

## KS3 Design Technology

What concepts will we be covering this half term?	<b>Curriculum mapping for students</b> Fragrance project <ul style="list-style-type: none"><li>• What content/concepts will you be covering this half term? Iterative design practice through the development of packaging. Modelling and evaluation techniques. Research in to manufacturing techniques.</li><li>• Key words/Power words: Logos, development, iterative design, packaging nets, annotation, modelling, evaluation, offset lithography.</li></ul>
What resources can you use to support your learning?	<ul style="list-style-type: none"><li>• PowerPoint on website</li><li>• Links on PowerPoint</li><li>• NETS – <a href="https://youtu.be/Kd_hqLpxhXU">https://youtu.be/Kd_hqLpxhXU</a></li><li>• OFFSET LITHO - <a href="https://www.bbc.co.uk/bitesize/guides/znq8jty/revision/9">https://www.bbc.co.uk/bitesize/guides/znq8jty/revision/9</a></li></ul>
Tasks to complete so we can assess your understanding/ Key Performance Indicator tasks	<ul style="list-style-type: none"><li>• Packaging research</li><li>• Design ideas for packaging</li><li>• Converting ideas to a net</li><li>• Model making practice</li><li>• Offset Lithography research</li></ul>
What can you do if you need help/ support?	Email your class teacher OR Send a message to SMHW (will not be picked up as quickly as email).

# Packaging

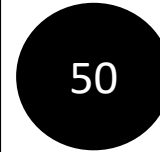
During this term in class you are covering:

- What is a net?
- What does packaging need on it?
- Iterative design
- Prototype of final packaging

## Key to icons on sheets



Information to read to support the tasks



The time this task should take as a minimum

Year 7

Year 8

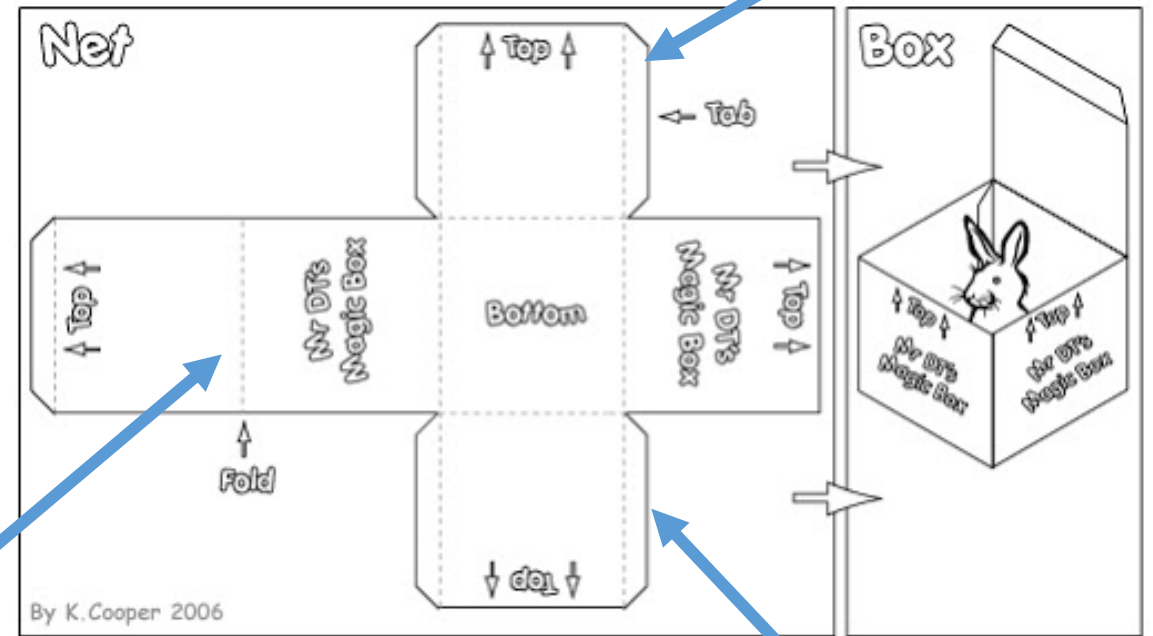
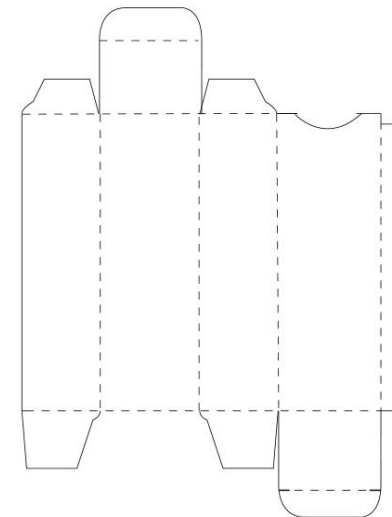
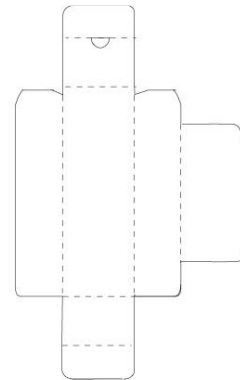
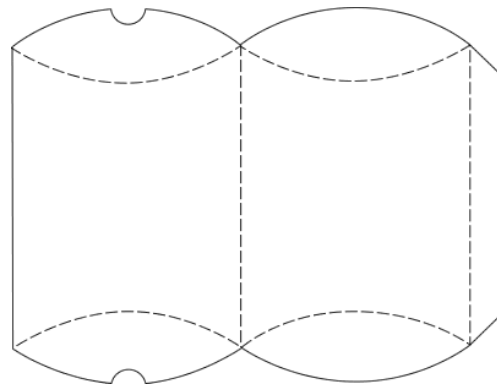
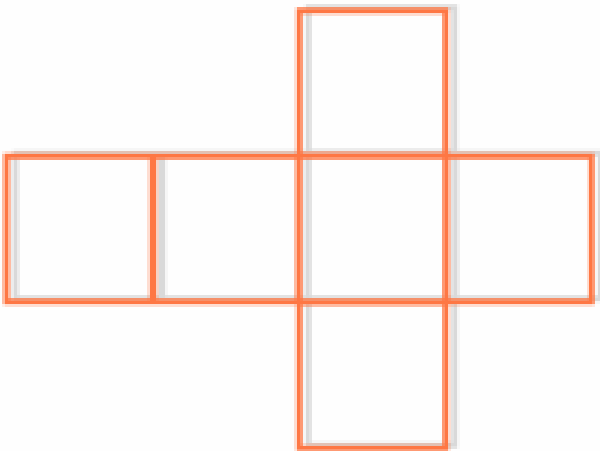
Year 9

