



EXPEDITIONARY  
LEARNING

# Grade 5: Module 3B: Unit 2: Lesson 2

## Close Reading and Viewing: Minerals and Metals



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**Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)**

I can quote accurately from the text when explaining what the text says explicitly and when making inferences. (RI.5.1)

I can determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies. (L.5.4)

I can use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words. (L.5.5c)

I can summarize information presented in diverse formats. (SL.5.2)

**Supporting Learning Targets**

- I can explain how Canada’s available natural resources are used to meet the needs and wants of people today, by quoting accurately from the text and video.
- I can determine the meaning of unfamiliar words and phrases, using context clues and other strategies.
- I can summarize information presented in diverse formats.

**Ongoing Assessment**

- Resource web (from homework)
- Text-Dependent Questions: Minerals and Metals



Agenda	Teaching Notes
<p>1. Opening</p> <p>A. Engaging the Reader: Resource Web (5 minutes)</p> <p>2. Work Time</p> <p>A. Annotating the Gist: Minerals and Metals (10 minutes)</p> <p>B. Close Reading and Viewing Guide: Minerals and Metals (40 minutes)</p> <p>3. Closing and Assessment</p> <p>A. Synthesizing Information (5 minutes)</p> <p>4. Homework</p> <p>A. Reread the text “Minerals and Metals in Your Life” and complete your resource web.</p> <p>B. Read your independent reading book for at least 15–20 minutes.</p>	<ul style="list-style-type: none"><li>• In this lesson, students closely read an informational text and view a short video about how minerals mined in Canada are used to meet the needs and wants of people today.</li><li>• During Work Time A, students hear the text read aloud and annotate for the gist. Then, they view a brief video and record a gist statement in their journals before moving on to a close read and viewing each resource in Work Time B (note that students complete the “Text-Dependent Questions: Minerals and Metals” as you lead them through a close read and view, using the “Close Reading and Viewing Guide.”)</li><li>• At the end of the lesson, students synthesize their learning in relation to the guiding question through group and whole group discussions. This information is not recorded on an anchor chart until the beginning of the next lesson because students synthesize this information first in writing for their homework.</li><li>• In advance:<ul style="list-style-type: none"><li>– Read the excerpt of “Minerals and Metals in Your Life”</li><li>– Watch the video “Ground Rules: Chapter 3” (0:00–1:36), found at <a href="http://www.youtube.com/watch?v=xmXT1YgfoTA&amp;feature=c4-overview-vl&amp;list=PL31F52074D345CEA2">http://www.youtube.com/watch?v=xmXT1YgfoTA&amp;feature=c4-overview-vl&amp;list=PL31F52074D345CEA2</a>.</li><li>– Please bear in mind that Youtube, social media video sites, and other website links may incorporate inappropriate content via comment banks and ads. While some lessons include these links as the most efficient means to view content in preparation for the lesson, be sure to preview links, and/or use a filter service, such as <a href="http://www.safeshare.tv">www.safeshare.tv</a>, for actually viewing these links in the classroom.</li><li>– Review the Close Reading and Viewing Guide.</li><li>– Be sure technology for viewing and listening to the video is available and in working order.</li><li>– Review the Popcorn Read protocol (see Appendix).</li></ul></li><li>• Post: Learning targets.</li></ul>



Lesson Vocabulary	Materials
<p>explain, natural resources, meet, needs, wants, quoting, meaning, strategies, diverse formats; multi-taskers, cosmetics, sculptures, improving, filtering, wants, needs, literally, connected</p>	<ul style="list-style-type: none"><li>• Canada’s Natural Resources anchor chart (begun in Lesson 1)</li><li>• Canada’s Natural Resources anchor chart (complete, for teacher reference; see Unit 2 Overview)</li><li>• Journal (one per student; begun in Unit 1)</li><li>• Group Norms anchor chart (from Unit 1, Lesson 1)</li><li>• “Minerals and Metals in Your Life” (one per student and one for display)</li><li>• Glossary of Terms: Teacher Resource (see Unit 2 Overview, “Preparation and Materials”)</li><li>• Computer, LCD and speakers (for viewing and listening to video)</li><li>• “Ground Rules: Chapter 3” video (0:00–1:36), found at <a href="http://www.youtube.com/watch?v=xmXT1YgfoTA&amp;feature=c4-overview-vl&amp;list=PL31F52074D345CEA2">http://www.youtube.com/watch?v=xmXT1YgfoTA&amp;feature=c4-overview-vl&amp;list=PL31F52074D345CEA2</a>. (Used with permission © 2013 Caterpillar All Rights Reserved)</li><li>• Dictionaries (enough for students to refer to as needed)</li><li>• Thesauruses (enough for students to refer to as needed)</li><li>• Text-Dependent Questions: Minerals and Metals (one per student)</li><li>• Index cards (four per student)</li><li>• Highlighters (one per student; any color)</li><li>• Close Reading and Viewing Guide: Minerals and Metals (for teacher reference)</li><li>• Natural Environment anchor chart (from Unit 1, Lesson 2)</li><li>• Sample Thesaurus Entry: “Want” (one for display)</li><li>• Homework: Minerals and Metals resource web (one per student)</li></ul>



