

Explore The Animal Kingdom

Chameleons – The Camouflaged Hunters



Let's take a closer look at Chameleons' eyes. Their unique eyes are round in shape, and their eyelid covers most of their eye apart from a tiny hole which they see through.

Did you know that chameleons can rotate their eyes independently and that each eye can move a full 360°?

This means that one eye can be looking straight ahead, and the other eye looking behind.

Scientists believe that a chameleon's brain can control each eye independently and that each eye knows what the other eye is seeing, giving them excellent vision and making them great hunters.



Our human brain cannot control our eyes independently. So both our eyes move together like a team and mostly see the same thing. Our brain then takes images from both eyes, brings them together and forms one image.



But let's see whether we can use a 'device' to try and experience what it must feel like to be a chameleon!

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Chameleons – Building a Periscope

What is a periscope?

A periscope is a device that uses mirrors to let us see things which are not in our line of sight. Submarines underneath the sea use it so they can see above water.

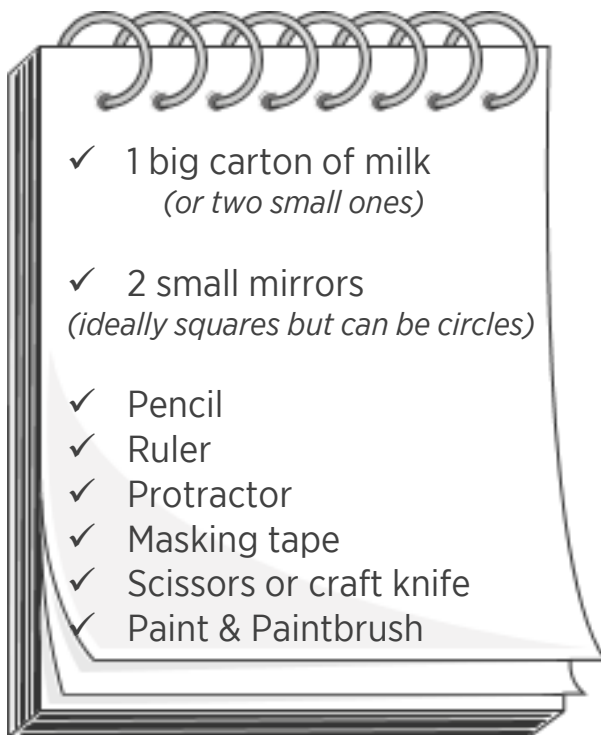


What are we going to build?

Today we want to experience what it feels to be a chameleon, so we're going to build a periscope which will let us see behind us!

We're going to test whether you can have one eye looking through the periscope to see what's behind you, and your other eye looking straight ahead. Is this even possible? Are you ready to try it out?

What items do you need?



- ✓ 1 big carton of milk
(or two small ones)
- ✓ 2 small mirrors
(ideally squares but can be circles)
- ✓ Pencil
- ✓ Ruler
- ✓ Protractor
- ✓ Masking tape
- ✓ Scissors or craft knife
- ✓ Paint & Paintbrush



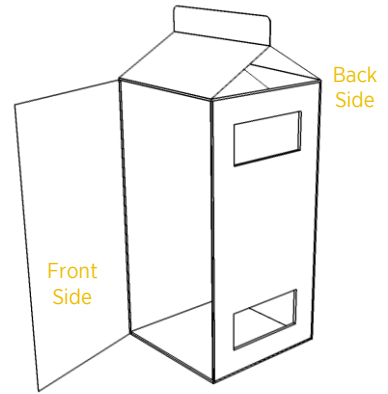
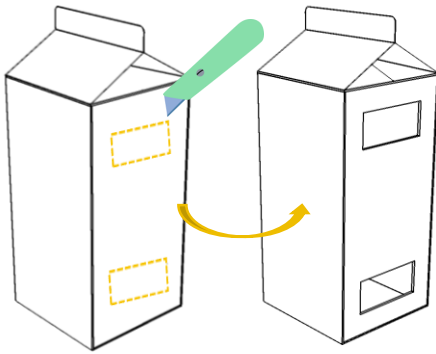
Adult supervision is required when cutting.

