

READY TO ROCK? ROCK & MINERAL UNIT

★

Name _____

ROCKHO

Have you heard of rockhounding? Rockhounding is the hobby of collecting rocks, minerals, and other geologic specimens. Rockhounding is a fun and educational activity that can be done by people of all ages. In rockhounding in order to learn about the beauty and diversity of the natural world, you can become a rock hunter or even an amateur geologist collector.

Anyone can get started with rockhounding. To start rockhounding, you need to find a good location for rocks. Successful locations include mountains, hills, and deserts, depending on the area you live in. It's important to remember that you should never rockhound on private property without the owner's permission. Whether for recreational or educational purposes, rockhounding is a great activity. The U.S. National Park Service before you start rockhounding.

After choosing a location, rockhounding is a fun and educational activity. You can find exposed rocks and minerals in many places, including in your back yard. You can also find buried specimens in sedimentary rocks.

Rock hounds use tools to help them find rocks. A rock hound is an amateur or semi-professional who has tools at their disposal. They use tools to help them find rocks.

First, rock hounds use a magnifying glass or hand lens to allow readers to identify areas where certain minerals can be found. Rock hounds can pinpoint and keep track of the locations of rock hounds to prepare for their next trip. Rock hounds should always bring water and snacks for their trip.

Rockhounding can be a fun and educational activity. It can provide a great opportunity for rockhounding. Rockhounding is often a hobby that is passed down from one generation to the next. Rockhounding is a fun and educational activity that can be done by people of all ages. Rockhounding is a fun and educational activity that can be done by people of all ages. Rockhounding is a fun and educational activity that can be done by people of all ages.

Rock #3: _____

Size and Texture

How big is the rock? What does the rock feel like?

Physical Characteristics

Describe the rock and its physical characteristics.

Draw a Picture

Draw a picture of what the rock looks like.

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INFORMATIVE ROCK POSTERS

We have created 14 different colorful and informative rock/mineral posters to introduce each rock type.



LANGUAGE ARTS ACTIVITIES

Your 3rd-6th grade students will love working on each of the language arts activities we have created. They cover concepts from subject/verb agreement to pronoun types.

Name _____

ROCKIN' ROCK

Rewrite each sentence so all of the verb tenses are the same.

1. _____ is a geologist who helps discovered rocks and resources.

2. _____ day, Margaret noticed something unique that no one else had.

3. _____ ly spends her time looking at rocks and clean them up.

4. _____ my, Jamie and Bree, took Krista on walks and adventures.

5. _____ Bree threw Krista a rock and telled her to look out.

6. _____ Tomorrow, Ben finds another sedimentary rock.

7. _____ Jamie turned around quickly and looked at the rock.

8. _____ Bree had spot a basalt rock hiding in the shadows.

9. _____ and shouted so Rachel could hear.

FILL IN THE BLANK

Choose the correct verb for each sentence.

- The girls _____ **play**
- The zebras like to _____ **graze**
- Kendra _____ **sings**
- Aaron and his sister _____ **run**
- The bus _____ **drives**
- My uncle likes to _____ **work**
- The dogs _____ **bury**
- The boys like to _____ **shop**
- Watermelons _____ **are**
- Jungle animals _____ **hide**
- The cousins _____ **joke**
- The children _____ **play**

WORD BANK

fight fights
drive drives

ELA LESSON

SUBJECT/VERB AGREEMENT

You will need:

- Subject/Verb Agreement worksheets for each student (We Should Agree, Fill in the Blank, Finish It Up)

Instructions:

- Ask the students if they can tell you what a verb is. Explain that a verb is an action word, which means it tells you what someone or something is doing.
- Write the following sentence on the board: "I like to go to school every Tuesday." Explain that the subject and verb do not agree. Explain that agreement is when the subject and verb are both singular or both plural. A singular subject has a singular verb and a plural subject has a plural verb.
- Explain that a singular verb often has an "s" at the end. Adding an "s" is called conjugating the verb. Give the following sentence as an example: "John is a singular subject, and walks is a singular verb." Explain that a plural verb does not have an "s" at the end. Give the following sentence as an example: "The students are a plural subject, and share is a plural verb." In contrast, explain that plural verbs do not have an "s" at the end.
- Have the students correct the following sentence: "The student share." Explain that "student" is a singular subject, and "share" is a plural verb. The correct sentence is "The student shares."
- Katie and Katelyn plays at the park. James make paper airplanes during indoor recess. Cameron like to eat pizza.
- You can review a few more sentences as a class. Answer any questions the students have. Hand out the subject/verb agreement worksheets to each student. Have them work independently or in groups, at your discretion, with their work as needed.

Notes: _____

Name _____

VERB: LETS GET ROCKIN'

Underline the verb(s) in each sentence.