Opening	Meeting Students' Needs
<p><b>A. Engaging the Reader: Resource Web (5 minutes)</b></p> <ul style="list-style-type: none"><li>• Remind students that for homework they were to reread the texts “Products of Mining in Canada: From Batteries to Vehicles” and “Products” to complete a resource web for homework. Ask students to locate their homework and join group members.</li><li>• Invite students to briefly share their resource webs with their group, and to make any additions or revisions based on what they see and hear from others.</li><li>• Refocus the whole group. Invite volunteers to share their responses with the whole group. Add appropriate student suggestions to the <b>Canada’s Natural Resources anchor chart</b>. Refer to the <b>Canada’s Natural Resources anchor chart (completed, for teacher reference)</b> for how the anchor chart should look.</li></ul>	<ul style="list-style-type: none"><li>• Consider allowing students who have difficulty expressing their ideas aloud to write their ideas on a white board to hold up and share during the whole group discussion.</li></ul>



Work Time	Meeting Students' Needs
<p><b>A. Annotating the Gist: Minerals and Metals (10 minutes)</b></p> <ul style="list-style-type: none"> <li>• Remind students of the guiding questions:           <ul style="list-style-type: none"> <li>* “How are Canada’s available natural resources used to meet people’s needs and wants today?”</li> <li>* “How can I integrate information from a variety of texts and media to build knowledge about a topic?”</li> </ul> </li> <li>• Tell students that today they will read a short text and watch a brief video to build their knowledge about how Canada’s mineral and metal resources are used to create products that meet people’s needs and wants. Then ask students to collect their <b>journals</b> and briefly confer with group members to determine and quickly share out a group norm they will focus on to ensure their collaborative work today is successful (refer students to the <b>Group Norms anchor chart</b> as needed).</li> <li>• Display and distribute “<b>Minerals and Metals in Your Life.</b>” Tell students the first read is aloud; so they are going to follow along silently, pausing to annotate for the gist in the margin of the text.</li> <li>• Begin with the title and pause at the end of the first paragraph. Ask students to think about and discuss in groups: what is the gist of the first paragraph?.</li> <li>• After 1 minute, cold call a few students to share out. Listen for ideas such as: “It’s about how we use minerals and metals in our everyday lives.”</li> <li>• Clarify the meaning of minerals versus metals for students as needed, using the <b>Glossary of Terms: Teacher Resource</b>.</li> <li>• After several students share out, direct all students to record the gist of the first paragraph in the margin of the text.</li> <li>• Then ask students to follow along silently as you read the second paragraph aloud. Pause once again to ask them to think about and discuss: what is the gist of the second paragraph?</li> <li>• After 1 minute, cold call members from two or three groups to share out. Listen for ideas such as: “The second paragraph is about how minerals and metals are used to make buildings and keep us healthy.”</li> <li>• Direct students to annotate the gist of the second paragraph in the margin, and then go on to read the third paragraph aloud as students follow along silently. Give students a brief moment to discuss the gist of the third paragraph and then cold call students to share out. Listen for: “The third paragraph is about how minerals and metals are used to make life beautiful,” or other ideas supported by the text. Again, tell students to record a gist statement in the margin.</li> <li>• Focus students on the bullet point, read it aloud as students follow along, and then ask them to discuss the gist of the bullet point in groups. After 1 minute, cold call students to share aloud. Listen for: “The gist of the third bullet is that Halite (salt) is used for many things,” and similar suggestions.</li> </ul>	<ul style="list-style-type: none"> <li>• Allow students who struggle with language to draw a sketch of the gist with a one- to three-word caption, or to scribe their gist statements to you or another adult.</li> </ul>