# What is a net?

A net is a two-dimensional (2-D) representation of a 3-D shape.

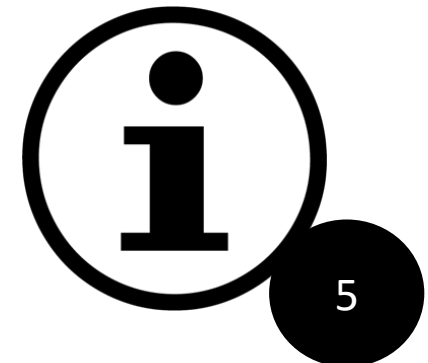
A **net** is often called a development **net**. It is a flat two dimensional shape, which contains score lines and when is folded and glued together forms a three dimensional shape. Nets are often used for **packaging** items such as orange cartons, point of sale display units, tissue boxes

Using the nets provided cut them out and identify any problems.



----- = fold lines

—— = Cut lines



# Task 1 based on year group

## Year 7

- Design 5-10 concepts of packaging for chocolate boxes for either:
- Valentines day or
- Religious festival (i.e. Easter/Christmas/Diwali)

## Year 8

- Design 5-10 concepts of packaging for mobile phone boxes for either:
- Futuristic mobile (i.e. 20 years from now)
- Current mobile (i.e. iphone 12)

## Year 9

- Design 5-10 concepts of packaging for game packaging for either:
- New board game (i.e. new monopoly)
- Console game (i.e. PS5 game)

# Y7 inspiration

- Different ideas that are in place now
- Consider what options you could do?



