

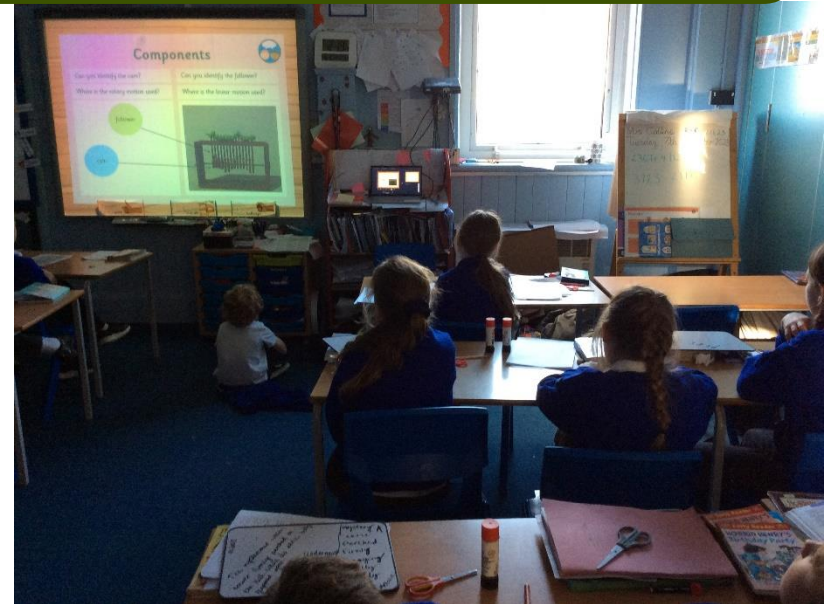
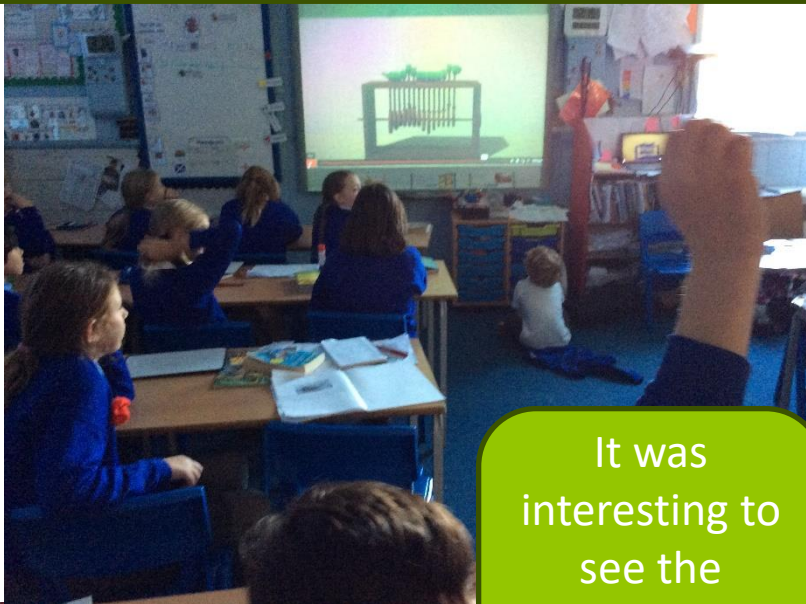
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Automata Animals

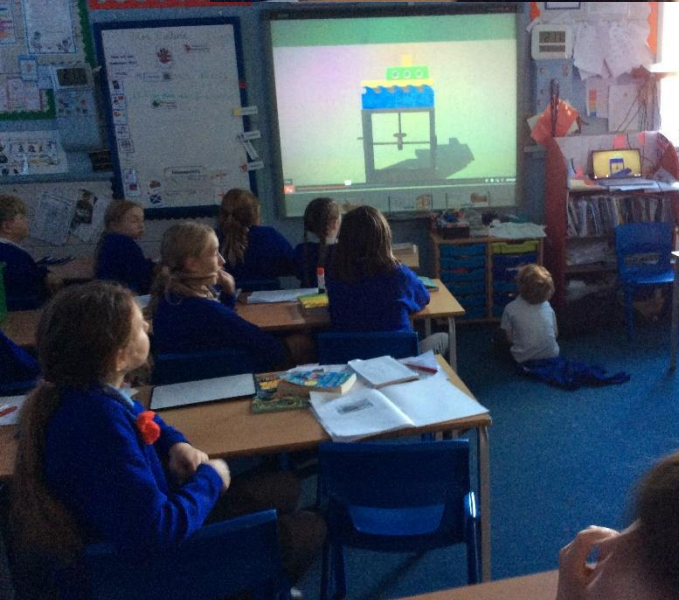
Autumn 2 2023

Class Lynher

We began by looking at mechanisms and learning what a cam and follower is. We discussed what each did and identified them.



