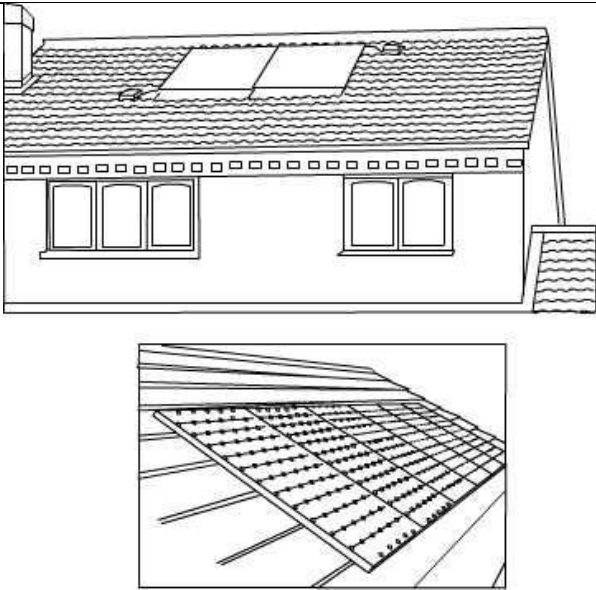


## Grade 8 Technology Worksheet

### Case study: Solar panel



The sun is an important energy source. The sun's energy may be converted into electricity inside photovoltaic (solar) cells. The main source of energy in homes is electricity. A modern home may heat water with a solar heater, a glass-fronted box with black pipes inside.

The solar panels use the sun to heat water. They use a system of pipes to absorb the heat radiation from the sun. The heat warms water running through the pipes, which is then transferred to water in the holding tank (geyser) in the house.

- |     |   |           |
|-----|---|-----------|
| 1.1 | Why are solar panels not used on all homes?                       | [2 marks] |
| 1.2 | What is the advantage of using solar panels in a house?           | [2 marks] |
| 1.3 | How would you increase the temperature of the water?              | [2 marks] |
| 1.4 | Why are black pipes used?   | [2 marks] |
| 1.5 | List other appliances that use solar power as a source of energy. | [2 marks] |

[10 marks]

## Grade 8 Technology Worksheet

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### Suggested Solutions

Question number	Possible marks	Answers
1	2 marks	1.1 Some houses are old. Solar panels are also expensive.
	2 marks	1.2 Saves electricity.
	2 marks	1.3 Increase the number of pipes in the panel.
	2 marks	1.4 Black absorbs the radiation of the sun.
	2 marks	1.5 Watches, calculators

[10 marks]