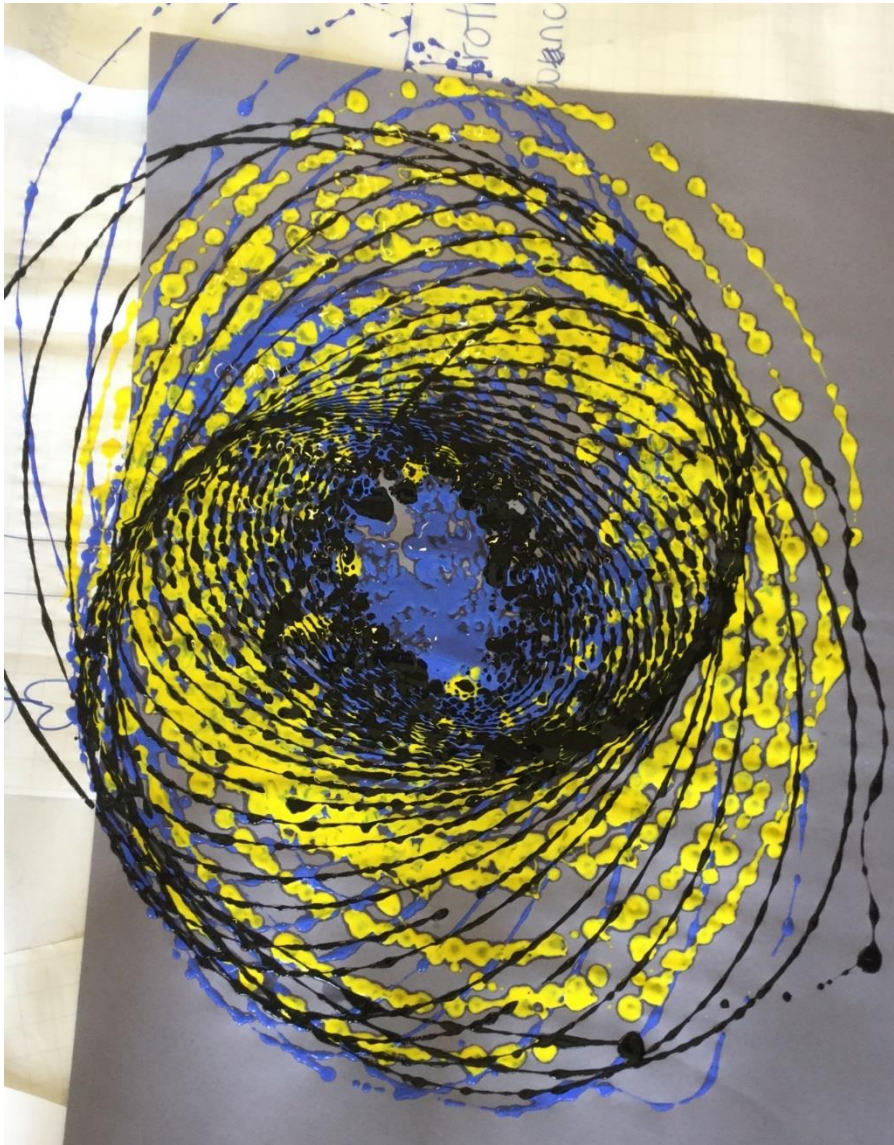


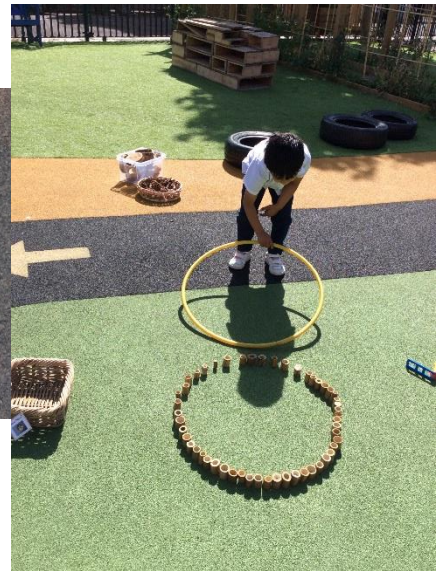
STEAM PROJECT

Science, Technology, Engineering, Art and Maths



Cleveland Road Primary
School

Nursery





Wheels by Nursery

, we looked at the different wheels that we could see in the garden. We spoke about the shape of the wheels and decided that they were round so they would roll better.

