

Icy Cold

Arctic polar bears can swim in the icy cold water for up to 10 hours looking for food. Have you ever wondered how they keep warm?

Lets investigate and find out...

You will need:

- 1 bowl of extremely cold water, filled with ice cubes.
- 1 rubber glove
- 1 block of lard (fat)
- 1 bag of cotton wool
- 1 food storage bag

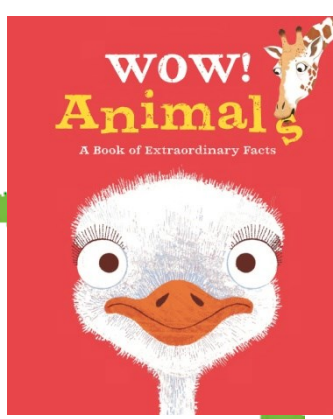


WOW! Animals STEM Challenges



- Step 1:** place your bare hand into the freezing bowl of cold water to check how cold it is to begin with.
- Step 2:** half fill the food storage bag with cotton wool.
- Step 3:** place your hand inside a rubber glove and then cover the glove in lard.
- Step 4:** Now place your hand in the storage bag and fill any space with more cotton wool.
- Step 5:** Now place your hand (which is in the glove, covered in lard, in a bag of cotton wool) back into the freezing cold water.

What do you notice? Why do you think this is? What do you think the glove, lard and cotton wool represent?

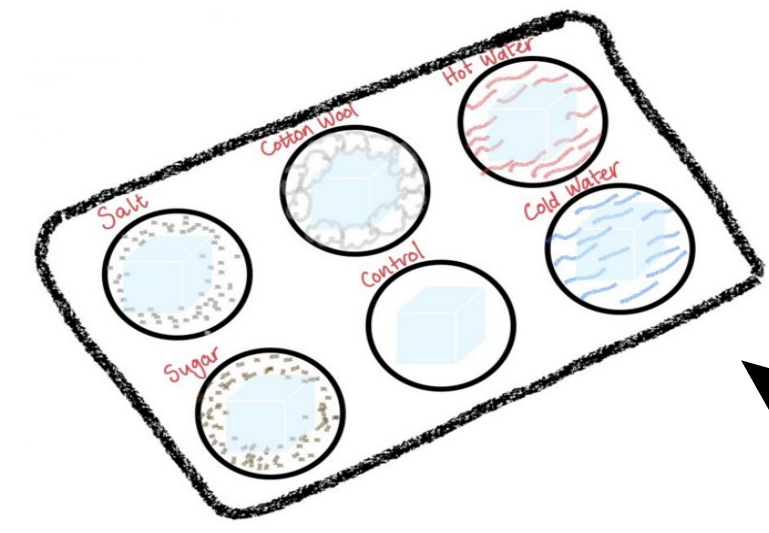


Melting Ice

Global warming is having a huge impact on the habitats of so many animals. Lets investigate what is happening to the icy, cold habitats of the polar bears and penguins.

You will need:

- A muffin backing tray with at 6 spaces.
- 6 ice cubes
- Salt,
- sugar,
- cotton wool,
- hot water
- cold water



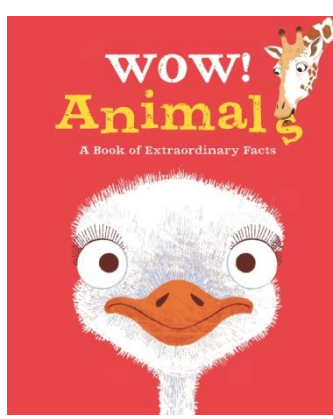
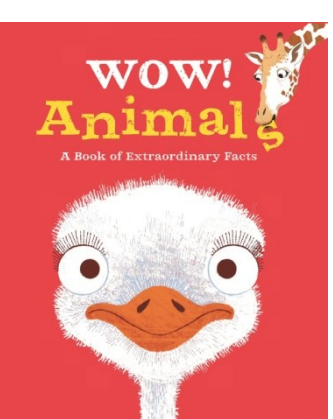
- Step 1:** Place one ice cube into each section of the muffin tray.
- Step 2:** Now add one ingredient to each ice cube.
- Step 3:** You should have one ice cube which nothing is added to, this is called the control.
- Step 4:** monitor the ice cubes and note down any changes you notice.