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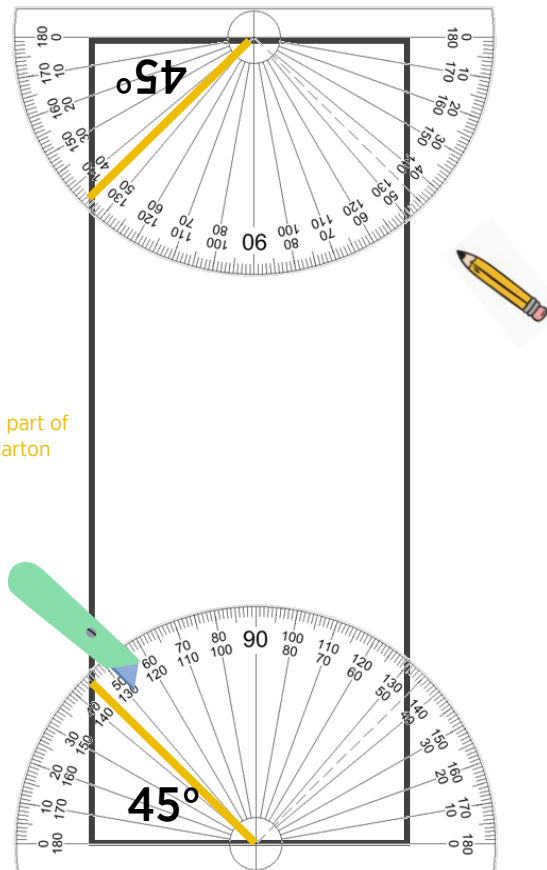
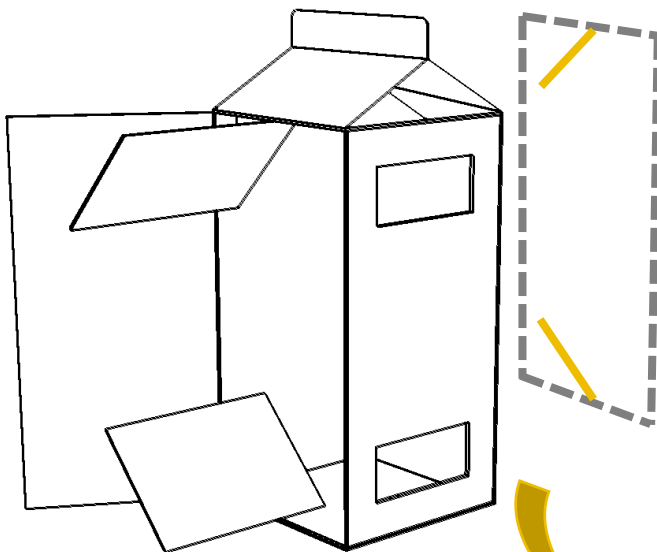
Chameleons – Building a Periscope



- 1 Cut two rectangles on the same side of the milk carton: one at the top, one at the bottom.

If your mirrors are round, glue them to a piece of square cardboard.

- 3 Using a protractor, take the two mirrors and insert them at a 45° angle.



Use a protractor to measure the angle at the top and the bottom.

