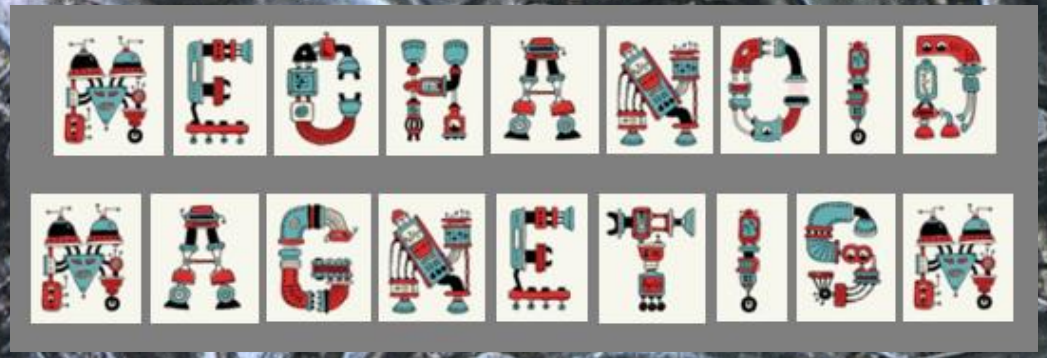


Science

What we should already know…

Practical activities within FS provision – using pulleys in construction areas outdoors, pushing trains along a track

As Scientists, we will…

- Notice that some forces need contact between two objects, but magnetic forces can act at a distance
- Observe how magnets attract or repel each other and attract some materials and not others
- Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
- Describe the two poles of a magnet
- Predict whether two magnets will attract or repel each other depending on which poles are facing

Vocabulary

force, push, pull, friction, surfaces, materials, contact, magnet, magnetic, non-magnetic, attraction, repulsion, pole, north, south, sliding friction, static friction, resist, elastic

Application of knowledge
Outcome - Make a magnetic robot

Art

What we should already know…

- Use sketch books to experiment with artistic ideas of their own in sketchbooks.
- Experiment with different techniques and make sensible choices about what to do next to improve.
- Deliberately choose to use particular materials, media and techniques for a given purpose
- Develop and exercise some care and control over their art work *(e.g. they do not accept the first mark but seek to refine and improve)*
- Express clear preferences and give some reasons for these *(e.g. "I like that because…")*
- Talk about the materials, techniques and processes they have used, using an appropriate vocabulary

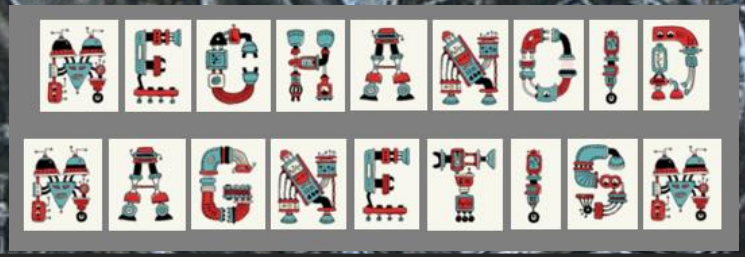
As artists, we will…

- Use sketch books to collect, record and review artistic ideas from a range of different sources.
- Develop technical skills by experimenting with, and testing the qualities of a range of different materials and techniques.
- Reflect upon what they like and dislike about their own work in order to improve it.
- Be able to explain how to use some of the tools and techniques they have chosen to work with.
- Shape and model materials for a purpose Use tools and equipment safely and in the correct way.
- Select and use appropriate techniques for joining materials. Select and use various techniques to create 3D artwork using cardboard (e.g. layering, rolling, weaving, folding etc

Vocabulary

armature, frame, mould, figure, proportion, form, corrugated, foreshortening

Outcome - Cardboard Relief art work inspired by Mark Langan



Design Technologists

What we should already know…

- Design purposeful, functional, appealing products for themselves and other users based on design criteria
- Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.
- Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics
- Explore and evaluate a range of existing products
- Evaluate their ideas and products against design criteria

