

DIY Zoetrope

What will I need?

- 2-3 sheets of A4 paper or thin card
- A small piece of thick cardboard
- 2 Pencils
- Glue or tape
- Scissors
- Ruler
- Paper plate (or a plate-sized piece of card)

Did You Know?

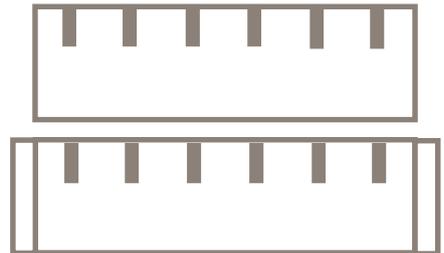
The zoetrope was invented in 1834 by William Horner. It uses a sequence of drawings to create the illusion of movement.

What do I do?

1. On a piece of A4 paper, draw 2 rectangles that are approximately 25cm x 8cm. On just one of the rectangles, add tabs on each of the short sides that are approximately 1cm wide.

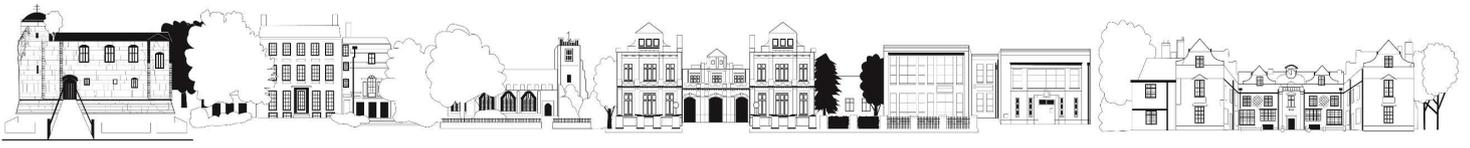


2. On both rectangles, mark out 6 evenly spaced slots across the long side. They should be about 0.5cm x 3cm.



3. Very carefully, with the help of an adult if needed, cut out your two slotted rectangles. Using the tabs and some glue or tape, stick the two pieces together to form a circle. This will be part of the drum of your zoetrope.





4. Take your paper plate, or circle of card, and turn it upside down. Using tape, stick your drum to the plate. Make sure to stick the side without any slots and take care not to squash anything while you are taping it together.



5. Carefully cut out a square of thick cardboard approximately 5cm x 5cm. Poke a pencil through the centre and keep pushing until you've almost reached the very end. This will form the handle.

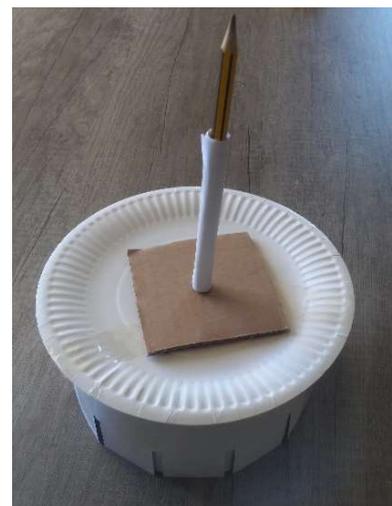


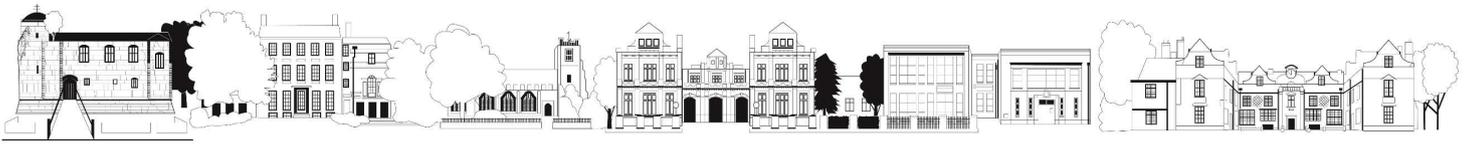
6. Cut a strip of paper about half the length of your pencil and roll it into a tube. Your tube should be big enough to fit around the pencil. Secure with a bit of tape to stop it unravelling, then slot it over the pencil. Do not stick the tube to the pencil or your zoetrope won't spin.



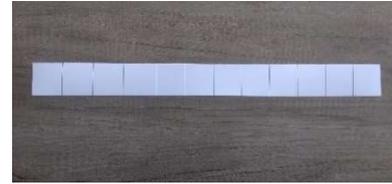
7. You now need to stick your handle to the drum, and this can be tricky, so please ask for help from an adult if you need it. Using glue or tape, stick the cardboard square to the centre of the paper plate, on the opposite side to the drum. Take extra care not to squash anything.

Once you have done this your zoetrope is complete and you can move on to designing the pictures to go inside!

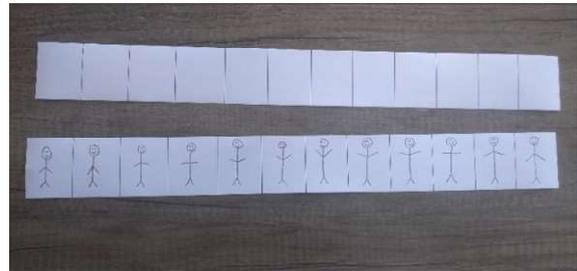




8. On your last sheet of A4 paper draw two long rectangles that are approximately 25cm x 5cm. Cut these out and stick them together to make one long strip. Once you have your long strip, measure the length and divide it into 12 equal squares.



9. Draw a picture in the first square. Make sure to pick something simple that you can draw again and again, changing something small each time. Moving from left to right, fill in every box. We chose a simple stick figure, then in each square we changed the position of its arms.



10. When you have finished drawing, your zoetrope is ready to try out. Put the strip inside with the pictures facing inwards. With one hand hold the paper tube on the handle and use your other to spin the pencil round, as the pencil spins so will the zoetrope! Look through the slots to see your pictures come to life!



11. We'd love to see your finished zoetrope, so don't forget to post a picture on social media, tagging Colchester or Ipswich Museums.

