

## Resources

### English



Across the sky, an intricate pattern of purple clouds floated, which hid the vast, blue sky below. Seeping through the clouds was the glow of the setting sun; its burnt-orange rays signalling the end of another day in the town of Burnsted. An array of luscious, green fields spread into the distance like a patchwork quilt that clung to the earth, covered in narrow, delicate streams of crystal-clear water. The water flowed from the famous, turquoise lagoon, into which the town's beautiful waterfall spilt its pearlescent cascade.

### Maths

#### **TARGET** To read and interpret information in a table.

This table shows the planets in our solar system in order of distance from the Sun.

Planet	Number of moons	Year length (Earth days/years)	Day length (Earth hours\days)	*Diameter (miles)	Temperature	
					Max. (°C)	Min. (°C)
Mercury	0	88 days	59 days	3031	430	-184
Venus	0	225 days	243 days	7521	464	464
Earth	1	365 days	24 hours	7926	57	-89
Mars	2	687 days	24.6 hours	4222	20	-120
Jupiter	67	11.9 years	9.8 hours	88729	-110	-110
Saturn	62	29.5 years	10.2 hours	74 600	-140	-140
Uranus	27	84.1 years	17.9 hours	32 600	-197	-197
Neptune	13	164.8 years	19.1 hours	30 200	-204	-204

\*The diameter of a planet is a straight line from one side to the opposite side passing through the centre of the planet.

**B**

Look at the table on page 138.

- 1 Which planets are moonless?
- 2 In the table year lengths are rounded to the nearest whole day. Give the actual length of Earth's year correct to 2 decimal places.
- 3 Which planet is closest to the Earth:
  - a) in size (diameter)
  - b) in length of day
  - c) in length of year?
- 4 Which planet is:
  - a) furthest from the Sun
  - b) closest to the Sun?

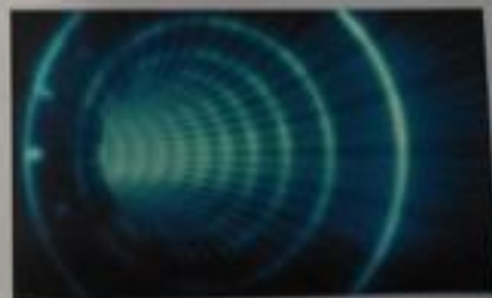


- 5 Which planet is:
  - a) coldest
  - b) hottest?
- 6 Which planet has:
  - a) the longest day
  - b) the shortest day?
- 7 Which two planets have a diameter approximately four times that of Earth?
- 8 What is the difference between the maximum and minimum temperatures:
  - a) on Mercury
  - b) on Earth
  - c) on Mars?
- 9 How many planets have:
  - a) a shorter year than Earth
  - b) a shorter day than Earth?

**C**

Look at the table on page 138.

- 1 Which planet has a day longer than its year?
- 2 What is the difference in maximum temperature between the hottest planet and the coldest planet?
- 3 Which planet takes the least time to orbit the Sun?
- 4 How much longer does it take Mars than Earth to:
  - a) rotate on its axis
  - b) orbit the Sun?
- 5 Give the total number of moons in our solar system.
- 6 On which planets would it be impossible to drink a glass of water? Give an explanation for your answer.
- 7 List the planets in order of:
  - a) size, largest first
  - b) length of day, shortest first
  - c) minimum temperature, lowest first.
- 8 In 2046 you are the first astronaut to make use of space/time wormhole portal technology to explore the planets orbiting a distant star. Give information about the planets of that solar system in a table.



Answers

**B**

- 1 Mercury, Venus
- 2 365-25 (allow 365-24)
- 3 a) Venus  
b) Mars  
c) Venus
- 4 a) Neptune  
b) Mercury
- 5 a) Neptune  
b) Venus
- 6 a) Venus  
b) Jupiter
- 7 Uranus, Neptune
- 8 a) 614°C  
b) 146°C  
c) 140°C
- 9 a) 2  
b) 4

**C**

- 1 Venus
- 2 668°C
- 3 Mercury
- 4 a) 0-6 hours      b) 322 days
- 5 172
- 6 Jupiter, Saturn, Uranus, Neptune – water is solid (ice)  
Venus – water is gas (water vapour)
- 7 a) Jupiter      b) Jupiter      c) Neptune  
Saturn      Saturn      Uranus  
Uranus      Uranus      Mercury  
Neptune      Neptune      Saturn  
Earth      Earth      Mars  
Venus      Mars      Jupiter  
Mars      Mercury      Earth  
Mercury      Venus      Venus
- 9 Not correct.  
Earth is larger than Mars but has fewer moons.

## Kidnapped

Somebody was coming up the stairs! Ducking down behind an old crate, we waited. I could feel my heart thumping like a bass drum. What if we were caught? The strange girl glanced at me through the semi-gloom and grinned.

Gradually, the door opened and we could hear someone tiptoeing in. There was a pause and then a torch flickered on. After a few moments, the light switched off. Then the door shut and the footsteps clicked back down the stairs. Relieved, I let out a sigh. As we clambered out of the window and slithered

down the wet roof, I was trying to remember how I had got into such a mess.

It had only been half an hour ago when Mum had sent me down to the chippie with a tenner. When I reached the roundabout, I couldn't help looking at the old house, although it wasn't much to look at. It was then that I'd seen it: a light at the window. Then I saw a face. I stood there staring. It was a girl; she was mouthing a word and the word was, 'HELP'.

That's how it happened. I'd broken in round the back through a smashed window, despite the risk of being cut. Half a minute later and I'd found her, a trapped prisoner in an upstairs room. She'd only just finished telling me that she was the American ambassador's daughter, when the kidnappers returned!

So there we were, balancing on the roof, as if we were walking the tight rope. Gripping the loose, creaking guttering desperately, I lowered myself down. Five minutes later and we were back at Mum's cosy kitchen. "So Ron, where's the fish and chips?" she asked, eyeing the girl suspiciously. Half an hour after that, her Dad arrived in a shiny embassy limousine. That night it wasn't just chips for tea. He took us all out for a huge banquet. Amazingly, the next day, there I was in the local paper. A hero.

#### Questions

1. Why is the girl worried? What could she be doing?
2. What tense is the story written in?

3. Why has the author used the word gradually? What does this tell you about how the door was opened?
4. How much money had the girl been given?
5. What word is used to describe the house?
6. Who was the girl she found?
7. Why was she a hero?

#### Answers

1. Anything bad – she shouldn't have been there
2. First
3. Slowly
4. Ten pounds – a tenner
5. Old
6. American ambassadors' daughter
7. Saved the girl