- We walked to the park on a Sunday afternoon.
- Grandma Little always sings silly songs with me.
- My friends jumped in the pool with me.
- I laughed, jumped, and screamed when I got a puppy!
- Her baby brother cried many times during the night.
- The football team scored a touchdown, so the crowd stormed the field.
- Playing soccer, riding my bike, and swimming are my favorite summer activities!
- The best friends created a secret handshake.
- I couldn't stop eating the ice cream!
- I finished my homework, so now I can play outside.
- Jimmy yelled at his sister, so he didn't get to eat dessert.
- Parker loves to play with his toy cars and watch movies.
- Kelly loves to dance, play with dolls, and ride her scooter.
- My teacher _____

SCIENCE ACTIVITIES


No matter what upper grade age group you teach, your students will be fascinated by the hands on rock cycle activities we have included.

SCIENCE LESSON
WEATHERING & EROSION


Materials:
Weathering & Erosion Worksheets for each student
Erosion, Geological Changes, Volcanoes and Earth

Directions:
Ask the students if they can think of some ways the Earth's surface is changed. Discuss this as a class. They can be changed through weathering and erosion.
Explain that weathering is when rocks, soil, and mountains are broken down over time into smaller pieces.
Explain that erosion is the displacement of soil and minerals on the Earth. This is usually caused by wind, water, and gravity. Discuss this as a class.
Ask the students if they can think of how weathering and erosion can change the Earth's surface. Then have the students think of as many ways as they can that weathering and erosion affect the Earth's surface.
Discuss that volcanoes and earthquakes can also affect the Earth's surface.
Hand out the Weathering & Erosion worksheets and monitor students as needed.


ROCK CYCLE



EARTH'S CRUST



HEAT



METAMORPHIC ROCK

CRAYON OR CANDY METAMORPHIC ROCK CYCLE ACTIVITY

Materials:

- Crayons or Starburst
- Candies
- Foil
- Oven
- Electric Griddle

Time:


- 5 Minutes Prep
- 10 Minutes Experiment
- 5 Minutes Cleanup

Directions:

1. ***You will need your "Sedimentary Rock Cycle Activity."***
2. You will need an electric griddle. Place your sedimentary rock on the griddle, cover it with foil, and place it on the griddle using something heavy and then heat it to medium heat. Once the crayon or candy is melted, use oven mitts to remove the foil. Do not touch the melted crayon or candy.
3. Once the melted crayon or candy is removed from the foil, you can help you peel the melted crayon or candy from the foil to show the class the "metamorphic rock cycle."
4. Save your metamorphic rock for your next activity.


Name _____

ROCK CYCLE




EARTH'S CRUST

Sedimentary rocks get covered by rocks and compacted.



HEAT

Sedimentary rocks get heated up in Earth's crust.



Heat creates metamorphic rock and the

ART ACTIVITIES

We have included a fun, motivational art activity to help your students introduce a new element of positivity around the school.

ART LESSON MOTIVATIONAL/HAPPY ROCKS

You will need:

- Variety of Rocks - enough for each student
- Blank White Paper per each student
- Paint
- Paint Brushes per each student

Instructions:

- Ask the students if they have ever heard a motivational quote or saying.
- Then explain to the class that they are going to be painting rocks to help make others around the school feel better. They can include a motivational phrase or just a word that makes them happy.
- Explain that they will want to make a sketch of what they intend to paint on a piece of paper before they get started.
- Hand out a rock to each student and let them begin sketching their idea on a piece of paper.
- Once they have checked off their idea with you, give them their paint and brush so they can start painting.
- Once all of the rocks are painted and dry, you can take a walk around the school's outside area to place the rocks around for others to find.

Notes:

MATH ACTIVITIES

We have included differentiated fluency practice pages for your students to use to practice their math skills.

Name _____

FLUENCY PRACTICE #1

1. Evaluate for $x = 8$ $5.64 - 2.25$	2. 15×4	3. Evaluate for $x = 4$ $62 - x$	4. Simplify $\frac{8}{4}$
5. Evaluate for $x = 8$ $22 - x$	6. $9.61 - 5.41$	7. 22×5	8. $16 - x$ 0
9. Evaluate for $x = 4$ $46 + x$	10. Simplify $\frac{3}{9}$	11. $\frac{4}{42} + \frac{1}{42}$	12. Evaluate for $x = 19$ $17 + x$ 36
13. Simplify $\frac{10}{56}$	14. $\frac{13}{25} + \frac{7}{25}$	15. $\frac{13}{22} + \frac{1}{22}$ 21 22	16. Simplify $\frac{10}{50} - \frac{1}{5}$

Name _____

FLUENCY PRACTICE #2

1. $17 + 6$	2. $12 + 9$	3. $18 - 11$
4. $17 - 8 =$	5. $4 + 9$	6. $17 + 12$
7. $18 - 9$	8. $7 + 11$	9. $14 + 10$
10. $93 + 72$	11. $16 - 8$	12. $62 + 5$

Name _____

FLUENCY PRACTICE #4

1. $25 + 63 =$	2. $14 - 8 =$	3. 8×1	4. $413 + 46$	5. 6×3
6. 14×2	7. $517 + 37$	8. 11×4	9. $682 - 423$	10. 9×8
11. $415 + 273$	12. 51×3	13. $927 - 27$	14. 11×7	15. $655 - 312$
16. _____	17. _____	18. _____	19. _____	20. _____

READING ACTIVITIES

Not only will your students enjoy learning about rockhounding and geologists, they will love answering the comprehension questions as well.

