Levers





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PM writing

Explanation & Information Report

Levers

Level 29 Sapphire

Key Learning Area **Technology/Science**

Theme **How levers are used**

Title **How Levers Work**

Text Type *Explanation*

Pages **2–9**

Text Form **Presentation**

Genre **Non-fiction**

Purpose **To explain how or why something occurs**

Text Structure

Identifying Statement: Tells what is to be explained *(Page 2)*.

Explanation Sequence: Explains a series of events or cause and effect *(Pages 3–8)*.

Summary Statement: Draws all the information together *(Page 9)*.

Language Features

- Nouns (*e.g. machines, loads, pivot, fulcrum*)
- Pronouns (*e.g. they, them*)
- Adjectives (*e.g. simple, Many*)
- Present tense verbs (*e.g. are, is, turns, moves*)
- Adverbs (*e.g. easily, usually, only, often*)
- Adverbial phrases (*e.g. at the fulcrum*)
- Conjunctions/Text connectives (*e.g. when, because, If*)

Title **The Crowbar**

Text Type *Information Report*

Pages **10–16**

Text Form **Reference**

Genre **Non-fiction**

Purpose **To present information that classifies living or non-living things**

Text Structure

General Statement: Identifies and classifies the subject *(Page 10)*.

Description: Provides information about the subject's physical appearance and other characteristics *(Pages 10–15)*.

Evaluation: Provides a summary statement about the subject *(Page 16)*.

Language Features

- Nouns (*e.g. crowbar, boulders, lever, force*)
- Pronouns (*e.g. they, them, their, it*)
- Adjectives (*e.g. metal, large, rotted, strong*)
- Present tense verbs (*e.g. happens, changes, is*)
- Adverbs (*e.g. apart, always*)
- Adverbial phrases (*e.g. under the load, in their toolkit*)

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Levers

By Elsie Nelley



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How Levers Work

Levers are simple machines that people use to help them move loads easily.



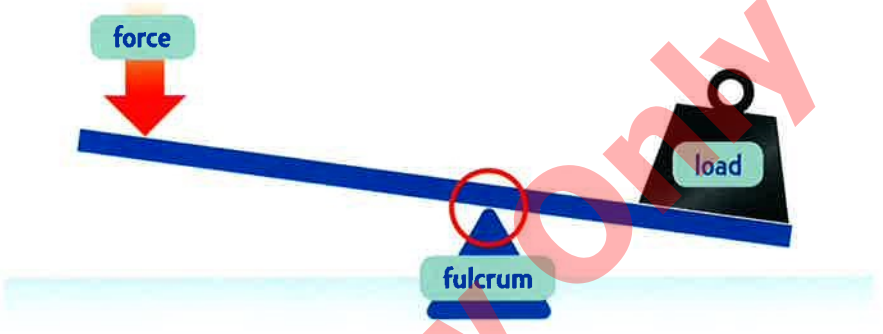
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A lever is usually a strong bar that turns on a pivot called a fulcrum. When force or effort is applied to the lever by pushing or pulling, the bar turns at the fulcrum and the load moves.

Many levers work because the fulcrum lies between the force and the load.

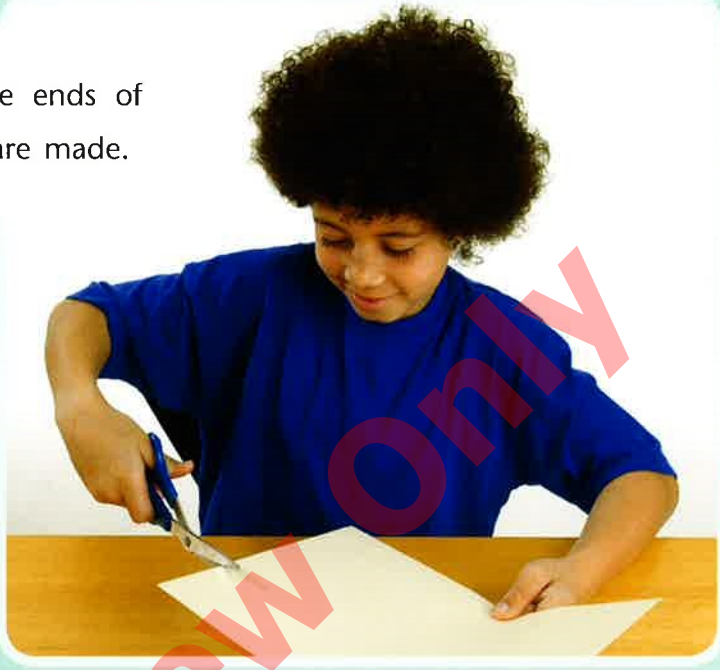


For example, the handles and blades of a pair of scissors are joined at the fulcrum. When force is applied to the handles, the blades move together and apart in a cutting action.



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If paper is placed near the ends of the blades, only little cuts are made.