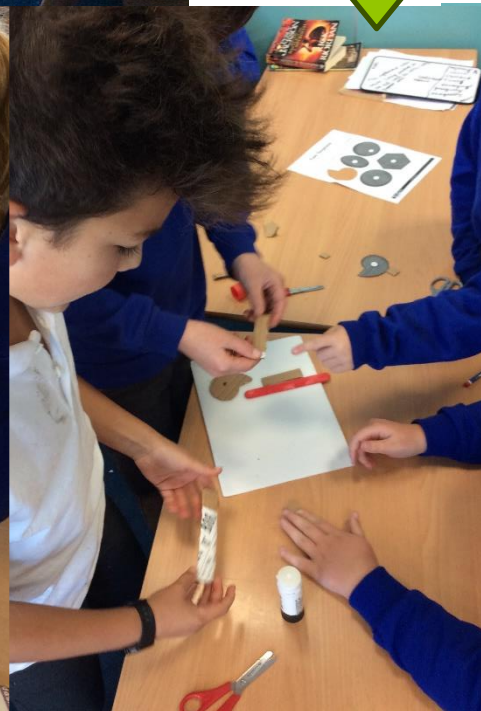
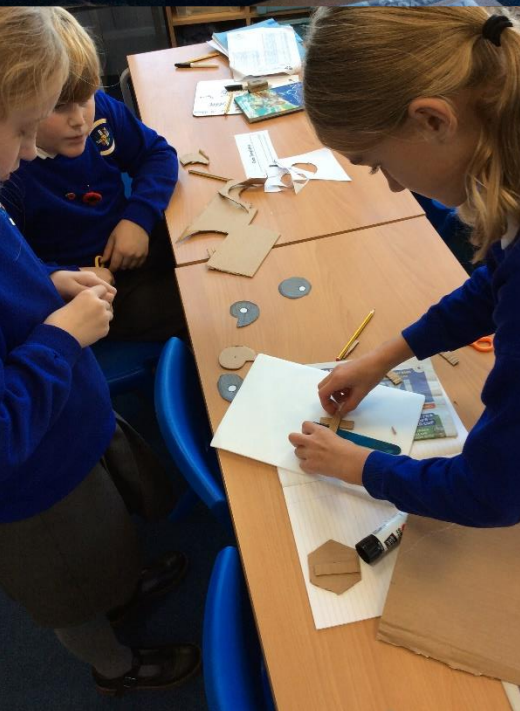
It was interesting to see the different things we could make and how the different cams worked.



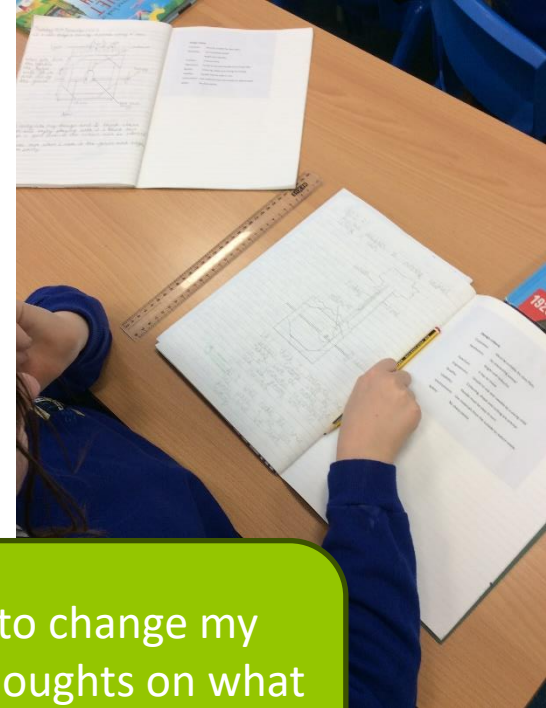
We looked more closely at cams – particularly how the shape of them changes the linear movement. We then made our own model to try them out and see it for ourselves.