We looked at the different resources that we had and made our own wheel patterns using our Transient Art collection. We thought about the different ways that we could make circles and used some other resources to help us.

Reception



Pinwheels by RB

RB have been looking at objects that have wheels. We decided to make our own pinwheels and because we have been enjoying using clay so much we thought, it would be the perfect opportunity to create our own pinwheel holders.

We manipulated and molded the clay into a cylinder then used various small objects to create our own designs. We stuck a skewer in and left our holders to dry. Then we painted a symmetrical pattern on a square paper template. This template was then hole punched and folded into a pinwheel and placed on the skewer.

We are very happy that our pinwheels spin by just blowing on them.

We think they would be great to have in the garden!



Clay Cogs by RI

RI have been exploring circular mechanisms, wheels and objects of motion. We chose to focus on cogs and enjoyed finding out which objects require cogs to operate and looked closely at cogs in action. We were inspired to make our own cogs! We consulted our Art experts Mrs Nagla and Mr Mann and decided to use clay for our cogs.

We worked hard to soften and manipulate our clay and used a variety of different tools to imprint, cut out and shape our clays into cogs. We also used photos of cogs to guide us and with our understanding of cog mechanisms, we were proud with our cogs. Once they dried, we discussed how unique and creative each one had turned out. To finish off our project, we used carefully selected cog colours to paint our cogs and make them look even more realistic



Fidget Spinner by RP

Class RP looked at different ways objects move in a circular motion. With the fidget spinner, faze still strong, Ms Puckett discussed with Ms. Nagla and Mr. Mann about using the fidget spinners.

We used different colour ink and dipped the fidget spinner into the ink before using different techniques to spin. Watching the ink drop or spray onto our paper was “WOW”.

“Mine looks like a rainbow.” – Zayan

“Wow it’s a hedgehog with lots of spikes” – Phesian

We looked at all the different designs and were amazed at the way that every design was different in some way.

RY Dreamcatcher

RY have been looking at pictures of wheels and cogs. We decided to make our own big wheel and connect cogs together inside the wheel. Hajirah from our class said 'it looks like a dream catcher'. We explored what a dream catcher is and how we can make it. We thought it would be the perfect opportunity to create our own dreamcatcher.

We used pipe cleaners to make different size circles. We used different colour and size pipe cleaners. We then used different colour wool to create a pattern inside the cogs like a wheel. We stuck all the cogs together inside a hoop. We used strings to dangle it down from the hoop and feathers to decorate it like a dreamcatcher.

We are very happy with our dreamcatcher and how it combines the idea of; wheel, cogs and circles. It also includes all our work in one circle.

We had this displayed in our classroom and it made us remember to be a better person!