Questions to consider: Which ice cube is melting quickest? Slowest? Why do you think the icebergs are melting? What could we do to slow it down or stop them melting altogether?

Habitats

Animals need a place to live. There are many different kinds of animal homes. Can you create a home for an animal to live in? Maybe a bird box, a birds nest, an insect hotel? Use as many natural materials as you can to create your animal habitat and leave it outdoors. Did you attract some visitors to your animal home?

(See Next Page)



WOW! Animals STEM Challenges

How to build a bug hotel

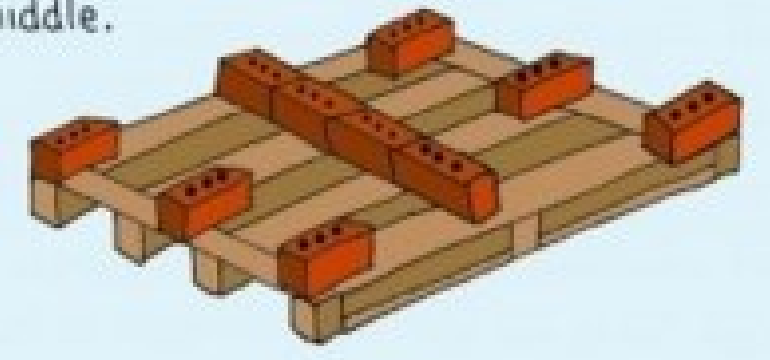


You will need:

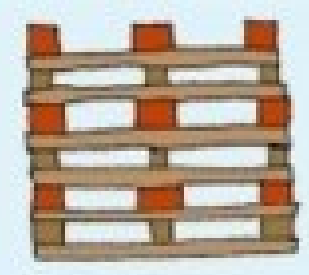
- Wooden pallets x4
- Bricks
- Plastic bottles*
- Bamboo canes
- Straw
- Leaves
- Tiles
- Cardboard
- Stones/pebbles
- Twigs/loose bark

*Use old plastic bottles for this, and always recycle after use.

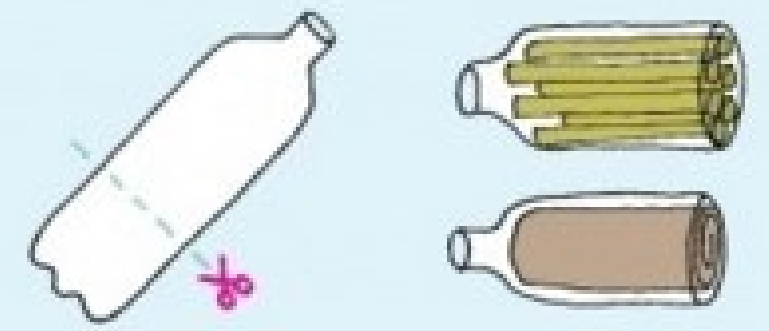
1 Place a wooden pallet in your chosen location. On top of the pallet, line bricks around the corners and across the middle.



2 Place your next pallet on top of this and repeat the process for all of your pallets.



3 Cut off the top two-thirds of your bottles. Fill up half of them with bamboo canes/plastic straws and the other half with rolled up cardboard. Place these inside the hotel.



4 Fill in the remaining spaces with bricks, leaves, pebbles, stones, tiles, loose bark and straw.



5 Add in any extra materials that you want to recycle e.g. old pipes, carpeting, toilet tubes, old plant pots. Be creative - add a welcome sign or give your hotel a name!



Illustration: Corinne Welch © Copyright Royal Society of Wildlife Trusts 2015

Habitats

Animals need a place to live. There are many different kinds of animal homes. Can you create a home for an animal to live in? Maybe a bird box, a birds nest, an insect hotel?

Use as many natural materials as you can to create your animal habitat and leave it outdoors. Did you attract some visitors to your animal home?

Piles of Sticks

Piles of sticks, left in a dark, shady area of the garden and stuffed with leaves is great for centipedes, woodlice and beetles. They may also attract birds, frogs and hedgehogs looking for a tasty snack!

Pine Cones

Gather pine cones and bundle them together. Stuff some dried leaves into the gaps and place them in a quiet corner of your garden or outdoor space. Great for ladybirds and lacewings.