2013 Summer Curriculum Institutes for SCSU TAT Alumni

Team Leader: Melissa Luqueño
Team Member: Susan Hansen
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Introduction

In order to help ELLs improve their academic language and discourse, we are implementing a cross curricular thematic unit. The unit is based off of the Science curriculum of Rocks and Minerals, but includes Literacy, Writing, Math, and Social Studies as well. The theme for this thematic unit is Change in the world around us. Throughout the unit, students will study this theme and how it applies to different subject areas.
# Rocks and Minerals - Unit Plan

## Unit Author

<table>
<thead>
<tr>
<th>First and Last Name</th>
<th>Melissa Luqueño &amp; Susan Hansen</th>
</tr>
</thead>
<tbody>
<tr>
<td>School District</td>
<td>New Haven</td>
</tr>
<tr>
<td>School Name</td>
<td>Columbus Family Academy</td>
</tr>
<tr>
<td>School City, State</td>
<td>New Haven, CT</td>
</tr>
</tbody>
</table>

## Unit Overview

### Unit Title

Rock with the changes

### Unit Summary

This unit is based on the 3rd Grade Science unit on Rocks and Minerals. The unit will incorporate all content areas to help students understand how change occurs in every aspect of our lives. Multiple Intelligence approach will be used throughout the unit. The unit will include scaffolding of academic language in order to help ELLs with reading, writing, listening, and speaking skills across the disciplines.

### Essential Question

How does change affect our lives and the world around us?

### Grade Level

3rd Grade

### Approximate Time Needed

1 Marking Period

## Unit Foundation

### Targeted Content Standards and Benchmarks

#### Science:

3.3a Rocks and minerals have properties that may be identified through observation and testing; these properties determine how earth materials are used

#### Literacy:
CC.3.R.L.2 Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.

CC.3.R.L.3 Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.

CC.3.R.L.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

CC.3.R.L.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.

Writing:
3.W.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

Math:
CC.3.MD.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.

CC.3.NF.3b Recognize and generate simple equivalent fractions, e.g., ½ = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent, e.g., by using a visual fraction model.

CC.3.MD.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilogram (kg), and liters (l). (Excludes compound units such as cm³ and finding the geometric volume of a container.) Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem. (Excludes multiplicative comparison problems [problems involving notions of “times as much”; see Glossary, Table 2]).

Social Studies:
1.2 Significant events in local and Connecticut history and their connections to United States history.

Student Objectives/Learning Outcomes

Science:
Content Objective: Students will be able to identify and classify different types of rocks (igneous, sedimentary, and metamorphic) and minerals based on their properties.

Language Objective: Students will be able to describe, in writing, the similarities and differences between the three types of rocks.

Literacy:
Content Objective: Students will be able to evaluate texts and determine key ideas and information.

Language Objective: Students will be able to use information read to discuss or write about the theme of book read in class.

Writing:
**Content Objective:** Students will be able to use elaboration to describe events or experiences in fictional and informational texts.

**Language Objective:** Students will be able to write in complete sentences following the conventions of English grammar.

**Math:**

**Content Objective:** Students will be able to apply mathematical concepts to real life situations.

**Language Objective:** Students will be able to describe the process used to solve math problems.

**Social Studies:**

**Content Objective:** Students will be able to compare and contrast local and national history.

**Language Objective:** Students will be able to explain the similarities and differences orally and in writing.

### Assessment Plan

<table>
<thead>
<tr>
<th>Assessment Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before project work begins</strong></td>
</tr>
<tr>
<td>• Students will complete the Know and Want to know part of a KWL chart for their Pre-test on Rocks and Minerals.</td>
</tr>
<tr>
<td>• Student self assessment about what they know about rocks and minerals and their interest level in learning about rocks and minerals.</td>
</tr>
</tbody>
</table>

### Assessment Summary

Assessments will include a variety of methods to assess student understanding and growth. Students will complete performance tasks that will show their understanding of the science content and the application of other content areas to demonstrate this knowledge. For some activities, students will work in cooperative groups to complete a task. Other activities will be done individually and will be handed in and graded based on a teacher created rubric. Teachers will also use anecdotal notes and conference with students individually to assess their needs and knowledge. Assessments for this thematic unit will include the different content areas (literacy, science, social studies, writing, and math). The assessments will vary to meet the needs of the ELL students and will focus on the
understanding and application of academic vocabulary.

## Unit Details

### Prerequisite Skills

**Science** - Students need to have observation skills in order to be able to complete the science observation activities.

