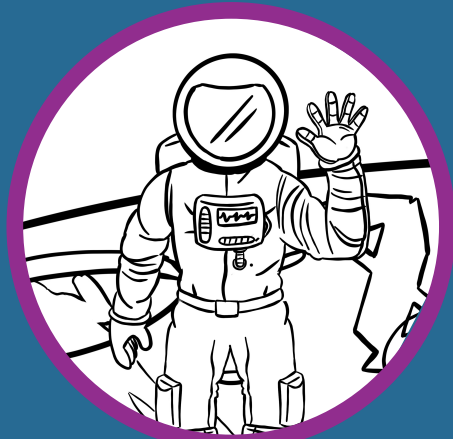


Exploring
Earth
& Beyond



The Planet Earth



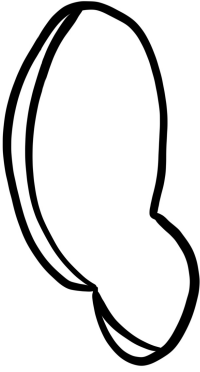
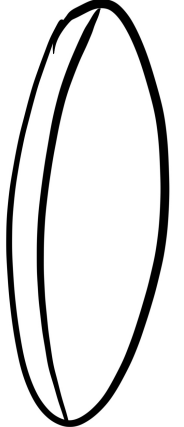
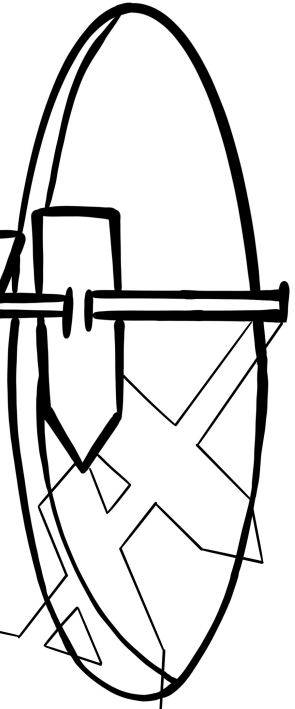
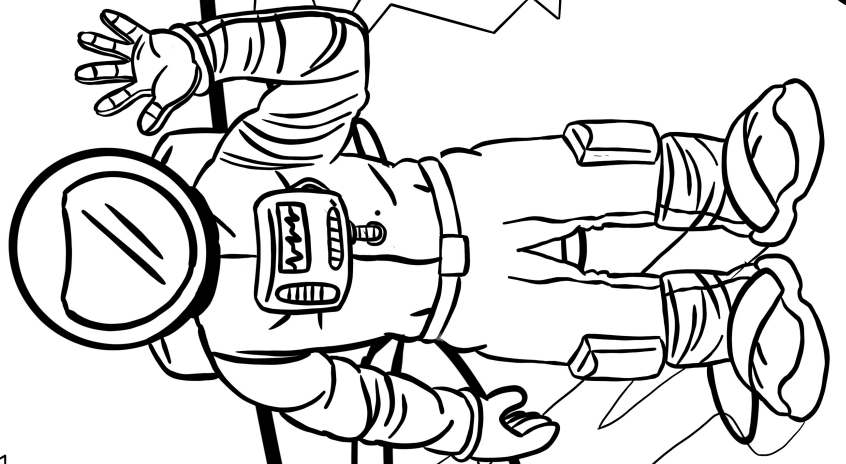
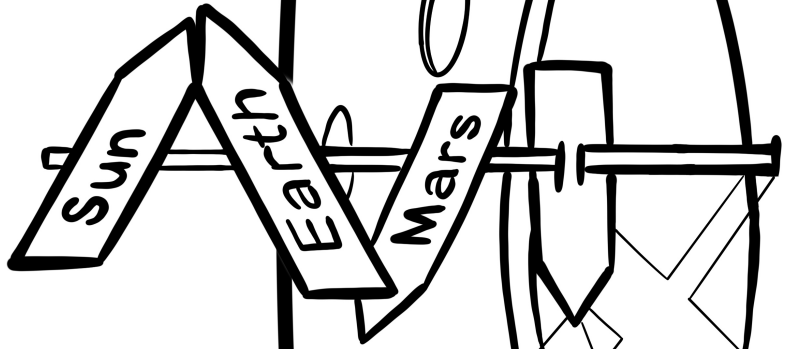
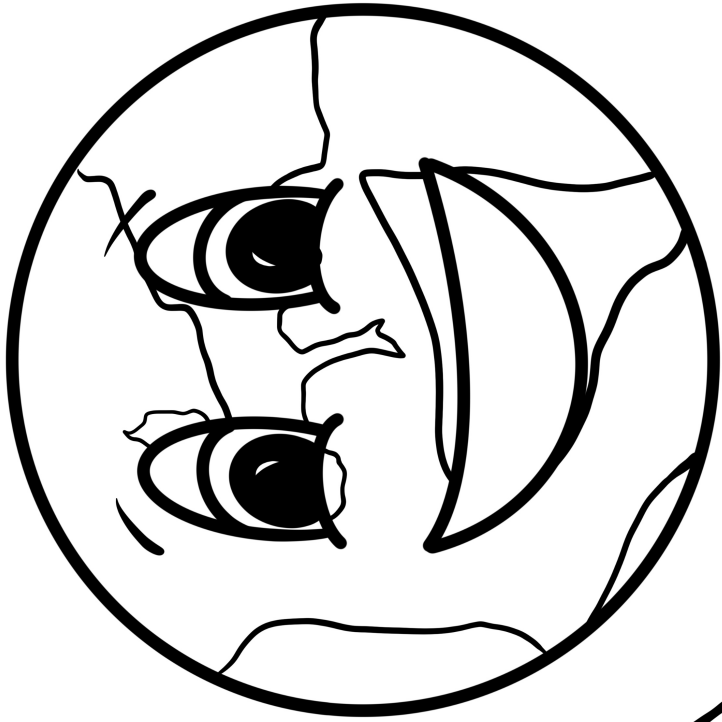
Drawing