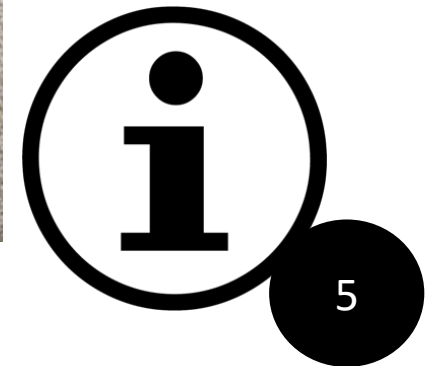
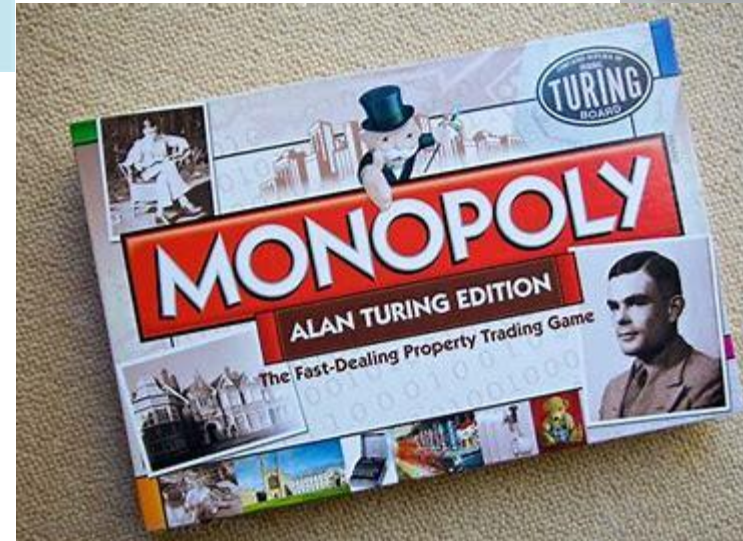
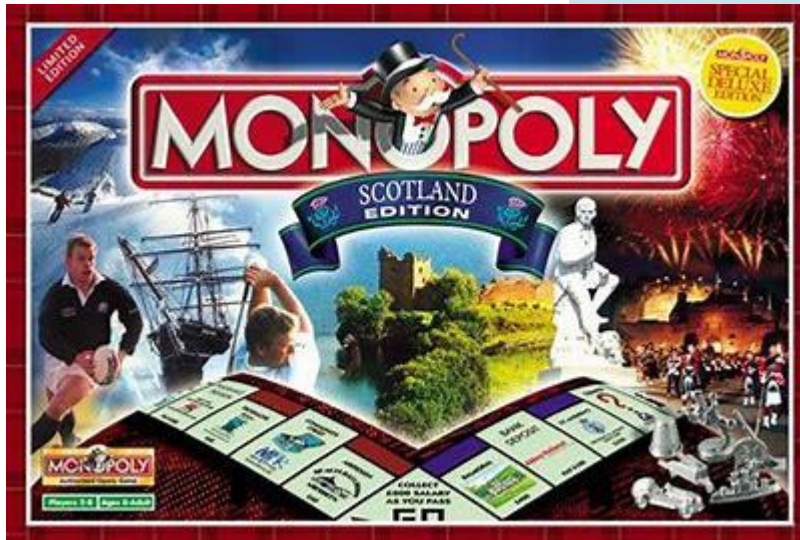
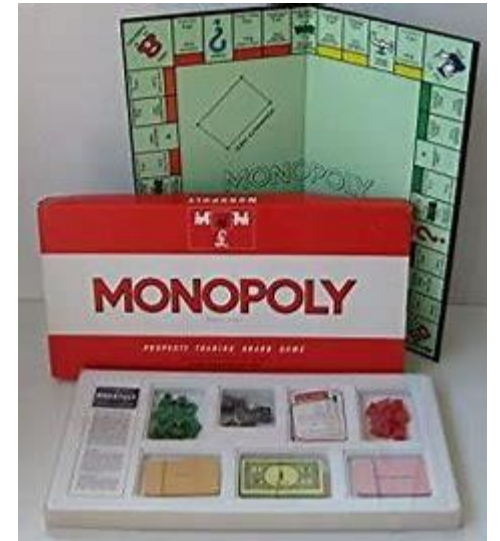
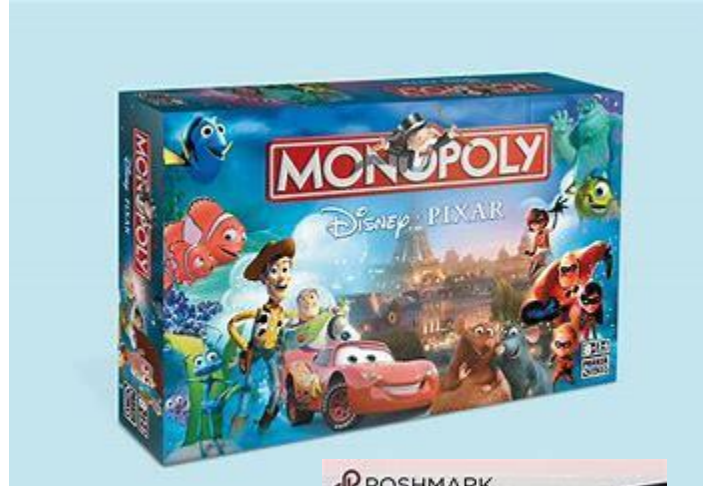


