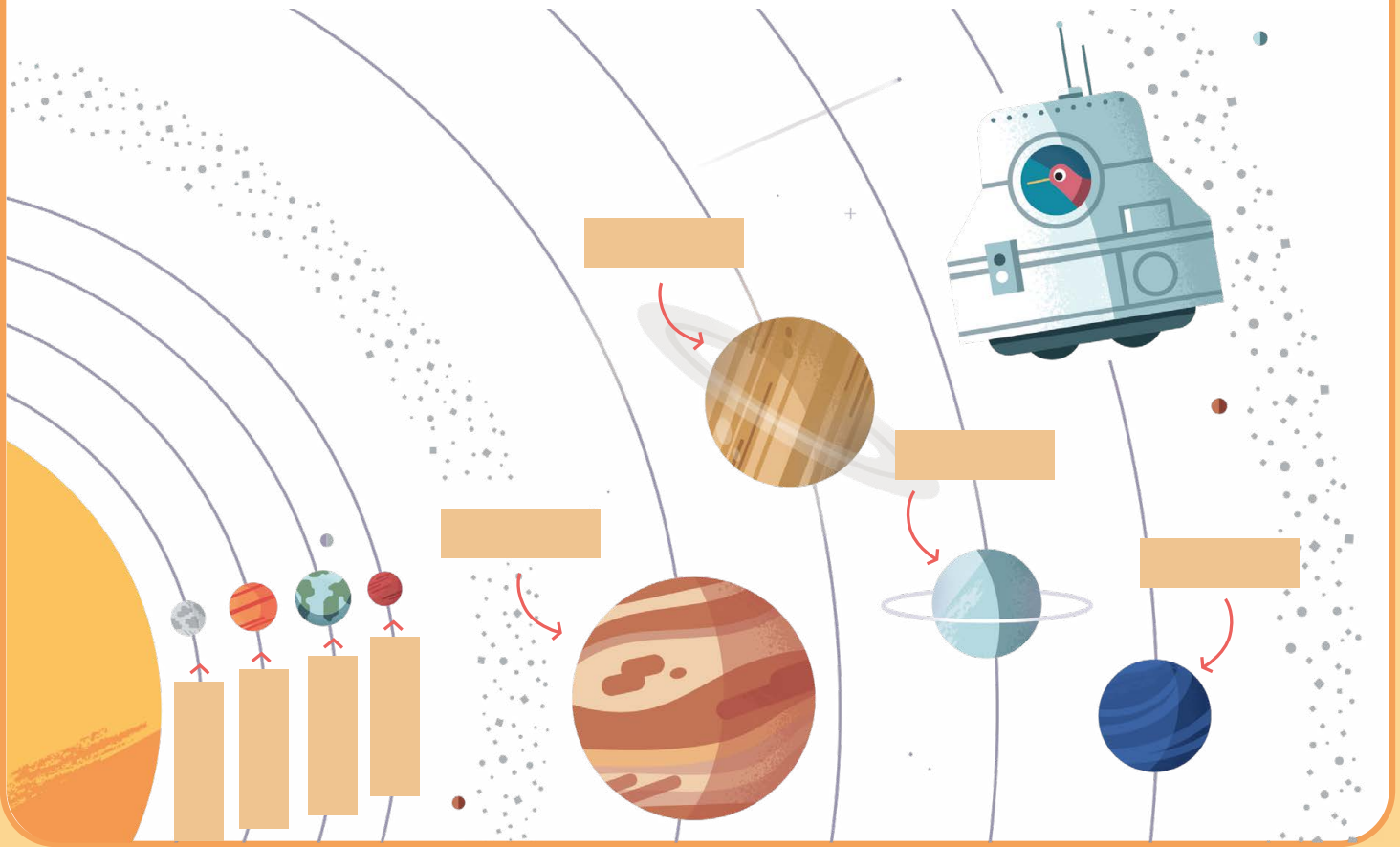


1. Our solar system

Name the planets in our solar system as the kiwi bird Karl keeps an eye on things.