Crafts



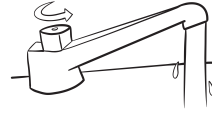
Experiments



Taking care of our Earth.

Fill in the blank by following the pictures for hints.

- While you are brushing your teeth, turn off the _____



- Instead of driving, walk or ride a _____

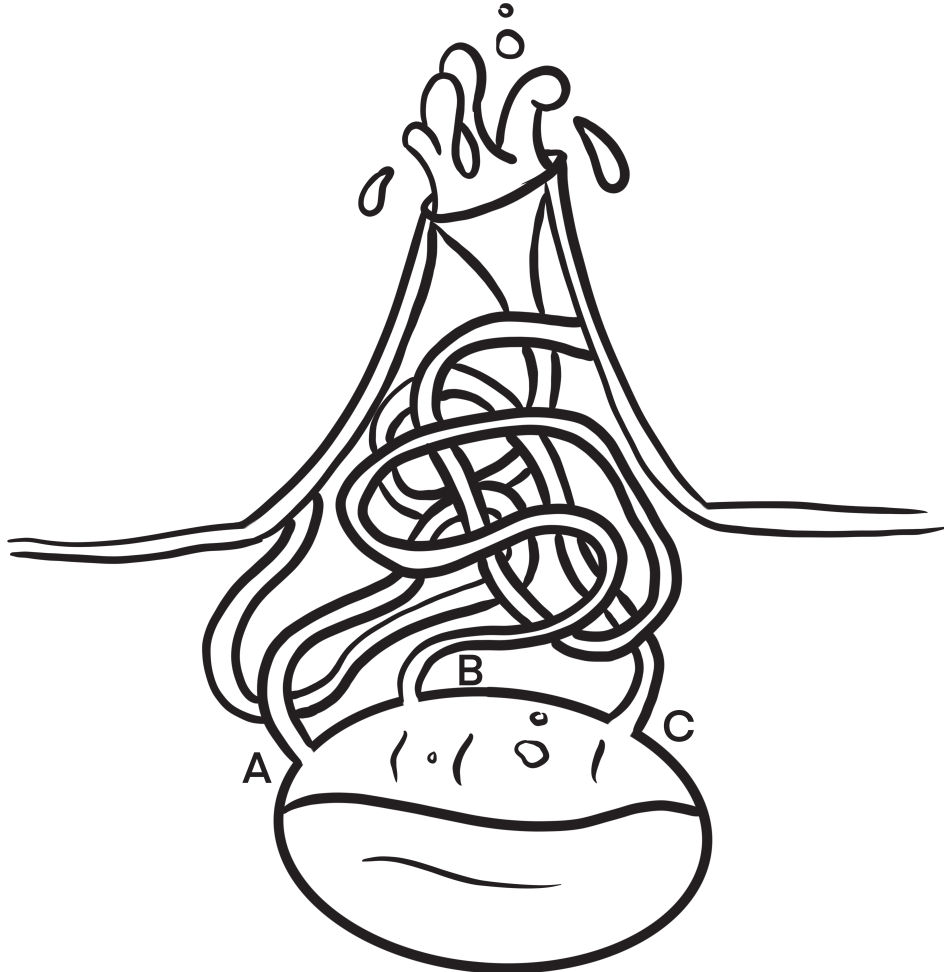


- When you go to the grocer, take your own _____



Volcano Maze

Find the correct path and guide the magma to the top of the volcano.



Weather Match.

Colour the pictures and match it with the correct word.



Snowy

Sunny

Stormy

Cloudy

Windy

Rainy

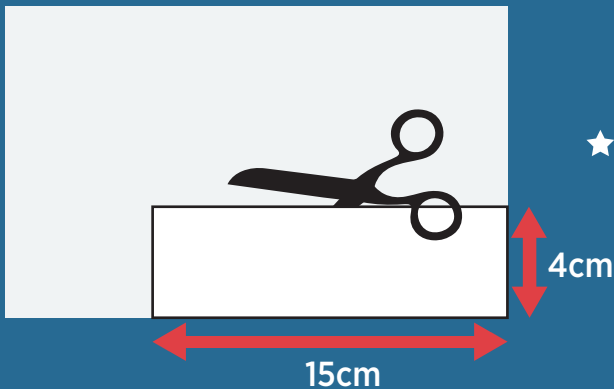
Spinning Seeds

Materials:

- Paper
- Scissors

To take care of our planet, we must take care of the trees we have and plant even more! Trees grow more when the wind helps seeds travel to find enough space to grow. Sometimes, some seeds will have a special shape which will help them move. In this activity, we'll be seeing how pine tree seeds spin as they fall from a tree!

