



Iron Rain

On Faraway Planet, It Rains... Iron, Say Scientists

Scientists have observed some strange weather on a faraway planet. It seems to be raining iron!

Scientists were studying a planet called WASP-76b. They noticed that they were getting large readings of iron on the planet. They think this could prove that when it rains, iron falls from the sky.

WASP-76b is 640 **light years** away. The scientists had to use a piece of equipment called 'The Very Large Telescope' to view the planet. It can see huge distances into space.

So, why do scientists think the planet is raining iron? Well, one side of the planet only ever faces its nearest **star**. This means that this side of the planet is very hot. It is 2400°C. This is hot enough to turn iron into **vapour**.

Because the other side never faces the star, it's nearly 900°C cooler. The **temperature** difference creates storms. The storms travel from the hot side of the planet to the cooler

side. When they reach the cooler side, the vapour cools and turns into rain.

One of the scientists, Dr David Ehrenreich said it rains in the evening "except it rains iron."

Who knows what unknown things we will discover next out in space?

What is WASP-76b?

- WASP-76b is a planet, 640 light years away from Earth.
- Scientists say it rains iron there.

Illustration: Iron rain on WASP-76b.

Glossary

light years	The distance light can travel in a year.
star	A massive ball of hot gas that gives off light and heat. The Sun is the Earth's star.
vapour	When a liquid begins to turn into a gas and appears to float in the air.
temperature	How warm or how cold something is.

Questions

1. 'Scientists have observed some strange weather on a faraway planet.'
Tick the word that is closest in meaning to 'observed' in this sentence.

- ☐ collected
☐ noticed
☐ experienced
☐ taken

2. How far away is the planet from Earth?

3. Put a tick in the box to show whether each statement is true or false.

	True	False
The planet is called WASP-79b.		
Only one side of the planet ever faces its nearest star.		
The scientists didn't need any special equipment.		
Dr David Ehrenreich is one of the scientists who made the discovery.		

4. How do you think the team of scientists felt when they learnt it rained iron on WASP-76b?

5. What do you think scientists will do next? Explain your answer.

6. Tick the headline which best summarises this story

- ☐ It's Raining Iron on Distant Planet
☐ Scientists Find New Planet
☐ It's Raining Iron on Earth
☐ Scientist Use Big Telescope

Answers

1. 'Scientists have observed some strange weather on a faraway planet.'
Tick the word that is closest in meaning to 'observed' in this sentence.

- ☐ collected
☒ **noticed**
☐ experienced
☐ taken

2. How far away is the planet from Earth?

640 light years

3. Put a tick in the box to show whether each statement is true or false.

	True	False
The planet is called WASP-79b.		✓
Only one side of the planet ever faces its nearest star.	✓	
The scientists didn't need any special equipment.		✓
Dr David Ehrenreich is one of the scientists who made the discovery.	✓	

4. How do you think the team of scientists felt when they learnt it rained iron on WASP-76b?

Accept any answer which refers to the story, e.g. I think the team of scientists were really interested as raining iron sounds very unusual.

5. What do you think scientists will do next? Explain your answer.

Accept any answer which refers to the story, e.g. I think they will use 'The Very Large Telescope' to find out whether other planets have iron rain or not.

6. Tick the headline which best summarises this story

- ☒ **It's Raining Iron on Distant Planet**
☐ Scientists Find New Planet
☐ It's Raining Iron on Earth
☐ Scientist Use Big Telescope