

Year 7 Tech

If you are working on this booklet it means we aren't at school for a while. The work inside is to compliment the skills we have been developing in lessons.

Try your best to have a go at all of the activities. Some of them you may find a little bit tricky but have a go and see what you can do.

If you need any help you can always email me and I will reply as soon as I can.

Miss Ashby

LO: To investigate the Art Deco movement in relation to the design of products and be able to use it in the design of a chair.

MUST: Know what the Art deco movement is. Design ideas link to the principles of Art Deco and have some simple annotation.

SHOULD: Explain the main principles of the Art deco movement. Design ideas are based on the principles of Art deco and are annotated to explain the design decisions.

COULD: Explain how the principles of the Art Deco movement influenced the design of products. Design ideas link directly to the principles of Art Deco and are annotated to explain their strengths and weaknesses.

Art deco 1920—1939

Background Information:

Art Deco is said to be influenced by the world at the time, skyscrapers began to spread across Americas skylines, cruise-liners and planes were becoming more accessible to the average person and Tutankhamun's tomb had just been discovered. All these influences filtered into the elegant design of Art Deco products. The rise of mass production in this era made it possible for all to style their home and selves in this fashion.

Key Designers: Eileen Gray, Le Corbusier, Charles Rennie Mackintosh

Key Features or Patterns: geometry features heavily, influenced by transport and skyscraper shapes. Chrome, satin, animal products (e.g. furs, tortoise shell), high gloss woods.

Colours: Silver, black and chrome, gold, bronze, mother of pearl.

Line Styles: geometric, circles, arcs and curves, mathematically drawn. Straight lines. Streamlined shapes.



1. What was Art Deco influenced by?

2. What made it possible for people to have Art Deco products in their homes?

3. Who were some of the key Art Deco designers?

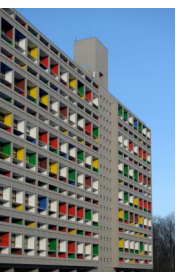
4. What are the key features of Art deco style?



5. How have the principles of Art deco influenced the design of this product?



6. How have the principles of Art Deco influenced the design of this product?



Produce a lamp design in the style of Art Deco, use the images as inspiration for your design. Annotate your design idea to explain how it fits in with the principles of Art Deco.

Design Idea

1. How does your lamp design fit in with the principles of Art Deco?

2. What materials do you think your lamp would be made from and why?

3. Who do you think your lamp would appeal to? (Who would use it?)

LO: To develop knowledge of plastics.

MUST: Be able to answer questions about a plastic product.

SHOULD: Be able to identify the properties of a specific plastic. Understand the environmental impact of plastics.

COULD: Understand what a composite is and why they are used. Suggest ways less plastic could be used.

Choose a product made from plastic. Using the plastic support sheet to help you, answer the following questions.

Plastic Enquiry

1. What is your product?

2. What is it used for?

3. Is it a single use plastic? (*Circle answer*) YES NO

If yes, why is it only single use?

4. What four properties does your plastic product have that makes it fit for purpose and why?

For example; translucent, rigid

- _____
- _____
- _____
- _____

5. Gently place your product into a tray or container of water. Leave it still for 5 minutes whilst continuing with the questions. Does it float?

YES NO

After 5 minutes gently stir the water round to mimic wave action. Does your product now sink?

YES NO

7. Look at your product. Is there a plastic identification code present? If yes, draw the symbol below. If it is not present, use the support sheet to find your product and its relevant code. Draw the symbol below

8. What is the polymer name of the plastic used for your product? Use the support sheet to help.

9. What is the name of the monomer for this plastic?

10. Name another item that can be made from this plastic?

11. This takeaway coffee cup is an example of a **composite** (a combination of two of more materials with different properties that are joined together to make a more useful product). What two materials make this cup?



- _____
- _____

12. Why were these two materials combined together?

13. Plastic has been found on every beach in the world, even remote islands where no one lives. Your product may have been found there. List 4 ways your product may have ended up in the ocean/beach.

14. Using the support sheet and team discussions, identify how your product causes direct damage to wildlife and habitats.

