

# STEAM for Good



## Creative Media

Activity pack

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# Creative Media

A Zoetrope is a rotating disc or drum, lined with pictures which when spun at the correct speed create the illusion of those pictures animating as if one live image is being seen.

Originally invented in the 1830's by English Mathematician William George Horner, the pictures are separated by small, evenly spaced gaps, and as the Zoetrope is spun, you can look through the gaps and see the moving image produced by the spin.

French inventor Émile Reynaud improved and scaled up the original design to create a projected form of Zoetrope which could be shown to audiences in theatres – an early version of modern cinema projections.

## Kit list

- ✓ Printer
- ✓ Pen/pencil
- ✓ Scissors
- ✓ Adhesive

## Useful resources:

- ✓ Thin card

## Safety note

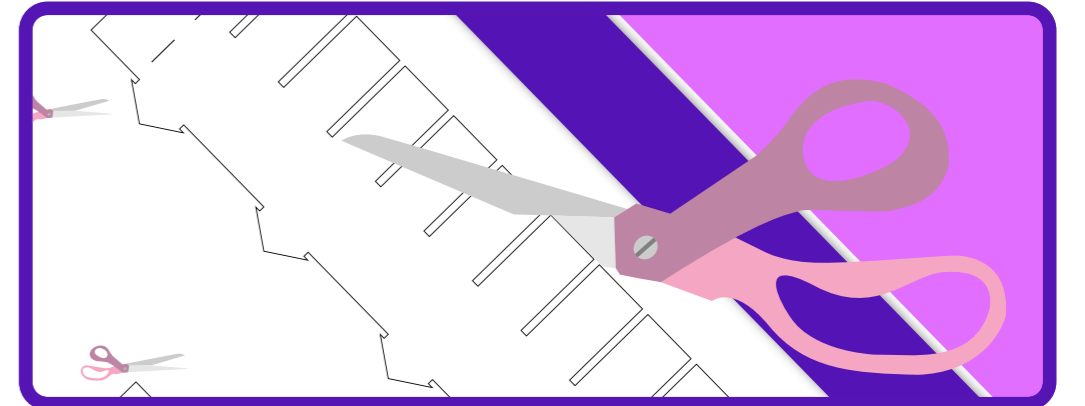
Take care when cutting the slits and central hole- please ask an adult to help you.



