

## Year 3

## Design Technology: Construction

### Learning to Recap :

- When we make something we move through stages of design, making and evaluating.
- A design is a plan.
- An evaluation tells us what is good about something and what needs to get better.
- Know that we can use different materials depending on the product.
- Know that we use tools to cut, shape and join.

### 1. Layout and Design

- Know that information posters must be clear and well laid out (including labels).
- Know that poster titles should be bold and colourful (eye-catching).
- Know that cartoon characters can be fun and appealing.
- Know that information can be presented behind a flap.

### 2. Slots and Sliders

- Know that a device is a mechanism used to create movement.
- Know that a slot is two parallel lines which can guide a moving part of the poster on a slider, left to right.
- Know that a guide is a short card strip used to keep the lever and linkage mechanisms or other moving part in place.
- Know how to measure and cut 2 parallel lines (slots) and cut them neatly.

### 3. Links and Levers

- Know that a lever is a rigid bar (card strip) which moves around a pivot.
- Know that a linkage is the card strip(s) joining one or more levers to produce the type of movement required.
- Know that a guide is a short card strip used to keep the lever and linkage mechanisms in place.
- Know that a loose pivot is a paper fastener (split pin) that joins card strips together.
- Know that a fixed pivot is a paper fastener (split pin) that joins card strips to the backing card.
- Know how to safely make a hole for a split pin and attach it (with adult support and supervision).

### 4. Motion

Know that rotary motion is turning round in a circle (wheel).

Know that linear motion is moving in a straight line (paper trimmer)

Know that reciprocating motion is moving forwards and backwards in a straight line (cutting with a saw)

Know that oscillating motion is swinging from side to side in an arc (pendulum in a clock)

### 5. Design

Mrs Millard/Miss Turner have been talking to some of the Geography teachers at Hinchingsbrooke about your wonderful learning in Geography. The teachers at Hinchingsbrooke have asked if you would be willing to share this learning. To really bring the learning to life, they have asked if you can include an interactive element.

Design, make and evaluate an interactive Volcano information poster with levers and linkages which can be used to present information about how a volcano works.

### 6. End of Unit Outcome and Evaluation

Design, make and evaluate a moving volcano information poster using your design from last week

1. Sketch out the main features
2. Use links and levers to make one feature move
3. Use a slot and guide to make another feature move
4. Incorporate a flap
5. Use colour and font to engage

Children complete evaluation and assessment questions in booklet

### Year 3

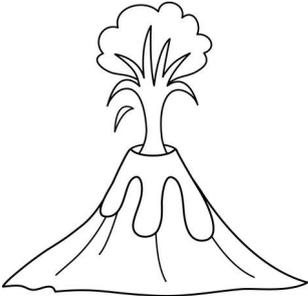
### Design Technology: Construction

**Learning to Recap :**

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**Recap: Talk Partners:** What is the name of each stage in the production process? What happens during each stage? How do the stages effect each other?

#### Layout and Design

Heading: Volcanos	
Image: 	
Colour	Volcanos
Font: Volcanos	

**Recap:**

**Session Two: Talk Partners:** Using the image on the board, describe the main features of an information poster

**Session Three: True or False**

	T or F
The cuts (lines) in a slot must be parallel	
Guides are added for decoration	

**Session Four: Talk Partners:** What is the difference between a link and lever?

**Session Two: Slots and Sliders**



See the photo pages at the back of this booklet for me making a slot, slider and guide to move a character in a straight line.

**Session Three: Linkages and Levers**



See the photo pages at the back of this booklet for me making a waving hand, moving flags and snapping crocodile

**Session Four: Motion**

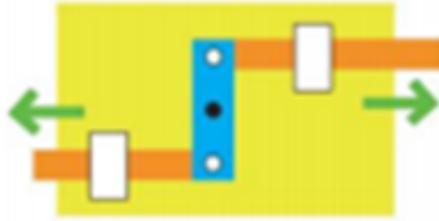
Label the four different types of movement shown below:



See the photo pages at the back of this booklet for me investigating motion using slots, sliders, linkages and levers

### Recap: Vocabulary



Correctly label the image above. Use the prompts on the slides to help if needed.

### My Design

Draw a picture of your design including information about the moving elements.



See the photo pages at the back of this booklet for images of me making my information poster and the final piece.

### Evaluation

What are the best features of your poster?	
What does your partner think are the best features of your poster?	
What would you do differently next time? How could you improve your poster?	
What does your partner think you could do to improve your poster?	
What is your top tip for someone making a moving poster in the future?	

**Assessment**

	Me	My Teacher
I can independently make a slot, slider and guide.		
I can independently make a range of moving mechanisms.		
I can identify a fixed and a loose pivot and explain the difference.		
I can work safely and use tools and materials appropriately.		

**Because, But, So** - Use all of your learning to prepare your answer to the statements below.

*Levers are a useful mechanism because...*

*Levers are a useful mechanism but...*

*Levers are a useful mechanism so...*

Levers