# Y8 inspiration



# Y9 inspiration

- Different ideas that are in place now



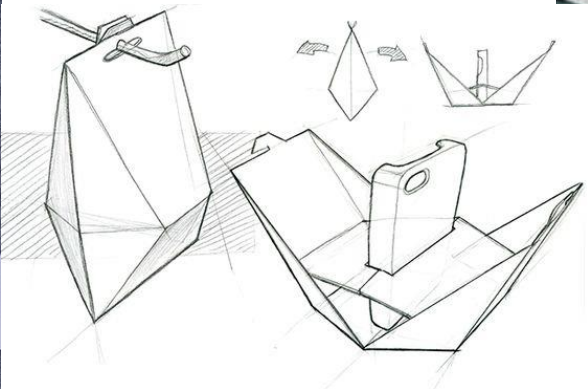
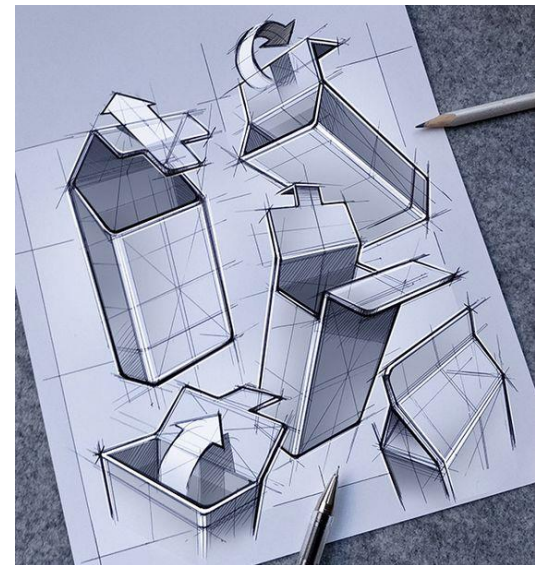
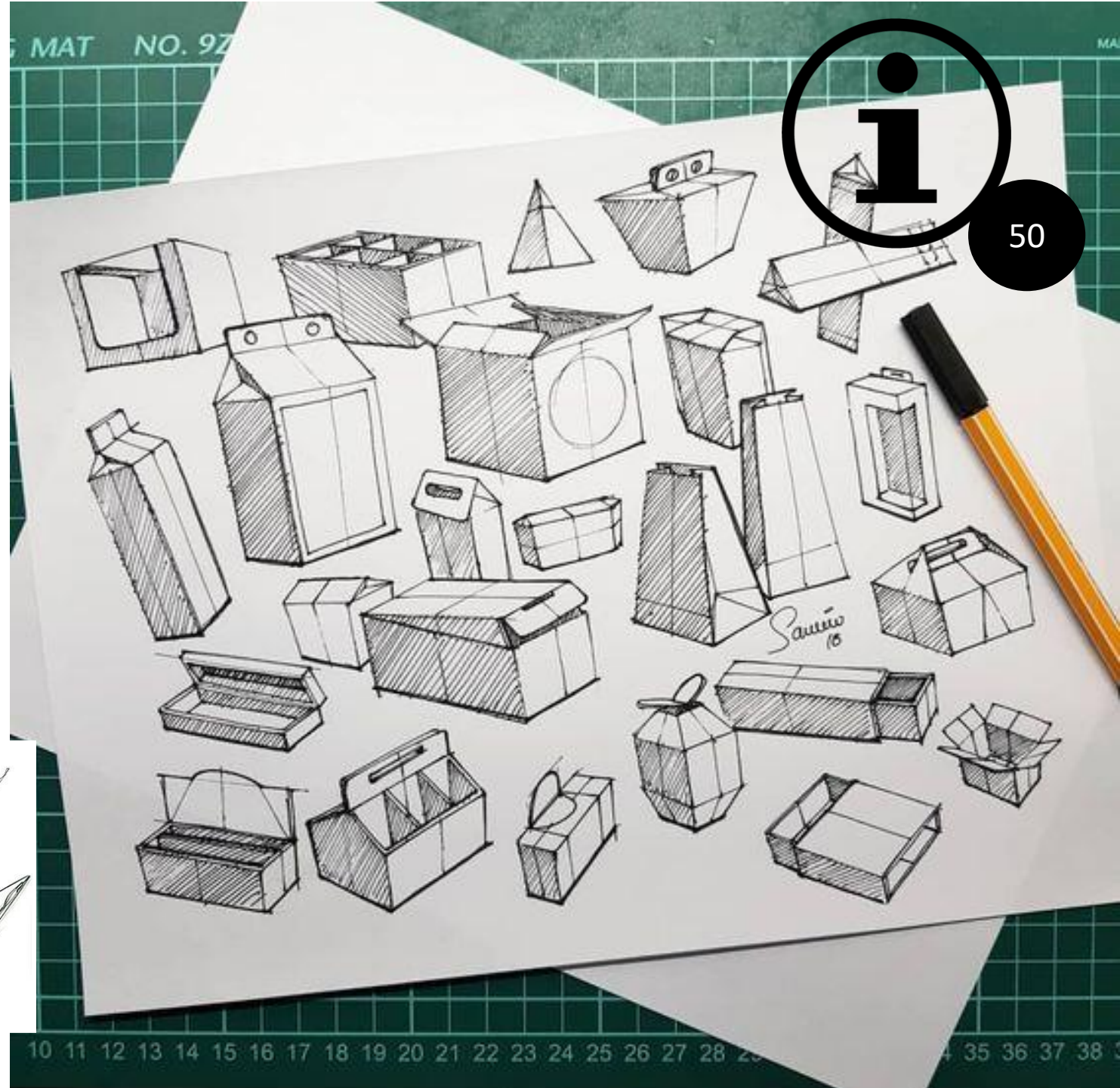


# Packaging Ideas

Create a range of different design ideas (5-10) for your package that will compliment your perfume/aftershave bottle.

The packaging must have key pieces of information on it.

Think about what is displayed on packaging... what is around you to look at? (Milk? Bread?)