- _____
- _____
- _____
- _____








15. How could you avoid using this product?

16. Can you recycle your product?

YES NO

17. How could everyone in our school reduce the amount of this product that is wasted?

Plastic Support Sheet

Symbol	Name of Plastic	Items made	Does it float?	Potential customers	Can you recycle it?
	PETE Polyethylene terephthalate	Soft drink bottles, fruit juice containers, cooking oil containers.	Sinks	Octopus, sea otter, bass	Yes Widely recycled from kerbside recycling.
	HDPE High-density polyethylene	Milk jugs, laundry detergents, shampoo, washing soaps, yoghurt pots.	Floats	Gull, albatross, turtle	Yes Widely recycled from kerbside recycling.
	PVC Polyvinyl chloride	Trays for sweets, plastic packaging for vegetables, food foils to wrap foodstuff, pipes, windows.	Sinks	Octopus, sea otter, bass	Not accepted through kerbside collection. Some specialist industry recycling for large items.
	LDPE Low-density polyethylene	Shopping bags (some can also be HDPE), frozen food packaging, thin films e.g. magazine bags, bread bags, takeaway coffee cups,	Floats	Gull, albatross, turtle, dolphins, whales	Some recycled such as squeeze bottles. Most not able to be recycled.
	PP Polypropylene	Furniture, luggage, toys, bumpers on cars, straws.	Floats	Gull, albatross, turtle	No
	PS Polystyrene	Toys, hard packaging, jewellery, CD cases, vending machinery,	Some float, some sink	Octopus, sea otter, bass, gull, albatross,	No
	Other Other plastics including acrylic, polycarbonate, nylon, fibre-glass	Baby feeding bottles, CDs, clothing, bulletproof vests, safety glasses.	Diverse range of products. Some sink, some float	All ocean feeders	No

LO: To evaluate an existing product using ACCESSFM.

MUST: Use ACCESSFM to make simple points about an existing product.

SHOULD: Explain the points made giving reasons.

COULD: Include your own opinion about what are the strengths and weaknesses of the product.

Analysing Existing Products

A	Aesthetics	What does the product look like?
C	Customer	Who has the product been designed for? Who would use it?
C	Cost	How much would it cost to buy and why?
E	Environment	What impact does the product have on the environment? (Can it be recycled? Is it made from a sustainable material—one that can be replaced?)
S	Size	How has it been designed to be a suitable size? How has it been designed to fit with the size of people?
S	Safety	How has it been designed so it is safe to use? (Are there any small parts? Are the corners rounded? Does it have a smooth finish?)
F	Function	What does it do?
M	Materials Manufacture	What is it made from? How is it made?

Ron Arad is a British-Israeli industrial designer, artist, and architectural designer. He experimented with new possibilities of materials and technology. His new ideas about objects has made him famous in current design and architecture.



Above are products designed by Ron Arad.

1. What did Ron Arad experiment with?

2. What made Ron Arad famous?



Circle the design you are going to do your product analysis on.

A	Aesthetics	
C	Customer	
C	Cost	
E	Environment	
S	Size	
S	Safety	
F	Function	
M	Materials Manufacture	

LO: To be able to recall tool names and their uses.

MUST: Know the name of some of the tools and what they are used for.

SHOULD: Know the names of the tools and what the tools are used for.

COULD: Identify some key features of the tools.

Hand Tools

Below are some of the tools you will be using this term. Label and then explain what the tools are used for in the spaces provided.

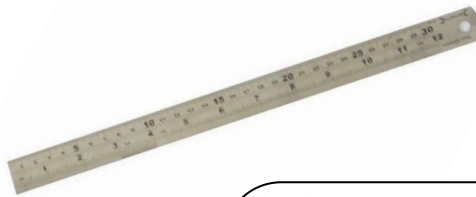


Tool name:

This tool is used for:

Tool name:

This tool is used for:



Tool name:

This tool is used for:



Tool name:

This tool is used for:



Tool name:

This tool is used for:



Tool name:

This tool is used for:

