

Activity: Mars Soil

On SCOPE's Scientists at Work episode, you saw Julia re-create the soil on Mars. Here's how she did it:



What you need:

Rubber gloves
Water
Steel wool
Scissors
Sand (which you can buy from a pet store)
Plastic container (e.g. takeaway container)

What to do:

1. Place some sand in the container so it is about half full.
2. Steel wool can be quite sharp, so put the gloves on to protect yourself.
3. Cut the steel wool into small pieces and mix them into the sand.
4. Slowly pour some water into the container so it just covers the sand.
5. Leave the container uncovered and in a safe place where it won't be disturbed.
6. After a few days your sand should turn a reddish Mars-like colour!

What's happening?

Mars is the 4th planet from the sun in our solar system, and is about 4.6 billion years old. It is one of Earth's neighbours but much smaller, colder and further from the sun. A lot of research has been done on Mars, but no human has ever set foot there.

So why did the sand turn the reddish Mars-like colour? Well, the iron in the steel wool reacted with the oxygen in the air to produce iron oxide, or rust. Similarly, on Mars there are lots of iron-rich minerals in the soil which give it its rust-like colour!