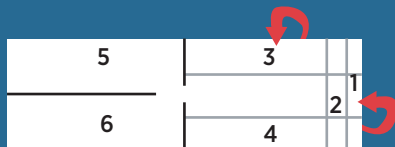
1) Cut a strip of paper at least 15cm long and around 4cm wide.



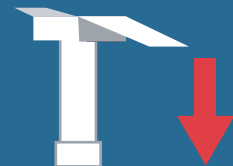
2) Cut lines as shown below.



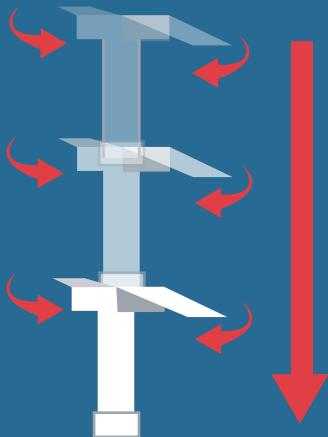
3) Fold the bottom part along the middle and the sides (follow the diagram according to the number).



4) Hold it together with your fingers and release it from a height of at least 2 metres.



5) Watch it spin as it goes down!



Fact

Did you know that Earth is the only planet that was not named after a god?



4-6 years

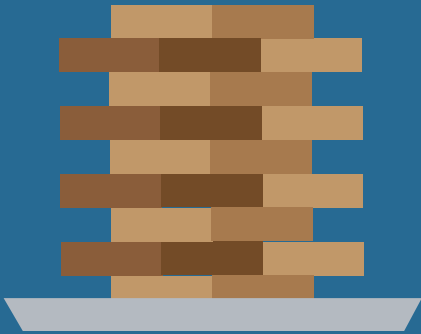


At Home Earthquake

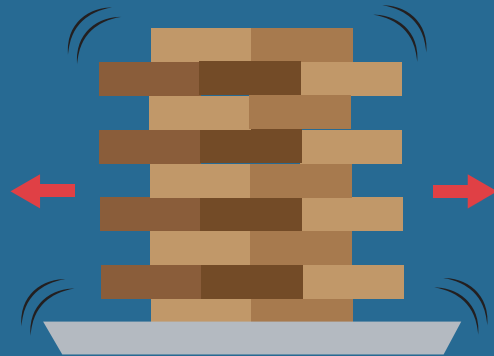
Materials:

- Metal Baking sheet
- Construction blocks (wooden or plastic)

1) Use the wooden blocks to construct a tower on the baking sheet. Be creative!