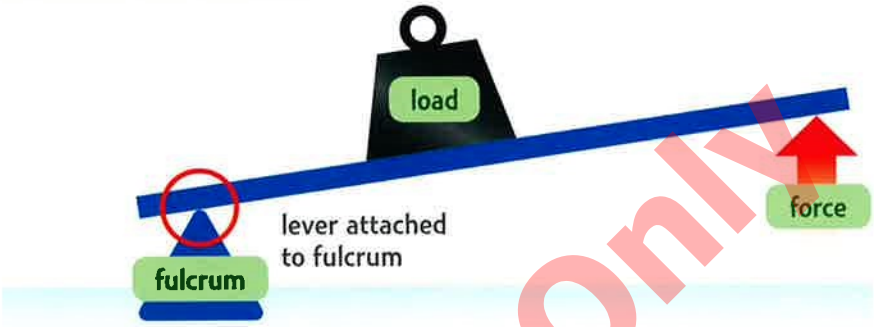




If the paper is placed closer to the fulcrum, long cuts are made. This makes the job of cutting easier because the force is magnified the closer an object is to the fulcrum.

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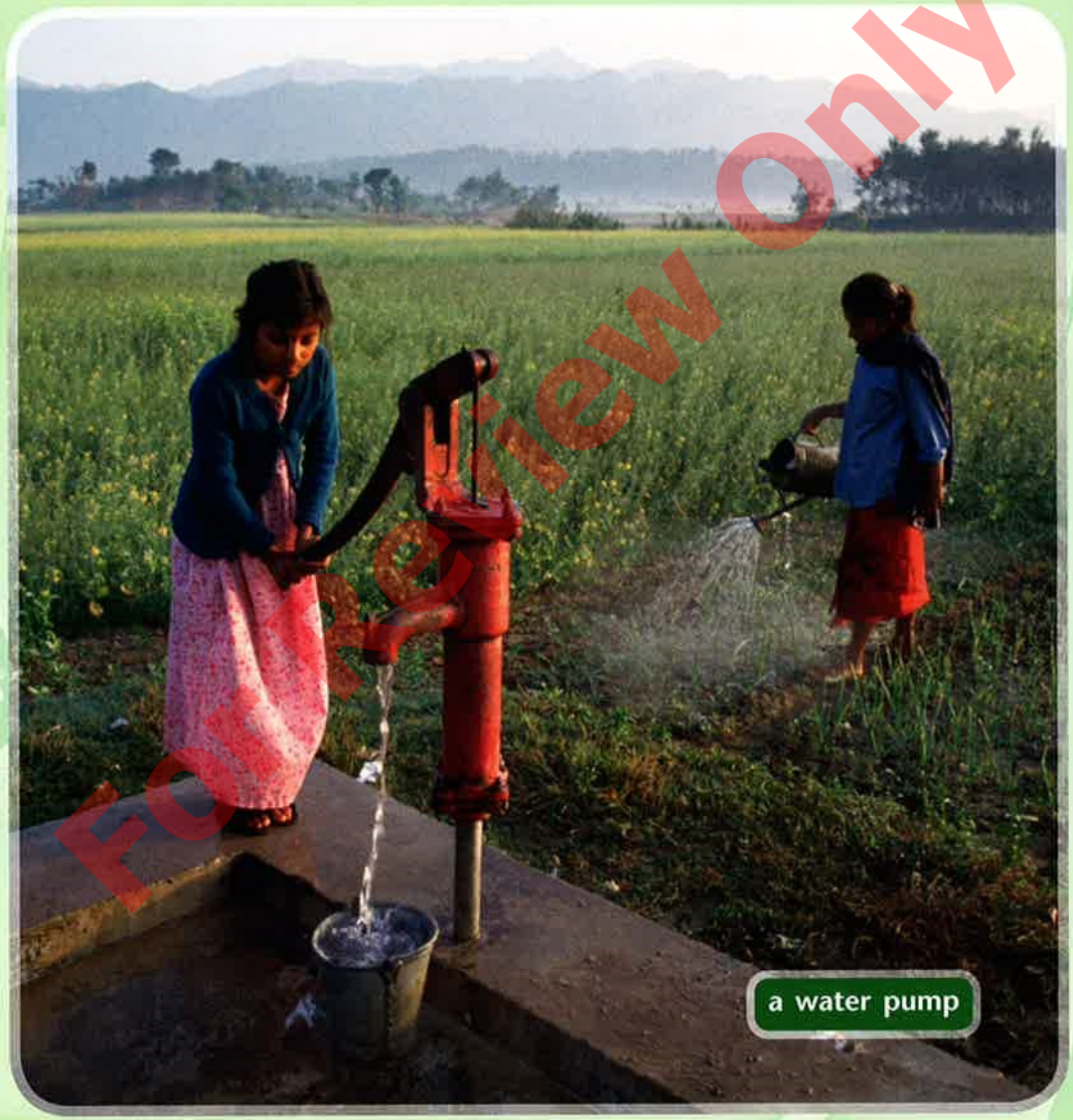
Some levers work because the load lies between the force and the fulcrum.



For example, when the handles of a loaded wheelbarrow are pulled upwards, the wheelbarrow can be lifted with a minimum amount of force. The wheel is the fulcrum and the load is between the handles and the wheel.

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However, the wheelbarrow is only able to move heavy loads from one place to another because the wheel is also a simple machine. Levers are often attached to other machines to make them work more efficiently.



a water pump

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