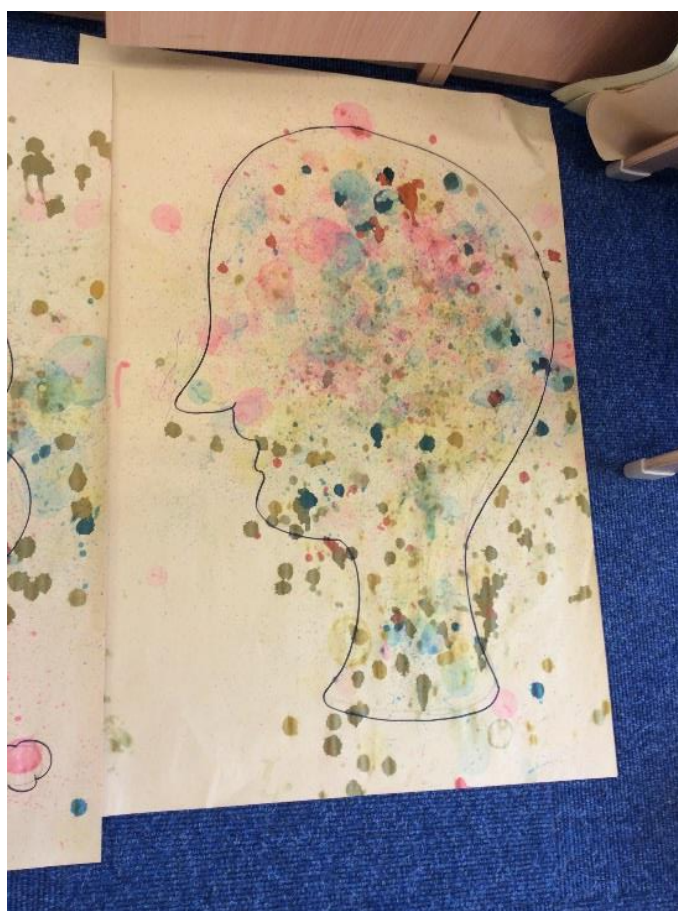
Year 1



Tessellating T-shirts by Year 1

The children have been designing a tessellated pattern to print on their t-shirts. The children learnt that the key points to tessellating is that there should be no gaps between the shapes and that they cannot overlap. After learning more about tessellation and where tessellating patterns can be found in the environment, the children drew around different shapes to find out which shapes tessellated and which ones were not able to. They then used fabric paint and foam sponges to print their own tessellated pattern on to their t-shirts. They were so proud of their designs, some children wore their printed t-shirts to Sports Day!

Year 2





Cogs and circles by 2J

At first, we weren't sure what cogs actually were! We looked at images and pictures online of cogs and found out that they are used in machinery, toys, robots, clocks and watches. We had also seen a picture of cogs used in George's Dragon Machine. We decided to create our own cogs using bubbles.

We mixed bubble solution with brightly coloured inks to create circle shapes. We practised how to make big and small circles by blowing the bubbles onto paper. This got very messy – we even had ink splashed all over our hands and faces! We then turned the circles into cogs by using a black marker. We had to use our imagination to create the different sized and shaped cogs, using chains to link them together. We loved using the bubbles to make our shapes – sometimes they even floated away from us!

For our final piece, we decided to create a 'machine' inside the outline of a head and thought bubble. This idea came to us, as we interpreted this as the cogs spinning and turning while we are thinking. We all worked together in groups to create an amazing effect of the cogs in the head and thought bubbles. Drawing the outline of the cogs really brought out the shapes of the bubbles and made the images really look like someone was thinking.



Cogs by 2P

Only a few members of 2P had heard of 'cogs' before this project. We had seen them in our book, *The Dragon Machine* and thought about how it is a small piece that works together to make something great! We decided we would make our own artwork and combine them like cogs to make something great, too!

First, we took inspiration from unnamed artworks found on the internet. We looked at the way they layered cogs and identified the shapes within them. Each of us saw something different in each piece and we liked the idea of individuality and layering. From that, we had enough inspiration to start! We selected 2D shapes and traced them one at a time, layering them over each other and turning them into cogs and other hidden objects. We used crayon and pencil to fill our pieces with colour. Some of us left our cogs white to POP out at the audience; while others let the cogs do the colourful talking!

When we finished colouring and pieced it together, we decided to change our plan. We were so impressed with the colour and the joining, that we no longer wanted to layer it with paint! Instead, some of the cogs were cut out, stuck to bottle-lids, and stuck onto the artwork; a decision we are very proud of!



Circles, Cogs and Wheels by 2H

At first, we were unsure what cogs were, but then we watched a few film clips showing them moving and we quickly understood. We particularly enjoyed a clip which showed a journey through moving cogs and how it created different shapes. Our first task was to use our textbooks to record a range of different ideas that we liked as well as our initial thoughts for our class project.

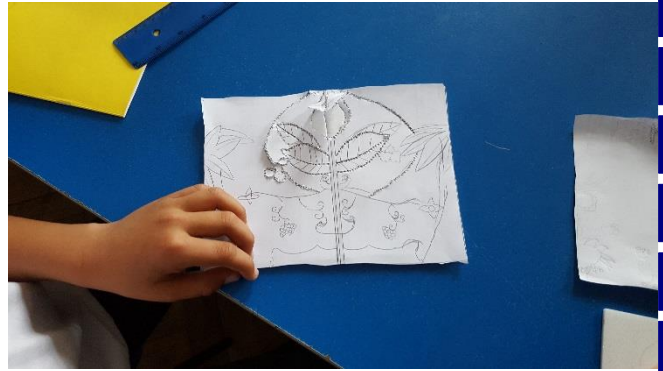
We then held a 'walking gallery' where we travelled around the room, looking at each other's work and discussing what we liked. During this, it was important to use our art vocabulary and we found it fascinating to discuss texture, overlapping shapes and movement. After our discussion,

we agreed on creating a whole-class piece which took elements from different people's ideas. We wanted to show overlapping cogs, reflecting the spaces in-between and through them, as well as how they link together.

Our final piece was created through layered, collaged tissue paper to create movement and texture. We overlaid golden cogs made of cardboard and other cogs made of clay and painted copper. It was tricky to make the cogs so lots of them were very fragile, but we had lots of fun working with the 3D material. We hope that you enjoy our piece.



