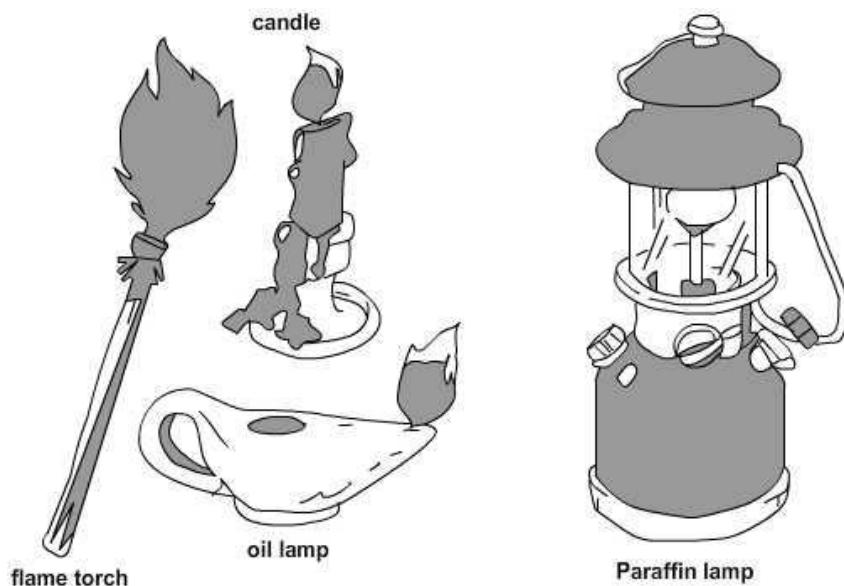


Grade 8 Technology Worksheet

Light design

1. The pictures below show portable lights from different times. Look at each picture. Write down the good and bad points of each light.



[20 marks]

Grade 8 Technology Worksheet

Suggested Solutions

Question number	Possible marks	Answers
1	5 x 4 marks	<p>Flame torch Good: Uses biodegradable material. The fuel source is renewable. Easy to make. Does not need any fancy equipment. Low-tech. Bad: Open flame – danger of setting other things alight, danger of getting burnt. Does not burn for very long. Rain could put flame out. It has to be held in a person's hand; cannot be put down. (or any other relevant answer)</p> <p>Candle Good: Good for indoors. Will give light for a reasonable length of time. Can be reused. Has a stand and can therefore be placed on a table. Bad: Open flame – danger of setting other things alight. Burns down quite quickly. Need skills to make a candle. Need wax and wick. Need a candle holder. Not suitable for outdoors. (or any other relevant answer)</p> <p>Oil lamp Good: Easy to use. Will last as long as there is oil. Uses a renewable source of energy. Has a handle and can be carried around. Can stand on a table. Suitable for indoors. Container uses eco-friendly material. Bad: Open flame – danger of setting other things alight. Danger of getting burnt. Rain will put flame out. (or any other relevant answer)</p> <p>Paraffin lamp Good: Easy to use. Protected flame. Sturdy structure for a container. You can vary the intensity of the light source – make it brighter or dimmer. Will last as long as there is paraffin. Can stand on a table. Can be carried around. Can be used outdoors. Bad: Uses a non-renewable source of energy. Therefore not eco-friendly. Is high-tech. Need lots of different materials to manufacture the container. Glass could break. Mantle is fragile. It has lots of things which can go wrong on it.</p>

[20 marks]