**Literacy** - Students need to have basic reading skills in order to be able to read informational texts for information.

  - Students need to have basic reading skills in order to analyze the literature read in class to help them understand character traits and the changes taking place in the story.

**Math** - Students need to know what fractions are and how to form fractions.

  - Students need to know how to measure and read a scale.
  - Students need to know how to organize data and make a graph.

**Social Studies** – Students need to have an understanding of communities.

### Instructional Procedures

**Literacy** –

- First 4 weeks of the marking period will be spent reading the CORE Text (*How to Steal a Dog* by Barbara O’Connor) and teaching students the different strategies that good readers use when reading (visualizing, predicting, connections, vocabulary, character traits, etc).

- Second 4 weeks of the marking period, students will work in cooperative groups (Literature Circles) to apply the strategies they learned to a different book and work together to discuss and understand what they are reading.

- Mini Lessons will be used throughout the semester to teach students how to read for information (how to use the table of contents, note taking, asking questions, etc).

- Students will have 30 minutes of independent reading a day where they will choose a book to read that interest them.

**Math** –

- Lessons will be taught using Math in Focus and additional resources to cover the CCSSs for this unit.

- Students will work in cooperative groups to organize data and create graphs with the rocks and minerals from the science lessons.

- Students will use hands on manipulatives and math centers to learn and apply math concepts.

**Writing** –

- Narrative writing lessons from the New Haven 3rd grade curriculum will be used to teach students the elements of narrative writing.

- Teacher will confer with students about their writing to see where they need help and what they already understand.

- Students will evaluate themselves using a rubric and ensure that their writing has all the elements of narrative writing by using a checklist to help guide them.

- Students will work in partners to help each other edit and revise their own writing.

**Science** –

- Science lessons will be taught using the STC (Science and Technology for Children) kit for
Rocks and Minerals.
- Students will work independently and in groups to complete activities and observations.
- Students will have samples of rocks and minerals that they will work with throughout the science lessons and will also use these samples in the other content areas when appropriate.

Social Studies –
- Field trips to West Rock and East Rock
- Read alouds that incorporate the theme of change in our world.

Accommodations for Differentiated Instruction

<table>
<thead>
<tr>
<th>Special Needs Students</th>
<th>Nonnative Speakers</th>
<th>Gifted/Talented Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Answer Frames</td>
<td>• First Language Text (Spanish)</td>
<td>• Independent Study</td>
</tr>
<tr>
<td>• Graphic Organizers</td>
<td>• Dual Language Dictionaries (English-Spanish)</td>
<td>• Extra use of technology to create PowerPoints, Brochures, etc.</td>
</tr>
<tr>
<td>• Highlighted text (key words)</td>
<td>• Use of native language to express knowledge and understanding</td>
<td>• Open ended project</td>
</tr>
<tr>
<td>• Additional time to complete tasks</td>
<td>• Illustrated texts</td>
<td>• Independent research tasks and activities</td>
</tr>
<tr>
<td>• Support Staff (Special Education Teacher)</td>
<td>• Answer Frames</td>
<td></td>
</tr>
<tr>
<td>• Presentation of knowledge (written or oral)</td>
<td>• Graphic Organizers (with illustrations)</td>
<td></td>
</tr>
<tr>
<td>• Modified assignments &amp; rubrics</td>
<td>• Highlighted text (key words)</td>
<td></td>
</tr>
</tbody>
</table>

Materials and Resources Required For Unit

<table>
<thead>
<tr>
<th>Technology – Hardware (Click boxes of all equipment needed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camera</td>
</tr>
<tr>
<td>☑ Computer(s)</td>
</tr>
<tr>
<td>☑ Digital Camera</td>
</tr>
<tr>
<td>☑ DVD Player</td>
</tr>
<tr>
<td>☑ Internet Connection</td>
</tr>
</tbody>
</table>
### Technology – Software
(Click boxes of all software needed.)