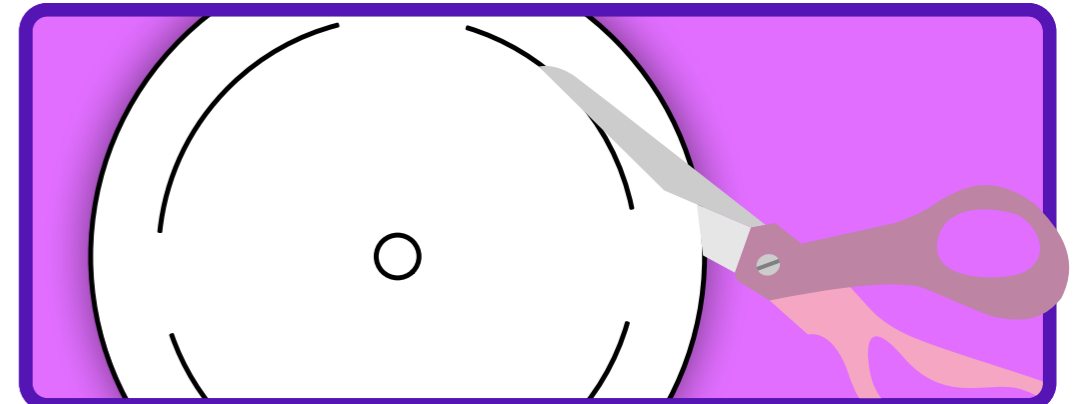
**1**  
Print out the attached template



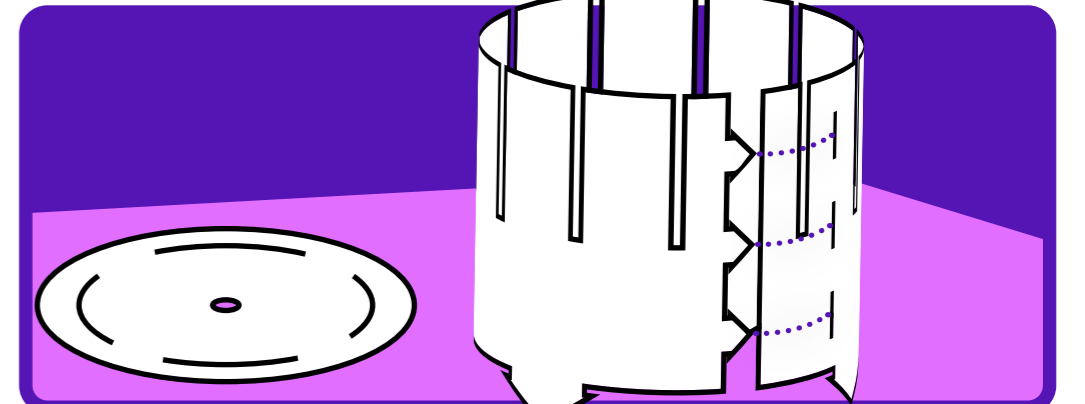
**2**  
Cut out the template to create the body of the Zoetrope machine  
**Optional** – stick the template to thin card before cutting, for a more rugged Zoetrope



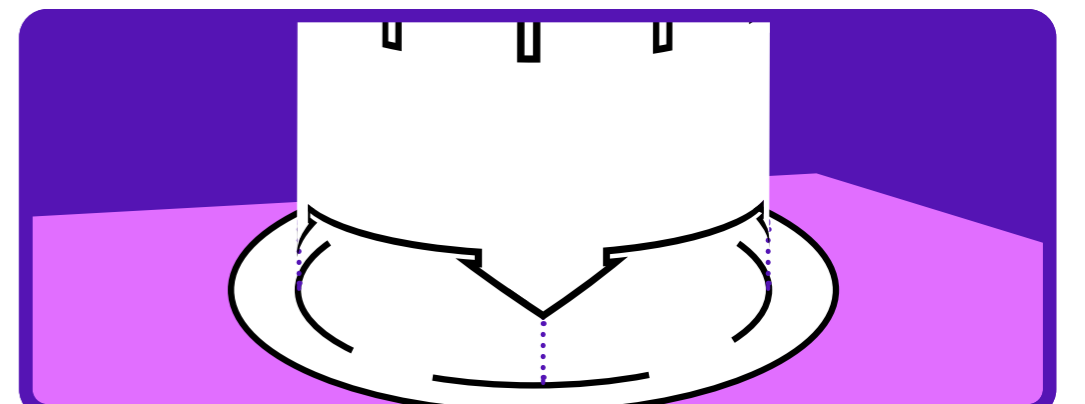
**3**  
Cut the circular base and the central hole. This will combine with the frame to form the Zoetrope



**4**  
Wrap the frame into a circle and insert the three small arrows into the corresponding slits



**5**  
Insert the four large arrows into the corresponding slits on the circular base



## More things to explore

### Using scratch

Create your own animation  
[tinyurl.com/2eyurm5h](https://tinyurl.com/2eyurm5h)

Measure the noise level in your room  
[tinyurl.com/4ztjwr74](https://tinyurl.com/4ztjwr74)

### Using a camera on a tablet or phone

Create a stop motion animation  
[tinyurl.com/m8ub4pmv](https://tinyurl.com/m8ub4pmv)

### Using Raspberry Pi

Create a stop motion animation  
[tinyurl.com/htunhydj](https://tinyurl.com/htunhydj)

### Using Blender

Learn how to animate a car in a snow scene  
[tinyurl.com/t4r55azy](https://tinyurl.com/t4r55azy)

## Have a go activities

### Using a Micro:Bit or the Micro:Bit emulator

Make some noise  
[tinyurl.com/uusaljj](https://tinyurl.com/uusaljj)