2. How well do you know our solar system?

1. This planet is very far away from the Sun. There might be diamonds at its center! Unfortunately, they are surrounded by a hot boiling ocean.
2. This is a rocky planet. It's the smallest and closest planet to the Sun. It doesn't really have an atmosphere.
3. This rocky planet consists of four layers: three solid ones and one liquid layer that is extremely hot—the liquid that comes from volcanoes. We call it the Blue Planet.
4. On this planet there is a cold desert world. Sometimes it's called the Red Planet—because of the rusty iron in the ground. Like Earth, it has seasons, polar ice caps, volcanoes, and canyons.
5. This planet is very stormy, as well as dark and windy. It's an icy giant planet made of gases. It's the last of the planets in our solar system.
6. Which planet is so enormous that it's called a gas giant? Because of the gases, we would be unable to stand on its surface. We would fall right through it! There are over 60 moons orbiting this planet.
7. This planet is made of gas, and it's known for its visible rings, which are made of rocks, dust, and ice.
8. There are many active volcanoes on the surface of this planet. It's actually the hottest planet in our solar system!

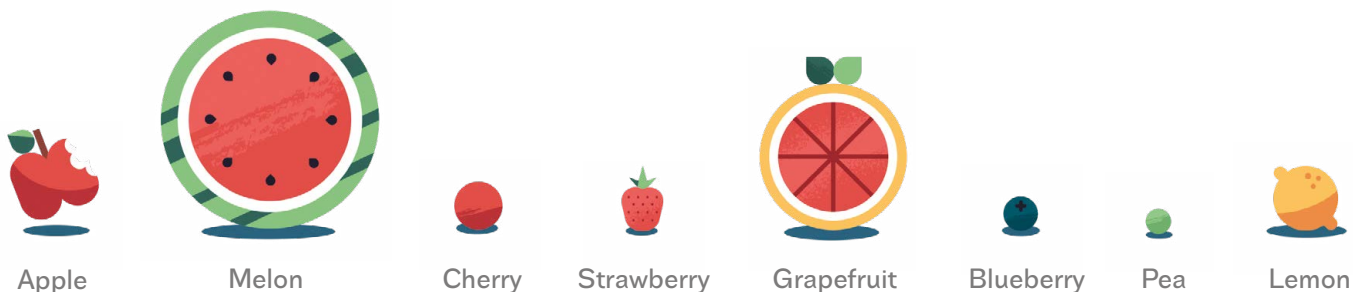
Mars
Venus
Neptune
Mercury
Uranus
Saturn
Jupiter
Earth



3. How big are the planets?

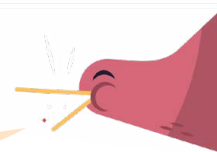
Planets are incredibly huge! To get an idea of how big they are, we can compare them to fruit. If the Earth were a strawberry, which planets would be smaller and which ones bigger? Try to assign a fruit to each planet.

1. Mercury 2. Venus 3. Earth 4. Mars 5. Jupiter 6. Saturn 7. Uranus 8. Neptune



DID YOU KNOW, THAT . . .

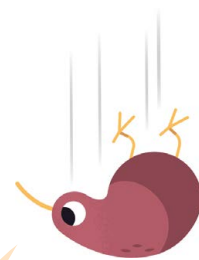
Previously, Pluto was considered a planet, just like the others in our solar system. But later, it was decided that Pluto wasn't large enough to be considered a planet and hence, was dubbed a "dwarf planet." This is why there are eight planets now in our solar system instead of the original nine.



4. Find and circle these 14 terms connected to space:

1. Rocket 2. Galaxy 3. Comet 4. Moon 5. Wormhole 6. Earth 7. Mars
8. Uranus 9. Spaceship 10. Gravity 11. Star 12. NASA 13. Orbit 14. Sun

G	P	S	U	N	A	R	U	L	W
R	R	O	C	K	E	T	A	O	E
A	N	E	T	E	T	E	R	A	A
V	S	R	T	I	H	M	I	S	R
I	O	A	B	U	H	O	A	R	T
T	B	R	N	O	R	C	E	R	H
Y	O	A	L	U	A	T	I	F	S
U	L	E	H	O	T	M	N	U	S
S	P	A	C	E	S	H	I	P	E
M	O	O	N	Y	X	A	L	A	G



DID YOU KNOW, THAT . . .

The Sun's rays bounce off the Moon's surface, which then passes on to Earth, thus making it appear as if the Moon is glowing. What makes this even more fascinating is that it takes only 1.25 seconds for the Moon's surface to do that!

5. Space quiz!

Answer the questions below. Then turn the paper over to find the right answers and learn a lot of interesting information about space.