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none"> <li>• Once several students have shared out, ask students to record the gist of the bullet point in the margin of the text. Then ask:               <ul style="list-style-type: none"> <li>* “So what is this article mostly about?”</li> </ul> </li> <li>• Tell students to quickly refer to each gist statement they wrote, discuss their thinking with group members, and then prepare to share out whole group. After 1 minute, cold call a few students to share out. Listen for them to synthesize the gist statement they recorded by sharing answers like: “Minerals and metals are used to make things we want and need, things that make life easier, better.”</li> <li>• Ask students to quickly write an overall gist statement for the article at the bottom of the text. Then tell students to prepare to watch and listen to a short video.</li> <li>• Tell students they will have an opportunity to watch the video twice before considering the gist.</li> <li>• Use a <b>computer</b>, <b>LCD</b> and <b>speakers</b> to play the “<b>Ground Rules: Chapter 3</b>” video (0:00–1:36) for the first time.</li> <li>• Pause briefly for students to discuss their initial thinking about the gist in groups.</li> <li>• Then replay the video.</li> <li>• Ask students to consider and discuss the gist of the video with group members. Then, cold call a few groups to share out with the class. Listen for suggestions such as:               <ul style="list-style-type: none"> <li>– “The video is about how many minerals we use every day.”</li> <li>– “It’s about how minerals are found in products we use, in our homes, and used to make roads and buildings.”</li> </ul> </li> <li>• Ask students to turn to the next blank page in their journals to record the gist of the video.</li> </ul>	
<p><b>B. Close Reading and Viewing Guide: Minerals and Metals (40 minutes)</b></p> <ul style="list-style-type: none"> <li>• Note that you will need the <b>Sample Thesaurus Entry: “Want”</b> on hand during this portion of the lesson.</li> <li>• Focus students on the learning targets. Invite the class to read them with you:               <ul style="list-style-type: none"> <li>* “I can explain how Canada’s available natural resources are used to meet the needs and wants of people today, by quoting accurately from the text and video.”</li> <li>* “I can determine the meaning of unfamiliar words and phrases, using context clues and other strategies.”</li> <li>* “I can summarize information presented in diverse formats.”</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Posting learning targets allows students to reference them throughout the lesson to check their understanding. The learning targets also provide a reminder to students and teachers about the intended learning behind a given lesson or activity.</li> </ul>



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none"><li>• Ask students to review the targets and to notice they are similar to targets they have worked toward in previous units and modules. Cold call a few students to share out what they think they will be doing during this part of Work Time, based on previous experiences and their knowledge of key terms such as <i>explain</i>, <i>natural resources</i>, <i>meet</i>, <i>needs</i>, <i>wants</i>, <i>quoting</i>, <i>meaning</i>, <i>strategies</i>, and <i>diverse formats</i>.</li><li>• Tell students they will now be led through a close reading of the text and close viewing of the video to further their understanding of the natural resources available in Canada and how those resources are used to meet people's everyday needs and wants.</li><li>• Distribute <b>dictionaries</b>, <b>thesauruses</b>, <b>Text-Dependent Questions: Minerals and Metals</b>, <b>index cards</b>, and a <b>highlighter</b> to each student. When students are ready, lead them through a close reading of the text and close viewing of the video, using the <b>Close Reading and Viewing Guide: Minerals and Metals (for teacher reference)</b>. Be sure to lead the class through the activities in the Close Reading and Viewing Guide by following the teaching notes in the right-hand column. Discuss and monitor student responses to each question, and model strategies for navigating complex sections of the text as needed.</li></ul>	<ul style="list-style-type: none"><li>• Learning targets are a research-based strategy that helps all students, especially challenged learners.</li><li>• See suggested accommodations in the "Teaching Notes" column of the Close Reading Guide: Minerals and Metals (for teacher reference). These include: Define key terms that may interfere with students' understanding of relevant content, and reread and replay the video as needed.</li><li>• Consider working with a small group of students who may need more support understanding ideas conveyed through the text and video, key terms, and/or crafting responses to the note-catcher questions.</li><li>• Provide a scribe for students who struggle to record their thinking in writing, or consider allowing them to record their responses into a recording device.</li></ul>