<table>
<thead>
<tr>
<th>Database/Spreadsheet</th>
<th>Image Processing</th>
<th>Web Page Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop Publishing</td>
<td>Internet Web Browser</td>
<td>Word Processing</td>
</tr>
<tr>
<td>E-mail Software</td>
<td>Multimedia</td>
<td>Other</td>
</tr>
<tr>
<td>Encyclopedia on CD-ROM</td>
<td></td>
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</tr>
</tbody>
</table>

### Printed Materials
- STC Rock Unit Kit
- *How to Steal a Dog* by Barbara O’Connor
- *Cómo salir de un apuro* por Barbara O’Connor
- Math in Focus text books, workbooks, and resources

### Supplies
- Variety of rocks and minerals specimens
- Magnifying Glasses
- Streak Plates
- Nails
- Trays or egg cartons
- Magnets
- Gloves

### Internet Resources

### Other Resources
- Field Trips: West Rock, East Rock, Peabody Museum
<table>
<thead>
<tr>
<th>GRADE</th>
<th>Common Core State Standard</th>
<th>GLE</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td><strong>Literacy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC.3.R.L.2</td>
<td>Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.</td>
<td></td>
<td>Relates to the curriculum being covered for the 1st marking period in literacy. It also relates to the theme of the thematic unit of change. CCSSs also cover the critical skills that students need in order to analyze text and read for information. These CCSSs will help students evaluate the texts they read and allow them to learn information about the science topic being studied during this unit (Rocks and Minerals).</td>
</tr>
<tr>
<td>CC.3.R.L.3</td>
<td>Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC.3.R.I.1</td>
<td>Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC.3.R.I.4</td>
<td>Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Writing</td>
<td>3.W.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</td>
<td>This CCSS will be covered during the 1st marking period of the New Haven curriculum. It will be incorporated into the thematic unit by having students write a narrative that is an imagined experience about a rock while incorporating real information learned throughout the science lessons and the reading for information lessons.</td>
<td></td>
</tr>
<tr>
<td>3 Math</td>
<td>CC.3.MD.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step &quot;how many more&quot; and &quot;how many less&quot; problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets. CC.3.NF.3b Recognize and generate simple equivalent fractions, e.g., ½ = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent, e.g., by using a visual fraction model. CC.3.MD.2 Measure and estimate liquid volumes and masses of objects using standard units of</td>
<td>These CCSSs were chosen for the Math component of this unit because they are directly related to the science unit of rocks and minerals. Students can use the observations done in the science lessons and apply them to math by organizing data and making graphs. They can also study fractions in this unit while working with rocks. Students will also be able to apply important measurement skills throughout this unit by measuring length and weight of various rocks and minerals. This skill will also help them to classify rocks by different properties and attributes.</td>
<td></td>
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</tbody>
</table>
grams (g), kilogram (kg), and liters (l). (Excludes compound units such as cm³ and finding the geometric volume of a container.) Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem. (Excludes multiplicative comparison problems [problems involving notions of “times as much”; see Glossary, Table 2]).

<table>
<thead>
<tr>
<th>3</th>
<th>Science</th>
<th>3.3a Rocks and minerals have properties that may be identified through observation and testing; these properties determine how earth materials are used</th>
<th>This is the GLE that we work with in the first marking period in 3rd grade. We chose this GLE because it addresses the foundational skills that students need in order to make scientific observations. The skills learned through this GLE will be applied to different content areas and will help students to become better observers, descriptive writers and critical thinkers.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Social Studies</td>
<td>1.2 Significant events in local and Connecticut history and their connections to United States</td>
<td>This CCSS correlates to the science that is being studied in this unit. There are many rich resources in the community that students can access to help them understand not only the social studies aspect of the history of</td>
</tr>
<tr>
<td>3</td>
<td>Social Studies</td>
<td>1.2 Significant events in local and Connecticut history and their connections to United States history.</td>
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<tr>
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</tr>
</tbody>
</table>

This CCSS correlates to the science that is being studied in this unit. There are many rich resources in the community that students can access to help them understand not only the social studies aspect of the history of...
Name _________________________________
Date________________

KWL Chart

<table>
<thead>
<tr>
<th>Know</th>
<th>Want to Know</th>
<th>Learned</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ELL Modifications

Name ______________________

KWL Chart

Topic: ______________________

Want to Know

____________________
____________________
____________________

Learned

____________________
____________________
____________________

Know

____________________
____________________
____________________
____________________
ELL Modifications

Nombre:__________________

Quiero saber
_____________________
_____________________
_____________________
_____________________
________

Aprendí
_____________________
_____________________
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Sé
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_____________________

Organizador
SQA
Tema:
_______________________
Performance Tasks

Students pick 2 out of the 3 to complete based on what interests them. Students can also choose to complete one project in English and one project in Spanish.