Play a tune  
[tinyurl.com/dagveum5](https://tinyurl.com/dagveum5)

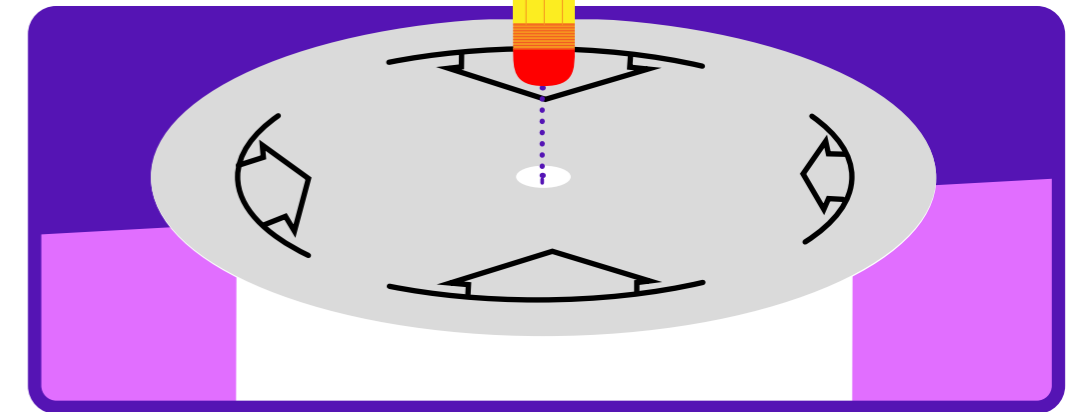
Make a guitar  
[tinyurl.com/1juhyge](https://tinyurl.com/1juhyge)

Create some guitar chords  
[tinyurl.com/1mw6unrh](https://tinyurl.com/1mw6unrh)

Thinking about octaves  
[tinyurl.com/1q6qwxuw](https://tinyurl.com/1q6qwxuw)

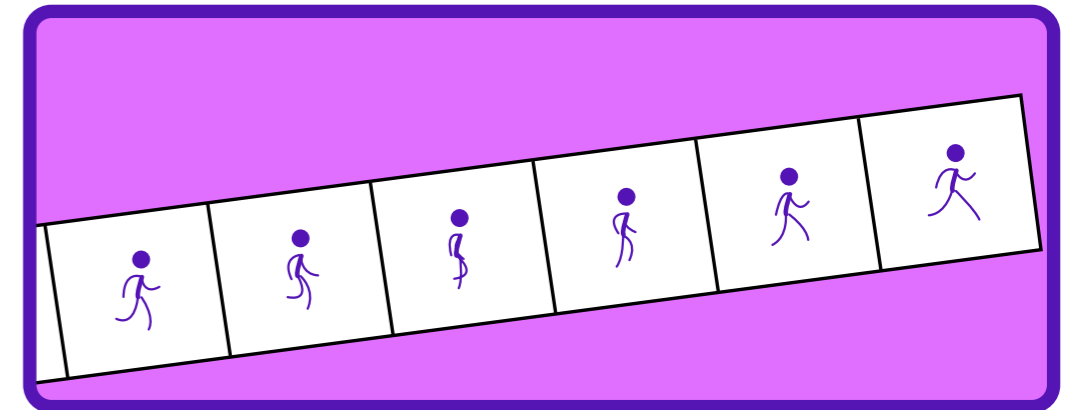
6

Insert the eraser end of a pencil into the circular hole in the middle of the Zoetrope base