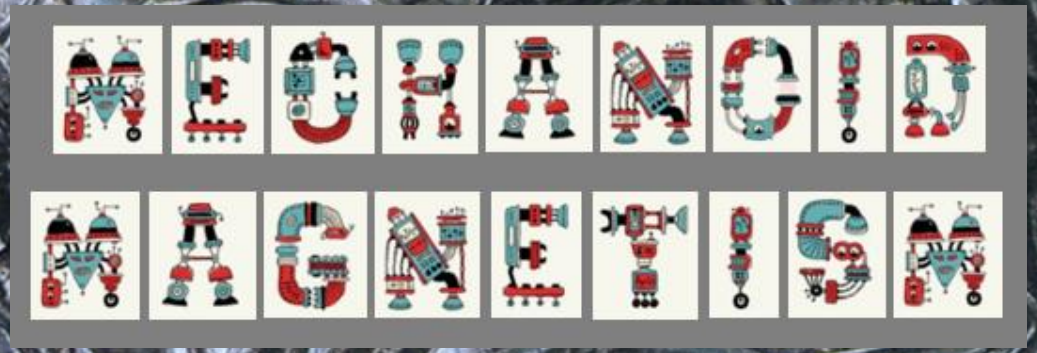
As design technologists, we will…

- Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- Investigate and analyse a range of existing products
- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams and prototypes
- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities
- Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Vocabulary

Appealing, brief, construction, client, purpose, criteria, develop, evaluate, material, modify, research, safety, pulleys, Glue, strengthening, right angle, evaluate, illustrate, critical, analyse

Outcome - Design and make a magnetic robot



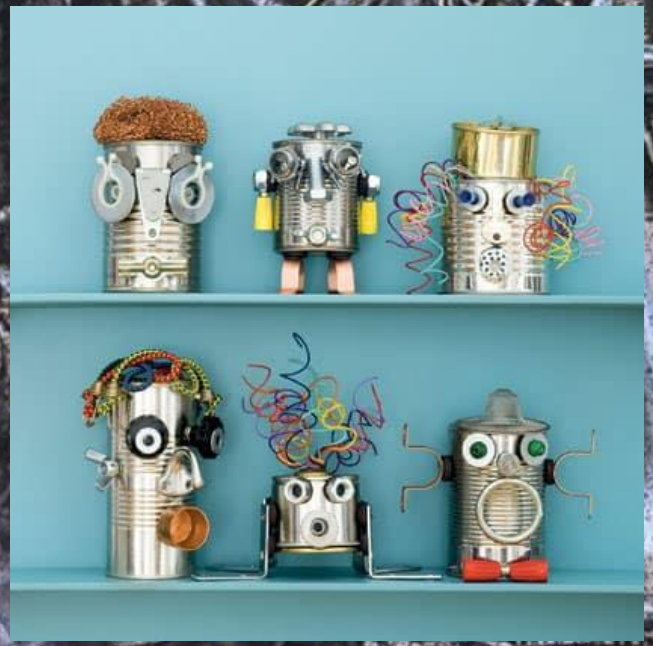
Our School Drivers…

Wow Moments

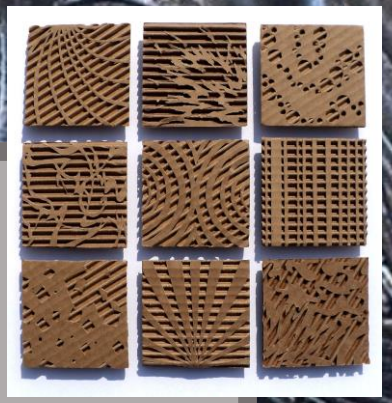
Cardboard relief based on the Iron Man

Make a magnetic robot

Scientific investigations



Key Drivers



Be Resilient

* Children will develop their resilience by evaluating their art work and design and technology work and make adaptations where necessary

Be Creative

* Create a piece of art work using cardboard relief

* Create their own robot using recycled materials and magnets.