READING COMPREHENSION

Need: appropriate level reading comprehension page and worksheet
Directions: Depending on the passage you are using, ask the student to read the passage and answer the questions OR what rockhounding is. Discuss it as a class with all the students that they will be reading a passage about rockhounding. Hand out the passage to the class and explain what they should read the prompt and answer the questions. Walk around to observe and assist the students as they answer the questions as needed.

PASSAGE DIFFERENTIATION

There are 4 leveled passages included in this packet to differentiate your passages within your group of students. The passages are professionally leveled to be appropriate for the student's reading level.
While we wanted to make it easy for teachers to differentiate the passages, we made the differentiation subtle for the sake of the students. Here is what each level looks like:

★ = 6th grade
◆ = 5th grade

What about the comprehension questions? While the passages are leveled, we included ALL THREE versions of the passages. This way, you can use the same page for all the children while having appropriate questions for their level.

GEOL

Have you ever found a rock?

- 1) How are metamorphic rocks formed?
- a) made up of pieces of sand, silt, and clay
 - b) form from magma becoming solid
 - c) form from heat, pressure, and chemical processes

3) What are some tools used by geologists?

4) Would you like to become a geologist? Why or why not?

COMPREHENSION QUESTIONS

As stated on the previous lesson plan page, we made these questions relevant for ALL versions of the passages. This is the same question page for your entire class while having a passage that is the most appropriate for their level.

Here are the types of questions you'll find within this resource:

- **Activating Background Knowledge:** This type of question is included to activate the student's background knowledge. We recommend having the students answer this type of question before reading the passage, since it will get them more engaged about how this critical reading skill helps them. These questions are notated with the "lightbulb" icon. These questions are notated with the "lightbulb" icon.
- **Comprehension Questions from the Text:** These questions are included to assess the student's understanding of the text. Multiple choice questions are included. These questions will have a crayon icon. Use that color to underline where they found the answer in the text.
- **Deeper Thinking Questions:** These questions are included to assess the student's ability to think deeper about the text they read. These questions are notated with the "lightbulb" icon. These questions are notated with the "lightbulb" icon.

To make grading simple, we included an answer key at the end of this resource.

Notes:

Name _____

ROCKHOUNDING



Have you heard of rockhounding? Rockhounding means searching for and collecting rocks, minerals, and other geological materials. People of all ages dabble in rockhounding in order to learn about types of rocks and minerals and appreciate the beauty and diversity of the natural world. Rock hounds are also called rock hunters or even amateur geologists. Simply put, rock hounds are rock hunters and collectors.

Anyone can get started with rockhounding, but they need a suitable location to begin. To start rockhounding, enthusiasts research and identify a location to search for rocks. Successful locations include state or national parks, beaches, mountain ranges, or deserts, depending on the type of rocks and minerals rock hounds want to find. It's important to remember to obtain any necessary permits or permissions before rockhounding. Some areas may be protected and off-limits to collecting. Whether for recreational or educational purposes, rock hounds should check the U.S. National Park Service before panning, searching, or mining for rocks.

After choosing a location, rock enthusiasts begin their search by looking for exposed rocks and minerals on the surface. They may also dig deeper into the ground to find buried specimens. It's possible to find fossils of prehistoric sedimentary rocks.

Rock hounds use tools to help with their searches and explorations. Whether a rock hound is an amateur or seasoned rock collector, they are more successful when they have tools at their disposal. Here are some tools rock hounds often have on hand.

First, rock hounds use rock hammers or chisels to break up rocks or specimens. A magnifying glass or hand lens examines small details in the rocks. Field guidebooks allow readers to identify found rocks or specimens. Next, a geologic map locates areas where certain types of rocks are found. GPS enabled-devices like cell phones can pinpoint and keep track of where rocks are found. First aid kits allow rock hounds to prepare for any minor medical emergency. Finally, rock collectors pack water and snacks for nourishment and energy.

GEOLOGIST JOURNAL

The geologist journal will help your students step into the role of a geologist and start observing rocks and their characteristics!

Rock #3: _____

Size and Texture
How big is the rock? What does the rock feel like?

Physical Characteristics
Describe the rock and its physical characteristics.

Draw a Picture
Draw a picture of what the rock looks like.

