

# S1 Astrobiology: Worksheet 2

Earth has all the right conditions for life to exist but do they exist elsewhere? Let's explore our Solar neighbourhood!

Earth is a planet orbiting our nearest star, **the Sun**. The collection of objects that orbit the Sun is called the **Solar System**.



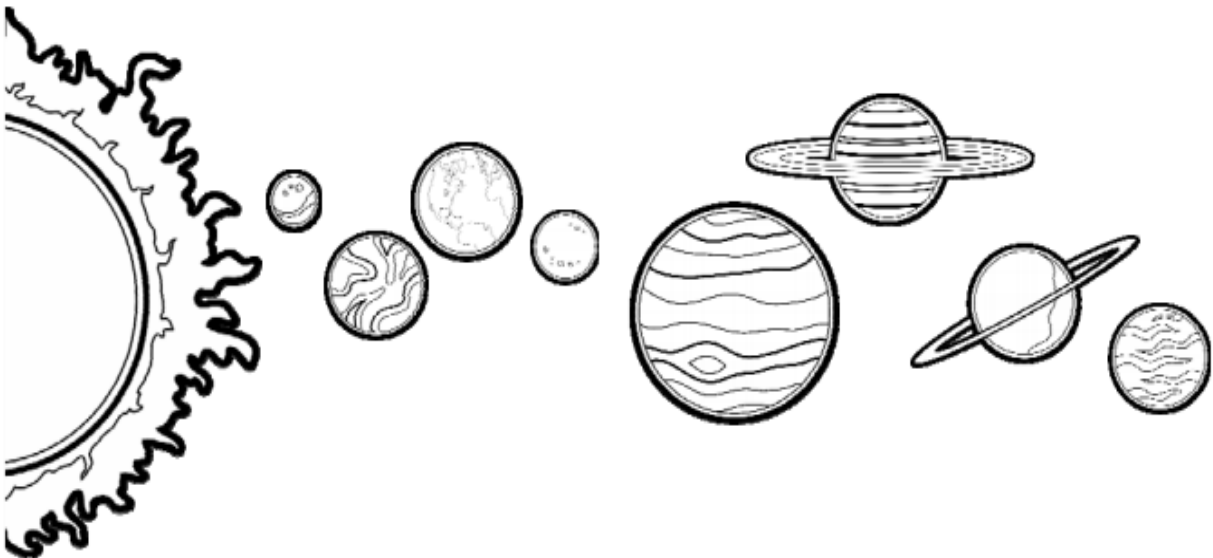
## Activity 1: Solar System Facts

What do you already know about our Solar System? Use your previous knowledge and the **Nasa** links to help complete the following tasks.

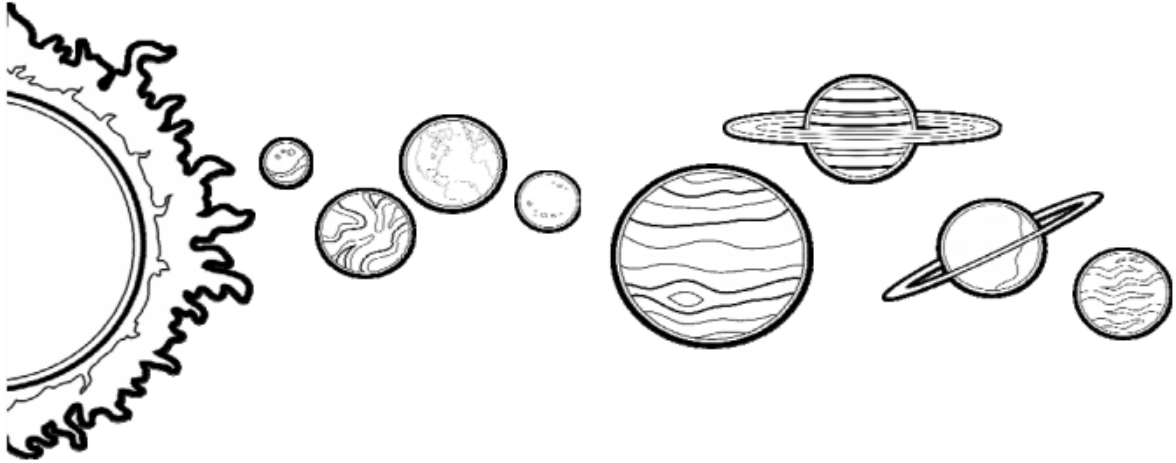
<https://spaceplace.nasa.gov/menu/solar-system/>

<https://solarsystem.nasa.gov/solar-system/our-solar-system/overview/>

Complete the diagram by naming the planets in their correct order from the Sun. Can you list any facts about the planets? Can you name any other objects in our Solar System?



An 'acronym' can be used to remember the order of the planets. Have a go at creating your own!



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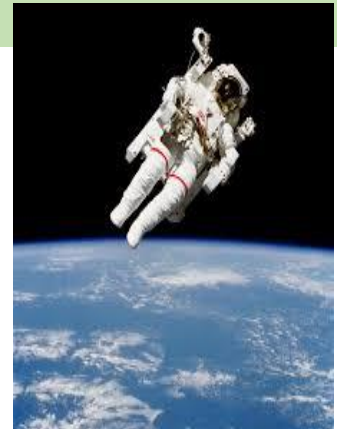
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## Activity 2: Life in our Solar System

You have been asked to gather information about some of the planets and moons in our Solar System.

Complete the table overleaf using the suggested links to help you decide if there **is anywhere else in our Solar System with the right conditions for life**. Where do you think we should investigate further?



<https://spaceplace.nasa.gov/menu/solar-system/>

<https://solarsystem.nasa.gov/solar-system/our-solar-system/overview/>

<https://solarsystem.nasa.gov/planets/earth/by-the-numbers/>

Use your GLOW details to explore further with films on Twig.

<https://www.twigscotland.com/search/?search=Solar+system&search-btn=>

Complete the following table using a tick for yes or a cross for no.

The conditions for life are present on \_\_\_\_\_  
\_\_\_\_\_.

Solar System	Conditions for Life					
	Plenty of water	Presence of liquid water	Protective atmosphere	All the elements for life	Source of energy (e.g. Sun)	Does it support life?
Sun	✗	✗	✗	✗		✗
Mercury						
Venus						
Earth	✓	✓	✓	✓	✓	✓
Moon						
Mars						
Jupiter						
Europa (moon of Jupiter)	✓	✓	✗	maybe	✓	maybe
Saturn						
Enceladus (moon of Saturn)						
Uranus						
Neptune						