

8.4 Analysing a machine

Find an existing machine that you can examine the insides, even pull apart! Possible items to analyse include: bicycle, clock, hand drill, hand mixer, fishing reel, windup or battery toy. Sometimes a market or Refuse Tip might be worth exploring!



Your machine must have moving parts. It does not have to work but if it does, it can only be operated manually or by low voltage battery power.

Safety:

Do not operate high powered machines.

1. Analyse a machine by identifying all the simple machine components inside. You can use a diagram and label parts or present the machine parts in a collection box with labels.
2. Explain how all the parts work together to make this a useful machine. Include Force or Speed advantages used.
3. In what places does the machine lose energy and how are these reduced?

Marking Criteria

1. Analysis – Show a summarized list of simple machines used and advantage given by each.
2. Explain the function and use of the machine.
3. Evaluate the effectiveness of the machine and whether there is better technology available.
4. Identify weaknesses and possible ways for improvement.