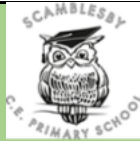




Design Technology – Medium Term Planning

Y1/2



SCAMBLESBY CofE PRIMARY SCHOOL: MEDIUM TERM-PLANNING Y1/2 Design Technology Autumn Year A

Milestone 1

Wriggle 'n' Crawl- Slider Mechanisms

Master practical skills

Mechanics:

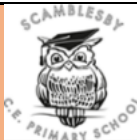
- Create products using levers, wheels and winding mechanisms.

Materials:

- Cut materials safely using tools provided.
- Measure and mark out to the nearest centimetre.
- Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).
- Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).

Design, make, evaluate and improve	• Design products that have a clear purpose and an intended user. • Make products, refining the design as work progresses. • Use software to design.		
Take inspiration from design throughout history	• Explore objects and designs to identify likes and dislikes of the designs. • Suggest improvements to existing designs. • Explore how products have been created.		
Vocabulary			
Session	Learning Objective	Learning questions and Success criteria	Lesson outline
1	To be able to create a sliding mechanism.	What is a sliding mechanism? SC: To explain how a sliding mechanism works. (Basic) SC: To make own moving pictures using a sliding mechanism. (Advancing) SC: To evaluate the sliding mechanisms they have made and identify areas where they could be improved. (Deep)	1.5 In this first lesson, children will find out what a sliding mechanism is, and how it can be used to make a simple moving picture. They will then explore the sliding mechanism themselves in their independent activities, making a variety of simple moving pictures.
2	To be able to use levers and pivots to create a moving mechanism.	How does and lever and pivot mechanism work? SC: To understand the terms 'lever' and 'pivot'. (B) SC: To combine and join materials to make their own lever and pivot mechanisms. (A) SC: To explain how their lever and pivot mechanism works. (D)	Children are first shown a moving picture with a lever and pivot mechanism, and asked to explain how they think it works. They will then explore and discuss how it has been made, looking at how to hide the lever at the back of a picture too. Children then use the resources provided to create moving pictures of minibeasts using the lever and pivot mechanism
3	To design a picture with a moving mechanism.	What type of mechanism will you use? SC: To design own moving picture. (B) SC: To choose a suitable moving mechanism (A) SC: To explain how the mechanism will make their picture move. (D)	In this lesson children will apply what they have learnt about the three different types of moving mechanisms to design their own moving picture.
4	To create a themed moving picture.	What equipment will you need? SC: To follow a design to create a picture with a moving mechanism. (B) SC: To work safely with a variety of tools and materials to create a moving mechanism. (A) SC: To identify ways in which they can improve their finished products. (D)	Children will be encouraged to think carefully about the mechanism they are going to make, the equipment they will need, and their order of work, before beginning to create their moving picture based on their design from the previous lesson.
5	To evaluate a moving picture.	What has progressed well? How have you SC: To understand what it means to evaluate. (B)	In this final lesson, children will evaluate their completed moving minibeast picture. After beginning to discuss some evaluative questions with

		SC: To evaluate their own moving picture. (A) SC: To identify ways to improve their moving picture. (D)	a partner and the class, children will then continue this self-assessment in their independent activities.
Assessment			



SCAMBLESBY CofE PRIMARY SCHOOL: MEDIUM TERM-PLANNING Y1/2 Design Technology Spring Year A

Milestone 1 Through the Keyhole- Solid Structures

Master practical skills	Mechanics: - Create products using levers, wheels and winding mechanisms. Materials: - Cut materials safely using tools provided. - Measure and mark out to the nearest centimetre. - Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). - Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).
Design, make, evaluate and improve	- Design products that have a clear purpose and an intended user. - Make products, refining the design as work progresses. - Use software to design.

Take inspiration from design throughout history		- Explore objects and designs to identify likes and dislikes of the designs. - Suggest improvements to existing designs. - Explore how products have been created.	
Vocabulary			
Session	Learning Objective	Learning questions and Success criteria	Lesson outline
1	To identify free standing structures and explain how they know they are freestanding..	What is a solid structure? SC: To research and evaluate existing products. (Basic) SC: To communicate their ideas through talking. (Advancing) SC: To compare existing products. (Deep)	1.4 Children will explore and compare existing solid structures. They will look at the materials, features and think about their purpose as they begin to think about their own designs.
2	To design and plan a solid structure	What are the features of the solid structures? SC: To design a functional product. (B) SC: To communicate their ideas through talking and drawing. (A) SC: To think about the purpose of the end product. (D)	Children will examine the different parts of toy solid structures and think about their features and purposes. Then they will compare a picture of a product to a plan and begin to think about their own design ideas as they modify existing plans.
3	To explore a range of materials and make decisions based on the end product.	What Materials are the SC: To investigate the properties and characteristics of materials. (B) SC: To explore how materials can be made stronger and stiffer. (A) SC: To select appropriate materials based on the purpose of their product. (D)	Children will explore the properties of different materials and think about which ones are suitable for each section of their stable structure. They will think about strength, stability, malleability and other features in this exploration lesson.
4	To follow a design plan and make a product.	How can you make your design turn into a product? SC: To follow a design plan. (B) SC: To manipulate materials. (A) SC: To use tools accurately. (D)	Children will follow their own design plans and use the helpful resources provided to build their own stable structures. They will develop their fine motor skills, concentration and perseverance as they draw, cut and stick with precision.
5	To evaluate products.	Why SC: To make purposeful functional products. (B) SC: To evaluate their products. (A) SC: To use technical language when talking about their product. (D)	Children will look at different criteria and assess whether their structures are successful. They will think about features including the stability and firmness of their structure as well as features specific to their own design criteria.
Assessment			



