

Nova's Solar System Sketchpad

Learning objective: To identify and order the planets in our solar system and understand their orbits around the Sun.

Follow the drawing prompts below to create your own scientific diagram of the solar system. Use your best artistic skills to label the key components accurately.

Draw: Draw a large, glowing circle in the centre of your page to represent the Sun. Draw eight distinct, long oval paths (ellipses) circling the Sun. On each path, draw and label the planets in the correct order. Include a small, dotted region between Mars and Jupiter to represent the Asteroid Belt. Use different colours to represent the different types of planets (e.g., rocky colours for the first four, gas colours for the outer four).



Label words: Sun · Mercury · Venus · Earth · Mars · Jupiter · Saturn · Uranus · Neptune · Orbit · Asteroid Belt

Steps:

1. Label the position of the Sun and draw eight elliptical lines around it to represent the orbits of the planets.
2. Which two planets are located on either side of the 'Asteroid Belt'?
3. Explain why the Sun is at the centre of your drawing rather than a planet.
4. List the planets in order starting from the one closest to the Sun.
5. Why do the outer planets (like Neptune) take much longer to complete an orbit than inner planets (like

Mercury)?