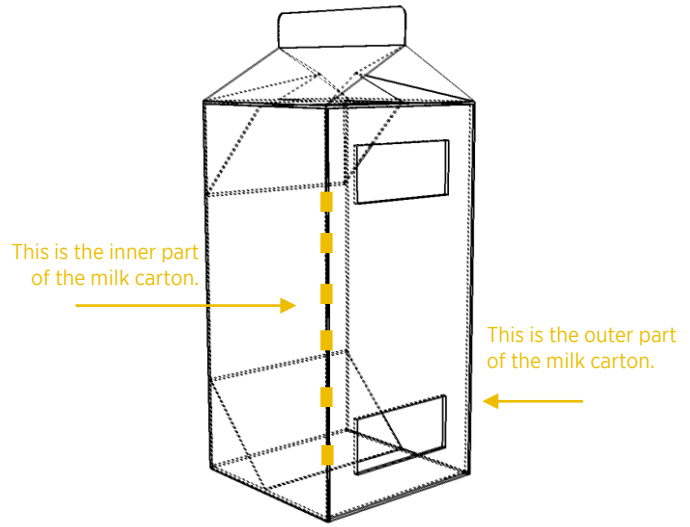
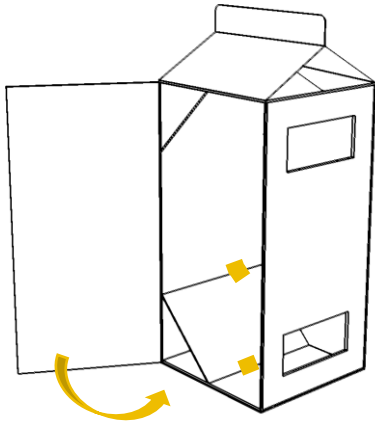
Use a pencil to mark the angle on the backside of the carton and make a slit with your knife.

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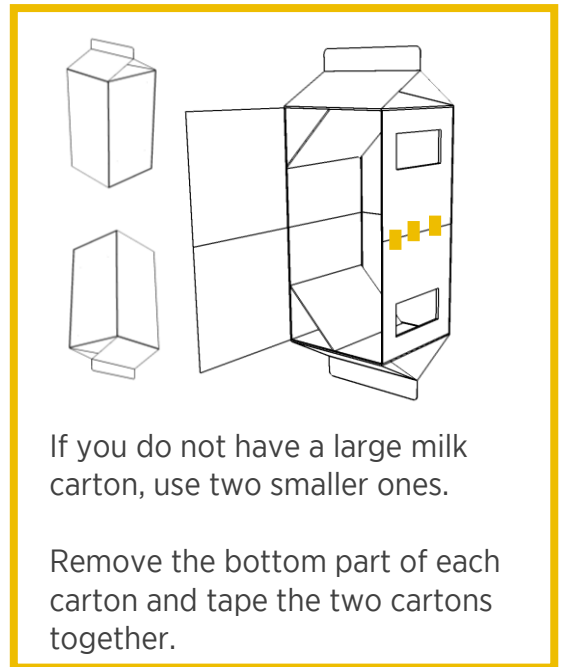
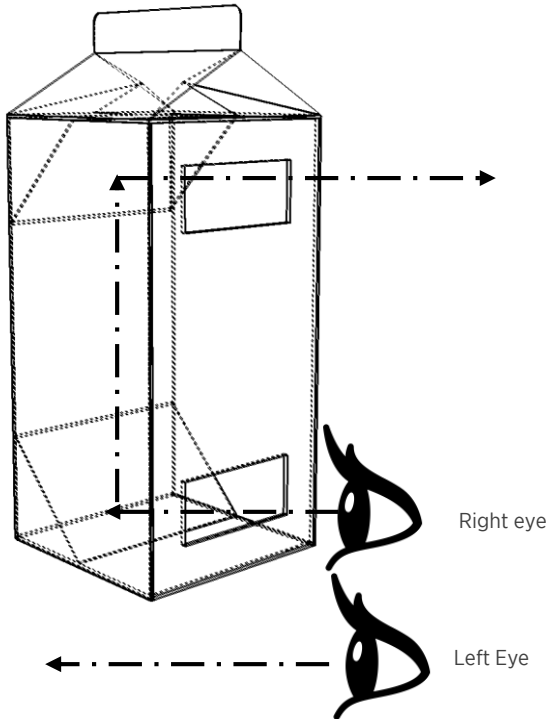
Chameleons – Building a Periscope



4 Attach the mirrors with tape to keep them in place at a 45° angle.

5 Close the flap with tape.

6 Paint your periscope any colour you want.



7 Chameleons can have eyes looking in different directions. Try it out for yourself! Did you manage? Don't feel bad! It's impossible for humans to look at two different things at the same time since our eyes do not work independently!

Share your periscope with us on facebook
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