Rock Your Words

Task Overview:
You will choose your favorite rock or mineral and write a descriptive paragraph about what your rock looks like, how it feels, smells, etc. You will compare the rock/mineral to other objects using comparative and/or superlative adjectives in order to create a descriptive image of your rock and mineral. You will share your paragraph with your peers who will identify your rock/mineral from a sample of rocks and minerals based on your descriptive paragraph. Your paragraph must contain at least five fully developed and descriptive sentences.

<table>
<thead>
<tr>
<th>Rubric</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency</td>
<td>Most or all sentences are unclear and</td>
<td>Some sentences are unclear and</td>
<td>One or two sentences are unclear with</td>
<td>Creates clear and specific sentences</td>
</tr>
<tr>
<td></td>
<td>little use of correct grammar and</td>
<td>with some mistakes in grammar and</td>
<td>little to no mistakes in grammar and</td>
<td>in correct grammatical and use of</td>
</tr>
<tr>
<td></td>
<td>conventions</td>
<td>conventions.</td>
<td>conventions.</td>
<td>conventions.</td>
</tr>
<tr>
<td>Elaboration</td>
<td>Sentences lack content specific</td>
<td>Several sentences contain content</td>
<td>Most sentences contain content</td>
<td>All sentences contain content</td>
</tr>
<tr>
<td></td>
<td>language and most contain</td>
<td>specific language and may include</td>
<td>specific language with accuracy.</td>
<td>specific language and are accurate.</td>
</tr>
<tr>
<td></td>
<td>inaccuracy.</td>
<td>inaccuracy.</td>
<td></td>
<td>Use of elaboration to describe</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>properties of chosen rock in all</td>
</tr>
<tr>
<td></td>
<td>No use of elaboration to describe</td>
<td>Some use of elaboration to describe</td>
<td>Some use of elaboration to describe</td>
<td></td>
</tr>
<tr>
<td></td>
<td>properties of chosen rock.</td>
<td>properties of chosen rock.</td>
<td>properties of chosen rock.</td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td>Student presentation is sloppy and</td>
<td>Some attempts at organization and</td>
<td>Most of the presentation is organized</td>
<td>Presentation is neat and organized</td>
</tr>
<tr>
<td></td>
<td>unorganized.</td>
<td>neatness.</td>
<td>and neat.</td>
<td>Accurate use of conventions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ideas and information is organized in</td>
<td></td>
<td>Consistent mix of interesting and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>logical and sequential order.</td>
<td></td>
<td>topic/content vocabulary.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adequate use of transitional words</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELL Modification</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

18
Rock Your Words

Task Overview:
You will choose your favorite rock or mineral and write a descriptive paragraph about what your rock looks like, how it feels, smells, etc.

You will compare the rock/mineral to other objects using adjectives in order to create a descriptive image of your rock and mineral. You will share your paragraph with your peers who will identify your rock/mineral from a sample of rocks and minerals based on your description. Your paragraph must contain at least five (5) fully developed and descriptive sentences.

Checklist
______ 5 descriptive sentences
______ Describes what it looks like
______ Describes how it feels
______ Describes how it smells
______ Each sentence begins with a Capital Letter
______ Each sentence ends with a period.
## ELL Modification (continued)

### Rubric

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fluency</strong></td>
<td>Most or all sentences are unclear and little use of correct grammar and conventions.</td>
<td>Some sentences are unclear and with some mistakes in grammar and conventions.</td>
<td>One or two sentences are unclear with little to no mistakes in grammar and conventions.</td>
<td>Creates clear and specific sentences in correct grammatical and use of conventions.</td>
</tr>
<tr>
<td><strong>Elaboration</strong></td>
<td>Sentences lack content specific language and most contain inaccuracy. No use of elaboration to describe properties of chosen rock.</td>
<td>Several sentences contain content specific language and may include inaccuracy. Some use of elaboration to describe properties of chosen rock.</td>
<td>Most sentences contain content specific language with accuracy. Some use of elaboration to describe properties of chosen rock.</td>
<td>All sentences contain content specific language and are accurate. Use of elaboration to describe properties of chosen rock in all sentences.</td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td>Student presentation is sloppy and unorganized. Unorganized grouping of ideas, facts, and details. No use of transitional words.</td>
<td>Some attempts at organization and neatness. Ideas and information is organized in logical and sequential order. Adequate use of transitional words</td>
<td>Most of the presentation is organized and neat. Accurate use of conventions. Consistent mix of interesting and topic/content vocabulary.</td>
<td>Presentation is neat and organized Accurate use of conventions. Consistent mix of interesting and topic/content vocabulary.</td>
</tr>
</tbody>
</table>
There’s No Place Like Home

In the novel, How to Steal a Dog, Georgina so desperately wants a place to call home. Imagine that you could have the house of your dreams what would it look like? Think about where it would be and what would it look like inside and outside and create a detailed drawing of your home. Include captions and labels to explain different parts of the home. Present your home to your class and explain why this would be your dream home.

