

# Year 9 – Kemnal Keys

Biology		Chemistry	Physics
1	<p><b>Food chain:</b> Organisms that are dependent on each other.</p> <p><b>Population:</b> The number of one organism in an area.</p> <p><b>Food web:</b> Complex food chains that are linked together</p> <p><b>Producers:</b> organisms that make their own food.</p> <p><b>Consumers:</b> eat other organisms</p> <p><b>Decomposers:</b> breakdown dead plant and animal materials; the nutrients released are recycled into the soil or water.</p> <p><b>Insecticide:</b> chemicals that kill insects.</p> <p><b>Pesticides:</b> chemicals that kill other pests and small creatures that damage crops.</p> <p><b>Bio-accumulation:</b> the build-up of toxins inside of animals inside of the food chain</p>	<p>In science, a pure substance contains only one <u>element or compound</u>. (not to be confused with an element)</p> <p><b><u>Pure substances have a sharply defined melting point.</u></b></p>	<p>Our Solar System has one star [The Sun]. It consists of 8 planets, dwarf planets, satellites [artificial and natural]. Our Solar System is within the milky way galaxy, within the universe.</p>
2		<p>Sustainable development: is development that meets the needs of current generations without compromising the ability of future generations to meet their own needs.</p>	<p>Earth has seasons because our planet's axis of rotation is tilted at an angle of 23.5 degrees relative to our orbital plane. The Northern Hemisphere is oriented toward the sun for half of the year and away from the sun for the other half. The same is true of the Southern Hemisphere.</p>
3		<p><i>Life Cycle Assessment - technique to assess environmental impacts associated with all the stages of a product's life</i></p>	<p>Stars – initially formed from a cloud of dust and gas. Gravity pulls together to form a protostar. As the temperature rises a star is born. Based on their size stars will turn into a white dwarf, or explode in a supernova. It will then become a neutron star or a black hole.</p>
4	<p><b>Toxins</b> can enter the food chain in several ways</p> <ul style="list-style-type: none"> <li>● Fertilisers dissolve in water and are washed off the field by rain into rivers and reservoirs</li> <li>● Chemicals used by farmers to kill weeds or insects contaminate small creatures that are eaten</li> <li>● Water runs off urban streets into waterways</li> <li>● Soft mud acts like a sponge that slowly soaks up the toxins. Plants absorb these through their roots.</li> <li>● Some chemicals fall from the air, such as mercury released by coal-burning power plants</li> </ul> <p>Biodiversity is important to humans: Economic— biodiversity provides humans with raw materials for consumption and production. Many livelihoods, such as those of farmers, fishers and timber workers, are dependent on biodiversity.</p>	<p>Water that is safe for humans to drink is called potable water. Potable water is not pure water. For water to be potable, it must have sufficiently low levels of dissolved salts and microbes. Only 1% of the Earth's water is suitable for drinking and this must be treated before it is consumed.</p>	<p>The light-year is a unit of length used to express astronomical distances and is equivalent to about 9.46 trillion kilometres (<math>9.46 \times 10^{12}</math> km) or 5.88 trillion miles (<math>5.88 \times 10^{12}</math> mi).</p> <p>The Milky Way is about 1,000,000,000,000,000 km (about 100,000 light years. Our solar system is about 1.50 light years across</p>
5			<p>An additional four intermediate phases make up the combined eight phases that comprise the Phases of the Moon in the following sequential order: New Moon, Waxing Crescent, First Quarter, Waxing Gibbous, Full Moon, Waning Gibbous, Last Quarter and Waning Crescent</p>

# Quiz Time

## Week 1 Quiz

What planets are in our solar system?  
What star is in our solar system?  
Describe the term pure substance?  
What is a producer?  
What is a consumer?

## Week 4 Quiz

Identify 2 toxins that can enter food chains?  
What is drinkable water called?  
Describe the term light year  
Describe a food chain?  
What is a consumer?

## Week 2 Quiz

When the northern hemisphere is tilted towards the sun,  
what season is the northern hemisphere in?  
Describe the term bio-accumulation?  
Describe a food chain?  
Our galaxy is called the .....?  
Describe the term sustainable development

## Week 5 Quiz

## Week 3 Quiz

How are stars formed?  
Describe an insecticide?  
Describe a pesticide?  
How many planets are in our solar system?  
What are the 2 types of satellites?

## Week 6 Quiz