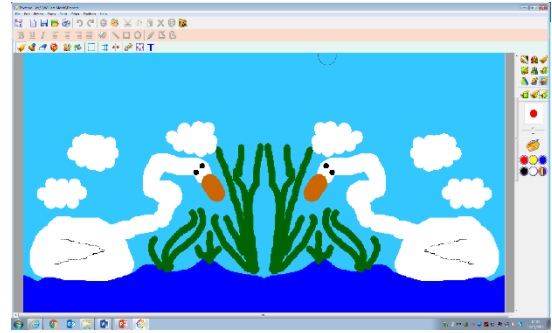
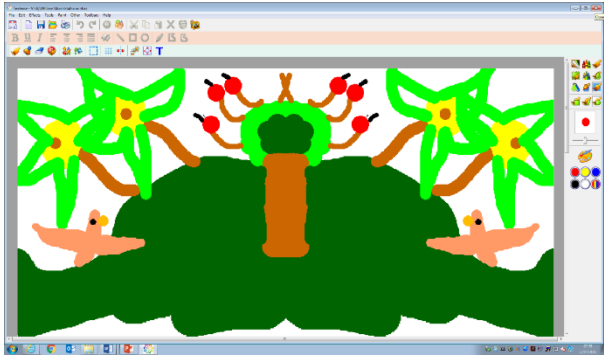
Year 3



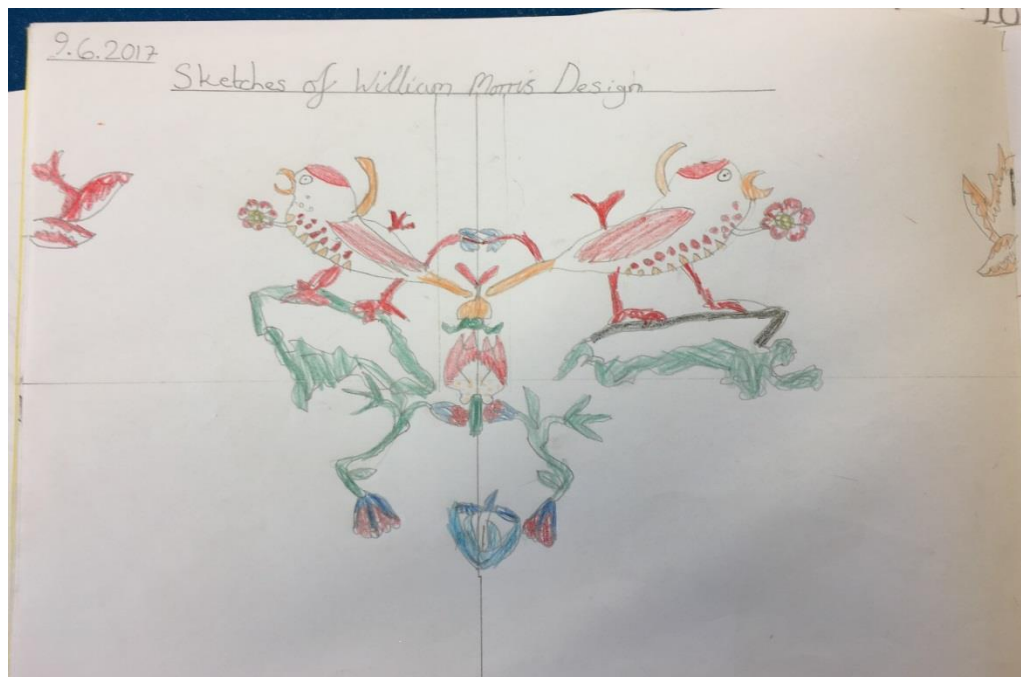
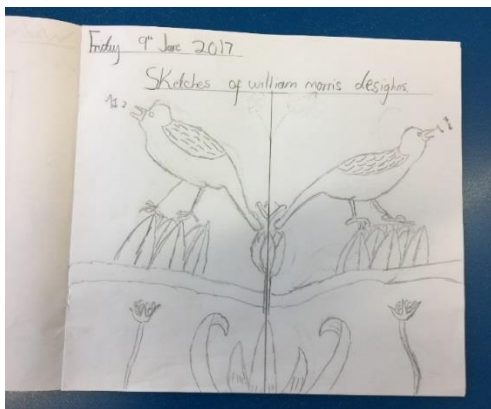
Repeated Patterns by year 3

Year 3 were inspired by the work of Victorian artist William Morris to create a repeated print pattern. We looked at sample wallpapers and fabrics and discussed the techniques, themes and colours that William Morris used to bring the countryside to the home.

