



Make a Lever (Wag the Dog)



Preparation

SKILLS	Designing and Making, Investigating and Experimenting
CROSS-CURRICULAR LINKS	Visual Arts – Construction strand
CONTENT	Forces
EQUIPMENT	Templates (dog + tongue/tail) cardboard (cornflake packets will do) scissors, coloured pencils/markers paper fasteners (split pin variety)
PREPARATION	Photocopy dog and tongue/tail templates onto paper and stick onto cardboard (e.g. cornflake packets), or photocopy directly onto card.
BACKGROUND INFORMATION	<p>When you push or pull one part of a lever you make a push or pull on another part in the opposite direction.</p> <p>A lever is a simple machine consisting of a rigid bar that can turn about something called a pivot. Levers can be used to lift heavy weights or change the direction of a force (e.g. you sit on one end of a seesaw and the other end goes up; you press down on a screwdriver and the lid comes up). You can make toys which operate on this principle.</p>
TRIGGER QUESTIONS	<p>Molly wants to make a dog with a waggly tail that sticks its tongue out. She thinks she can do it with a lever.</p> <p>Ask the children questions about levers such as “If you have a tin with a lid which is stuck, how would you go about trying to get it off?” (They may suggest using a coin or a screwdriver).</p> <p>Talk about seesaws and ask questions about the direction of force, e.g. “If you press down on one end by sitting on it what happens to the other end?”</p>
SAFETY	<p>Care with scissors.</p> <p>Care with piercing holes in card for paper fasteners.</p> <p>(Care also if actually using real seesaws when the normal safety precautions would apply).</p>



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ACTIVITY

Make 'WAG' – a dog which sticks out its tongue when you wag its tail.

Cut out the rectangular dog template along the solid purple line.

Pierce holes at A and B for the paper fastener. Fold the card along the dotted lines. Cut out the mouth (along the solid purple line) after folding. Cut out the tongue/tail along the solid line. Pierce a hole in the tongue/tail at C.

Slide the tongue through the mouth slot.

From the inside put the paper fastener through the tongue/tail, then through A and B.

Now wag the dog's tail and see what happens his tongue!

FOLLOW-UP ACTIVITIES

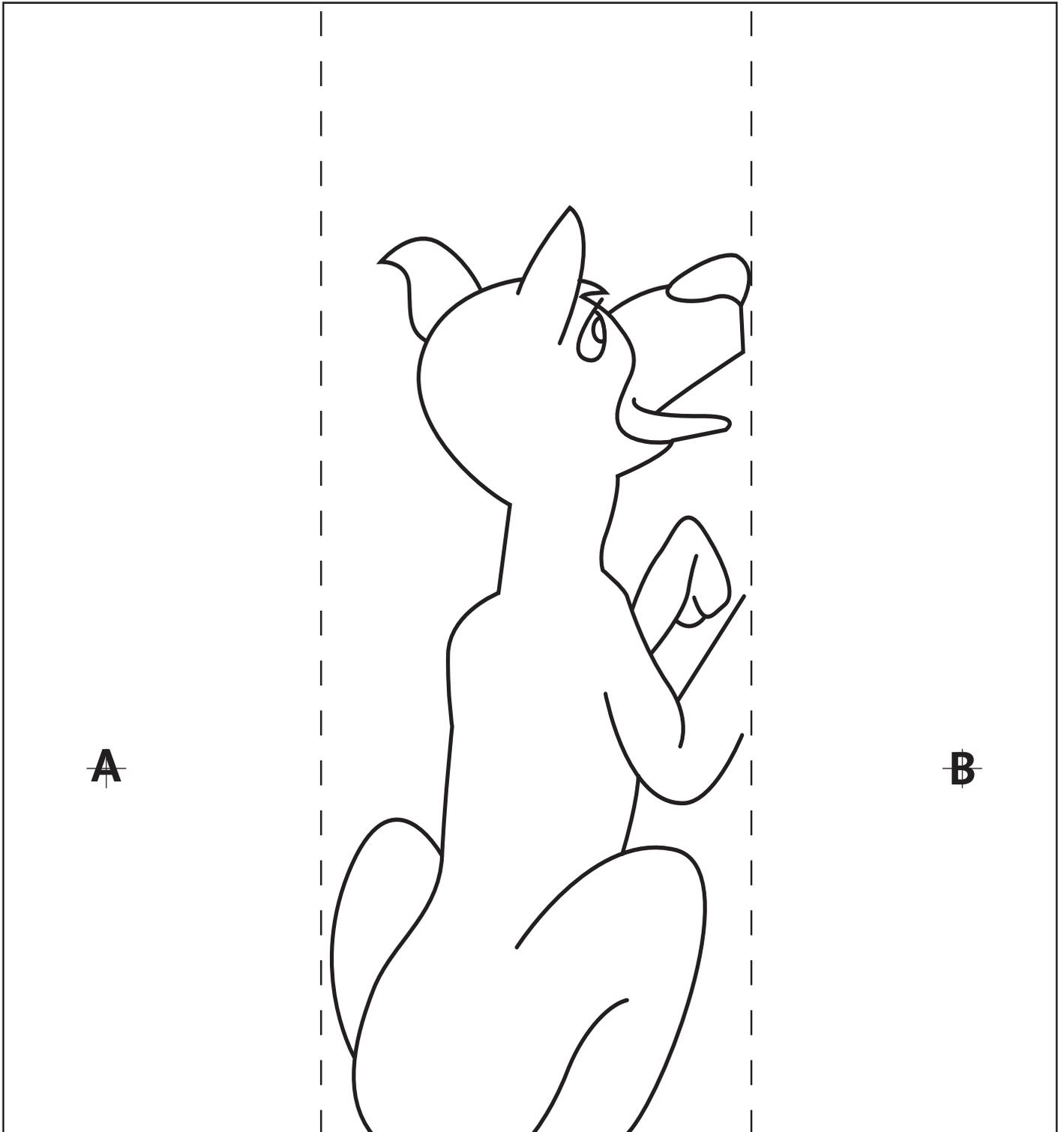
Can the children design another toy using a lever?