2) What do you think will happen if you shake the baking sheet?

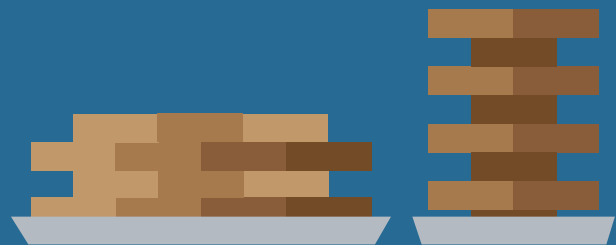


This is similar to the movement that happens during an earthquake. The baking sheet represents a tectonic plate; which is the part of the Earth's crust which is able to move.

3) What changes can we make to stop the building from collapsing during an earthquake?

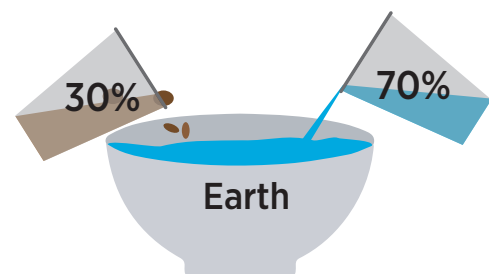


4) Experiment with building towers that are; shorter, taller, wider or narrower and other designs! Keep track of which one took the most effort to bring the tower down.



Fact

Earth is often called the ocean planet because it's surface is 70% water!



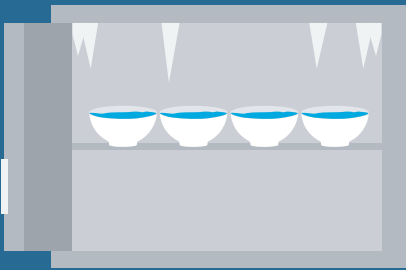
Melting Ice Caps

Materials:

- A few small bowls
- One large container
- Rocks
- Animals/toys
- Popsicle stick
- Marker

This activity will be giving us a glimpse of what is happening to glaciers and ice caps around the world due to global warming!

1) Fill up some small plastic bowls and place these in the freezer at least a day before you would like to do this activity.



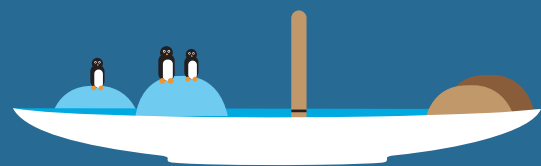
2) Once they are frozen, remove the ice from the bowl. These will be our ice caps!



3) Add some water to your large container and place your icebergs inside, along with their inhabitants on top. Place the rocks on one side of the container to represent the land.



4) Use your popsicle stick and a marker to measure and mark the current level of the water in the container. Do this every 30 minutes and notice what is happening to our ice field.



5) What happened to the level of water? Do the animals have more or less space on the icebergs? What is happening to the land?



7-9 years

In the Ocean Zone(s)!

Materials:

- 5 small containers that will easily stack (Ideally square glass spice jars)
- Water
- Food colouring (blue, red & green)
- Ocean creatures
- Paper/labels & pen so you can label each ocean layer

1) Start by filling each jar with water.



2) Next label them according to the Ocean Zones; Sunlight Zone, Twilight Zone, Midnight Zone, Abyss and Trenches.

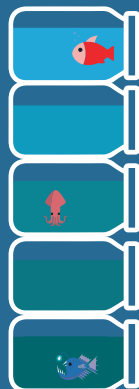


3) Now we add the colour!

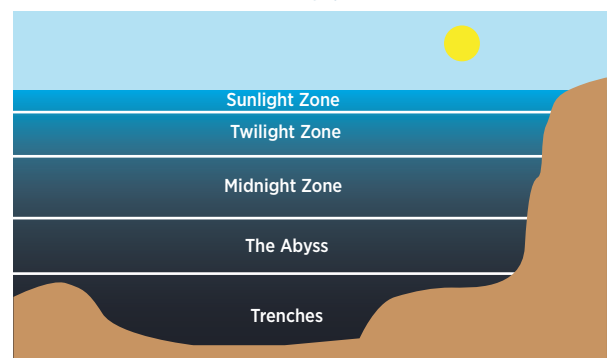


- Sunlight Zone -- touch a toothpick to the blue food colouring and then dip it into the jar
- Twilight Zone -- 1 drop blue
- Midnight Zone -- 2 drops blue
- Abyss -- 4 drops blue
- Trenches -- 5 drops blue, 2 drops green & 1 drop red

4) Shake the containers a bit so the colour gets mixed. Close the containers and stack them on top of each other. If you have sea creature toys at home, see if you can find which zone each animal lives in!



