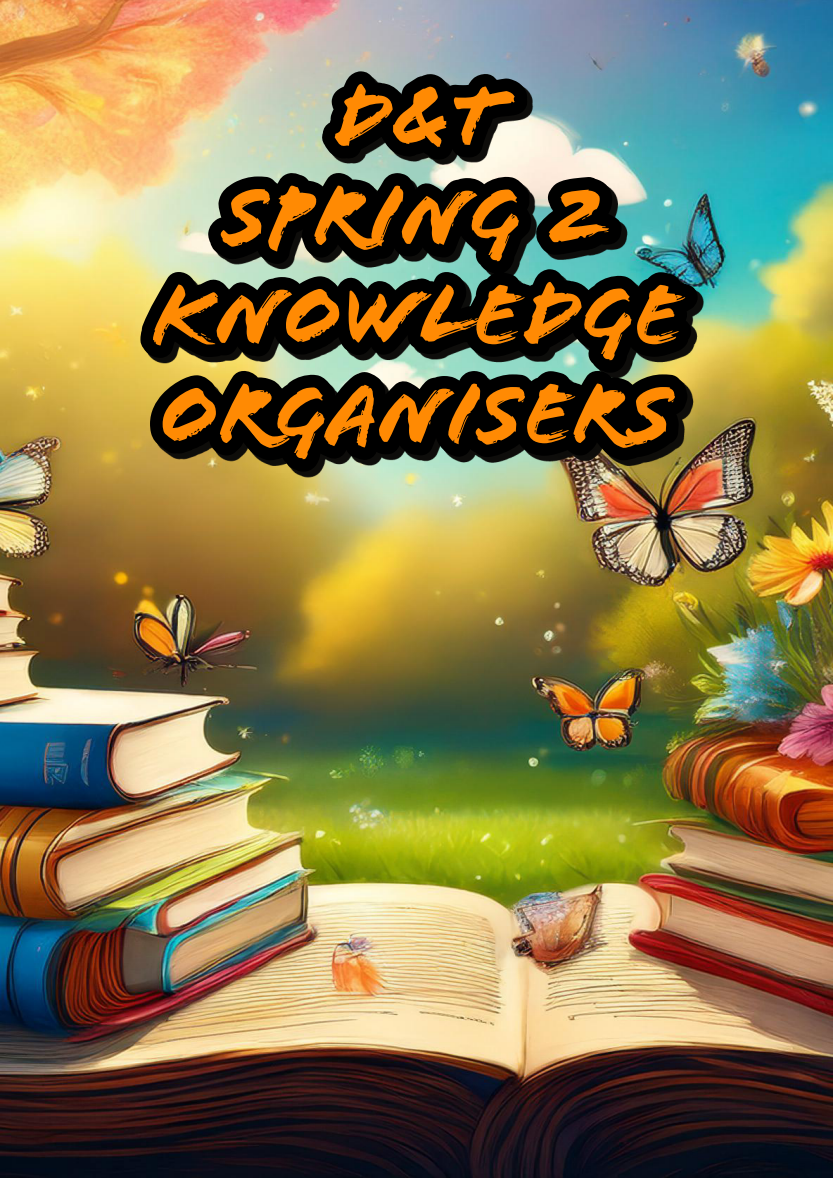


# D&T SPRING 2 KNOWLEDGE ORGANISERS



# Year 5 - Dreamcatchers

## Key Learning Objectives

- Design and make a functional and decorative dreamcatcher.
- Develop skills in measuring, cutting, weaving, and joining materials.
- Understand how to evaluate and improve a design.
- Explore cultural significance and historical background.



How to make a dreamcatcher

## Key Facts - what is a dreamcatcher?

- Dreamcatchers originated with the Ojibwe (Chippewa) people of North America.
- The web is said to catch bad dreams; good dreams pass through the hole in the centre.
- Modern dreamcatchers are made for decoration and creativity, inspired by this tradition.



## Materials and Their Properties

Material	Property	Why it is used
Card / wooden ring	Strong, rigid	Holds the shape
String / wool / thread	Flexible	Used for weaving
Beads	Decorative, smooth	Adds detail
Feathers / fabric	Lightweight	Decoration
Ribbon	Flexible, colourful	Hanging strands

## Knowledge & Skills

Skill	Example
Measuring & Cutting	Measure string lengths accurately and cut with care.
Joining Materials	Tie, knot, or glue parts securely.
Fine Motor Control	Weave and thread beads carefully.
Creative Design	Use colours and patterns imaginatively.
Cultural Awareness	Show respect for the origins of dreamcatchers.