Closing and Assessment	Meeting Students' Needs
<p><b>A. Synthesizing Information (5 minutes)</b></p> <ul style="list-style-type: none"> <li>• Focus students whole group and direct them to the guiding questions. Ask students to refer to the text and their notes and discuss in groups:               <ul style="list-style-type: none"> <li>* “What natural resources do the text and video suggest are available in Canada?”</li> </ul> </li> <li>• After 1 or 2 minutes, ask students to “popcorn” share their ideas. Listen for: minerals, metals, nickel, calcium, iron, magnesium, phosphorus, Halite (salt).</li> <li>• Ask students to refer to the text and their notes and discuss in groups:               <ul style="list-style-type: none"> <li>* “How are those natural resources used to meet the needs and wants of people today?”</li> </ul> </li> <li>• After 1 or 2 minutes, ask students to popcorn share their ideas. Listen for:               <ul style="list-style-type: none"> <li>– “They are used to make a lot of items we use every day, like batteries and buildings.”</li> <li>– “They are used to grow food and keep us healthy.”</li> <li>– “They are used to make things that make life beautiful, such as art.”</li> <li>– “Halite is used to season food and keep roads safe; minerals keep us connected.”</li> </ul> </li> <li>• Tell students they will synthesize their thinking in writing for homework on the next resource web.</li> <li>• Distribute <b>Homework: Minerals and Metals resource web.</b></li> </ul>	<ul style="list-style-type: none"> <li>• Consider designating one student to start the popcorn share or start it yourself, to model for students.</li> </ul>
Homework	Meeting Students' Needs
<ul style="list-style-type: none"> <li>• Reread the text “Minerals and Metals in Your Life” and complete your resource web.</li> <li>• Read your independent reading book for at least 15–20 minutes.</li> </ul>	<ul style="list-style-type: none"> <li>• For students who have difficulty reading or completing tasks independently, consider providing an audio recording of the text and/or a partially completed resource web.</li> </ul>



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## Supporting Materials



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## Minerals and Metals in Your Life

Minerals and metals are a part of everyday life. They are the original multi-taskers. For example, nickel is in batteries, jet engines, surgical tools, color televisions, cell phones, and kitchen and bathroom fixtures!

We use minerals and metals to make homes and schools, to generate heat and power, and for everyday comfort items like shampoo and toothpaste. Minerals keep us healthy—we need calcium, iron, magnesium, phosphorus, and many more minerals to grow and stay healthy. Minerals help our food grow too—you can find up to 14 minerals in fertilizer. Minerals and metals make our homes and buildings strong and safe—from the floors to the plumbing to the rooftop, construction materials are all based on minerals and metals.

We even use minerals and metals to make life beautiful! There are minerals in paint and cosmetics, and we use metals to make jewelry and sculptures. Minerals and metals are also used to help keep our environment clean by improving our cars, and filtering the air we breathe and the water we drink.

- Halite, or salt, is used to flavor food, keep roads safe in the winter, and even to extinguish fires. Halite is also used in glass, paint, plastics, and cosmetics.



Text-Dependent Questions: Minerals and Metals

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Guiding Questions:**

What are Canada’s available resources?

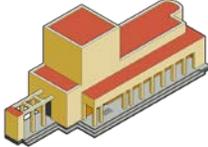
How are Canada’s available resources used to meet people’s needs and wants today?

\*Refer to the text “Minerals and Metals in Your Life” as well as the video “Ground Rules: Chapter 3” to help you respond to the following questions.

Directions	Questions
<p>Focus on the <b>first paragraph</b> and highlight the first sentence:  <i>“Minerals and metals are a part of everyday life.”</i>            Read the entire first paragraph aloud with your group members. Then work together to respond to the questions on the right.</p>	<p>Locate and record the word “multi-taskers” in the center of one of your index cards.</p> <p>What familiar words or parts of words do you see in this word?            What do you think “multi-taskers” might mean? Write a short definition for “multi-taskers” in the upper left-hand corner of your index card.</p> <p>Sketch and label at least three examples of how the mineral nickel is a multi-tasker.</p>



Text-Dependent Questions: Minerals and Metals

Directions	Questions
<p>Whisper-read <b>the second paragraph</b> as your teacher reads it aloud. Then, work with group members to answer the questions on the right.</p>	<p>How are minerals and metals used in buildings? Write at least three examples on the lines next to the image below.</p>  <p>_____</p> <p>_____</p> <p>_____</p> <p>How do minerals help our bodies? Write at least three examples on the lines next to the image below.</p>  <p>_____</p> <p>_____</p> <p>_____</p>

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Text-Dependent Questions: Minerals and Metals

Directions	Questions
<p>Independently read <b>Paragraph 3</b>. Then, work with group members to answer the questions on the right.</p>	<p>How do minerals and metals “make life beautiful?” Sketch and label at least two examples of items made from minerals and metals that “make life beautiful.”</p> <p>Write a statement to explain how the items you sketched above might make life beautiful.</p> <hr/> <hr/> <p>Record a quote from the text to explain how minerals and metals help keep our environment clean.</p> <p>In your own words, explain how minerals and metals help keep our environment clean.</p> <hr/> <hr/> <hr/>