We then used Textease, a computer programme, to experiment with the idea of symmetry.



We then sketched parts of William Morris's designs using sketching pencils.

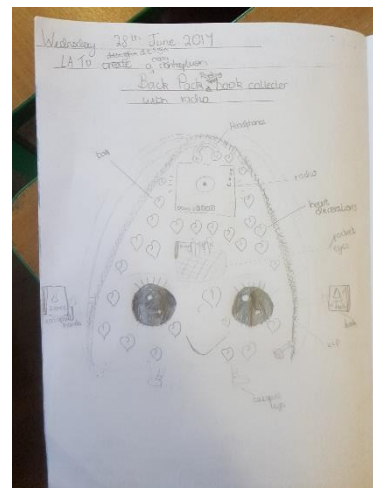
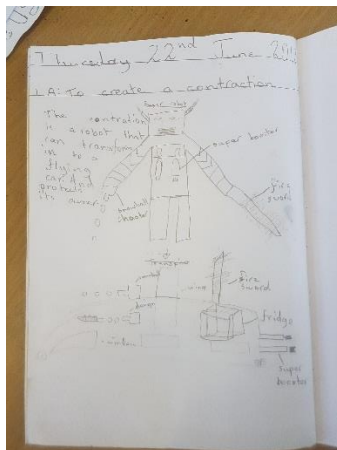


Next, we transferred our floral designs by scolding the outline of the design on to polystyrene tiles. We used a roller to put a thin layer of paint over the

tile and then we printed on long reams of paper to create a repeated wallpaper design and on fabric to create a pair of curtains and a rug.



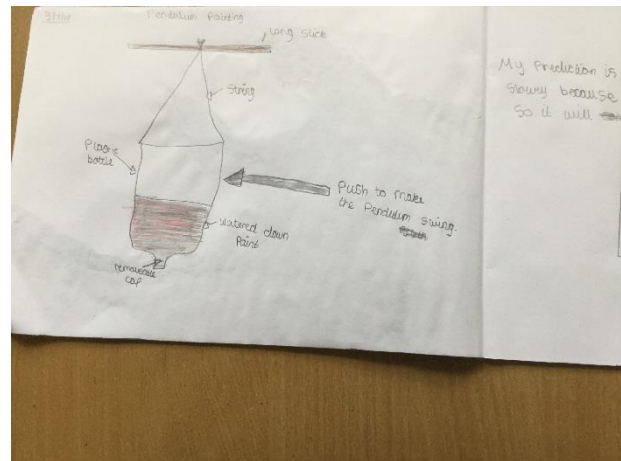
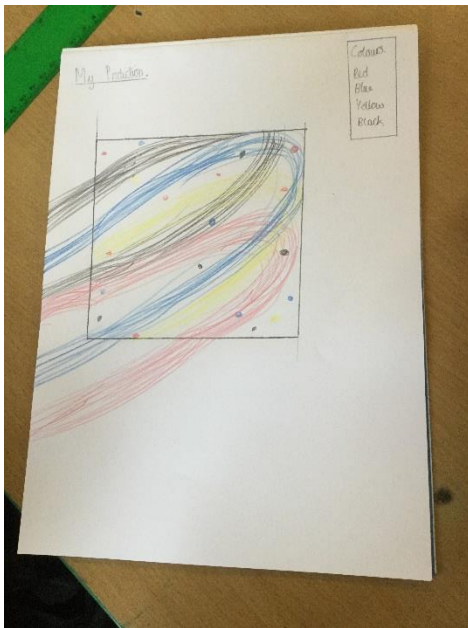
Crazy contraptions by 4A

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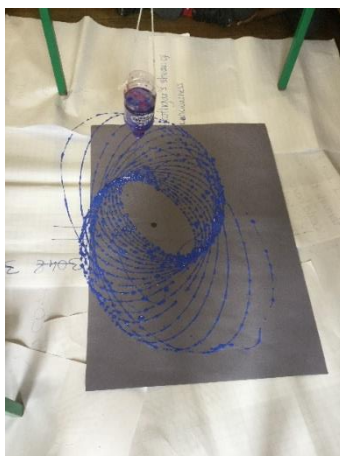
Once we were happy with our design we went over the final piece using fine black felt tips.

