 min	<ol style="list-style-type: none"> 1. Read the class the story <i>As Big as the Sky, as Tall as The Trees</i>. 2. Re-read pages that focus on grandfather rock and the timeless journey and mystery that mountains and rocks have in the Alberta landscape. 3. In highlighting the above passage transition the lesson into a science review of the different classifications and characteristics of the rocks found in Alberta. 	<ul style="list-style-type: none"> • <i>Picture book, As Big as the Sky, as Tall as The Trees</i> • Science note book • Plastic Containers with washed rocks (one for each group or pod)
5 min	<ol style="list-style-type: none"> 4. Choose one rock from the containers of samples and illustrate with the class how the colour, luster, hardness, and texture make this rock unique. 5. Build on the characteristics identified and determine what classification of rock this might be (Sedimentary, Metaphoric, Igneous, etc.) 6. Expand on the classification, and characteristics of the selected rock and determine of this rock carries any of your personal of character traits (preselect a rock before the lesson matching any of your own personality or physical traits to move the lesson along.) 	
1 min	<ol style="list-style-type: none"> 7. Split the class into elbow partners at each pod 8. Have each elbow partner explain the process of selecting a rock based on common characteristics, to reinforce the process (scaffold where necessary). 	
10 min	<ol style="list-style-type: none"> 9. Have the #1 person at each pod come to the front and get a container of rocks for the group. 10. Have each member of the group select a rock from the container using the above criteria that best matches their personality, and/or characteristics. 11. The students will then document the following in their science note book: <ul style="list-style-type: none"> • Luster • Hardness • Texture • Colour • Classification 	

15 min	<p>12. After 5 min of recording the rock information the students will conduct a ghost walk to spring loose any information or ideas from their classmates.</p> <p>13. The students will then take this information and generate ideas for a short paragraph about the journey that their rock has seen or traveled in its life.</p> <p>14. The following is an example that can be used to demonstrate the connection for the student's ideas:</p> <ul style="list-style-type: none"> • My name is Grandfather rock I have traveled a great distance since my creation far below when the Rocky Mountains were created. I am very smooth and rounded now, due to thousands of years of traveling at the bottom of the Bow and South Saskatchewan Rivers. Even though I am not as jagged as I was when I broke off the mountain, I still have the luster and black and white colouring of a metamorphic rock. I am a mountain rock and the fact that I am very hard has helped to extend my life in the rivers. 	
10 min	<p>15. Once the ideas have been formulated the students will share their stories and why they chose the rock with the class.</p>	

CLOSURE:	
<ul style="list-style-type: none"> • Once the students finish sharing their stories, make the connection to storytelling and the importance of oral language in the FNMI culture. 	

Lesson Plan Analysis: Using your lesson above, describe the following: (This information must be in your learning opportunities)	
Accommodations	Students who struggle with writing can use point form or pictures to demonstrate their ideas.
Cooperative Learning Strategies used	Elbow partners, Ghost Walk,

Movement Breaks	Ghost Walk
Higher Order Question(s)	When making the connections to the rock Characteristics and your own Characteristics can you analyze why The First Nations culture depicts Grandfather rock as a source of wisdom and longevity.

Reflection and Revisions: