

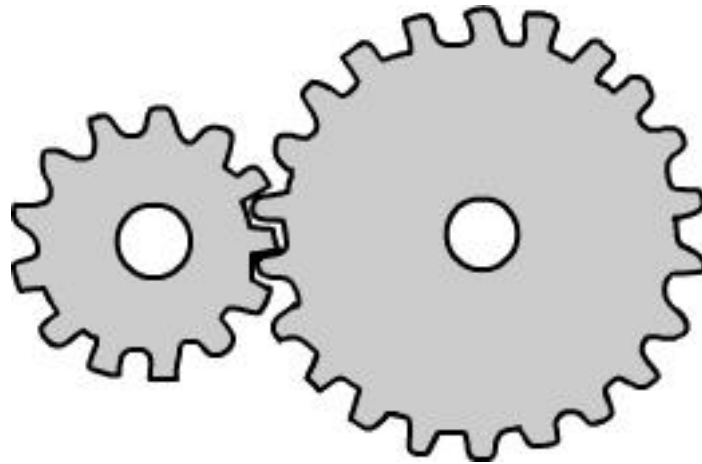
Grade 8 Technology Worksheet

Practical investigation

What to do

Copy the gears below onto some stiff card and cut them out. Make two big wheels and one small one.

Pin the two big wheels to a board so that the teeth lock or mesh.



You will assess each other's work using the following rubric:

Rubric

Activity:.....

Name of pupil:.....

Peer Assessment:.....

Criteria	Yes	No	Partly
a. Copied gears correctly			
b. Cut gears accurately			
c. Conducted investigation correctly			
d. Followed instructions correctly			
e. Recorded responses of investigation			

Grade 8 Technology Worksheet

- 1.1 Test your gears. Turn one of the gears for one complete turn. What do you observe about the other gears? [2 marks]
- 1.2 What do we call it when the teeth of one gear connect with the teeth of another gear? [2 marks]
- 1.3 In which direction will the other gear turn? [2 marks]
- 1.4 What do we call a complete turn? [2 marks]
- 1.5 Place one of the big wheels with the small one and turn the small gear. What do you observe? [2 marks]
- 1.6 Which gear moves faster? Why? [4 marks]
- 1.7 Which gear has a greater force? [1 mark]

[15 marks]

Grade 8 Technology Worksheet

Suggested Solutions

Question number	Possible marks	Answers
1	2 marks	1.1 Movement is transferred to the other gear.
	2 marks	1.2 Mesh
	2 marks	1.3 Opposite direction/ anti-clockwise
	2 marks	1.4 Revolution
	2 marks	1.5 You will have to turn the smaller gear twice to make the big one turn
	4 marks	once.
	1 mark	1.6 Smaller one, because it has fewer teeth and therefore needs more revolutions than the big one.
		1.7 Bigger one

[15 marks]

Rubric

Activity:.....

Name of pupil:.....

Peer Assessment:.....

Criteria	Yes	No	Partly
a. Copied gears correctly			
b. Cut gears accurately			
c. Conducted investigation correctly			
d. Followed instructions correctly			
e. Recorded responses of investigation			