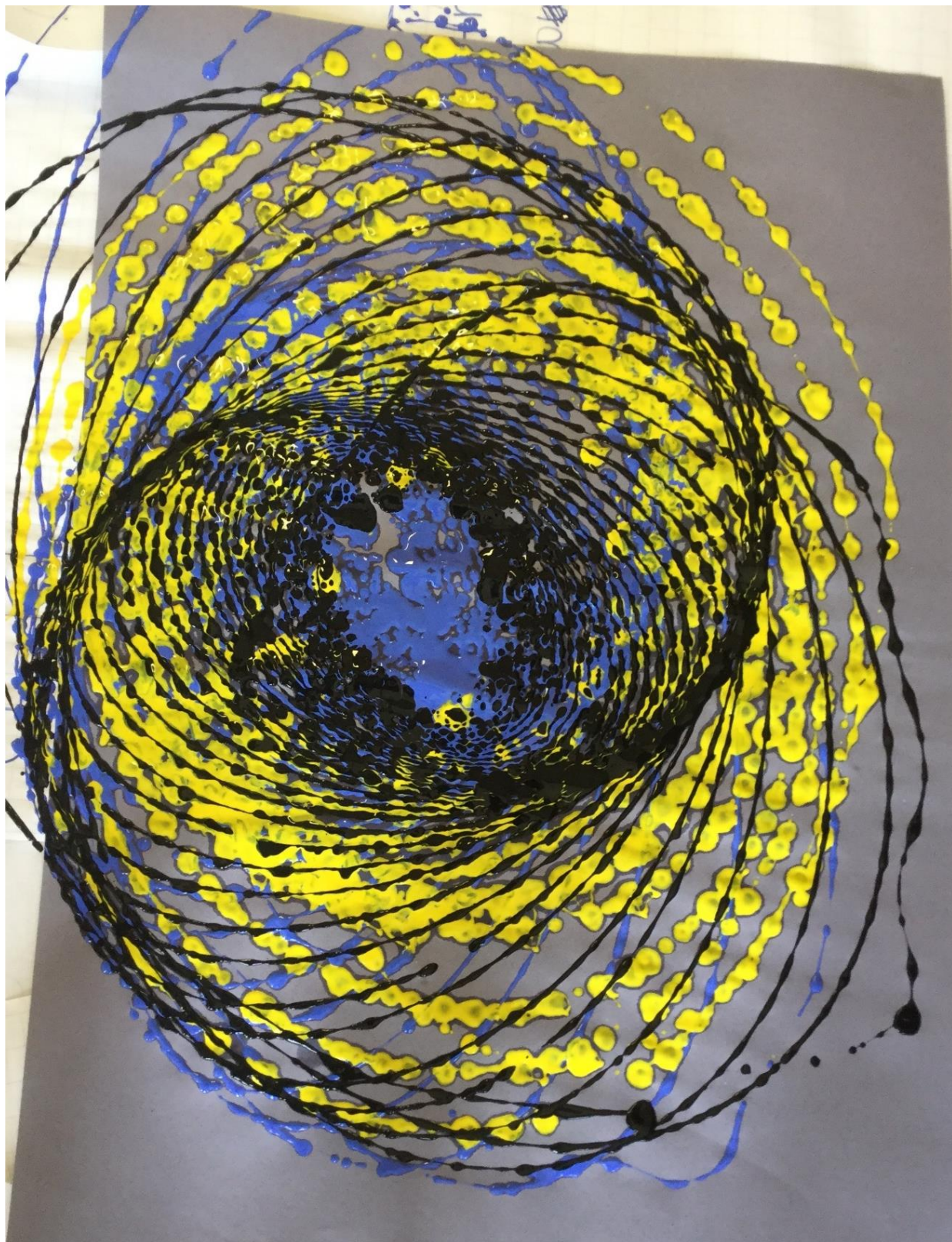
Pendulum Painting by 4P

As part of our Steam project, 4P have designed and tested their own pendulum painting machine. We started by brainstorming ideas for simple gadgets that we could build to make marks on paper and that could work independently or with little help. 4P decided on the idea of a pendulum as we were excited to see what patterns it would create. We used the teacher's lanyard to help us predict what the



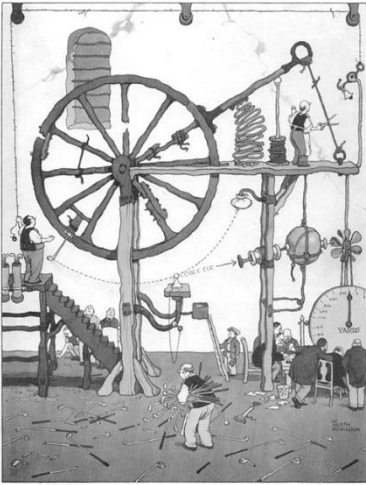
After an interesting discussion about what object we could use to hold the paint, we decided a bottle with a removable cap would be the easiest to use. We added water to the paint to make it easier to flow through the bottle opening. We found there was too much water in paint so it was running out too quickly and not creating as many circular patterns as he had hoped so we reduced the amount of water and tried again. The results were really impressive!





