

Year 5 DT: Structures – Chocolate Frog Packaging

Vocabulary

corrugated	Something shaped into a series of parallel ridges and grooves to give added rigidity and strength	
present	show	
contain	To keep something inside something else	
preserve	To keep something from decomposing	
scoring	To scratch paper / card in order to fold it	
faces	The surface of something	
nets	A group of 2D shapes that when folded make a 3D shape	
apertures	A space through which light passes	
tabs	A small flap or strip of material attached to or from something, used to hold, fasten, or manipulate it.	
ribbing	A riblike structure or pattern which can be used to strengthen structures	
laminating	overlay (especially paper) with a layer of plastic or some other protective material which can be used to strengthen structures	
Isometric paper	Paper with horizontal dots, used to draw 3D diagrams	



Year 3 Art: Cave Art – Drawing and Painting

Knowledge

- To understand the four main purposes of food packaging:
 - to protect
 - to present
 - to contain
 - to preserve.


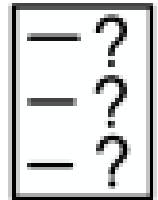
Scoring


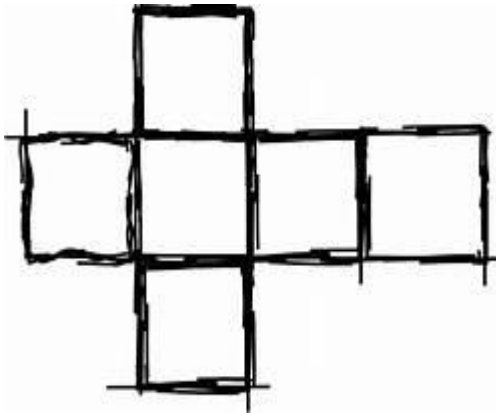
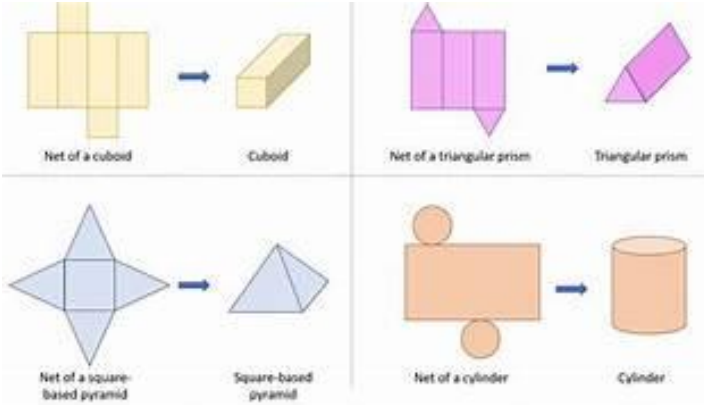
- To understand that **scoring** helps to create neat folds in a 2D net to create a 3D shape.
- To understand that **scoring** can be conducted using a biro / pair of scissors.
- To understand that you **score** using a ruler and by pressing on lightly and by moving the biro / scissors away from you.
- To understand that nets have **faces** and **tabs** and **apertures**.

Strengthening Structures

- To understand that there are a variety of ways in which structures can be strengthened and stiffened:
 - folding and shaping
 - corrugating
 - ribbing
 - laminating
 - gluing

- To understand that when designing a product, you need to consider:
 - **Purpose** (what it is being designed for)
 - Who will your product be for?
 - What does the product need to do (present, protect, preserve, contain)
 - **Design Specification**
 - How many chocolate frogs will it hold?
 - Do you need to see the chocolate frogs (**aperture**)?
 - Which 3D shape will you use?
 - How will you strengthen it?
 - Which materials will you use?
 - How will the **net** be put together?
 - Will you put anything inside the container?
- To know that we can use **isometric paper** to draw our designs
 - Vertical dots will be in line so that vertical lines are always drawn
 - Horizontal lines are not drawn horizontally

Quizzing		Quiz at home
Ask your partner the questions below. Can they find the correct answer on the right-hand side?		Ask your adult to look at the KO.
If a shape has a length and a width it is called a _____ shape?	To help join faces together	<p>Quiz them using the vocabulary and knowledge section or the quiz questions.</p> <ul style="list-style-type: none"> • Can they beat your score? • Can they score more than 5? 10? • Compete with your adult in the elimination quiz. Take it in turn to ask each other questions. The first person to get a question wrong is out.
Why do some cake containers have apertures?	Present, Preserve, Contain, Protect	
Why do Amazon parcels not have apertures?	So that you can see how good they look	
If a shape has a length and a width and a height it is called a _____ shape?	So that the 3D shape is easier to open	
Why are tabs important when creating 2D nets?	To protect what is inside	
What are the four purposes of packaging?	2D	
	So that it is less likely to be stolen	 
	3D	
	Preserve, Prevent, Protect, Present	
Big Questions	Beat Your Adult	
<ol style="list-style-type: none"> 1. Why do you think Amazon packaging is not visually appealing? 2. Why do you think sweet packaging is visually appealing? 3. What happens if you do not score along lines you want to fold? 4. Which 3D shapes have 6 faces? 5. Why do you think delivery drivers sometimes ask you to sign to say that you have received a parcel? 	<ul style="list-style-type: none"> • How many 3D shapes can you name in 1 minute? 	

Word scramble		Tasks	Creative Task
Unscramble the key vocabulary from this topic below. You can create your own at the bottom		<ol style="list-style-type: none"> 1. How many different ways can you design a 2D net which will fold to create a 3D cube / cuboid? Can you add tabs to help you join it together? Can you use scoring to help you fold it? 2. Design a packaging that would be used to present a new type of sweet. Give your product a name. 3. Create a package which has been strengthened using any number of the different strengthening techniques taught in school. <i>(If you need any resources, please ask your teacher)</i> 	
nesrtep			
gutarrocd			
Reresvep			
Café			
bats			
bingbir			
sureratpe			
ginrocs			
		 	

Tell a partner / an adult the definition for the missing spaces below

Vocabulary

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	show	
contain		
	To keep something from decomposing	
scoring		
	The surface of something	
	A group of 2D shapes that when folded make a 3D shape	
apertures		
tabs		
	A riblike structure or pattern which can be used to strengthen structures	
	overlay (especially paper) with a layer of plastic or some other protective material which can be used to strengthen structures	
Isometric paper		