Text-Dependent Questions: Minerals and Metals

Directions	Questions				
<p>Whole class, read aloud the <b>bullet point</b>. Then, work with group members to answer the question on the right.</p>	<p>Complete the chart by listing at least two ways that Halite (salt) meets <i>people's wants</i>, and at least two ways it meets <i>people's needs</i>.</p> <table border="1" data-bbox="511 562 1518 1003"><thead><tr><th data-bbox="511 562 1015 640">Wants</th><th data-bbox="1015 562 1518 640">Needs</th></tr></thead><tbody><tr><td data-bbox="511 640 1015 1003"></td><td data-bbox="1015 640 1518 1003"></td></tr></tbody></table>	Wants	Needs		
Wants	Needs				
<p>With group members, chorally read and then restate the question to the right. Keep the question in mind as you view and listen to the <b>video excerpt (0:00–1:05)</b>, <i>twice</i>. During each viewing and listening, record details from the video in the margin of this page of text-dependent questions, to remind you of key details that will help you answer the question. You will discuss your thinking in groups before recording a response.</p>	<p>At the beginning of the video, the narrator says, “Our world is literally held together by the materials that come out of mines.” What do you think he means? Explain your thinking.</p>				



Text-Dependent Questions: Minerals and Metals

Directions	Questions
<p>With group members, chorally read then restate the question on the right. Keep the question in mind as you view and listen to the <b>video excerpt (1:05–1:36)</b>, <u>twice</u>. During each viewing and listening, record details from the video in the margin of this page of text-dependent questions, to remind you of key details that will help you answer the question. You will discuss your thinking in groups before recording a response.</p>	<p>The narrator says, “Nearly everything is connected to mining in some way.” What does he mean? Explain your thinking.</p>
<p><b>Synthesis Question:</b> Refer once again to the article and your response to each of the questions above to determine your answer to the question on the right.</p>	<p>Why are minerals and metals an important part of people’s lives? Support your response with at least one example from the article and one example from the video.</p>



Close Reading and Viewing Guide: Minerals and Metals  
(For Teacher Reference)

**Guiding Questions:**

What are Canada’s available resources?  
How are Canada’s available resources used to meet people’s needs and wants today?

Total Time: 40 minutes

Directions	Questions	Teaching Notes
<p>Focus on the <b>first paragraph</b> and highlight the first sentence: <i>“Minerals and metals are a part of everyday life.”</i> Read the entire first paragraph aloud with your group members. Then work together to respond to the questions on the right.</p>	<p>Locate then record the word “multi-taskers” in the center of one of your index cards.</p> <p>What familiar words or parts of words do you see in this word? What do you think “multi-taskers” might mean? Write a short definition for “multi-taskers” in the upper left-hand corner of your index card.</p> <p>Sketch and label at least three examples of how the mineral nickel is a multi-tasker.</p>	<p>Ask students to read the title of the article aloud with you, “Minerals and Metals in Your Life.” Then focus them on the first paragraph and read the directions aloud. Prompt students to go ahead and highlight the first sentence, then ask: “How does this first sentence relate to our guiding question: ‘How are Canada’s natural resources used to meet people’s needs and wants today?’”</p> <p>After students briefly consider and discuss their thinking in groups, invite a few groups to share out. Listen for ideas such as: <i>“It says minerals and metals are a part of everyday life, which means they are used by people daily, to meet their needs and wants.”</i></p> <p>Confirm or help clarify students’ thinking. Then ask them to read the full first paragraph aloud with group members.</p> <p>Direct students to record “multi-taskers” onto an index card, and then ask students to share out what they know about the familiar prefix “multi.” <i>Listen for students to say: “many.”</i></p>

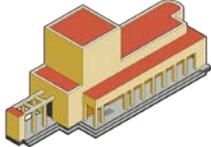


Close Reading and Viewing Guide: Minerals and Metals  
(For Teacher Reference)