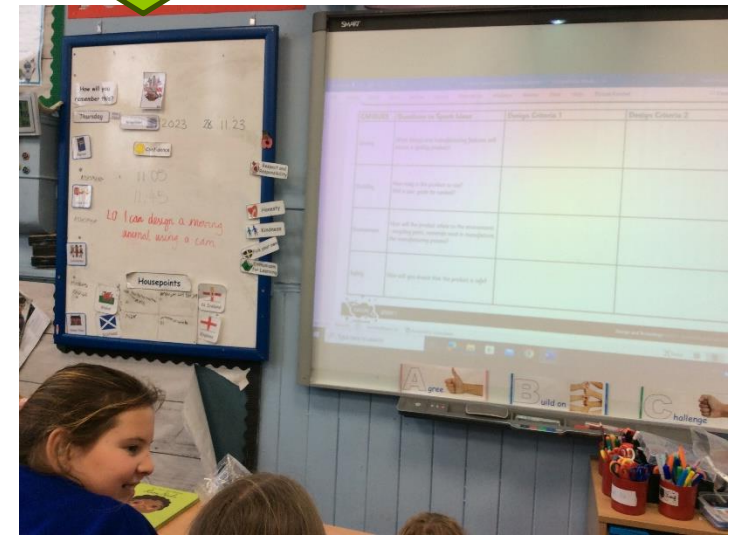
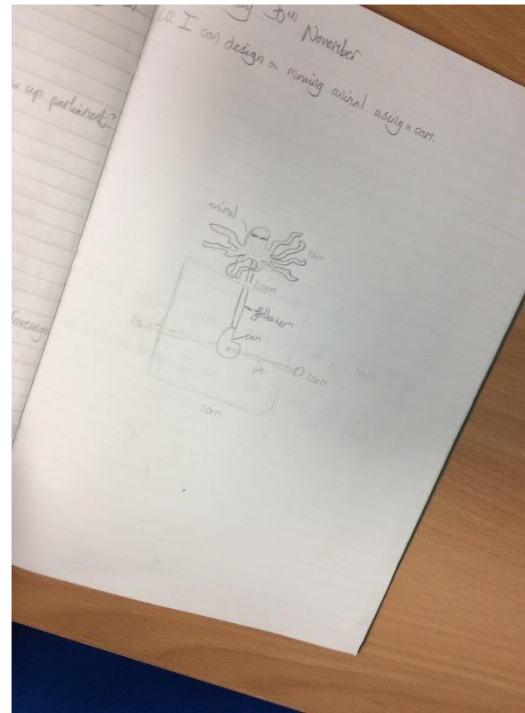
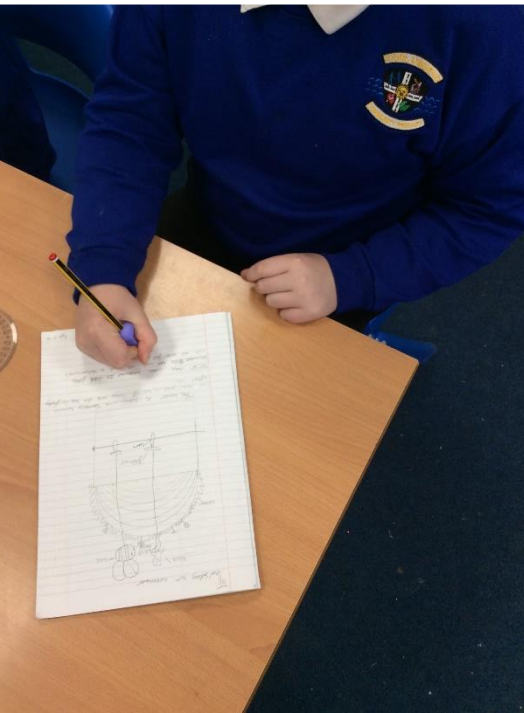
The snail went up slowly and then came down really fast.