# Task 2 based on year group

## Year 7

- Convert your favourite packaging design into a net
- Draw to scale the folded out shape
- Layout the information as it would appear on the packaging (i.e. logo, window)

## Year 8

- Convert your favourite packaging design into a net
- Draw to scale the folded out shape
- Cut out and create a prototype with all key information for the buyer presented on the package

## Year 9

- Convert your favourite packaging design into a net
- Draw to scale the folded out shape
- Cut out and create a prototype with all key information for the buyer presented on the package with accuracy and precision



[https://www.freepik.com/premium-vector/box-packaging-die-cut-template-design-3d-mock-up\\_4128044.htm](https://www.freepik.com/premium-vector/box-packaging-die-cut-template-design-3d-mock-up_4128044.htm)

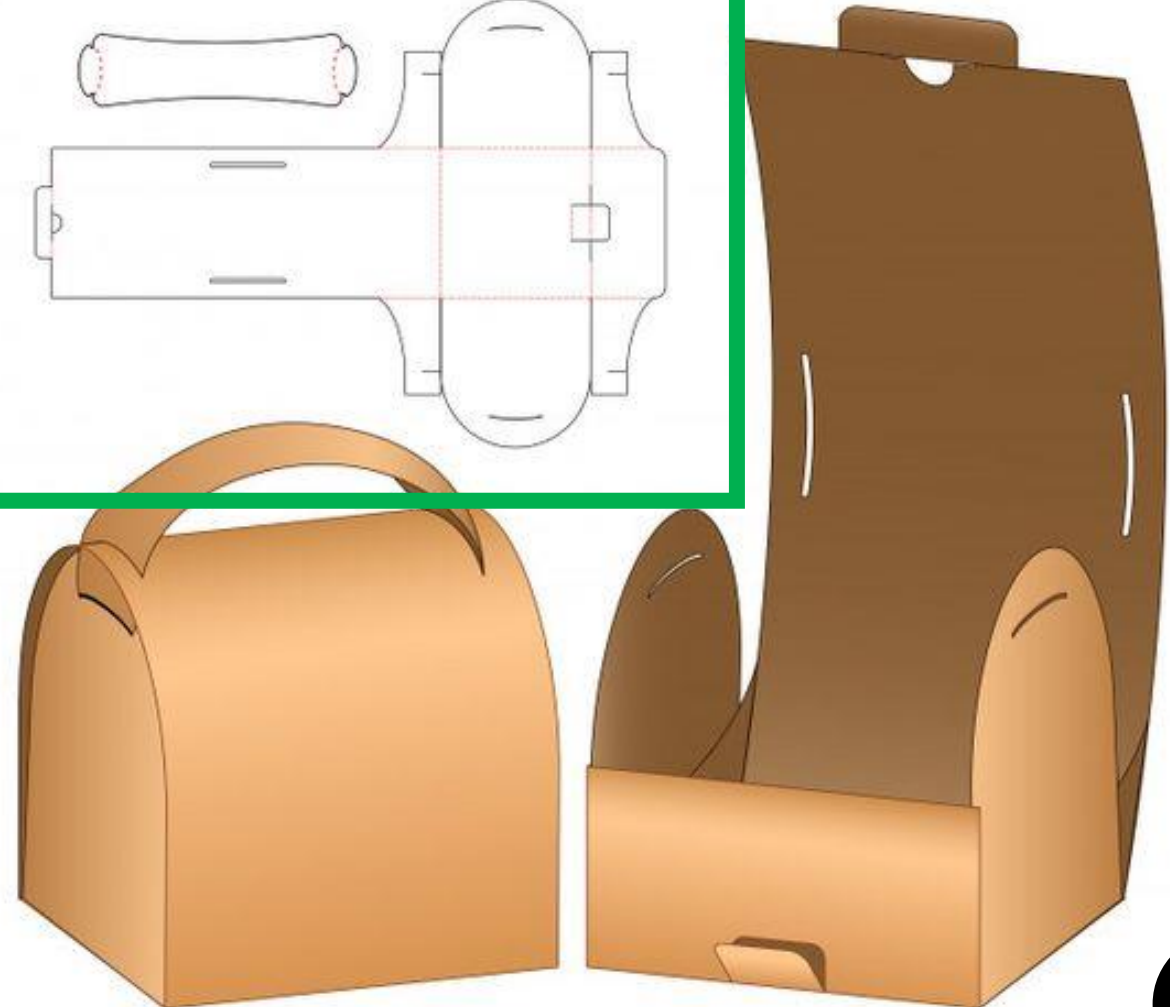
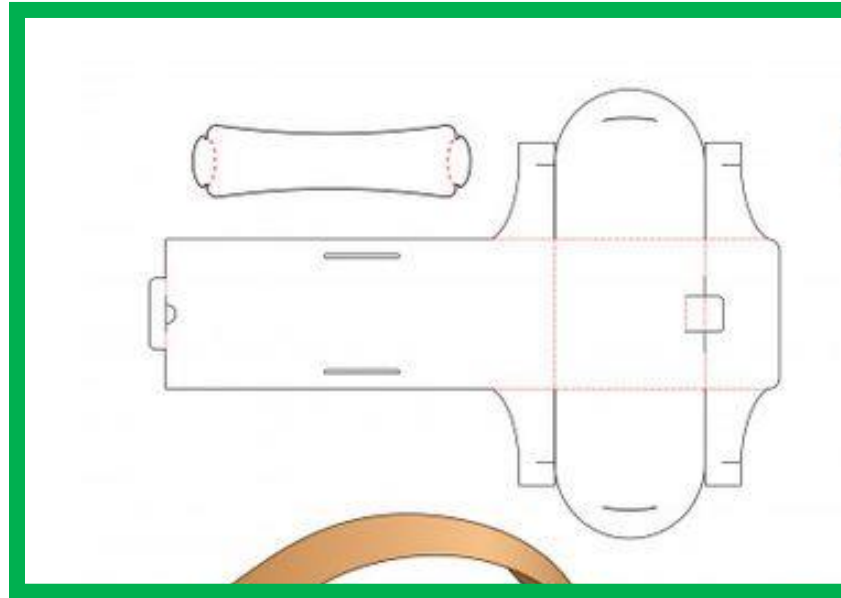
# Year7

You are only completing the net as seen in the green box.