Directions	Questions	Teaching Notes
		<p>Then, ask students if they recognize any part of the second half of the word. <i>Listen for students to mention: “task,”</i> and then ask them to define “task.” <i>Listen for: “job or chore.”</i></p> <p>Ask: “So what might ‘multi-taskers’ do?” <i>Listen for: “Something that does many jobs.”</i></p> <p>Direct students to record a definition in the upper left of their index card. Ask them to read the third question and locate examples of how the mineral nickel is a multi-tasker.</p> <p>After 1 or 2 minutes, ask students to hold up their sketches and popcorn share their ideas. Look and listen for students to name multiple items made from nickel: <i>batteries, jet engines, surgical tools, color televisions, cell phones, kitchen and bathroom fixtures.</i></p> <p>Focus students on the highlighted sentence and then ask: “So how is the mineral nickel ‘part of our everyday lives’?”</p> <p>Listen for students to say: “<i>Nickel is used to make things people use regularly or daily, such as batteries or phones.</i>”</p>



Close Reading and Viewing Guide: Minerals and Metals  
(For Teacher Reference)

Directions	Questions	Teaching Notes
<p>Whisper-read <b>the second paragraph</b> as your teacher reads it aloud. Then, work with group members to answer the questions on the right.</p>	<p>How are minerals and metals used in buildings? Write at least three examples on the lines next to the image below.</p>  <p>_____</p> <p>_____</p> <p>_____</p> <p>How do minerals help our bodies? Write at least three examples on the lines next to the image below.</p>  <p>_____</p> <p>_____</p> <p>_____</p>	<p>Direct students’ attention to the second paragraph and then begin to read aloud as students whisper-read with you.</p> <p>Clarify the pronunciation of likely unfamiliar terms such as “calcium,” “magnesium,” and “phosphorous.” Use this as an opportunity to point out common letter-sound combinations such as: <i>ci (see)</i>; <i>ph (f)</i>; <i>-ous (us)</i>.</p> <p>Direct students to work within groups to answer the first question by referring to the text and then recording three examples of how minerals and metals are used <i>in buildings</i> (emphasize the word “in” to help focus students on the type of information they should list). After 2 minutes, cold call a few students to share out. Listen for:</p> <p><i>They generate heat and power; used to make floors; used to make plumbing; used to make rooftops; used to make construction materials.</i></p> <p>As students share responses, ask them to provide a quote from the text in support of their thinking.</p> <p>Then, direct students to work with group members to answer the second question. Emphasize that the question asks <i>how do minerals</i> help our bodies—it is not asking students to list the names of specific minerals.</p> <p>After 2 minutes, cold call members from several groups to share out whole class. Listen for:</p> <p><i>Help us grow; keep us healthy; shampoo keeps hair clean; toothpaste keeps teeth healthy; helps grow food we eat.</i></p>



Close Reading and Viewing Guide: Minerals and Metals  
(For Teacher Reference)

Directions	Questions	Teaching Notes
<p>Independently read <b>Paragraph 3.</b> Then, work with group members to answer the questions on the right.</p>	<p>How do minerals and metals “make life beautiful?” Sketch and label at least two examples of items made from minerals and metals that “make life beautiful.”</p> <p>Write a statement to explain how the items you sketched above might make life beautiful.</p> <p>Record a quote from the text to explain how minerals and metals help keep our environment clean.</p>	<p>Give students 2 minutes to read the third paragraph. Consider whisper-reading the passage with a small group of students who may struggle to read the text independently.</p> <p>Then, focus students on the first question, read it aloud, and clarify as needed. As students work, encourage them to use a dictionary to look up the meaning of unfamiliar terms that may interfere with their ability to respond to the first question (e.g., <i>cosmetics, sculptures</i>).</p> <p>After 1 or 2 minutes, cold call a few students to share their sketches and thinking whole class. Listen and look for students to draw and label: <i>paint, cosmetics (makeup), jewelry</i> and/or <i>sculptures (statues; artworks)</i>.</p> <p>Encourage students to define each item they name, to help the class develop a shared understanding of these words or to clear up any misconceptions they have about the meanings.</p> <p>Focus students on the second prompt. Read aloud and then ask students to consider and discuss in groups: “How could paint, cosmetics, jewelry, or sculptures ‘make life more beautiful’?”</p> <p>After 1 minute, invite a few students to share out with the class. Listen for suggestions such as:</p>



Close Reading and Viewing Guide: Minerals and Metals  
(For Teacher Reference)