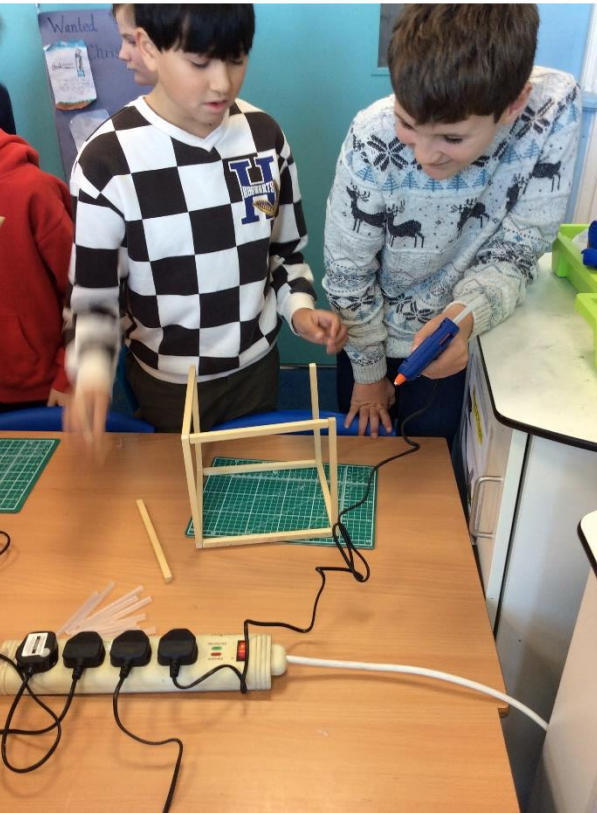
We developed a design specification together. Then we used what we had learnt about the different movements with cams to plan our own idea for a moving animal. We then chose one to make as a group.



I had to change my initial thoughts on what I was going to do to fit the design specification.



We made the wooden frame for our model and added the plastic that will act as a guide.



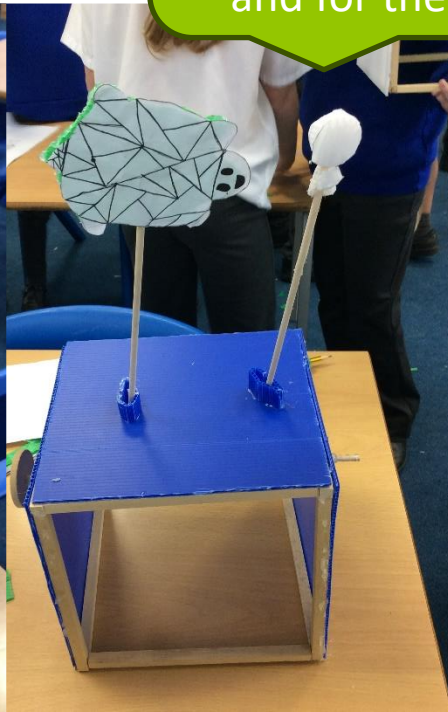
We had to keep the wooden frame 20cm or under. We had to be careful with the hot glue gun and the saws.



Then we created our mechanism using cams and followers. We thought carefully about our aesthetics.



