# THE TOY SHOP

## Mechanisms

### LEVERS

*A lever is a simple mechanism that can help make hard work easier to do. It has three important parts:*

- ***Load***
- ***Fulcrum***
- ***Effort***

*Levers can help to lift heavy loads, as well as make things go up and down.*

### SLIDERS

*A slider is a kind of **mechanism** that has a bar or rod that moves **forwards** and **backwards**, or **side to side**, within a **guide**.*

- *A slider mechanism is made up of a strong bar or rod supported by a guide.*
- *The guide allows motion (movement) along a straight line.*

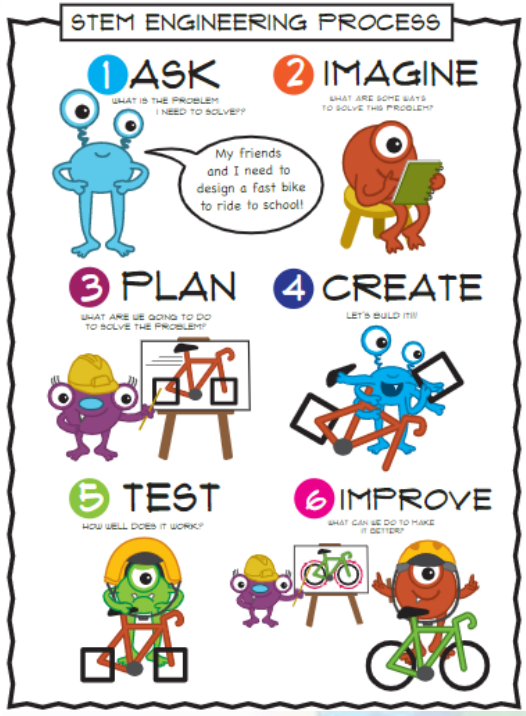
*A guide might be a rail, a slot, a bracket, or a groove.*

### WHEELS AND AXLES

*A wheel and axle mechanism is a simple device you make when you connect one or more wheels to an axle.*

- *They are used to help things move.*
- *A **wheel** is a **round**, **flat** object made of a hard material.*

*An **axle** is a **rod** that passes through the centre of the **wheel**. The **wheel** grips it tightly so it can turn.*




## Design

*How can we design something that suits the problem we have been tasked?*

*What ideas do you have? What tools and equipment will you need?*

*How can we make it purposeful, functional and appealing?*

## Evaluation

*Is it purposeful, functional and appealing?*

*How well does your mechanism work? Does it move smoothly?*

*How could you make it better? Stronger? More efficient?*

| Key Vocab | |
|---|---|
| Mechanism | A set of moving parts that work together to make something happen. |
| Axle | A rod that passes through the centre of a wheel, allowing it to spin. |
| Wheel | A circular, flat object that can spin around a central point. |
| Effort | The power used to make the lever work. People can use their muscles to make the lever move. |
| Fulcrum | The place where the lever sits or moves. |
| Load | The heavy thing people want to lift or move. |
| Motion | When something is moving or changing its position. |
| Rigid | When something is stiff and doesn't bend easily. |