Directions	Questions	Teaching Notes
	<p>In your own words, explain how minerals and metals help keep our environment clean.</p>	<p><i>Paint is used on/in buildings or to make paintings (art) that people enjoy looking at, think are beautiful; people use cosmetics to make their faces look beautiful; jewelry is used as a sort of personal “decoration” that may make someone look more beautiful; sculptures are a type of art, and art is something people find beautiful.</i></p> <p>Ask students to read the third question aloud with you and then to work within groups to reread the text and formulate a response. After 1 or 2 minutes, cold call a few groups to share out. Listen for:</p> <p><i>Minerals and metals help keep our environment clean, “by improving our cars, and filtering the air we breathe and the water we drink.”</i></p> <p>Ask students to focus on the words <i>improving</i> and <i>filtering</i> in this quote. Ask students to use their knowledge of prefixes, roots, and suffixes as well as available resources (dictionary, thesaurus) to determine the meaning of each term.</p> <p>After 2 minutes, cold call a few students to share their thinking whole group. Listen for ideas such as:</p> <p><i>Improving: making better; upgrading; developing</i></p> <p><i>Filtering: cleaning; sifting</i></p>



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Directions	Questions	Teaching Notes
		<p>Focus students on the fourth question and direct them to use their understanding of the terms “improving” and “filtering” to explain in their own words (one or two sentences) how minerals and metals help clean the environment. (If necessary, direct students’ attention to the <b>Natural Environment anchor chart</b> and remind them that “air” and “water” are part of the environment.)</p> <p>After 1 or 2 minutes, cold call a few students to share their explanations with the class. Listen for:</p> <p><i>Minerals and metals help keep the environment clean by making cars better and cleaning our air and water.</i></p>
<p>Whole class, read aloud the <b>bullet point</b>. Then, work with group members to answer the question on the right.</p>	<p>Complete the chart by listing at least two ways that Halite (salt) meets <i>people’s needs</i>, and at least two ways it meets <i>people’s wants</i>.</p>	<p>Read the last bullet point aloud with the class, clarifying the pronunciation of the term “Halite” as needed.</p> <p>Then, focus students on the prompt and T-chart and point out the terms “wants” and “needs.”</p> <p>Show students the <b>Sample Thesaurus Entry: “Want.”</b></p> <p>Point out that “need” is considered a synonym (a word that has a <i>similar</i>, but not exactly the same, meaning as another word) for “want.” Go on to remind students of their work with Frayer Models and how students used them to support their understanding of the fact that even relatively synonymous terms can have important differences between their meanings. Tell students to write the word “want” on one index card and “need” on another; then work with group members to define each term, using a dictionary.</p>



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Directions	Questions	Teaching Notes
		<p>After 1 or 2 minutes, invite a few students to share their definitions aloud and explain how these words are <i>different</i> from each other. Listen for ideas such as:</p> <p><i>Wants are things you would like to have, that make life easier; needs are things that are necessary for your survival. The difference is that wants are things you could probably live without, whereas needs are things you couldn't live without.</i></p> <p>If necessary, clarify the meaning and difference between the terms. Then ask students to record a short definition of each word on their index cards.</p> <p>Point students to the T-chart. Then ask them to work with group members to record at least two ways Halite (salt) meets people's "wants," on the left, and two ways it meets people's "needs," on the right. As you circulate to offer support, ask students to justify their thinking by asking:            "Why is that a <i>want</i>?"            "How is that a <i>need</i>?"</p> <p>After 3 minutes, cold call students to share out what they recorded under "wants" and "needs." Be sure to have students explain why they listed each example under either want or need. Listen for ideas such as:</p> <p><i>Wants: flavors food; used to make paint; cosmetics (glass, plastics)</i></p> <p><i>Needs: keeps roads safe; extinguishes fires (glass, plastics)</i></p>



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Directions	Questions	Teaching Notes
		<p>Focus students back on the first sentence, which they highlighted at the beginning of the close read: “Minerals and metals are a part of everyday life.”</p> <p>Then ask: “What have you learned from this article that helps you understand how minerals and metals are a part of our everyday lives?”</p> <p>After students have an opportunity to think about and briefly discuss their ideas within groups, invite a few students to share out with the class. Answers will vary, but listen for students to synthesize ideas from their note-catchers and to use specific examples from the text to support their thinking.</p> <p>Then, ask students to prepare to review and respond to questions about the video in order to further build their understanding of how natural resources found in Canada are used to meet our everyday needs and wants.</p>



