

# Planets and Their Gravity

The strength of gravity changes with the mass of a planet or thing. Use the clues given to help match the planets and Earth's moon to their gravity and put them in order from the Sun (Earth and Moon are together at three).

<b>Gravities to choose from</b>	11.2 m/s <sup>2</sup>	3.71 m/s <sup>2</sup>	3.7 m/s <sup>2</sup>	1.6 m/s <sup>2</sup>	8.9 m/s <sup>2</sup>	10.4 m/s <sup>2</sup>	<del>9.8 m/s<sup>2</sup></del>	24.8 m/s <sup>2</sup>	8.7 m/s <sup>2</sup>
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**Clue 1:** The smallest and lightest planet has the smallest gravity but Earth's moon is even smaller and lighter than that!

**Clue 2:** The biggest planet has the biggest gravity.

**Clue 3:** The gravity on Mars is very similar to Mercury.

**Clue 4:** Although being very large, Uranus is made from gas so its mass is smaller than you would expect. Amazingly, its gravity is less than that of Earth and Venus.

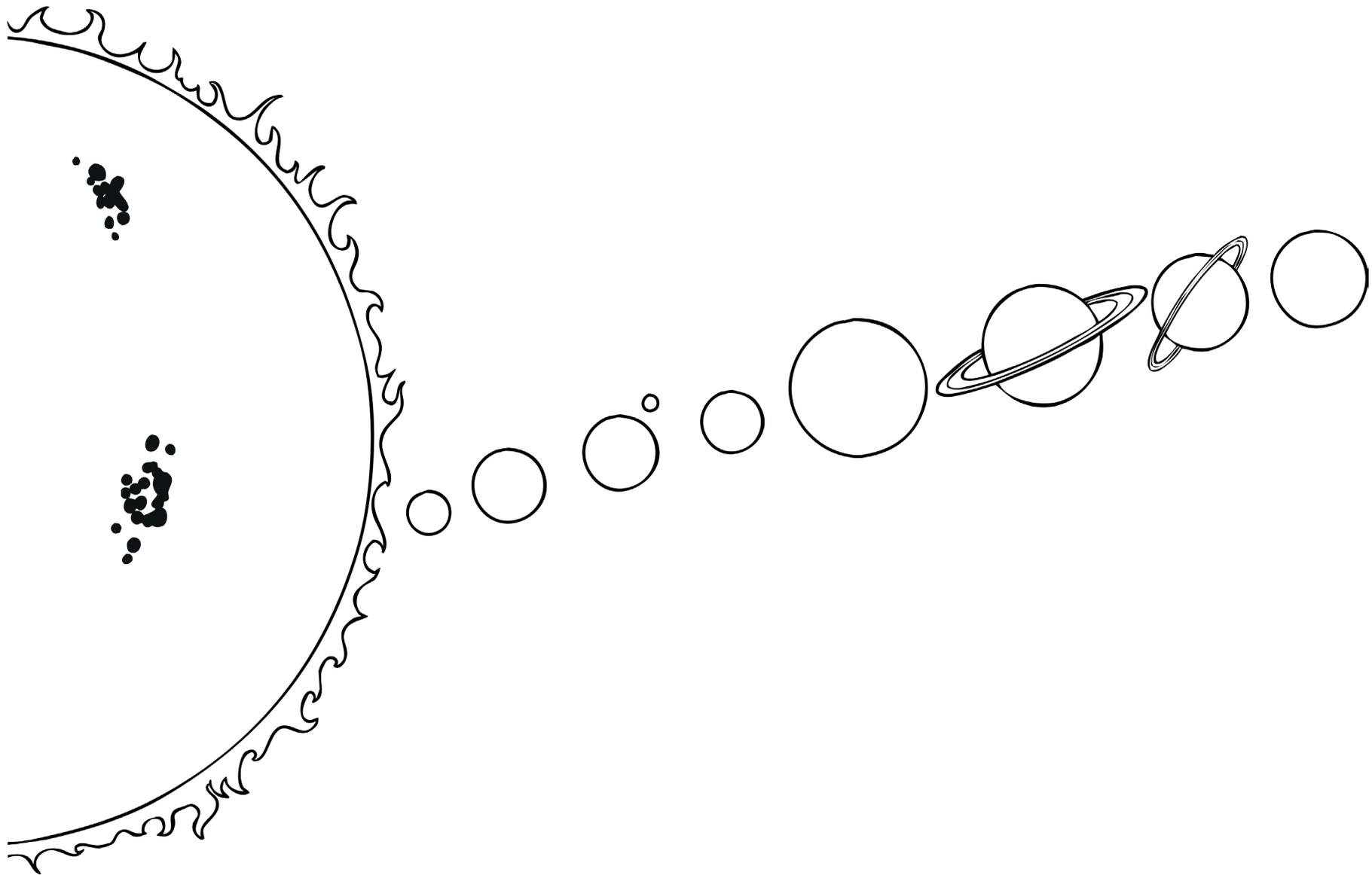
**Clue 5:** Even though Neptune is smaller than Saturn, it has a greater mass because of the gases that make it.

Use this table to make notes. Then, use your knowledge of the planets in our Solar System to label the planets on the next sheet in the correct order. Add the correct gravity to each label.

Name	Earth	The Moon	Mercury	Jupiter	Mars	Uranus	Venus	Neptune	Saturn
Distance from centre of planet to edge (radius)	6371km	1737km	2440km	69 911km	3390km	25 362km	6052km	24 622km	58 232km
Gravity	9.8 m/s <sup>2</sup>								
Order	3	3							

# Planets and Their Gravity

Label these planets with their name and gravity.



# Planets and Their Gravity Answers

In order from the Sun:

Name	Mercury	Venus	Earth	The Moon	Mars	Jupiter	Saturn	Uranus	Neptune
Gravity	3.7 m/s <sup>2</sup>	8.9 m/s <sup>2</sup>	9.8 m/s <sup>2</sup>	1.6 m/s <sup>2</sup>	3.71 m/s <sup>2</sup>	24.8 m/s <sup>2</sup>	10.4 m/s <sup>2</sup>	8.7 m/s <sup>2</sup>	11.2 m/s <sup>2</sup>
Order	1	2	3	3	4	5	6	7	8