Rubric

<table>
<thead>
<tr>
<th>Fluency</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student uses incomplete and/or simple sentences.</td>
<td>Student uses complete sentences and attempts to include transitional words.</td>
<td>Student uses complete sentences and includes transitional words.</td>
<td>Student uses complete and complex sentences and includes transitional words.</td>
<td></td>
</tr>
<tr>
<td>Elaboration</td>
<td>Illustrations lack descriptive details.</td>
<td>Many illustrations show descriptive details.</td>
<td>Most illustrations show descriptive details.</td>
<td>Illustrations show vivid descriptive details.</td>
</tr>
<tr>
<td>Oral presentation lacks clear and specific focus.</td>
<td>Oral presentation is mostly clear and focused.</td>
<td>Oral presentation is clear and focused.</td>
<td>Oral presentation is clear and focused.</td>
<td>Oral presentation is clear and focused.</td>
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<td>Most of the presentation is organized and neat.</td>
<td>Presentation is neat and organized</td>
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In the novel, How to Steal a Dog, Georgina so desperately wants a place to call home. Imagine that you could have the house of your dreams. What would it look like? Think about where it would be and what it would look like inside and outside. Create a detailed drawing of your home. Include captions and labels to explain different parts of the home. Present your home to your class and explain why this would be your dream home.

Checklist

_____ Each sentence begins with a Capital Letter
_____ Each sentence ends with a period.
_____ Writes in complete sentences
_____ Pictures have lots of details

_____ Picture of the inside of the house
_____ Picture of the outside of the house

ELL Modification (continued)
## Rubric

<table>
<thead>
<tr>
<th></th>
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<tr>
<td><strong>Organization</strong></td>
<td>Student presentation is sloppy and unorganized.</td>
<td>Some attempts at organization and neatness.</td>
<td>Most of the presentation is organized and neat.</td>
<td>Presentation is neat and organized</td>
</tr>
</tbody>
</table>

**LET'S PLAY SCHOOL!**
Task Overview:

You will work with a partner to role play being the “teacher” and the “student”. Each person will need to read a different text about rocks in order to comprehend main ideas of the text and to also develop 10 questions that you would ask as a teacher to check for understanding. You will reverse roles as teacher and student to complete this task. The “teacher” will also need to create a scoring guide/answer sheet and the page numbers the answers can be found to answer questions which will be handed in for assessment.

Rubric

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency</td>
<td>Most or all questions are unclear and little use of correct grammar and conventions.</td>
<td>Some questions are unclear and with some mistakes in grammar and conventions.</td>
<td>One or two questions are unclear with little to no mistakes in grammar and conventions.</td>
<td>Creates clear and specific questions in correct grammatical and use of conventions.</td>
</tr>
<tr>
<td>Elaboration</td>
<td>Questions lack content specific language and many answers are incorrect on the answer sheet.</td>
<td>Several questions contain content specific language and answer sheet provides correct answers.</td>
<td>Most questions contain content specific language and answer sheet provides correct answers.</td>
<td>All questions contain content specific language and answer sheet provides correct answers.</td>
</tr>
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</tr>
</tbody>
</table>

ELL Modification
LET’S PLAY SCHOOL!

Task Overview:

You will work with a partner to role play being the “teacher” and the “student”. Each person will need to read a different book about rocks in order to comprehend main ideas of the book and to write 5 questions that you will ask the student (your partner). You will switch roles as teacher and student to complete this task. The “teacher” will also need to create an answer sheet and the page numbers the answers can be found to answer questions. Hand in this paper to the teacher for a grade.