Please label it, you may want to draw out both sides to show the information as set out

Text, font, colour schemes, branding, images, company information are all useful

No cutting out required.





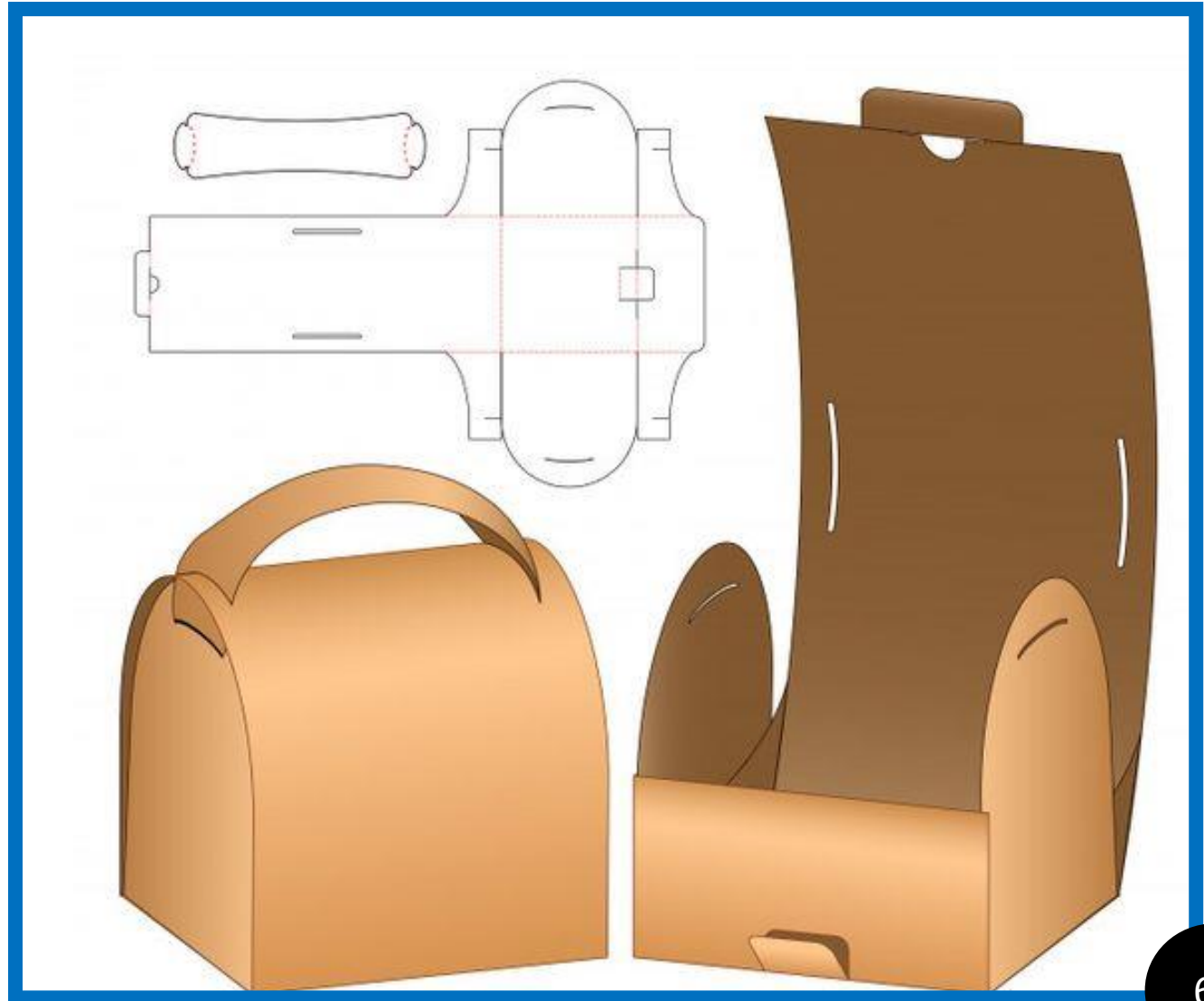
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# Year 8

You are only completing the net **and then make up to a package** as seen in the blue box.

Please label it, you may want to draw out both sides to show the information as set out, you may want to do two nets, cutting out only one.