1. Are there any sounds in space?



2. Which planet is the hottest?
(in our solar system)



- a) Uranus
- b) Mercury
- c) Venus

3. How hot is the hottest planet?

- a) 176°F
- b) 320°F
- c) 842°F

4. How expensive is a full NASA spacesuit?

- a) \$12 million
- b) \$1.2 million
- c) \$ 12,000

5. How many Earths can fit inside the Sun?

- a) 960,000
- b) 96,000
- c) 9,600



6. Which is true?

- a) There are more trees on Earth than stars in the Milky Way.
- b) There are more stars in the Milky Way than trees on Earth.

7. What color is sunset on Mars?

- a) Mauve
- b) Reddish
- c) Bluish

8. How long is one day on Venus?

- a) 243 Earth days
- b) 34 Earth days
- c) 161 Earth days



And what about you? Answer these curious questions and then compare your answers with your friends.

Do you believe in aliens? Why or why not?

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Would you like to travel into space? What would you like to see there the most?

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What would your ideal planet look like?

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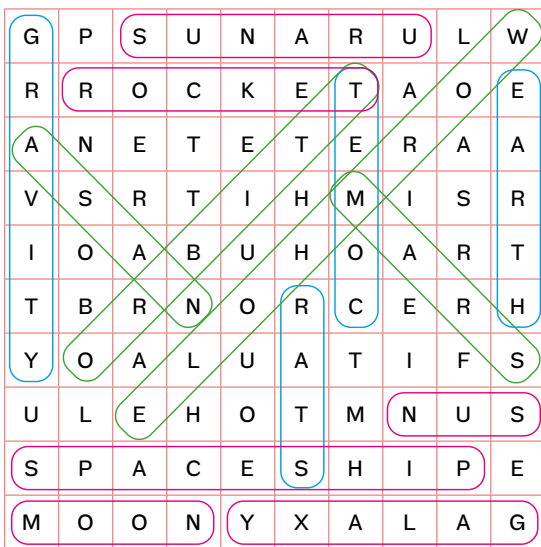


DID YOU KNOW, THAT . . .

Ocean tides are caused by the Moon's gravitational pull on the Earth. The Moon's gravitational force results in the oceans bulging out in its direction. Remember that the Earth rotates on its axis, so two types of tides occur twice per day, as the Moon's gravitational force will vary! These two types are high tides and low tides. The great physicist Isaac Newton was the first to scientifically explain what causes tides.

Answers

- Our solar system
1. Mercury, 2. Venus, 3. Earth, 4. Mars, 5. Jupiter, 6. Saturn, 7. Uranus, 8. Neptune
- How well do you know our solar system?
1) Uranus
2) Mercury
3) Earth
4) Mars
5) Neptune
6) Jupiter
7) Saturn
8) Venus
- How big are the planets?
Mercury – pea
Venus – cherry
Earth – strawberry
Mars – blueberry
Jupiter – melon
Saturn – grapefruit
Uranus – apple
Neptune – lemon
- Find these 14 terms connected to space



Hidden message: Planet Earth is our beautiful home.

Space quiz!

- There is no atmosphere in space, which means that sound has no medium or way to travel to be heard.
- c) **VENUS**
- c) **842°F**
Venus is the hottest planet in the Solar System and has an average surface temperature of around 842°F. Did you know that Venus isn't the closest planet to the Sun? That would be Mercury. You would think that Mercury would

then be the hottest, but Mercury has no atmosphere (which regulates temperature), resulting in big fluctuations.

4) – a) \$12 million

While the entire suit costs a cool \$12m, 70% of that cost is for the backpack and control module. However, the space suits that NASA uses were built in 1974. If these were priced by today's pricing, they would cost an estimated \$150 million!

5) – a) 960,000 Earths would fit.

The Sun is large enough that approximately 1.3 million Earths could fit inside (if squashed together like clay) or if the Earths retained their spherical shape then 960,000 would fit. But can you even visualise that number of Earths?

6) – b) There are more stars in the Milky Way than trees on the planet.

There are about three trillion trees on Planet Earth, and between 100–400 billion stars, approximately, in the whole galaxy.

7) – c) Bluish

Just as colors appear to be more dramatic in sunsets on Earth, sunsets on Mars, according to NASA, would appear bluish to human observers watching from the Red Planet. Fine dust makes the blue near the Sun's part of the sky much more visible, while normal daylight makes the Red Planet's familiar rusty dust color the most perceptible to the human eye.

8) – c) 243 Earth days

Venus has a slow axis rotation and so it takes 243 Earth days to complete its day. The orbit of Venus around the Sun is 225 Earth days, making a year on Venus 18 days less than a day on Venus.

Source for exercise 4:
<https://childwellbeing.asu.edu/SpaceFacts>