<table>
<thead>
<tr>
<th>Question (?) Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who?</td>
</tr>
<tr>
<td>Why?</td>
</tr>
</tbody>
</table>

Checklist

_____ 5 questions about the book you read
_____ Each question ends with a question mark ?
_____ Each sentence begins with a Capital Letter
_____ Use words from the book

ELL Modification (continued)

Rubric
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
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<td>Student presentation is sloppy and unorganized.</td>
<td>Some attempts at organization and neatness.</td>
<td>Most of the presentation is organized and neat.</td>
<td>Presentation is neat and organized</td>
</tr>
</tbody>
</table>
## Record of my Observations

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</tbody>
</table>

Name ____________________

Date______________

### Rock Sensory Matrix

<table>
<thead>
<tr>
<th>Rock</th>
<th>Color</th>
<th>Feel</th>
<th>Weight</th>
<th>Smell</th>
<th>Shape</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
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<td>10</td>
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</tr>
</tbody>
</table>

**ELL Modification**

Name ______________________
Date______________

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<table>
<thead>
<tr>
<th>Rock</th>
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<th>Feel</th>
<th>Weight</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>10</td>
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</tr>
</tbody>
</table>

Name ______________________________________
Date____________

Mineral Profile Sheet
<table>
<thead>
<tr>
<th>Mineral _____</th>
<th>Feel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Smell</td>
<td></td>
</tr>
<tr>
<td>Streak Color</td>
<td>Luster</td>
</tr>
<tr>
<td>Light</td>
<td>Magnetism</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shape</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ELL Modification**

Name ________________________________
Date ____________

Mineral Profile Sheet
<table>
<thead>
<tr>
<th>Mineral _____</th>
<th>Feel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Smell</td>
<td></td>
</tr>
<tr>
<td>Streak Color</td>
<td>Luster</td>
</tr>
<tr>
<td><img src="chrysocolla.png" alt="Chrysocolla" /></td>
<td><img src="diamond.png" alt="Diamond" /></td>
</tr>
<tr>
<td>Light</td>
<td>Magnetism</td>
</tr>
<tr>
<td><img src="flashlight.png" alt="Flashlight" /></td>
<td><img src="magnet.png" alt="Magnet" /></td>
</tr>
<tr>
<td>Hardness</td>
<td>Shape</td>
</tr>
<tr>
<td><img src="nail.png" alt="Nail" /></td>
<td><img src="shape_options.png" alt="Shape Options" /></td>
</tr>
</tbody>
</table>
Worksheet 3  Kilograms and Grams

Math Worksheets
(Chapters 11, 13, and 14 from Math in Focus)

Beginner - Early Intermediate ELLs

The mass of the cap is ________ grams.

Read each scale.
Then write the mass.
Name: ___________________________ Date: __________________

_____ g

______ kg ______ g

_____ g

______ kg ______ g
Intermediate/Proficient ELLs

Lesson 11.3 Kilograms and Grams

Read the scales. Write the mass.

Emma finds the mass of a bag and a chair.
She finds that the bag has a mass of 6 kilograms 9 grams.
Both the chair and the bag have the same mass.
Color the boxes that show the mass of the chair.

Advanced ELLs

kg  g  kg  g
Count the number of insects. Then complete the table.

Read the scale.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6,090 g</td>
<td>6,900 g</td>
<td>6,009 g</td>
<td></td>
</tr>
<tr>
<td>6 kg 9 g</td>
<td>6 kg 900 g</td>
<td>6 kg 90 g</td>
<td></td>
</tr>
</tbody>
</table>

Beginner – Early Intermediate ELLs

What is the mass of the sugar in grams?
Lesson 13.2 Reading and Interpreting Bar Graphs

The bar graph shows the flavors of breakfast bars that some children like most. Use the bar graph to answer questions 1 to 5.

Use the table in Exercise 4 to complete the bar graph.

<table>
<thead>
<tr>
<th>Number of Children</th>
<th>Butterfly</th>
<th>Bee</th>
<th>Dragonfly</th>
<th>Grasshopper</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
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<td>20</td>
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<td>15</td>
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<tr>
<td>0</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Kind of Insect
The bar graph shows the number of books read by four students in a month. Use the data in the bar graph to answer Exercises 4 to 6.

How many children like cranberry flavored breakfast bars?

How many more children like apple flavored breakfast bars than vanilla flavored breakfast bars?

What is the total number of children who like strawberry flavored breakfast bars and blueberry flavored breakfast bars?

Advanced ELLs
4. How many books did Steve and Anton read altogether?

   books

5. How many more books did Suzie and Kate read altogether than Steve?

   books

6. If Steve stacks all the books he read into 5 equal groups, how many books will there be in each stack?

   books
Worksheet 2  Understanding Equivalent Fractions

Complete each equivalent fraction.