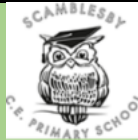
SCAMBLESBY C of E PRIMARY SCHOOL: MEDIUM TERM-PLANNING Y1/2 Design Technology Summer Year A

Milestone 1

Bright Lights, Big City- Wheel and Axle Mechanisms

Master practical skills	Mechanics: • Create products using levers, wheels and winding mechanisms.		
	Materials: • Cut materials safely using tools provided. • Measure and mark out to the nearest centimetre. • Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). • Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).		
Design, make, evaluate and improve	• Design products that have a clear purpose and an intended user. • Make products, refining the design as work progresses. • Use software to design.		
Take inspiration from design throughout history	• Explore objects and designs to identify likes and dislikes of the designs. • Suggest improvements to existing designs. • Explore how products have been created.		
Vocabulary			
Session	Learning Objective		Lesson outline

		Learning questions and Success criteria	
1	To identify wheels and axles in the real world and on models.	What are the main features of a vehicle? SC: To name the main features of a vehicle. (Basic) SC: To describe the functions of various parts of a vehicle. (Advancing) SC: To label the main features of a vehicle. (Deep)	Children will explore modern vehicles and their features, looking at what features are common to all vehicles, and which are specific to named ones. There is also the opportunity to look at a 17th century vehicles to compare how they are similar and different to modern vehicles.
2	To investigate wheels, axles and chassis.	How do we attach the wheels? SC: To know what wheels, axles and chassis are. (B) SC: To know that there are two different ways of attaching wheels to axles. (A) SC: To experiment with a range of materials and techniques to combine wheels, axles and chassis. (D)	Children will explore how wheels, axles and chassis work together to create the base of a vehicle. They will explore different ways of attaching the chassis to the axles.
3	To be able to investigate ways of creating the body of a vehicle .	What materials will be best used? SC: To identify ways of combining materials to create the body of a vehicle. (B) SC: To explore ways of making different parts of a vehicle. (A) SC: To make decisions about appropriate materials and tools to use for different tasks. (D)	Children will investigate different ways of creating the body of a fire engine, using materials such as cardboard boxes, lolly sticks and other craft materials. They will explore how to create features such as ladders and fire hoses, considering which materials and tools are best suited for different tasks.
4	To be able to design a vehicle	What design will you choose to do? SC: To design a vehicle to include wheels, axles, chassis and bodies. (B) SC: To describe which materials and tools they will need to make their vehicle. (A) SC: To discuss their designs and say what they think and feel about them. (D)	Children will design their own vehicle, based on the learning they have undertaken so far. They will consider which materials and tools they will need, noting their design ideas using notes and diagrams. Children can design a modern or a 17th century vehicles to specific design criteria.
5	To be able to make a fire engine based on a design.	Why ? SC: To follow a design to create a vehicle. (B) SC: To use a variety of materials and tools safely and effectively to create a vehicle. (A) SC: To identify ways in which they could improve their products and amend accordingly. (D)	Children will follow their designs to create their vehicles, using a range of different materials, tools and techniques.
6	To be able to evaluate a finished product.	Why ? What ? SC: To evaluate a finished product by identifying what they did well. (B) SC: To evaluate a finished product by identifying what could be improved. (A) SC: To identify ways in which they could improve their work in the future. (D)	Children will evaluate their own vehicle, as well as vehicles made by their peers. They will consider what went well, what could be improved upon and what they could do differently if they were to make their vehicle again.
Assessment			



SCAMBLESBY C of E PRIMARY SCHOOL:

MEDIUM TERM-PLANNING Y1/2 Design Technology

Autumn Year B

Milestone 1

To the Rescue- What is DT?

Master practical skills

Mechanics:

- Create products using levers, wheels and winding mechanisms.

Materials:

- Cut materials safely using tools provided.
- Measure and mark out to the nearest centimetre.
- Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).
- Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).

Design, make, evaluate and improve

- Design products that have a clear purpose and an intended user.
- Make products, refining the design as work progresses.
- Use software to design.

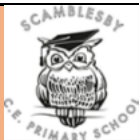
Take inspiration from design throughout history

- Explore objects and designs to identify likes and dislikes of the designs.
- Suggest improvements to existing designs.
- Explore how products have been created.