Can they make a puppet?

See www.primaryscience.ie for flashbased version of activity.

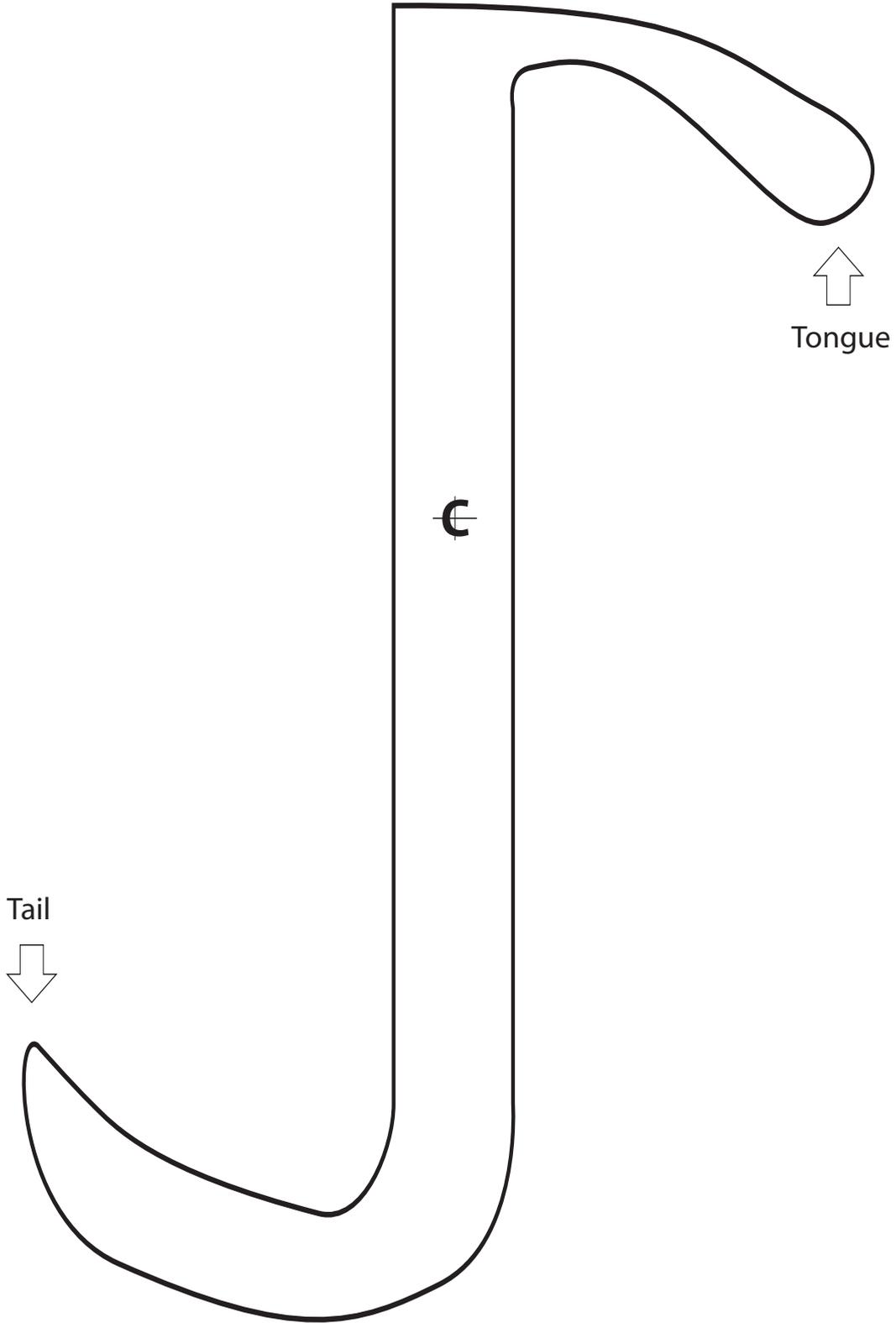


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↑
Tongue

Tail
↓