

Subject/Grade: Grade 4 Science Lesson Title: looking at the physical properties of rocks Day 3 Teacher: Miss. Finlay Date: October 11th, 2022

Stage 1: Identify Desired Results

Outcome/Indicator(s):

RM4.1

Investigate physical properties of rocks and minerals, including those found in the local environment.

c)Observe and record physical properties of rocks using appropriate terminology such as colour, lustre, texture, smell.

(d) Use appropriate tools (e.g., hand lens, gloves) safely while making observations and collecting information on the physical properties of rocks.

(g) Record observations of rocks and minerals using jot notes, labelled diagrams, and charts.

Key Understandings: ('I Can' statements)

- I can observe physical properties of rocks
- I can create my own way to organize/classify rocks
- I can categorize rocks based on characteristics

Essential Questions:

- What is a physical property
- How can you organize/group rocks
- How can you record information?
- What physical characteristics do you notice with rocks that have been collected?

<ul style="list-style-type: none"> • I can record gathered information 	
<p>Prerequisite Learning: Students have prior knowledge on rocks/minerals and are going to review these terms. Students will have prior knowledge on observing and exploring rocks as they have looked at colour and size, today they will be classifying and looking at the specific rock properties of texture, smell and lustre</p>	
<p>Instructional Strategies:</p> <ul style="list-style-type: none"> • The white board will be used throughout the lesson so that students can visually see/read what physical characteristics they have observed so far • Science review will be provided during the beginning of class to engage learners 	
<p style="text-align: center;">Stage 2: Determine Evidence for Assessing Learning</p>	
<p>Formative: workbook provided by Ms Finlay will be collected at the end of class and formatively assessed</p>	
<p style="text-align: center;">Stage 3: Build Learning Plan</p>	
<p>Set (Engagement): Interactive review Length of Time: 10 min</p> <ul style="list-style-type: none"> - Review the term rock: made of 2 or more minerals - Review the term mineral: made of the same substance throughout - Review the term geologist: scientist who studies rocks - Review rock colours and size and explain how these are physical properties <p>Development: _____ Time: _____ 35min</p> <ul style="list-style-type: none"> - During 2 o'clock recess desks will be pushed together (aisle partners), Rocks will be placed on desks, cups beside. Workbooks will be handed out. This way students will be ready to begin their 	<p>Materials/Resources:</p> <ul style="list-style-type: none"> - workbook - Pencils and erasers - Cups - Playdough - Magnifying glasses - gloves? <p>Possible Adaptations/ Differentiation:</p> <ul style="list-style-type: none"> - Some students in the class can stay better engaged while twiddling thumbs. If students are respectful, non disruptive and still are able to pay

workbooks as soon as our review is complete and no time is wasted with distribution of materials

- When students come in, they will take a seat at their desks and Ms Finlay will complete a quick review of the past classes through discussion, questioning and answering.
- Workbooks will begin: Ms Finlay will ask for volunteers to read aloud the workbook.
- After the information has been read, students will examine/group their rocks and record information.
 - Students will share their groups info with the class once complete
- When working on texture, each group will be provided with a small container of playdough
 - When students have the playdough, they will spit it into 3 equal pieces. 1 rock from each pile of textures will be pressed into the playdough for a better look (different way of examining) the texture.
 - Once the rocks have been pressed, students will share what they see with the rest of the class
- Continue working as a class and in groups for the remainder of class, working through as many pages as possible within the workbook without rushing.

Extra things to mention if time permits

Students can visit new countries from day 1 of class if there is time left at the end.

Learning Closure:
1min

Time:

attention, the teacher will not remove the activity.

- Noises in the classroom will be kept at an appropriate level to ensure that each student feels comfortable, and are able to hear classmates as well as the teachers during discussion and instruction.
- This lesson uses multi-sensory learning for students. Auditory instruction is provided by the teacher, as well as visual representations via white board examples, student workbook (workbook will be projected onto the board) and hands on rock sorting.
- Using a variety of methods to teach, provides support for student comprehension.

Management Strategies:

- Teacher models behaviour that is expected from students

Miss Finlay will thank the students for their engagement and participation during this lesson. Rocks will be placed back in their cups (cups will be beside their desks on the ground), and brought to the front table.

Miss Finlay will close the class by explaining to students that there are many different physical properties of rocks!

THE FOLLOWING IS FROM LAST WEEKS LESSON BUT WAS NOT GOTTEN TO

The rocks that we have collected are very different from one another and no two rocks in this room are the same! This is why it is important for scientists to look at the physical properties of each rock and group them accordingly so that it is easier to study different rocks... kind of like in math, its easier to look at and understand the popsicle sticks when they are grouped into hundreds and tens. Its overwhelming to look at a pile of sticks not sorted on the table... its the same thing when looking at rocks! Next class we are going to be testing different rocks and minerals. Thank you!

Students will then grab their day planners and water bottles to place on the top of their desks. Beans will be handed in

Home time

- Praise students for hard work and good ideas
- Give clear expectations for students for when they are done their work
- Redirecting behaviour to match classroom expectations.

Safety Considerations:

- Have the students listen carefully to instructions so that each student knows what is happening within the lesson at all times.
- Consider safety of students when working with a class, students should not feel left out when working on class discussion and in groups of two
- Running should not take place in the classroom to help ensure no tripping takes place
- Magnifying glasses should stay at desks to ensure they do not get broken. Broken glass could be a safety issue

	<p>Educational Assistance provided by EA:</p> <ul style="list-style-type: none"> - Visit students who may be feeling confused or flustered during work time - Assist with monitoring expected behaviour by taking away a bean from students who are blurting - Communicating with the teacher if a problem with students arises in the back of the classroom that is not seen.
<p>Stage 4: Reflection</p>	

Additional Comments/Observations:

Mineral #	Colour of the mineral	Magnetic?	Transparent	Opaque

Mineral #	Mineral Colour	Do you think it will be magnetic?	Do you think it will be transparent? or opaque?	Magnetic	Transparent	Opaque

Mineral #	Mineral Colour	Mineral streak

Mineral #	Mineral Colour	Mineral streak	Is the mineral colour the same as the streak colour?