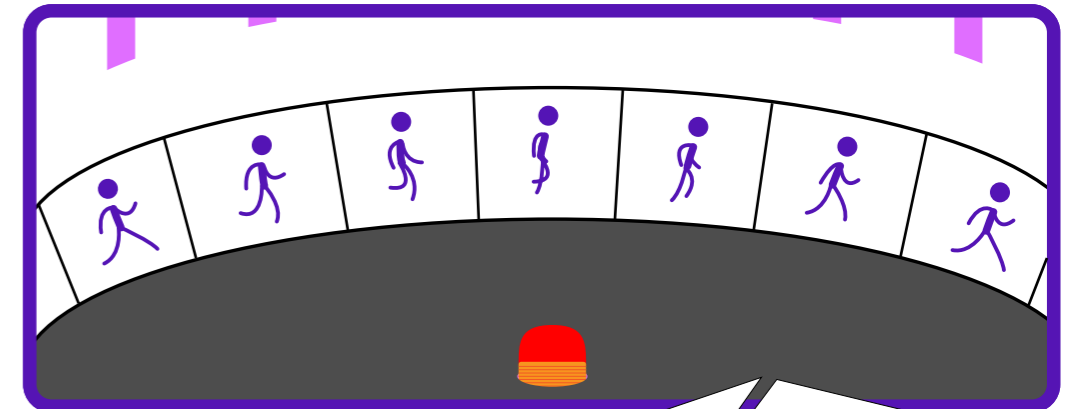
7

Cut out animation strip and fill in with your own design



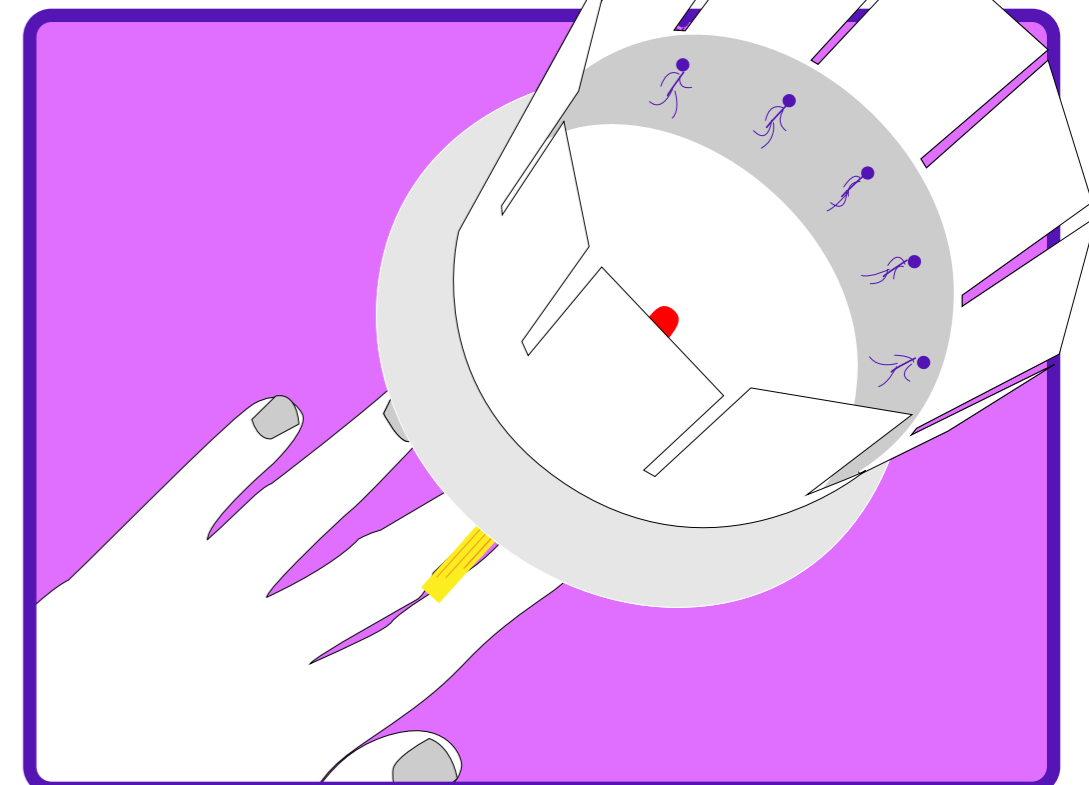
7

Insert an animation strip inside the Zoetrope frame towards the bottom, making sure that the frames are facing inward and therefore visible



8

Hold the Zoetrope in your palms, and spin it while looking through the slits in the frame. With the proper angle and lighting, you will see an animation!



# Zoetrope

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