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<p>With group members, chorally read and then restate the question to the right. Keep the question in mind as you view and listen to the <b>video excerpt (0:00–1:05)</b>, <u>twice</u>. During each viewing and listening, record details from the video in the margin of this page of text-dependent questions, to remind you of key details that will help you answer the question. You will discuss your thinking in groups before recording a response.</p>	<p>At the beginning of the video, the narrator says, “Our world is literally held together by the materials that come out of mines.” What do you think he means? Explain your thinking.</p>	<p>After group members read the question aloud, focus them on the phrase <i>our world is literally held together</i>, and point out the word “literally.” If students are not familiar with “literally,” explain that in this context it is used to express or indicate to the audience that the narrator is not exaggerating the truth; he believes what he is saying is accurate or true. Then invite a few students to share out a restated version of the question, based on their understanding of the word “literally.”</p> <p>Clarify any misconceptions as needed. Then play the video from the beginning and pause at 1:05. Direct students to quickly record details from the video that help them to answer the question in the margin of their note-catchers. After 1 or 2 minutes, ask students to silently reread the question, review their notes in the margin, and then view and listen to the clip a second time, to add to or refine their thinking.</p> <p>After playing the video a second time, tell students to add to their margin notes any new and relevant details they heard. Then begin discussing their ideas with group members. After 2 or 3 minutes, cold call a few groups to share their thinking whole class. Listen for ideas such as:</p> <p><i>What the narrator means is that almost everything we use, want, need is made from materials that come from mines. I think this because the video shows and explains how minerals are made to make everyday things we depend on, like walls and paint (13 different minerals); plastics; the stainless steel in kitchens; TVs have 35 different elements; toothpaste has six different minerals from mining.</i></p> <p>After several students share out, direct students to record a response to the question.</p>



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Directions	Questions	Teaching Notes
<p>With group members, chorally read then restate the question on the right. Keep the question in mind as you view and listen to the <b>video excerpt (1:05–1:36), twice.</b> During each viewing and listening, record details from the video in the margin of this page of text-dependent questions, to remind you of key details that will help you answer the question. You will discuss your thinking in groups before recording a response.</p>	<p>The narrator says, “Nearly everything is connected to mining in some way.” What does he mean? Explain your thinking.</p>	<p>After groups read the question aloud, focus them on the word <i>connected</i> in the quote. Ask them to briefly discuss their understanding of this term in groups, and then invite a few students to share out. Listen for: <i>connected means linked, related, joined</i>. Then ask students to share out a restatement of the question, based on their understanding of “connected.”</p> <p>After students share out, play the video clip from 1:05 to 1:30. Direct students to quickly record details from the video that help them answer the question, in the margin of their note-catchers. After 1 or 2 minutes, ask students to silently reread the question and review their notes in the margin. Then view and listen to the clip a second time, to add to or refine their thinking.</p> <p>After playing the video a second time, tell students to add any new and relevant details they heard to their margin notes. Then they should begin discussing their ideas with group members. After 2 or 3 minutes, cold call a few groups to share their thinking whole class. Listen for ideas such as:</p> <p><i>I think the narrator means that many of the things that connect people are made from things that come from mines, like food cooked at a barbecue/social gathering, recreational (sports, fun) activities we do with others, tractors that are used to plant the food we eat and share, the roads we use to travel on, wires that carry power to homes, and information from one person to another.</i></p> <p>After students share out, ask them to record a response to the question.</p>



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Directions	Questions	Teaching Notes
<p><b>Synthesis Question:</b> Refer once again to the article and your response to each of the questions above to determine your answer to the question on the right.</p>	<p>Why are minerals and metals an important part of people’s lives? Support your response with at least one example from the article and one example from the video.</p>	<p>Ask students to chorally read the question aloud with you and then begin working with group members to formulate a response. Circulate to offer guidance and support (if necessary, replay relevant portions of the video).</p> <p>After 3 minutes, cold call a few students to share their responses whole group. Listen for ideas such as:</p> <p><i>Minerals and metals are important to people because they meet our needs and wants by providing construction materials we use to build our homes and the wires we use to get and exchange information.</i></p> <p>Students’ answers will vary, but listen for students to explain that minerals meet needs and wants and to give specific examples from the article and video.</p>

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Sample Thesaurus Entry: “Want”

**Want** (*noun*)

**Synonyms for want**

- need
- wish
- appetite
- craving
- demand
- fancy
- hankering
- hunger
- longing
- necessity
- requirement
- thirst
- yearning
- yen

**Antonyms for want**

- dislike
- distaste
- hate
- hatred
- indifference
- abundance
- disinterest
- plenty



**Homework:**  
Minerals and Metals Resource Web

Name: \_\_\_\_\_

Date: \_\_\_\_\_

- Reread the text to locate information that helps you complete the web.
- Record the names of items made from minerals and metals in the box “Examples of products made from minerals and metals ...”
- Write one or two sentences to explain how minerals and metals meet people’s needs and wants, in the lowest box “How minerals and metals meet people’s needs and wants ...”

