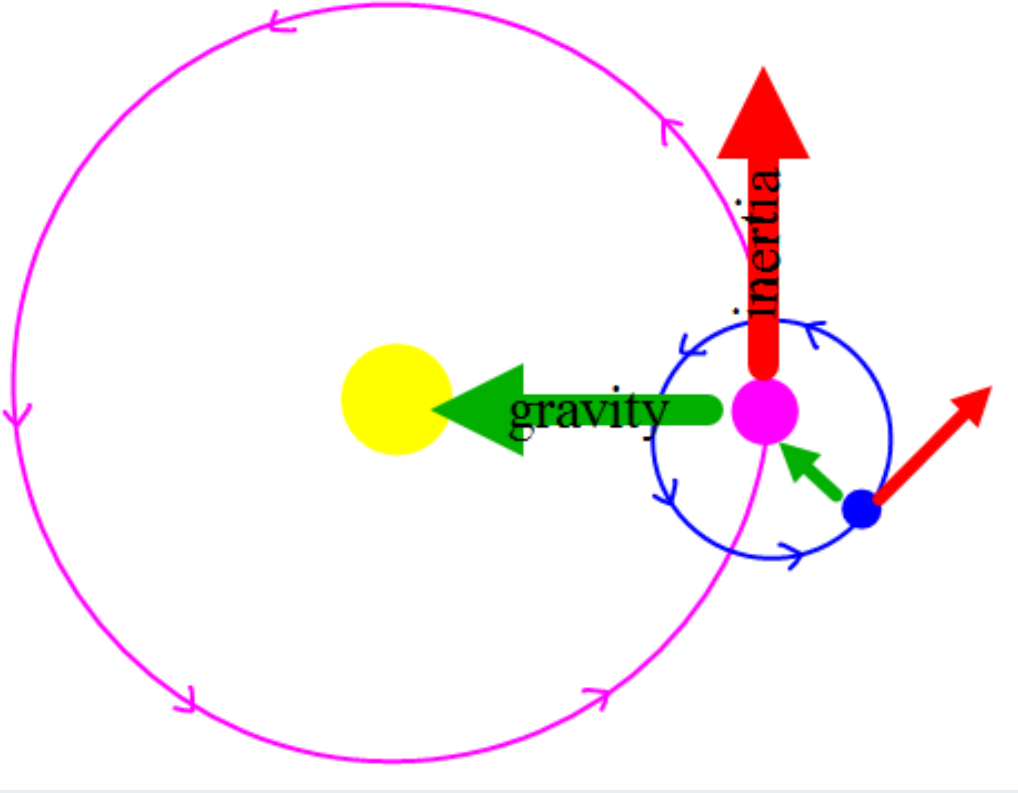


# Notes: Structure of our Solar System

Topic	Details
1. solar system -	The Sun and the objects that move around it
2. How many stars are in our solar system?	<b>1</b>
3. Law of Universal Gravitation -	<ul style="list-style-type: none"><li>• <b>All objects</b> are attracted to each other by a gravitational force.</li><li>• strength depends on <b>mass</b> and <b>distance</b> stronger – more mass, closer</li></ul>
4. Why does the Moon orbit Earth and NOT the Sun?	Because the Moon is closer to the Earth than to the Sun.

# Notes: Structure of our Solar System

Topic	Details
5. Inertia (i ner shu)	A tendency to stay at rest or move in a straight line
6. How do gravity & inertia impact the orbit of the Sun, Earth and Moon?	 <p>The diagram illustrates the gravitational and inertial forces on the Sun, Earth, and Moon. A yellow circle represents the Sun, a pink circle represents Earth, and a blue circle represents the Moon. The Sun is at the center of a large purple elliptical orbit with arrows indicating a counter-clockwise direction. Earth is at the center of a smaller blue elliptical orbit with arrows indicating a counter-clockwise direction. The Moon is at the center of a very small red elliptical orbit with arrows indicating a counter-clockwise direction. A green arrow labeled 'gravity' points from Earth towards the Sun. A red arrow labeled 'inertia' points upwards from Earth, representing the tendency to move in a straight line. A red arrow also points away from the Moon, representing its inertia.</p>

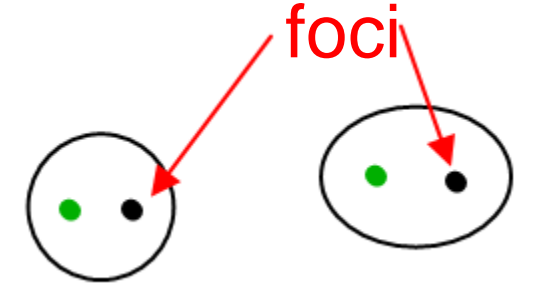
# Notes: Structure of our Solar System

Topic	Details
7. What objects orbit the Sun?	Planets, dwarf planets, asteroids, comets
8. Planet -	<ol style="list-style-type: none"><li data-bbox="730 544 1186 591">1) <b>It orbits the Sun</b></li><li data-bbox="730 605 1499 652">2) <b>It has a nearly spherical shape</b></li><li data-bbox="730 666 1761 776">3) <b>Its mass is larger than the total mass of all objects that orbit nearby</b></li></ol>
9. Dwarf planets do not fit which criteria?	# 3

# Notes: Structure of our Solar System

Topic	Details
10. Asteroid -	<b>irregular shaped piece of rock and ice that orbits the Sun in the asteroid belt between Mars &amp; Jupiter</b>
11. comet -	A mixture of rock, ice & dust that orbits the Sun in long elliptical orbits
12. astronomical unit – Why is it used?	<ul style="list-style-type: none"><li>• <b>Average distance from the Earth to the Sun</b></li><li>• <b>Objects in the solar system are so far apart</b></li></ul>

# Notes: Structure of our Solar System

Topic	Details
13. What is the shape of the planets' orbits?	Ellipses, not circles 
14. Why does a planet's speed increase when it is closer to the Sun?	Stronger gravitational force - closer
15. Compare distance from the Sun and period of revolution?	As distance increases, period of revolution increases

# Past Model of Solar System

- Geocentric  
(EARTH centered)



# Modern Model

- Heliocentric  
( SUN centered)

