

Oxidation - Student Activity

Chemical Weathering

The most common form of chemical weathering is oxidation. Oxygen makes up almost 21% of our atmosphere. It reacts with minerals and new products are created.

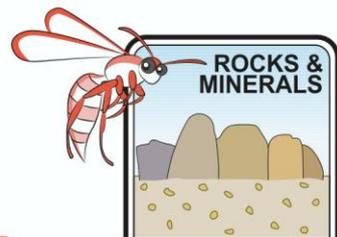


Kangaroo petroglyph Burrup North West Western Australia

This kangaroo petroglyph (Greek petros = stone, glyphein = to carve) is from the Burrup Peninsula (Murujuga) near Karratha on the Pilbara coast. Freshly broken rock is dark grey in colour because it contains some dark iron rich minerals. Weathering over millions of years has oxidised some of these surface minerals into a red rusty weathered crust. Aboriginal people have chipped through the crust to create images that relate to their cultural beliefs. The art dates back over a period of 30,000 years to the last Ice Age. Oxidation rates vary according to weather, exposure and variation in rock type. These cannot by themselves be used as an accurate measurement of time to date the age of the art or to estimate relative age between different areas or rock types.

Over the last 30,000 years Aboriginal people have expended a lot of time and energy chipping through the red rusty crust of the rock to create these images. They must have been very important. If you had to spend weeks perched on a very hot rock in high temperatures chipping away, what image would you create and why?

Image	Reason

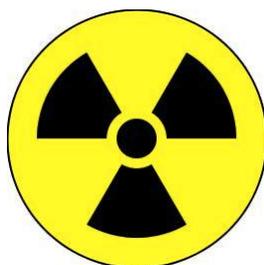


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In the modern world, we also use symbols to represent complex messages. What would these symbols mean?









Scientists also use symbols to represent elements. Elements are substances made with only one kind of atom. What elements do these symbols represent?

H _____ O _____ C _____

Fe _____ N _____ Mg _____

Al _____ Ca _____ Au _____

Si _____ S _____ Na _____