

CHAPTER 1: Introducing Energy

Aims

The aims of this chapter are to promote discussion about energy and to find out children's ideas about energy and its sources.

Overview of Chapter

In this chapter there are a number of IWB (interactive whiteboard) and PowerPoint activities that can be used to promote discussion about where: Guzzler gets his energy; Guzzler's car gets its energy; Guzzler's computer game gets its energy.

Working Scientifically Skills



Through discussing and reflecting on the different scenarios in this chapter the children will be applying and developing the following working scientifically skills:

- Observing
- Predicting
- Analysing (Sorting and classifying)

Lesson 1 – Sources of energy e

Resources

IWB1 / PowerPoint 1: Guzzler needs food

IWB 2 / PowerPoint 2: Running out of fuel

IWB3 / PowerPoint 3: Plugged in

Activity type: Discussion

Scenario 1: Guzzler needs food

In the first scenario there are two scenes with Guzzler. In the first scene Guzzler has eaten his lunch and has lots of energy. In the second Guzzler does not want his dinner and as a result, has no energy.

Use **IWB 1, Guzzler needs food** activities.

If you do not have access to an IWB use **PowerPoint 1, Guzzler needs food**.

Questions to promote discussion

- 1 What is Guzzler eating for his lunch?
- 2 What was Guzzler able to do after he had eaten his lunch?
- 3 What exercise can you do after you have eaten your lunch?
- 4 How do you think Guzzler feels when he hasn't eaten his lunch?
- 5 If you didn't eat your lunch at lunchtime in school, how would you feel?
- 6 What does your lunch give you?
- 7 Where do you get your energy from?

Scenario 2: Running out of fuel

In this scenario Guzzler is going to visit his friend who lives a long distance away. Guzzler fills his car with petrol and when he is driving spends his time in the car looking at the lovely views of the countryside. All of a sudden Guzzler's car stops.

By observing the fuel gauge in the car and the expression on Guzzler's face, the children have to discuss why they think Guzzler's car has stopped moving.

Recap on scenario 1: Remember in the previous picture we saw Guzzler eating his dinner. He had lots of energy. Where do you think Guzzler got his energy from? What happened when he did not eat his dinner? Did he have much energy to play? Why not?

Use **IWB 2, Running out of fuel** activities.

If you do not have access to an IWB use **PowerPoint 2, Running out of fuel**.

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Questions to promote discussion

- 1 In which picture do you think Guzzler looks happiest?
- 2 What do you think has happened to Guzzler's car?
- 3 Why do you think Guzzler's car has stopped?
- 4 What does Guzzler need to do in order to get the car moving again? (*get petrol / energy*)

Scenario 3: Plugged in

In the first 'Plugged in' picture Guzzler is playing with a computer game. However, in the second 'Plugged in' picture something has happened and Guzzler looks confused. The children have to think about why Guzzler's computer game has stopped working. Use **IWB 3, Plugged in** activities. If you do not have access to an IWB use **PowerPoint 3, Plugged in**.

Questions to promote discussion

- 1 How does Guzzler look? How do you think he feels?
- 2 Why do you think Guzzler's game is not working?

Thinking about all three scenarios: what have we learned?

Questions to promote discussion

- 1 When Guzzler had dinner what could he do?
- 2 When the car had petrol what could it do?
- 3 When the game was plugged in what could it do?
- 4 Did Guzzler, the car and the game all get energy from the same place?
- 5 Where did Guzzler get his energy from?
- 6 Where did the car get its energy from?
- 7 Where did the game get its energy from?



Extension

Resources

Activity from the book **Guzzler Investigates Energy: Food Energy** (page 3)