Note



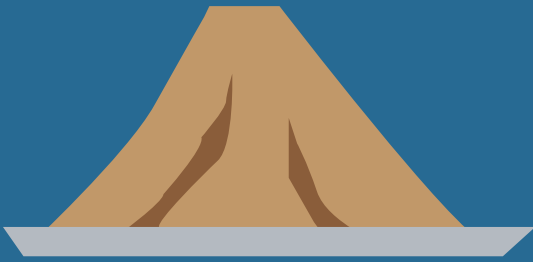
The ocean zones get darker and darker as we move deeper into the ocean because it's difficult for sunlight to reach into the depths of the sea! Because of this darkness, and also the high pressures, it's very difficult for fish and other species to live in the abyss and trenches.

Make your own volcano!

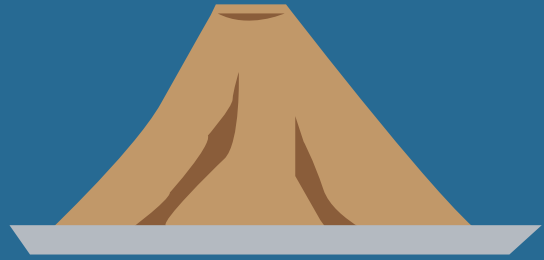
Materials:

- A paper plate
- Bicarbonate of soda
- Clay/ Plasticine
- Red food colouring
- A toilet paper tube – (or kitchen roll cut in half)
- Vinegar

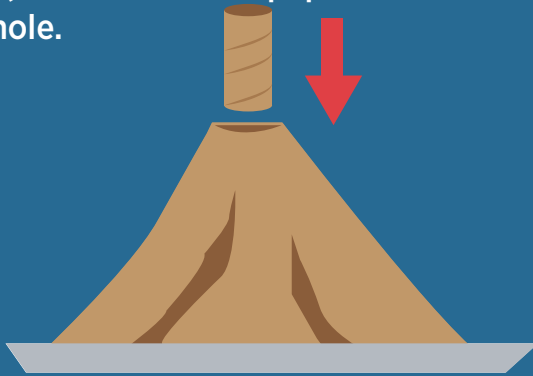
1) Build a small clay volcano on the paper plate.



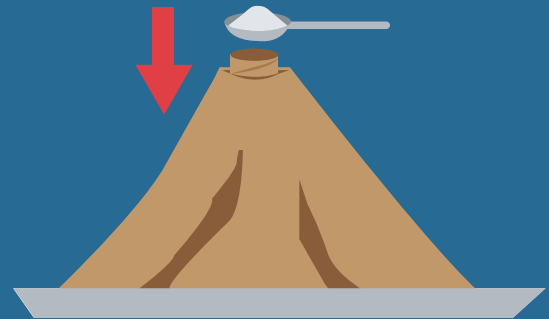
2) Make a large hole in the centre of your volcano.



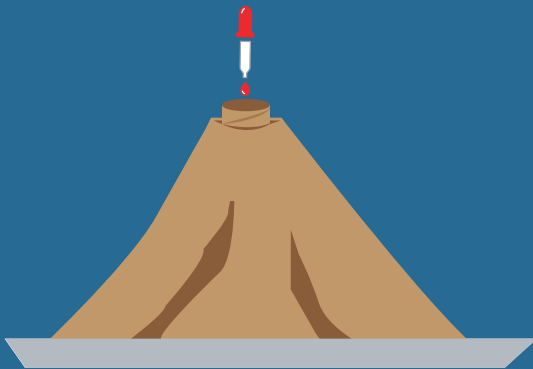
3) Place the toilet paper tube into the hole.



4) Fill in the tube with 2-3 tablespoons of bicarbonate of soda.



5) Put in some drops of red food colouring. ★



6) Add vinegar to the bicarbonate of soda.



7) Watch your volcano erupt!



Exploring Earth & Beyond

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