## Keywords

**Design Brief** - a description of what you are going to make and why.

**Materials** - The items you use to make your product (e.g. wool, beads, feathers)

**Frame** - The circular shape that forms the base of the dreamcatcher.

**Web** - The woven part inside the frame that traps "bad dreams."

**Aesthetic** - How something looks - its style and decoration.

# Year 6 - Sustainability Project



## Artist/Designer Inspiration

Darrell Wakelam's cardboard turtle art sculpture is a remarkable example of sustainable art that combines creativity with environmental awareness. Made entirely from recycled cardboard, the sculpture features a lifelike turtle, symbolizing the importance of ocean conservation and the protection of marine life. Wakelam's use of cardboard not only highlights the versatility of recyclable materials but also draws attention to the impact of waste on the environment, especially in our oceans. The cardboard turtle serves as both an artistic expression and a powerful reminder of the need to reduce plastic waste and protect vulnerable species from pollution and habitat destruction.

## In this project you will learn how to...

- Design for a purpose
- Analyse existing products and how to use this information to help you design
- Design and make a 3D turtle
- Use research to create a poster raising awareness of the importance of recycling
- Assemble your final product to a good standard



## What is the importance of recycling for our oceans.

Recycling is crucial for protecting our oceans from pollution. By recycling materials like plastic, we reduce waste that could end up in the sea, harming marine life. Plastics can take hundreds of years to break down, causing damage to ecosystems. Recycling helps conserve resources, reduces landfill waste, and keeps our oceans cleaner and safer for wildlife.

## Paint texture techniques

Use your paint in many different directions to get the effect of ripples in the water.

**TOP TIP** - try to avoid using too much water and don't wash your brush in between colours!



## What does Font mean?

A font refers to a specific style and size of text used in writing or printing. It defines how letters, numbers, and symbols look when displayed on a screen or printed on paper. For example, Arial, Times New Roman, and Comic Sans are different fonts. Fonts can vary in thickness, slant, spacing, and other design elements, giving text a unique appearance.



Key word	Meaning
Aesthetics	The way something looks, how beautiful or pleasing it is to the eyes.
Target audience	Who the product is aimed at.
Functionality	How well something works or how useful it is for a specific purpose.
Quality	The standard or level of how good something is.
Specification	A detailed description of the features or requirements of something.

# Year 7 - Bottle Kiln Candle Holder

In this project you will learn how to...

- ✓ Design for a purpose.
- ✓ Analyse existing products and how to use this information to help you design.
- ✓ Design and make a tealight candle holder.
- ✓ Assemble your final product to a good standard.



## Product analysis - CAFÉ QUE

<b>C = Cost</b>	how much would the product cost to make and to buy? Is it good value for money?
<b>A = Aesthetics</b>	Is it attractive to look at? what makes it so?
<b>F = Function</b>	Function: what does the product do? How does it work? Is it effective?
<b>E = Ergonomics</b>	how easy or comfortable is it to use/hold?
<b>Q = Quality</b>	how well manufactured is it? What materials have been used to make it?
<b>U = User</b>	who will buy or use the product? Has it been designed appropriately for the targeted user?
<b>E = Environment</b>	what impact does the product have on the environment? Is it recyclable? Will the materials used harm the environment? How long will it be used before it is thrown out?



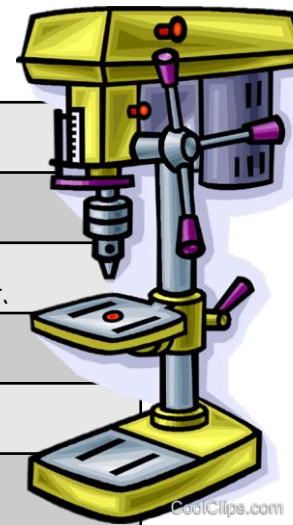
## Artist Chris Parr



### Key word

### Meaning

<b>Aesthetics</b>	The way something looks, how beautiful or pleasing it is to the eyes.
<b>Decoration</b>	Items or changes made to enhance the appearance of a place or object.
<b>Functionality</b>	How well something works or how useful it is for a specific purpose.
<b>Quality</b>	The standard or level of how good something is.
<b>Specification</b>	A detailed description of the features or requirements of something.



