**North East School Division**



**Unpacking Outcomes**

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| **Unpacking the Outcome** | | |
| **Investigate 🡪 physical properties (rocks and minerals)** | | |
| **Outcome** (circle the verb and underline the qualifiers) | | |
| RM4.1 I**nvestigate** physical properties of rocks and minerals, including those found in the local environment. | | |
| **KNOW** | **UNDERSTAND** | **BE ABLE TO DO** |
| * Where we find rocks and minerals. * Terminology - What are the physical properties of rocksand minerals ( colour, texture, lustre, hardness, cleavage, transparency, and crystal structure) * Tools - hand lens, safety glasses, brush, rock pick, knife, measuring tape, and gloves * How to make observations, collect and display information. Jot notes, labelled diagrams, charts * Where to and not to collect samples * How to test hardness * Compare and contrast data collected * What is a rock * What is a mineral * Generalize from data | * Minerals can be made into rocks but rocks cannot be made into minerals. * The purpose of classifying is to help understand commonalities * Experiences/needs change classification schemes of others- Elders, traditional knowledge keepers, geologists * There are a variety of rocks and minerals around our community. * The physical properties of rocks and minerals help us to classify them. | a. Pose questions about the properties of rocks and minerals (e.g., What is the difference between rocks and minerals? Where do we find rocks and minerals? Do rocks become minerals?).  b. Document the locations and characteristics of rocks that exist in their local environment.  c. Observe and record physical properties of rocks and minerals using appropriate terminology such as colour, texture, lustre, hardness, cleavage, transparency, and crystal structure.  d. Use appropriate tools (e.g., hand lens, safety glasses, brush, rock pick, knife, measuring tape, and gloves) safely while making observations and collecting information on the physical properties of rocks and minerals.  e. Demonstrate respect for all components of their environment when observing and collecting rocks and minerals (e.g., do not remove rocks and minerals from private property without permission).  f. Demonstrate processes for testing the hardness of rocks, including reference to guides such as Moh’s scale of mineral hardness.  g. Record observations of rocks and minerals using jot notes, labelled diagrams, and charts.  h. Compare the physical properties of rocks and minerals from their local environment with those from other geological areas.  i. Develop their own classification scheme to organize their understanding of rocks and minerals.  j. Account for any variation between their classification schemes of rocks and minerals and those of classmates, Elders, traditional knowledge keepers, geologists, or from other resources.  k. Differentiate between rocks and minerals.  l. Develop simple generalizations about the physical characteristics of rocks and minerals based on observation and research. |
| **ESSENTIAL QUESTIONS** | | |
| 1. What types of rocks can be found in our community? 2. What types of minerals can be found in our community? 3. How do you know what type of rock you have found? 4. How are rocks and minerals related? 5. Why do we classify? | | |