Crazy Contraptions by 4E

Inspirations: W. Heath Robinson



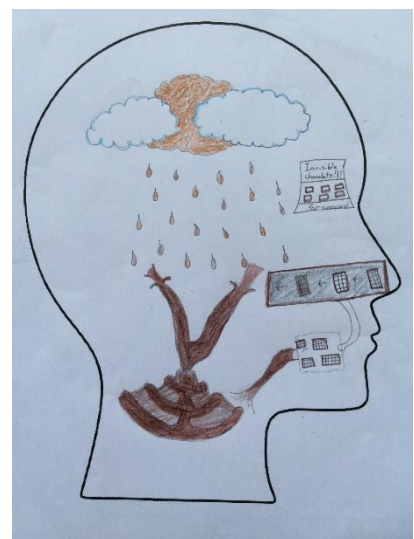
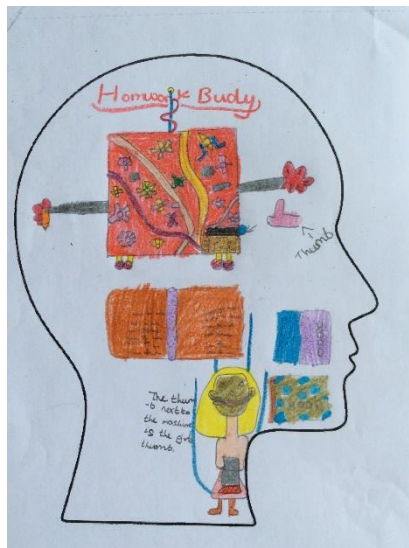
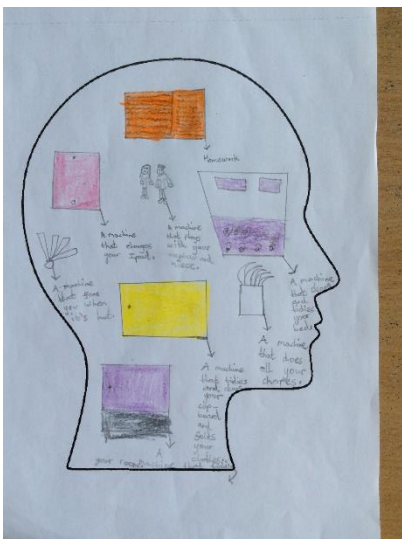
The children were intrigued by the complicated apparatuses designed to carry out simple tasks.



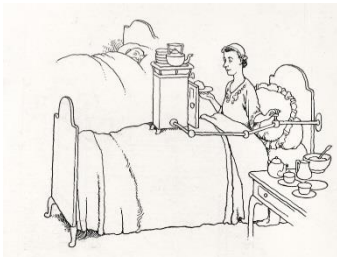
La Machine: Giant puppets

Class 4E was amazed by the size and complexity of these enormous puppets used to tell stories. We looked at videos showing how the puppeteers work as a team to manipulate these giant machines.

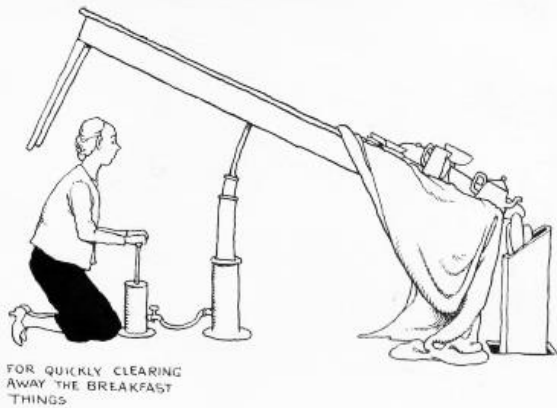
The children then designed their own 'crazy contraptions' to carry out simple household tasks.