Example

\[
\frac{1}{2} = \frac{2}{4}
\]

\(\frac{1}{2}\) and \(\frac{2}{4}\) are equivalent fractions. Equivalent fractions are two or more fractions that name the same part of a whole.

1. \[
\begin{align*}
\frac{1}{3} & = \frac{1}{6} \\
\frac{1}{6} & = \frac{1}{6}
\end{align*}
\]

2. \[
\begin{align*}
\frac{1}{4} & = \frac{1}{12} \\
\frac{1}{12} & = \frac{1}{12} \\
\frac{1}{12} & = \frac{1}{12}
\end{align*}
\]

3. \[
\begin{align*}
\frac{1}{2} & = \frac{1}{8} \\
\frac{1}{8} & = \frac{1}{8} \\
\frac{1}{8} & = \frac{1}{8}
\end{align*}
\]
Fill in the missing numerator or denominator.

1. \[ \frac{1}{6} = \square \]
2. \[ \frac{1}{4} = \square \]
3. \[ \frac{1}{3} = \square \]
4. \[ \frac{1}{2} = \square \]
5. \[ \frac{3}{4} = \square \]
6. \[ \frac{2}{5} = \square \]
7. \[ \frac{2}{3} = \square \]
8. \[ \frac{5}{6} = \square \]
9. \[ \frac{4}{5} = \square \]
10. \[ \frac{3}{4} = \square \]
11. \[ \frac{2}{6} = \square \]
12. \[ \frac{2}{3} = \square \]
Use different colors to color the mat below to show the fractions \( \frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \frac{1}{6}, \frac{1}{8}, \frac{1}{10}, \text{ and } \frac{1}{12} \).

Look at the mat above and circle the pairs of fractions that are equivalent fractions.

14. \( \frac{1}{5} \text{ and } \frac{2}{10} \)  
15. \( \frac{2}{3} \text{ and } \frac{5}{6} \)

16. \( \frac{2}{4} \text{ and } \frac{5}{8} \)  
17. \( \frac{1}{2} \text{ and } \frac{5}{10} \)

18. \( \frac{2}{5} \text{ and } \frac{4}{10} \)  
19. \( \frac{1}{4} \text{ and } \frac{6}{12} \)

20. \( \frac{3}{4} \text{ and } \frac{6}{8} \)  
21. \( \frac{2}{3} \text{ and } \frac{4}{6} \)

Advanced ELLs
CHAPTER 14 Fractions

PROBLEM SOLVING Thinking Skills

Solve.

1. Circle the fractions that are not equivalent to $\frac{1}{4}$.

\[
\begin{array}{cccc}
6 & 3 & 2 & 4 \\
12 & 12 & 6 & 12 \\
\end{array}
\]

2. Compare the fractions in the squares. Shade the squares that have a fraction greater than $\frac{1}{2}$.

\[
\begin{array}{ccc}
6 & 2 & 1 \\
9 & 10 & 4 \\
\end{array}
\]

\[
\begin{array}{ccc}
4 & 3 \\
12 & 10 & \\
\end{array}
\]

\[
\begin{array}{ccc}
6 & 11 \\
10 & 12 & \\
\end{array}
\]

\[
\begin{array}{ccc}
\frac{1}{8} & \frac{5}{7} & \frac{4}{5} \\
\end{array}
\]
3. What is the difference between the fraction of unshaded parts and the fraction of shaded parts?

4. Put the numbers 12, 1, 4, 6, 2 and 8 in the boxes to make three equivalent fractions.

5. The figure is divided into equal parts.
   How many more parts need to be shaded to have \( \frac{3}{4} \) of the figure shaded?

6. Jennifer paints \( \frac{1}{2} \) of a pole red and \( \frac{5}{12} \) of it yellow. What fraction of the pole is not painted?
Writing Task

Pre-writing Activity for ELLs
Name ________________________________

My Pet Rock

My rock’s name:

_______________________________

Length:

My rock is ________________ inches long.

Hardness:

Put a checkmark next to each item that scratches your rock.

- Fingernail _____
- Nail _____
- Nothing _____

Sink or Float:

What happened to your rock when you placed it in water?

- Sink _____
- Float _____

Bubbles:

Did vinegar make your rock bubble?

- Yes _____
- No _____

Texture:

- Smooth _____
- Rough _____

Luster:

- Dull _____
- Shiny _____

Color(s): __________________________

A Picture of My Rock

Graphic Organizers for Writing Task

NAME________________________________________________
A DAY IN THE LIFE

What type of personality will you have? Explain why

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

What events will happen during the day

1. ___________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

2. ___________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

3. ___________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

How will you end your adventure of your rock?