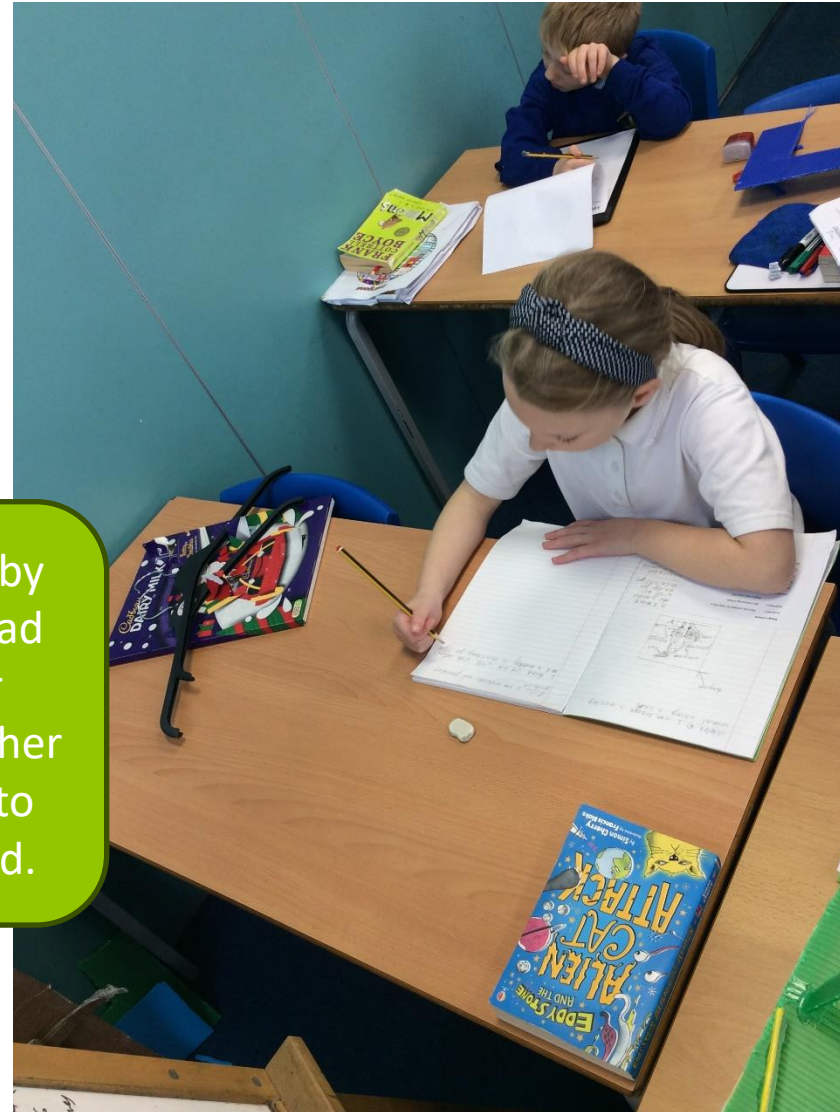
We had to be careful with the cutting to make sure there were no sharp edges and for the aesthetics.

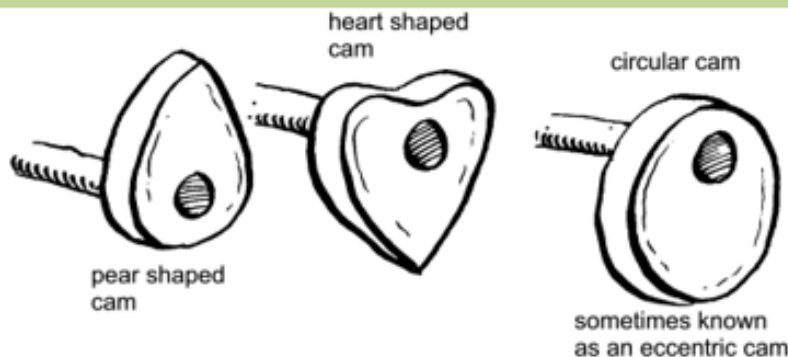


Finally we evaluated our finished product against our design specification.



Our design spun by accident so we had to add another monkey on the other side of the pole to make it look good.





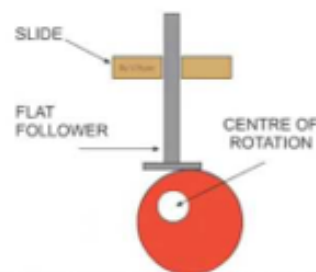
What I have learnt before:

Learnt how to strengthen constructions

Used a range of joining methods

Used a range of materials

ECCENTRIC CAM



Forever facts

I know how cams produce different movements

I know how to cut, shape and join

I know when to use different materials and tools

Skills

I can measure, mark out and cut accurately

I can draw on different sources of information for the design

I can carefully finish a product

I can work safely

I can use a wide range of tools

Exciting Books



Our Endpoint

I can make an automata animal

Subject Specific Vocabulary

cam	a rotating disk shaped to convert rotary into linear motion
mechanism	a system of parts working together in a machine
guide	a structure that directs the motion of something
follower	the component which follows the movement of the cam
component	a part of a machine
design criteria	the precise goals that a project must achieve in order to be successful
functional	having a purpose or task
aesthetic	the appearance of something

Personal Development

Social – children will share and work collaboratively
Spiritual – awe and wonder in the movement of creatures in the natural world