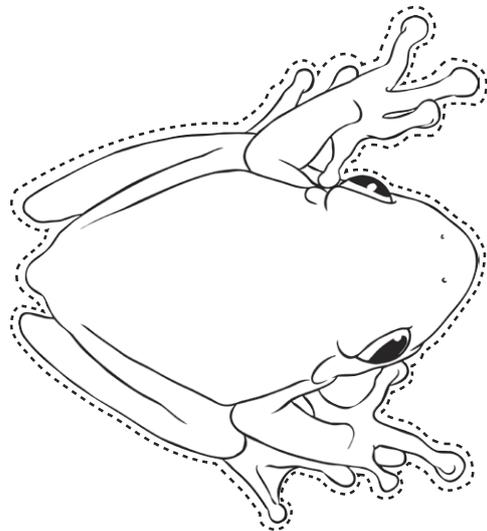
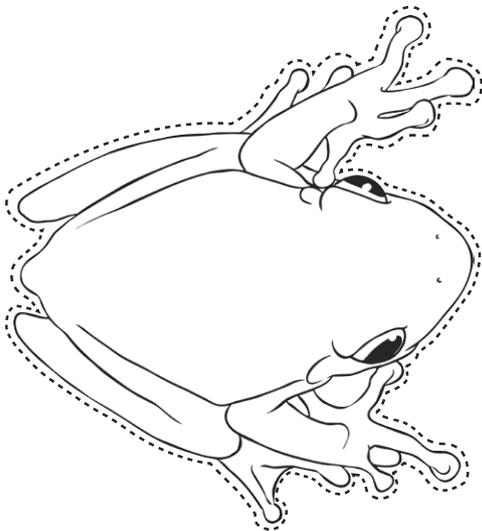
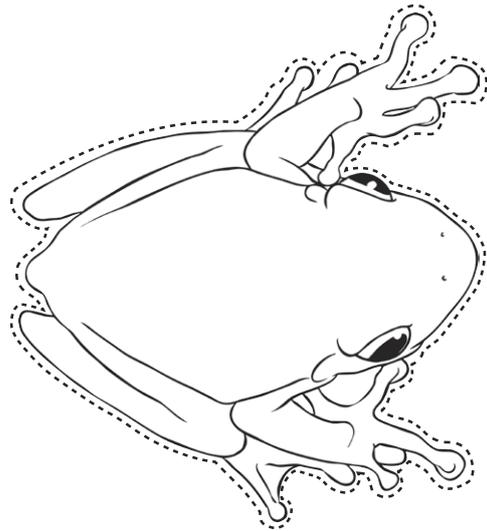
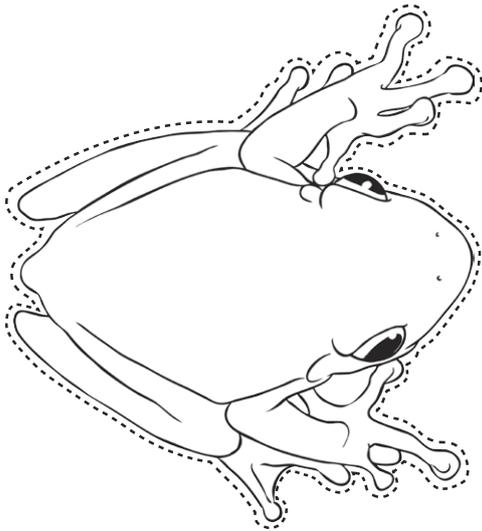
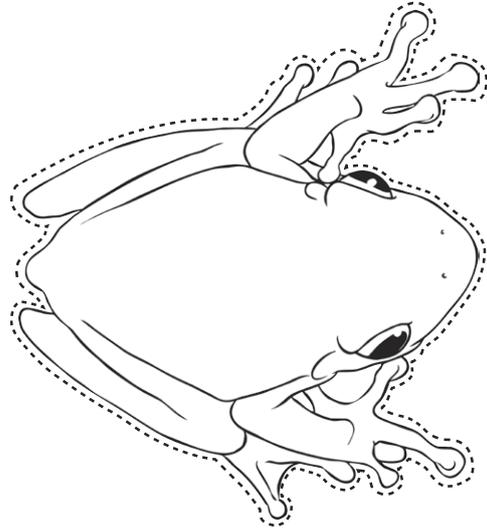
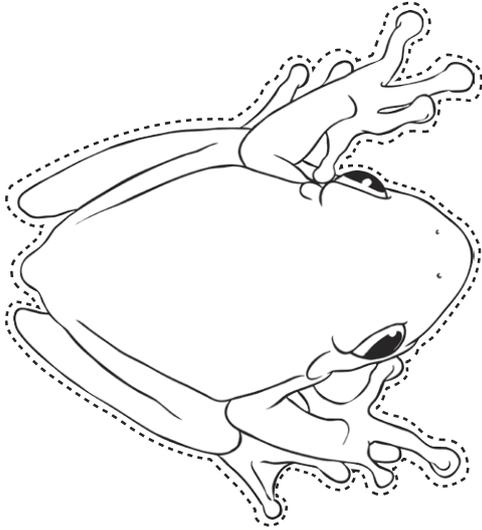


Teacher notes

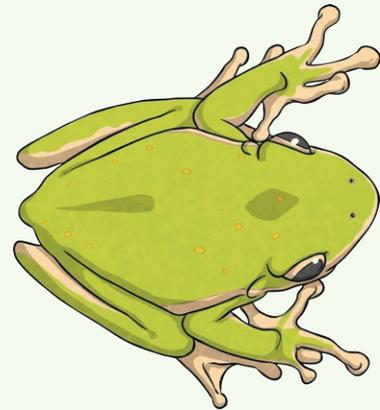
Friction is a force that works against an object that is moving. The string and straws look smooth, but when viewed under a microscope they are rough. The angle of the straws means that they are always touching the string. By pulling down on one of the strings, it moves through the straw. The tiny rough surface of the straw grips against the string; this makes the frog climb and stops it slipping down.



Climbing Friction Frog

You will need:

- A copy of the frog on card
- Coloured pencils, crayons, pens or paints
- Scissors
- Two 5cm pieces of drinking straw
- Sticky tape
- String



Instructions

1. Cut out and decorate your frog.
2. Using sticky tape, stick the straws next to each other on the back of the frog forming an upside down V. The straws should be about 1cm apart at the head end, and 5cm apart at the other end of your frog.
3. Cut a piece of string 2m long. Thread the string through the ends of the straws that are close together. The two ends of the string should hang down from the widest V point.
4. Have a helper stand on a chair or table, and place a pencil through the loop of string at the top of the frog. You could also use a door handle, hook or tree branch to hold your frog.
5. Hold the ends of the string in your hands and gently pull down on one end of the string, then pull down on the other end. The frog should begin to move up the string.
6. As the frog moves up the string, continue to pull and slowly move your arms wider apart.

Did you know?

The study of friction is called tribology

Extra ideas

Adding oil to the string

Use different types of string

Use tubes of pasta instead of straws