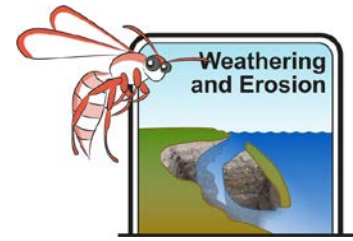


Paint Made of Rocks– Student Activity



We are not sure when early man started to paint their bodies and decorate rock walls for ceremonial reasons.

Pigments (colours) are usually weathered rock which is mixed with a medium such as water, milk, animal fat, or blood, and then applied with hands, stick brushes or blown from the mouth. Paintings on bodies or exposed rocks do not last long because the pigments get washed away. But paintings on rocks deep in caves or under overhangs can last a very long time, because the pigments are protected from the weather.



Handprints are common in rock art.

Aboriginal rock paintings are amongst the oldest in the world, pre-dating famous European cave art such as Lascaux in France by 20,000 years. Some recently discovered Aboriginal rock art at places in the Kimberly and Indonesia are over 40,000 years old.

Australian Aboriginals and other early native peoples around the world used ochre as a pigment. Ochre is weathered rock from which silica has been leached, leaving a fine soft hydrated iron oxide. It was extracted from the ground using digging sticks and rocks. It was carried as rock fragments, and when needed smashed and ground into a fine dust between a hammer stone and flat rock (see right). People also used carbon from the fire ashes and white clays as pigment.

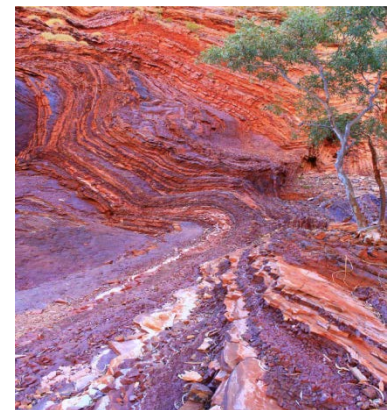


Ochre rock being ground into powder for paint.

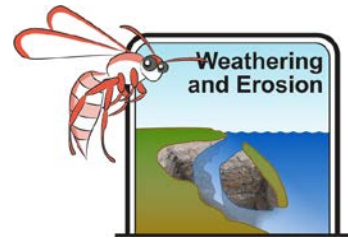
Please note that non-aboriginal people collecting or using ochre can offend some Aboriginal groups.

Activity 1: Finding the best medium for body paint

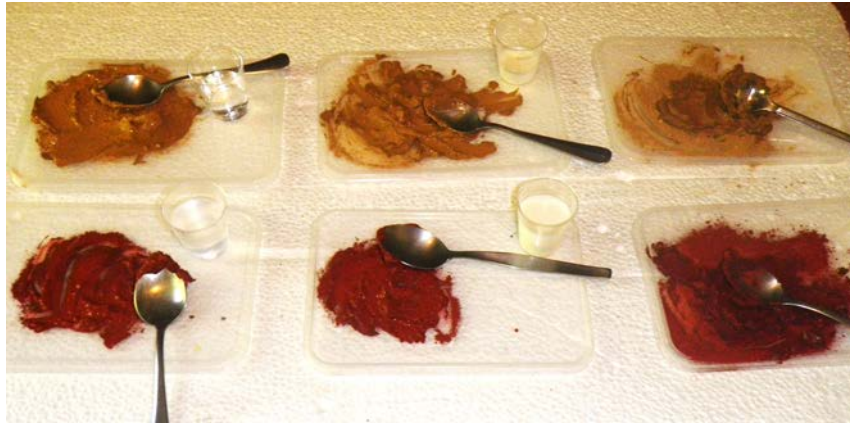
Paint is made by mixing a coloured pigment (for example, powdered rock ochre) with a medium, which is a liquid that lets artists apply the paint to a surface. You've probably used several kinds of mediums in paint before, including water (in water colours or tempera paint), wax (in crayons), and maybe even oil (in oil paints). We will make paints by mixing commercial oxides with three mediums used in Aboriginal body painting: milk, water, and fat (butter) and observe the differences in the quality of paints.



"True colour" weathered rock at Hamersley Gorge, WA.



Paint Made of Rocks– Student Activity



Materials:

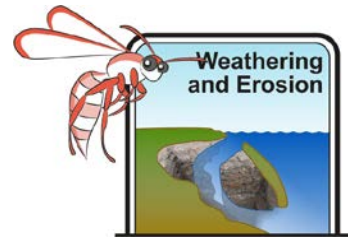
- 3 Take-away container lids, saucers or plates to be used as mixing dishes.
- 3 teaspoons or pop sticks for mixing.
- About 1 teaspoonful each of animal fat, milk, and water.
- 1 tablespoon of grout colouring (oxide) on each mixing dish.
- Two or three paintbrushes.
- Tissues to gently dab the drying pigment.
- Paper towels and a sink to wash up.

Method

1. Place old newspaper on your work surface.
2. Place one teaspoon of grout colouring (oxide) on each mixing plate.
3. On one plate, mix the grout thoroughly with butter. On the second plate, mix the grout thoroughly with about 5 drops of water. On the third plate, mix the grout thoroughly with 5 drops of milk to a smooth paint-like consistency.
4. Paint a neat stripe of each pigment mix across one person's forearm, near the wrist. Remember which stripe belonged to which medium!
5. Walk twice round the oval swinging your uncovered arms briskly to help the paint dry.
6. Gently dab each pigment to see how well it still adheres to the skin.
7. Return to the classroom and compare the lasting effect of the different paint mixes. Enter the classes' results in the table below.
8. Clean up your work area.

Observations

Animal fat	Water	Milk



Paint Made of Rocks– Student Activity

Discussion

Which medium could you use if the pigment had only to last on your skin for a dancing ceremony that lasted 4 hours?

Which medium would you use if the pigment had to last 1 week?

Activity 2: Rock paint and weathering

For this activity, you will test the effects of weathering on your paints. First, apply your different paints to two slabs of concrete. Try to make your two slabs of concrete look identical. Then place one slab of concrete outside, open to the weather, and the other slab of concrete in a sheltered spot, which the sun and rain can't reach it. Leave the slabs alone for two weeks, then set them side-by-side to compare differences between the pigments.

Observations

Are there any differences between the same paints on the two different slabs of concrete? Describe what you see.

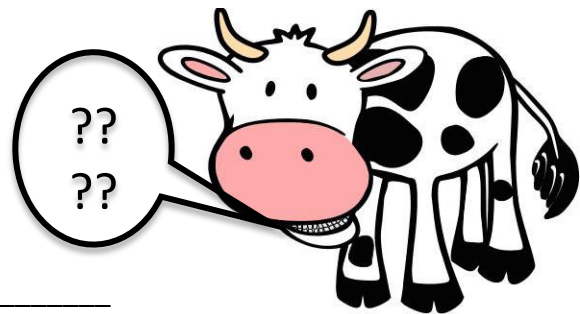
Discussion

Was this a FAIR TEST? (Did the cow moo softly?)

Did we change one thing? _____
What did we change?

Did we measure one thing? _____
What did we measure?

Did everything else stay the same? _____
Name three things that stayed the same?



From what you have learned, why do you think Aboriginal people and early European people created their paintings deep in caves or under overhanging rocks?
