



CREATING A LIGHT CIRCUIT ACTIVITY

My Bright Idea for a Seadevil Card



Scientists believe that up to 90 per cent of the species that live in the ocean can produce their own light. The female black seadevil anglerfish has a long lure on top of its head called an esca. It has a bioluminescent glow at the tip. This acts like a light that is used to lure the seadevil's prey closer to its mouth.

Complete the light circuit activity and then create a Seadevil card to share a 'bright' fact about animals in the deep-sea!

Bright spark alert: Creating a light circuit may take several attempts. Keep a track of what you do and document each attempt. If the light doesn't shine, try and work out what needs to be done to make it work!

"Every failed task is a step towards shining a light on a new discovery"

Design a Seadevil Anglerfish Card

1. On the white paper or card draw an angler fish.
2. Use an A4 black or dark card to represent the dark ocean. Fold the card in half. Stick some white paper inside the card, so you can write your message.
3. Cut the seadevil out and stick it to the front of the black card.
4. Use the scissors to cut or puncture a hole in the card where the fish has its lantern. This hole is where the LED light will slot into.

Materials Needed

- Coin battery cells
- Copper tape (single-sided sticky)
- Normal sticky tape
- 5mm LED lights
- White Card
- Black Card
- Glue / Pritstick
- Colours (pencils, markers, crayons, etc)
- Scissors
- Safety pin - Ask a teacher to assist with creating a whole in the card

Try using our bright seadevil anglerfish in your design.



Write a ,bright' fact, rhyme or haiku about fish creating light in the deepest parts of the ocean. Use this for a message inside your card:

Create your electric circuit:

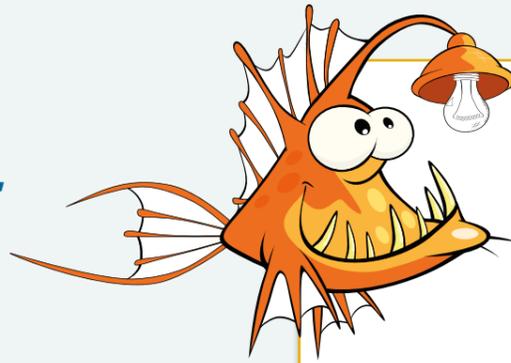
1. Slot the LED light in through the hole of the card and flip the card over - spread the metal pins of the LED light in opposite directions, so they are flat on the back of the card.
2. Draw a circuit from the pins to the battery. The shorter pin is the negative terminal (-) and the longer pin is the positive (+) terminal.

REMEMBER: A CIRCUIT IS A LINE THAT STARTS AND FINISHES AT THE SAME PLACE.

3. Note: for the next part you can remove the LED light so it makes it easier to make your electrical circuit.
4. Peel off the pieces of copper tape and attach them to the circuit lines drawn on the card.
5. Flip your card over and reattach your LED light.

REMEMBER: ON THE (+) SIDE OF THE BATTERY, THE COPPER TAPE GOES AT THE TOP OF THE BATTERY. ON THE (-) SIDE OF THE BATTERY, THE COPPER TAPE GOES UNDER THE BATTERY.

This allows the battery to be 'part' of the circuit, charging the copper tape - lighting up the LED light.



Blank space for drawing the circuit.

What observations did I make? _____

What would I do differently _____

Conclusion: Was my hypothesis correct? _____

Extra activity for the bright sparks:

Can you and a friend design a light circuit that turns on and off as the card opens and closes? Record the steps that were taken. Use pictures and diagrams to show how you achieved turning the light on and off.