Text, font, colour schemes, branding, images, company information, bar codes, QR codes are all useful





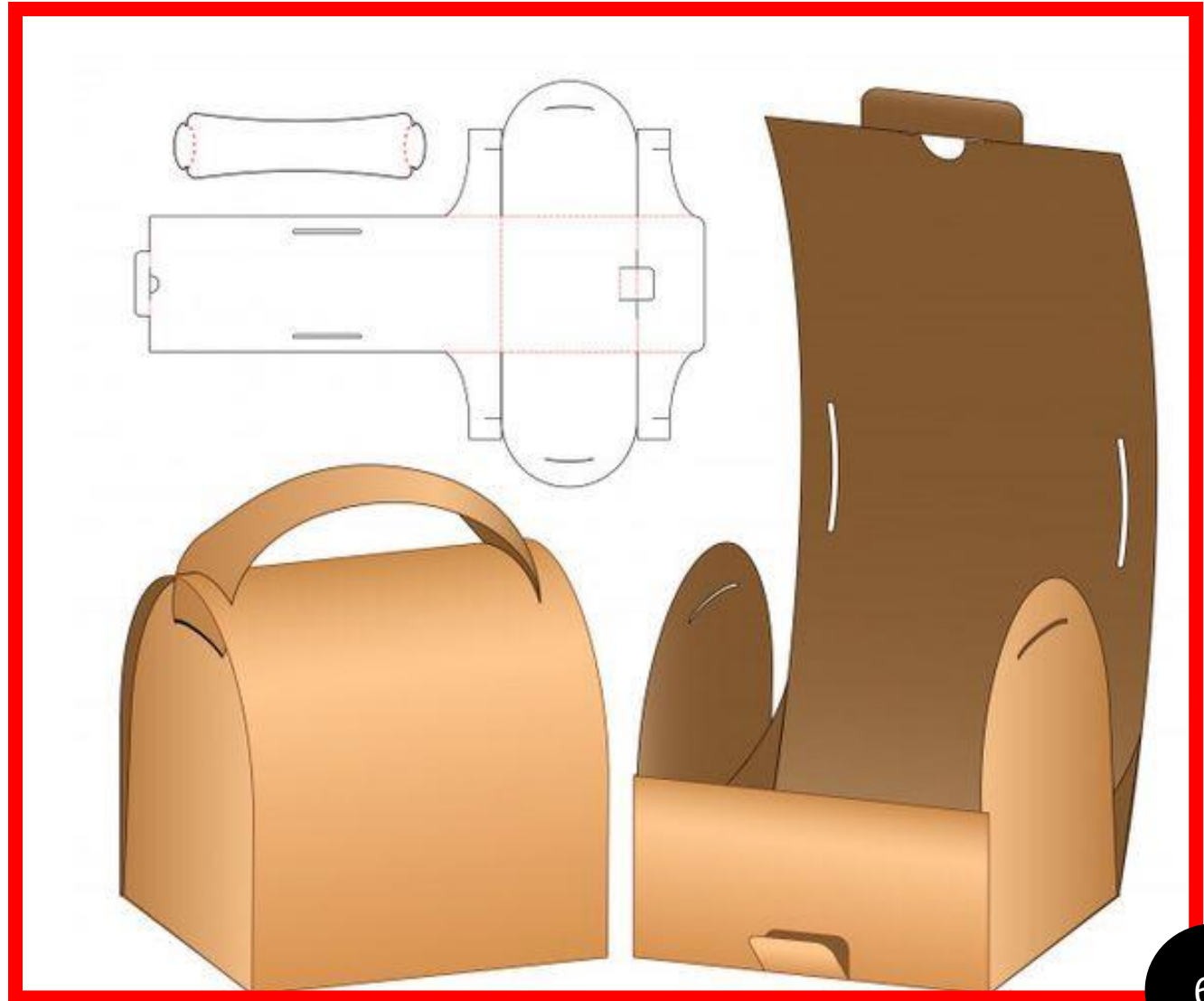


# Year 9

You are only completing the net **and then make up to a package** as seen in the red box. **The focus is on quality and accuracy**

Please label it, you may want to draw out both sides to show the information as set out, you may want to do two nets, cutting out only one.

Text, font, colour schemes, branding, images, company information, bar codes, QR codes are all useful



## EXTENSION: Manufacturing Processes

<https://www.bbc.co.uk/bitesize/guides/znq8jty/revision/9>

Use the link above or any other information that you can find on the internet to research what Offset Lithography is and how it works.  
Using notes and diagrams produce a handout explaining how paper and card are printed using Offset Lithography.  
Make sure you understand this process, don't just copy down the information.

**PRODUCE A HANDOUT WITH THIS INFORMATION ON IT.  
YOUR HANDOUT SHOULD INCLUDE NOTES AND DIAGRAMS.**

After this page is useful  
information to support your work



We use **ACCESS FM** to help us write a **specification** - a list of requirements for a design - and to help us **analyse and describe** an already existing product.

## ACCESS FM - Helpsheet

**A** is for **Aesthetics**



**Aesthetics** means **what does the product look like?**  
What is the: Colour? Shape? Texture? Pattern? Appearance? Feel?  
Weight? Style?

**C** is for **Cost**



**Cost** means **how much does the product cost to buy?**  
How much does it: Cost to buy? Cost to make?  
How much do the different materials cost? Is it good value?

