

The Mechanics of Flight: Illustrating Explanation Texts

Learning objective: To accurately represent the stages of a process in an explanation text through a detailed, labelled diagram.

Follow the drawing prompt to create a technical illustration of a mechanical invention. Use your labels from the word bank to show how the different parts work together. Ensure your drawing is clear, detailed, and follows the logical order of a process.

Draw: Draw a large, clear diagram of a 'Clockwork Leaf Collector' designed by Kit the fox. The style should be like a technical blueprint or an inventor's sketch. Include: a set of rotating cogs, a handle (the lever) to start the process, a frame to hold it, and a collection bin. Use thin, precise lines for the mechanics and add dotted lines to show the path of movement. Ensure there is plenty of white space around the drawing for detailed labels.



Label words: cogs · levers · pivot point · energy source · mechanical output · structural frame · sequence · airflow

Steps:

1. Step 1: Sketch a mechanical device (such as a wind-up toy or a water wheel) in the centre of your page. Label the main components using the words from the bank.
2. Step 2: Add arrows to your drawing to indicate the direction of movement. Explain why these arrows are

necessary for a reader to understand the process.

3. Step 3: Justify your choice of labels. Why is it important to use technical vocabulary when creating an explanation text?

4. Step 4: Imagine your device stopped working. Compare and contrast what might be wrong with the 'energy source' versus the 'cogs'.

5. Step 5: How might the design change if you needed to make the device more efficient? Explain your reasoning.

6. Step 6: Write a brief caption for your diagram that summarises the entire process in one complex sentence.