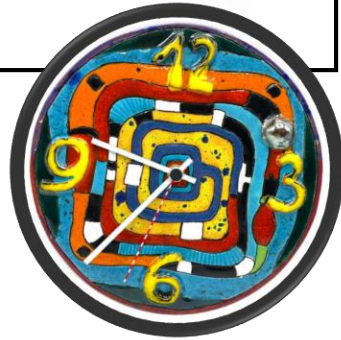
## Bottle Kilns

Bottle ovens are a unique feature of Stoke-on-Trent, a city in England famous for its pottery industry. The history of bottle ovens dates back to the 18th century, during the time when pottery production was booming. These large, chimney-like structures were used for firing clay pots, plates, cups, and other pottery items. The reason they were called "bottle ovens" is because of their distinctive shape. The oven was round and tall, resembling a bottle. It was made of brick and had a domed roof. Inside, pottery was placed in racks and then heated in intense fires to harden the clay. This process is known as firing, and it was crucial for making pottery that could hold liquids or be used for everyday items.

# Year 8 Resistant Materials - Clocks

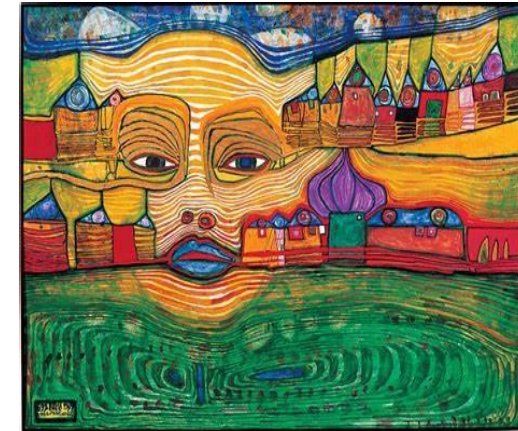
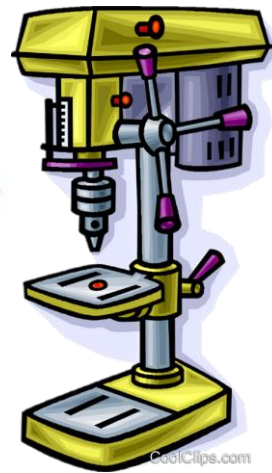
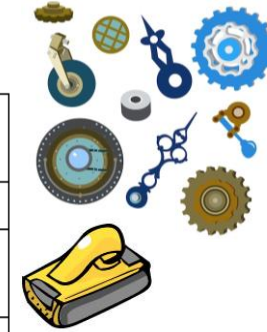
Project aims: In this project you will learn how to...

- ✓ Design for a purpose.
- ✓ Analyse existing products and how to use this information to help you design.
- ✓ Design and make a clock inspired by an artist.
- ✓ Improve your knowledge of abstract art.
- ✓ Assemble your final product to a good standard.



## Product analysis - CAFÉ QUE

<b>C = Cost</b>	how much would the product cost to make and to buy? Is it good value for money?
<b>A = Aesthetics</b>	Is it attractive to look at? what makes it so?
<b>F = Function</b>	Function: what does the product do? How does it work? Is it effective?
<b>E = Ergonomics</b>	how easy or comfortable is it to use/hold?
<b>Q = Quality</b>	how well manufactured is it? What materials have been used to make it?
<b>U = User</b>	who will buy or use the product? Has it been designed appropriately for the targeted user?
<b>E = Environment</b>	what impact does the product have on the environment? Is it recyclable? Will the materials used harm the environment? How long will it be used before it is thrown out?



## ABSTRACT Artist Inspiration

Friedensreich Hundertwasser (1928–2000) was an Austrian artist and architect known for his unique, colourful style. His work often featured vibrant, flowing shapes, spirals, and organic forms, inspired by nature. Hundertwasser rejected straight lines, believing they were unnatural and oppressive. He designed buildings with uneven floors, colourful facades, and rooftop gardens, aiming to create harmony between people and the environment. His most famous architectural work is the *Hundertwasserhaus* in Vienna, a building with bright colours and irregular shapes. Hundertwasser's art and architecture encourage creativity, individuality, and a closer connection to nature, challenging conventional design principles.



Key word	Meaning
<b>Aesthetics</b>	The way something looks, how beautiful or pleasing it is to the eyes.
<b>Quality assurance</b>	The process of making sure that a product or service meets certain standards and is free from problems. It involves checking and testing the product to make sure it works well and is safe for users.
<b>Functionality</b>	How well something works or how useful it is for a specific purpose.
<b>Quality</b>	The standard or level of how good something is.
<b>Target audience</b>	Who the product is aimed at.