

Program Activity

Gallery: Weinman Mineral Gallery

Course Name: Rock and Roll – *Make a Rock* [Adapted from “Real Fake Rocks.” Submitted by Dr. Barb Mieras and published by The Geological Society of America (2002).]

Grade Level: 3rd

Activity: Post-field trip

Approximate Time Required: 3 to 5 class periods

Vocabulary:

Objective:

1. Students will select a rock and study its physical characteristics in order to create a model of the rock.

Materials Needed:

1-2 full sheets of newspaper per student
Newsprint strips cut ½ a page long and ¾” wide
Masking tape – ¾” wide
White all purpose glue to make glue/water mixture
Stirring sticks to mix glue/water mixture
Pans for glue/water mixture
Acrylic paint in rock-like colors (gray, black, red-brown, cream, white, pink, gold, brown, etc.)
Plastic cups for mixing paint
Paint brushes
Pieces of sponge for rock painting
Toothpicks for rock painting
Flecked spray paint or ‘granite’ paint in dark and light colors
Clear glitter paint for ‘crystals’ found in rocks
Clear matte acrylic spray or water-resistant surface protectant (optional)
Newspaper or plastic to protect work surface
Worksheets [\[link\]](#)

Procedure:

1. Select a rock you really like from your yard, playground, or a class collection. Remember... you cannot simply remove rocks from their location without asking permission first. Rocks that you can easily carry in your hands are preferable to large rocks that require assistance to move!
2. Observe our rock. Examine it carefully from all sides. Complete *Worksheet #1* as you describe your rock.
3. Set up your work area and make sure the work surface is protected by plastic or newspaper. Set up your pan for the glue/water mixture and have stacks of newsprint and newsprint strips located nearby
4. Make the glue/water mixture by mixing 1 part glue to 3 to 5 parts water in a pan [exact measurement is not necessary but the more glue you use the more sticky the mixture will be]
5. Take 1 to 2 full sheets of newspaper and crunch it up in your hands to make the basic shape of your rock. Look at your answer and drawing on **Worksheet**, question 1. The shape of your rock will not be

exactly correct right now but it should look like the basic shape of your rock. You will make it more accurate later.

6. Attach a few pieces of masking tape to your rock shape to hold the shape together. You don't want to cover the whole rock with masking tape. Just use enough to keep the basic shape in place.
7. Take a newsprint strip and pull it through the glue/water mixture so that both sides are wet. Pull the wet strip through your fingers to remove excess liquid. [this is important so your rock will dry more quickly]
8. Wrap the damp newsprint strip around your taped 'rock' and smooth down the edges with your fingers. Be sure to hold your rock and smooth the strip down lightly so you don't lose your basic shape of your rock.
9. Keep wetting newsprint strips, removing the excess mixture, and wrapping the damp strips around your rock shape – one strip at a time – until the entire rock is covered with the damp strips. Be sure to smooth each strip down lightly before you put the next strip on. Your rock will be stronger if you criss-cross the strips as you put each one on.
10. After your entire rock is covered with damp strips, let your rock sit out in the room to dry. This will take at least one day and probably overnight. If you turn your rock over at least once, it will help it dry more quickly.
11. If you want to make a really strong rock, add another layer of glue/water dipped newspaper strips after your rock has dried and let it sit out and dry all over again [repeat steps 7-10].
12. Once your rock is completely dry wrap one sheet of white tissue paper around the dry rock. Cut or tear off any big, extra pieces of tissue that may be hanging off your rock so that the real rock shape is seen.
13. Take a piece of sponge and dip it into the glue/water mixture that you used to wrap strips around your rock shape. Squeeze out the sponge so that it is just damp and not dripping with the glue/water mixture. Gently dab the tissue paper with the damp sponge until the tissue paper is flat and sticks to the rock shape. You will observe that the tissue paper will crinkle and have little ridges and wrinkles when you pat it with the glue/water mixture. That is a good thing! This is what will give your rock texture later on.
14. Once you are finished dabbing the tissue paper with the glue/water mixture, you can add small pieces of tissue paper to cover places you missed or cover spots you don't like on your rock. Be careful not to get the tissue paper too wet or it will tear or roll up. If that happens, just peel the torn tissue paper off and add another piece of tissue until your rock looks like you want it to. You can always cover over spots you don't like with small pieces of tissue paper and then dab it with a sponge dampened with the glue/water mixture.
15. When your rock looks like you want it to look, let the rock dry again by letting it sit out all day and overnight.
16. Once your rock is dry you are ready to make it look like your rock. You are ready to decorate and there are all kinds of things you can do here. You can use granite/sandstone paint for a 'fine-grained' look or you can use the sponges/brushes to paint other colors for your rock background. You can make crystals or grains with glitter paint. You can create a 'gneiss' look by overlapping colors and rubbing them at their edges with a sponge or brush. You can make 'layers' by lighting brushing a contrasting color over the background with a sponge or brush. You can even add 'lichen' with a brush. Toothpicks are great for adding texture and painting small flecks.
17. When you are finished painting your rock and satisfied that it looks like the rock you have chosen to re-create, let the rock dry at least one day.
18. Now you can add a coat of clear matte acrylic spray or water-resistant protectant to make the rock look glossy and to protect your paint. After this dries – you have your very own rock.

Observations:

Evaluation:

Modifications:

Georgia Standards:

S3CS1 a; S3CS4 b, c; S3CS5 b; S3E1 b, c