**C** is for **Customer**



**Customer** means **who will buy or use your product?**  
Who will buy your product? Who will use your product?  
What is their: Age? Gender?  
What are their: Likes? Dislikes? Needs? Preferences?

**E** is for **Environment**



**Environment** means **will the product affect the environment?**  
Is the product: Recyclable? Reuseable? Repairable? Sustainable?  
Environmentally friendly? Bad for the environment?  
**6R's of Design:** Recycle / Reuse / Repair / Rethink / Reduce / Refuse

**S** is for **Size**



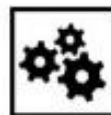
**Size** means **how big or small is the product?**  
What is the size of the product in millimeters (mm)? Is this the same  
size as similar products? Is it comfortable to use? Does it fit?  
Would it be improved if it was bigger or smaller?

**S** is for **Safety**



**Safety** means **how safe is the product when it is used?**  
Will it be safe for the customer to use? Could they hurt themselves?  
What's the correct and safest way to use the product? What are the risks?

**F** is for **Function**



**Function** means **how does the product work?**  
What is the products job and role? What is it needed for? How well  
does it work? How could it be improved? Why is it used this way?

**M** is for **Material**



**Material** means **what is the product made out of?**  
What materials is the product made from? Why were these materials  
used? Would a different material be better? How was the product  
made? What manufacturing techniques were used?

Manufacture

## Papers and boards

REVISED

Papers and boards are used by designers for a range of purposes.

- Papers and boards come in a wide range of different thicknesses, sizes and types.
- The thickness, or 'weight', of paper is measured in grams per square metre (**gsm**).
- A weight of more than 170 gsm is classified as a board rather than a paper.
- The thickness of board is measured in microns. One **micron** is one-thousandth of a millimetre.

**gsm:** Grams per square metre. Used to classify the weights of paper and card.

**Micron:** One thousandth of a millimetre. Used to classify the thickness of paper and card.

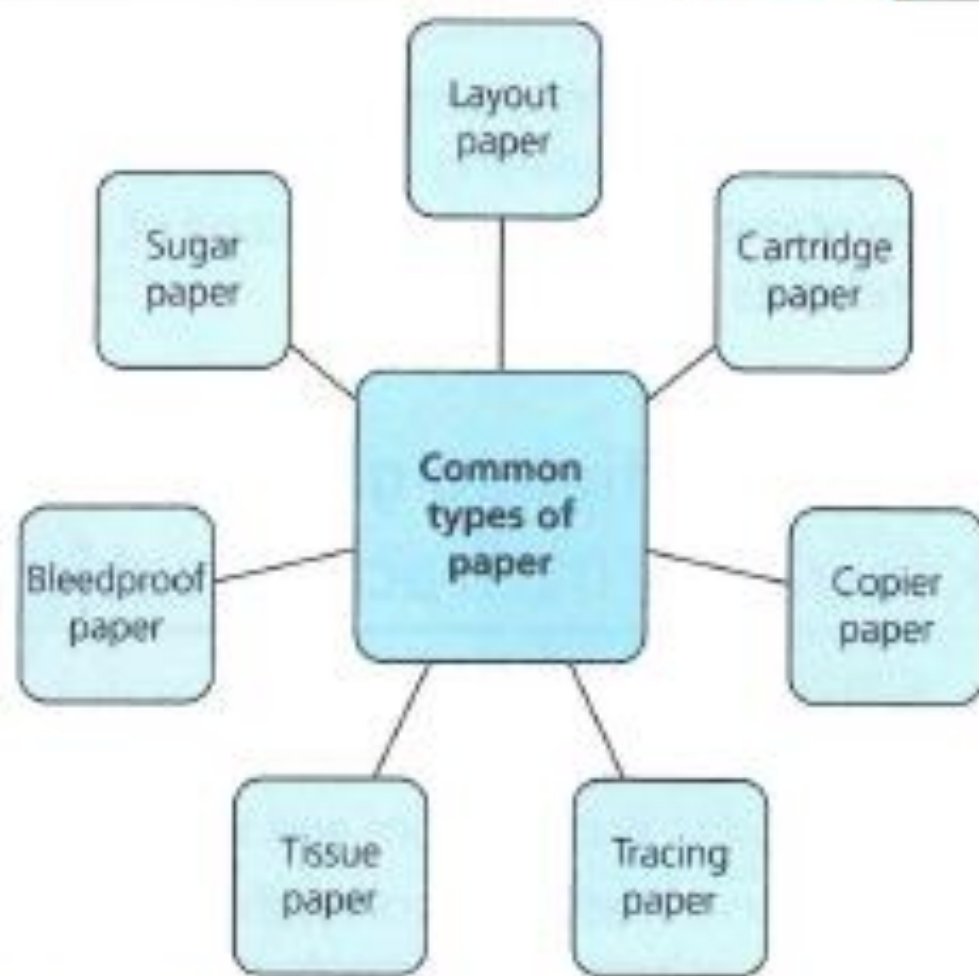


Figure 10.1 Common types of paper