Vocabulary

Session	Learning Objective		Lesson outline
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		Learning questions and Success criteria	
1	To identify what design and Technology is.	What is DT? SC: To explore what DT covers. (B) SC: To understand the knowledge and skills gained through DT (A) SC: To research DT. (D)	
2	To identify the process of DT.	What is the process? SC: To identify the process of DT(B) SC: To discuss the importance of think, make, break, repeat. (A) SC: To identify why DT is important. (D)	
3	To create a presentation on what DT Is.	How can you present your learning? SC: To create a mood board to identify what DT is. (B) SC: To Create a mood board that is annotated to show what DT is. (A) SC: To create a mood board showing the process of DT. (D)	
Assessment			



SCAMBLESBY CofE PRIMARY SCHOOL:

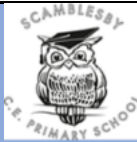
MEDIUM TERM-PLANNING Y1/2 Design Technology

Spring Year A

Milestone 1
Going Green!- Portable Snack

Master practical skills		Mechanics: - Create products using levers, wheels and winding mechanisms. Materials: - Cut materials safely using tools provided. - Measure and mark out to the nearest centimetre. - Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). - Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).	
Design, make, evaluate and improve		- Design products that have a clear purpose and an intended user. - Make products, refining the design as work progresses. - Use software to design.	
Take inspiration from design throughout history		- Explore objects and designs to identify likes and dislikes of the designs. - Suggest improvements to existing designs. - Explore how products have been created.	
Vocabulary			
Session	Learning Objective	Learning questions and Success criteria	Lesson outline
1	To say what I like and dislike about existing products	What is a portable snack? What is its purpose? SC: To identify different portable snack products. (Basic) SC: To explore different food groups. (Advancing) SC: To talk about a products purpose. (Deep)	1.1To explore the classes favourite portable snacks.
2	To examine, describe and categorise a variety of snack products.	What is a food group? What is a balanced diet? SC: To identify the main food groups. (B) SC: To sort the snack items into the main food groups. (A) SC: To discuss the importance of a balanced diet. (D)	Children to explore and discuss different snacks and discuss their nutritional values and sort them into food groups.
3	To design a balanced healthy snack product.	How do you know your snack is balanced and healthy? SC: To create a balanced healthy snack. (B) SC: To design a healthy snack and discuss the food groups covered. (A) SC: To identify the ingredients used. (D)	Children to design a healthy and balanced portable snack, using equipment safely.

4	To evaluate a product.	Did your portable snack meet the planned criteria? <i>SC: To identify and follow rules for food safety and hygiene. (B)</i> <i>SC: To evaluate the final product evaluating taste and healthiness. (A)</i> <i>SC: To evaluate their finished products and say what they think and feel about them. (D)</i>	Children to make their portable snack and follow their design.
Assessment			



SCAMBLESBY CofE PRIMARY SCHOOL: MEDIUM TERM-PLANNING Y1/2 Design Technology Summer Year A

Milestone 1

To Infinity and Beyond- Lever Mechanisms

Master practical skills

Mechanics:

- Create products using levers, wheels and winding mechanisms.

Materials:

- Cut materials safely using tools provided.
- Measure and mark out to the nearest centimetre.
- Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).
- Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).

Design, make, evaluate and improve	• Design products that have a clear purpose and an intended user. • Make products, refining the design as work progresses. • Use software to design.		
Take inspiration from design throughout history	• Explore objects and designs to identify likes and dislikes of the designs. • Suggest improvements to existing designs. • Explore how products have been created.		
Vocabulary			
Session	Learning Objective	Learning questions and Success criteria	Lesson outline
1	To explore existing products	What mechanisms are in the products? How do they work? <i>SC: To explore a collection of books, toys, games and everyday products that have moving parts. (Basic)</i> <i>SC: To explore the mechanisms that are used in everyday products. (Advancing)</i> <i>SC: To share job opportunities- engineer, designers. (Deep)</i>	
2	To explore lever mechanisms.	What is a collage? <i>SC: To make a slider and lever prototype using paper. (B)</i> <i>SC: To discuss why we need slot or a bridge/guide to support the slider or lever. (A)</i> <i>SC: To explore why might we use a slider and not a lever or Vice Verser. (D)</i>	
3	To create a design.	What will your design be? <i>SC: To create a design that considers the user, purpose and appeal. (B)</i> <i>SC: To generate ideas based on simple design criteria. (A)</i> <i>SC: To develop, link, model and communicate their ideas through talking and annotated sketches. (D)</i>	
4	To create the product to a design specification.	Can you follow a deign to create a product? <i>SC: To make a final product with a moving part. (B)</i> <i>SC: To create a final design making alterations. (A)</i> <i>SC: To use simple finishing techniques that show refined skills. (D)</i>	
5	To evaluate the finished product.	Can you follow a deign to create a product? <i>SC: To evaluate their product by discussing how well it works in relation to the purpose and user. (B)</i> <i>SC: To evaluate the product and consider its is appealing. (A)</i> <i>SC: To evaluate its functionality, purpose and design. (D)</i>	

Assessment	
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