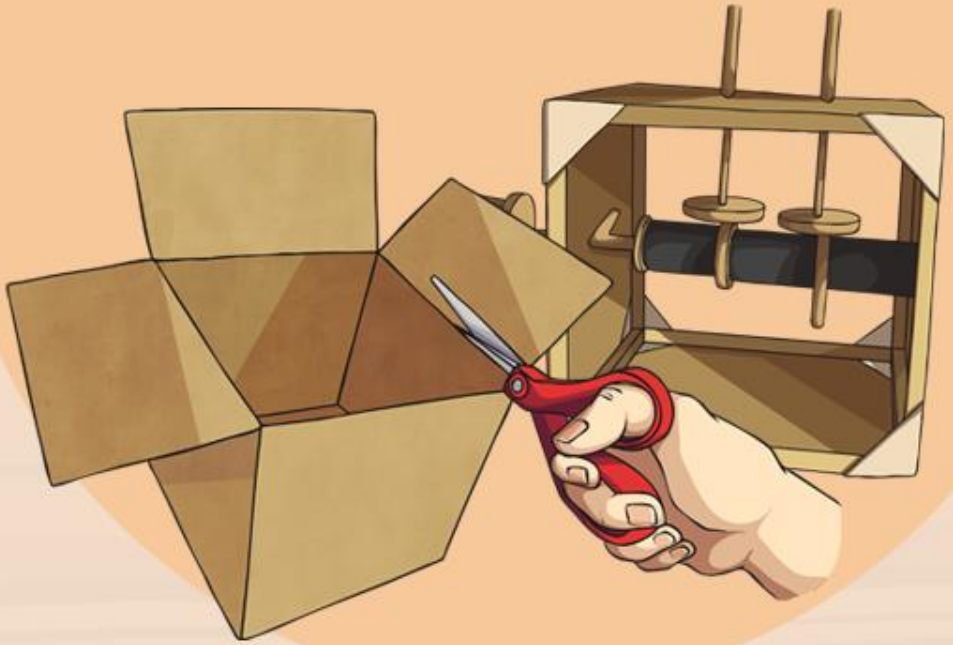
Design and Technology

Automata Animals

Making a Framework



Aim

- Can I build a framework using a wider range of tools and equipment?
- Can I generate a model and communicate ideas through a range of platforms?

Success Criteria

I can find materials that I could use to build a framework

I can complete my framework and make a moving animal

I can research similar designs and present my findings

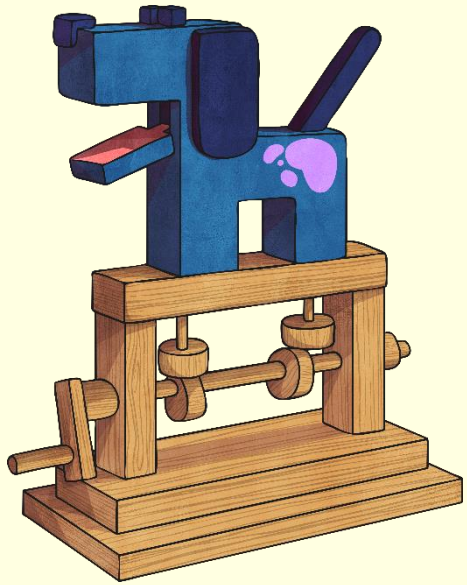
Design Brief 1

Today you will start to make your automata animal!

How will the design criteria be helpful during the process of developing your design?

You should have a completed plan a for your design. Use the step by step plan to build:

- The animal that you have chosen
- The parts of the animal that will move
- The cams you have chosen to use to make the animal move realistically.



Making the Frame

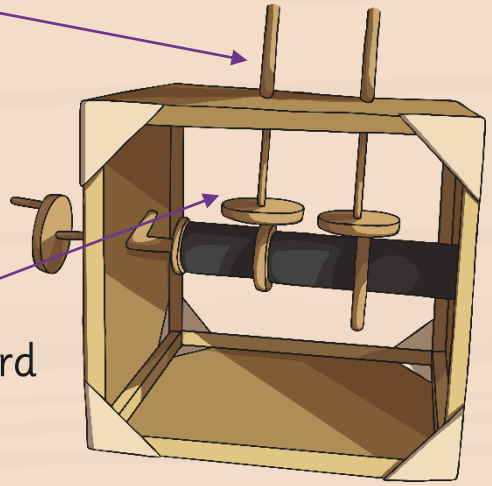
The frame will be used to support the mechanisms.
The frame can be made in different ways; shoe boxes, or a carboard box of a small size.

Making the Frame

Now that your frame is built. Have a go at build your cams….

Think about the different material you could use to build the cams

Straws
Kitchen roll tubes



At school we built the cams using many layers of card

Once the frame is built…..

- Use a template of your chosen animal to attach it to the top of the frame. Hopefully, you found a template that you can trace/copy onto card or paper.
- You may need to attach it to stronger card or many layers of paper first in order to make it sturdy.
- GOOD LUCK!

Does you Automata Animal move?

Well done if you managed to make a moving animal.

We know there would have been many challenges on the way!

Are you happy with the final outcome?

What would you improve?

Design Brief 2

- Can I generate a model and communicate ideas through a range of platforms?

- Research 3 designs of different toy animals that move realistically and create a presentation.
- You could consider using a: PPT, Purple Mash or another platform of your choice.
- Think about: the movement of the animal, the cams that have been used to build it, the parts of the body that move and whether they are realistic. Show your finding through images and sketches and explanations
- Conclude with: What could you improve on the design, parts that you thought were successful. Your favourite toy.

Finally….

- Critically evaluate the product against the design process and design criteria, considering how to improve your work to ensure it is fit for purpose.
- Consider; the materials used
- Which one was your favourite design
- Explain using your knowledge of the way the animal moves