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________
List some important words you want to include in your story.

A Day in the Life of my Pet Rock

Use the research you have conducted on a specific rock and the pet rock you created to create a story describing the events of a day in the life of your rock. Based on the properties of your rock, “bring it to life” by giving it voice, feelings, and opinions to demonstrate its character traits. Write about a day in your rock’s life and show what it does and sees throughout its day. Be sure to include all of the elements of an adventure narrative such as an elaborated beginning, a problem and events leading to the solution, a conclusion and an extended ending.

<table>
<thead>
<tr>
<th>Rubric</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fluency</strong></td>
<td>Choppy and lacks good sentence structure.</td>
<td>Choppy and inconsistent sentence structure.</td>
<td>Mostly clear and flowing.</td>
<td>Clear, flowing writing</td>
</tr>
<tr>
<td></td>
<td>Often does not make sense.</td>
<td>Some parts don’t make sense.</td>
<td>Makes sense in most parts.</td>
<td>Makes excellent sense</td>
</tr>
<tr>
<td></td>
<td>May have no transition words.</td>
<td>Some use of transitional words.</td>
<td>Good use of transition words.</td>
<td>Excellent use of transition words</td>
</tr>
<tr>
<td><strong>Elaboration</strong></td>
<td>Uses little to no content specific vocabulary.</td>
<td>Uses some content specific vocabulary.</td>
<td>Includes many content specific vocabulary words in most of the story.</td>
<td>Includes content specific vocabulary in all parts of the story.</td>
</tr>
<tr>
<td></td>
<td>No details or</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>descriptive language.</td>
<td>A few attempts to use details and/or descriptive language.</td>
<td>Uses many details and descriptive language in most of the story.</td>
<td>Uses many details and descriptive language throughout the story.</td>
</tr>
<tr>
<td>----------------</td>
<td>------------------------</td>
<td>------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td>Order not clear.</td>
<td>Some parts told in order.</td>
<td>Told in sequential order.</td>
<td>Told in sequential order</td>
</tr>
<tr>
<td></td>
<td>Too brief, barely tells a story</td>
<td>Undeveloped beginning, middle, and ending.</td>
<td>Good beginning, middle, and end.</td>
<td>Strong and clear beginning middle and end.</td>
</tr>
</tbody>
</table>

**Post-Test**
Use the words from the box to fill in the blanks.

1. If a rock has ____________, that means it’s shiny.

2. A ___________ is a nonliving substance found in nature that has the same appearance throughout.

3. ____________ is hot melted rock that comes out of an erupting volcano or a crack in the Earth’s surface.

4. A mineral’s _______________ determines how easily it can be scratched by various objects.

5. A person who studies the earth is called a __________________.
6. Rocks that are formed from other rocks because of heat and pressure deep within the Earth are ____________________________.

7. ______________ is formed from molten magna from deep within the Earth or from lava on the Earth’s surface.

8. ______________ is molten rock deep within the Earth’s crust.

9. ______________ is formed from either fine grains of sediment combining together, water evaporating and leaving a mineral behind, or compressed buried remains of plants or animals.

On the chart below, classify each rock as metamorphic, igneous, or sedimentary. Put a check mark in the correct box.

<table>
<thead>
<tr>
<th>Rock</th>
<th>Metamorphic</th>
<th>Igneous</th>
<th>Sedimentary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pumice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sandstone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basalt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obsidian</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gneiss</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Choose 2 of the rocks above and explain what they are used for today.

1. _________________________________________________________________
   _________________________________________________________________
   _________________________________________________________________

2. _________________________________________________________________
   _________________________________________________________________
   _________________________________________________________________
Write your answer in the space provided.

1. Write the difference between a rock and a mineral.

2. Identify ways that minerals can be tested. Give at least 2 examples and explain how they are used.

3. Identify the two processes deep within the Earth that form a metamorphic rock.

Pick an igneous rock and describe the process that it goes through when it forms from either lava or magma. Choose one of the following rocks (Obsidian, Granite, Pumice, Basalt)
Pick one example of a rock or a mineral. Using your knowledge of that rock or mineral, pretend that you are living the life of that rock or mineral. Describe what your job is (uses of the mineral), where you live (where the rock or mineral is found), and what you look like (color, luster, etc).
Resources