Contraptions by 41

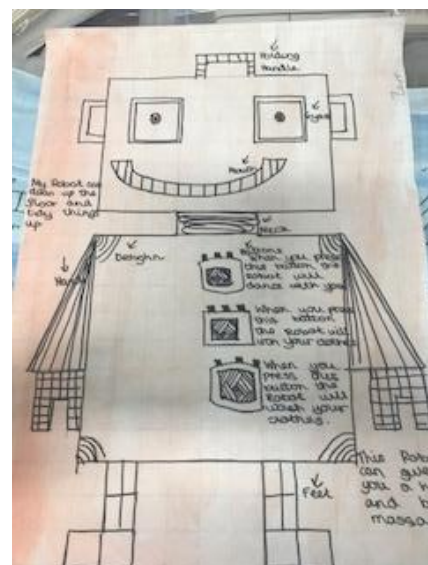
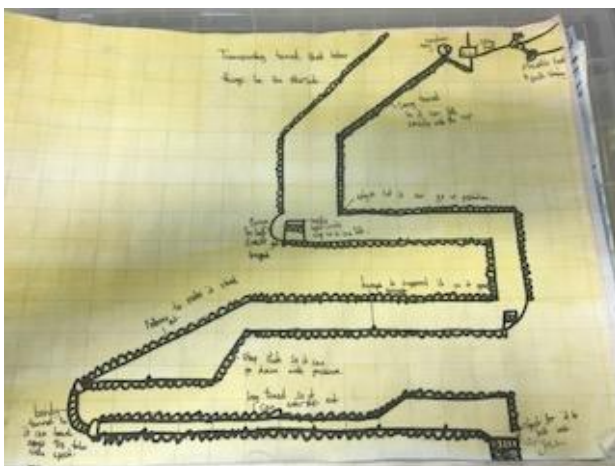


The children were fascinated by the devices designed to carry out simple tasks and came to an understanding that contraptions are about things that we would not be able to do in the real world.

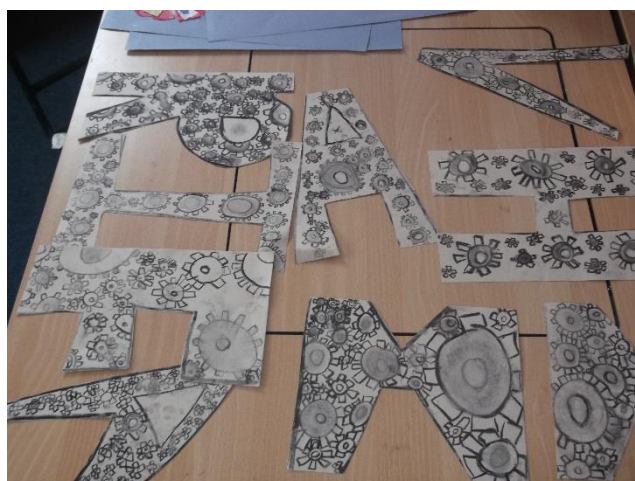


This is another typical illustration which children were intrigued by as they were really trying to come up with something that will do the job for them, thus making them lazy!

The children then designed their own contraptions to carry out tasks that would make life 'easier' for them, such as an endless oven and hover board.



Year 5



Circles, cogs and wheels by Year 5

In Year 5 we were given the theme of circles, cogs and wheels. After sharing this information with the children, they suggested a range of ideas and then we voted for the one that we liked the best. Collectively the children decided they wanted to create a collage using the sketching techniques they have been developing as well as other cogs created using metallic materials and paints. When all the pieces were dry, we glued them together to make one large collage of all our pieces.

Throughout this project, the children were able to stretch their creativity by designing a cog entirely of their own, but still well part of a collaborative final piece. Each class in year 5 came up with unique pieces of art based on this theme and enjoyed sharing them with each other and their parents at Open Evening. This process allowed them to be creative and appreciative of other people's ideas.





Year 6



Scissor Scribble –by Year 6

In Year 6, we brainstormed some ideas for making a gadget. Using resources available in school, the children came up with different ideas of different gadgets. They had to think about how they were going to construct their gadgets and whether they would work from a scientific and mathematical point of view. They used their knowledge of forces and angles when making their final design.

The children agreed on the idea of the Scissor Scribble because it was a useful gadget to create artistic spiral designs. When constructing the gadget the children had to make sure they attached the scissors firmly. They were able to change the angles of the scissors to create different designs and the colouring pencils were interchangeable so that they could produce a variety of designs. Additionally they beautifully decorated the gadget so that it looked attractive.