

Introduction

Chapter 1

Sedimentary rocks make up about five percent of the rocks in the Earth's crust but they cover approximately seventy-five percent of Earth's surface. Geologists divide sedimentary rocks into three groups: clastic (KLAS-tik) rocks, organic rocks, and chemical rocks. Clastic rocks are fragments of other rocks cemented together. Organic rocks contain plant and animal matter turned to stone. Minerals dissolved in water that crystallize when water evaporates are chemical rocks.



Death Valley Racetrack Jon Sullivan

Classification of volcanic rocks

Volcanic eruptions cause many types of rocks to be airborne during a violent eruption. Volcanologists often will say a rock is an igneous rock when it is flying through the air and becomes sedimentary rock when it lands. Volcanic rocks are still classified as igneous rocks until they are moved from one place to another by water, wind or some other means of transportation.

Weathering of older rocks creates sedimentary rocks

Weathering of older rocks causes igneous and metamorphic rocks to break apart. The rocks are then transported by water to different areas. All of these rocks that broke off the original rocks are sedimentary particles. Large quantities of sediments are carried into oceans by rivers each

Cupcake Sandstone

Activity 4

Introduction

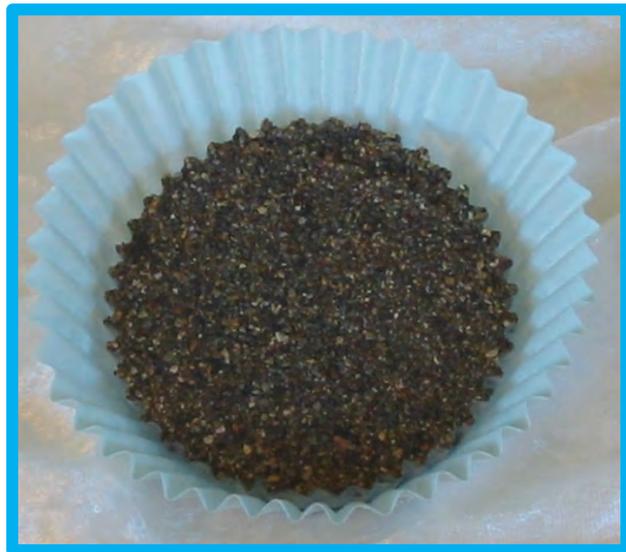
Sand sized rock fragments cemented together form sandstone. The sandstone that was made in the picture below was made from river sand that contained both light and dark minerals. In this activity, you will create sandstone with glue to bind the individual sand grains together.

Materials

- ◆ Sand
- ◆ Wax paper
- ◆ White school glue
- ◆ Small stick
- ◆ Baking cup

Directions

1. Pour some sand onto the wax paper.
2. Pour some white glue over the sand.
3. Stir the sand and glue together with a small stick.
4. Add more glue until the sand grains stick together.
5. Pour the sand and glue mix into the baking cup.
6. Gently press the sand mixed with glue in the baking cup.
7. Place the cupcake sandstone rock in a place where it can dry thoroughly.
8. After the sandstone is dry take it out and examine it.
9. Test how tough the sandstone is by breaking some edges off.



More science activity ideas

- ◆ Place a baking cup in a container and create a sandstone rock that fills the baking cup.
- ◆ Use different types of glue to bind your sandstone rock together.
- ◆ Add some very small quartz stone to the sand when creating your sandstone rock.

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