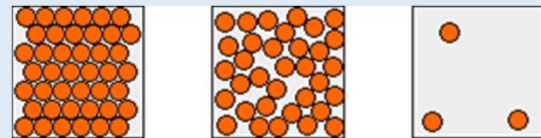


Science	Photosynthesis, Separating Mixtures, Physical and Chemical Changes	Year 8	Term 3
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1: Plant Structure		3: Mixtures	5: States of Matter
Root	Part of the plant which absorbs water; adapted for this by having a large surface area	Element A substance made from one type of atom	 <p style="text-align: center;">solid liquid gas</p>
Leaf	Part of the plant which is specialised for helping the plant make food	Compound Two or more substances chemically bonded together	
Photosynthesis	A series of chemical reactions in a plant where carbon dioxide and water produce oxygen and glucose	Mixture Made up of two or more substances not chemically bonded	
Stomata	Small openings on the surface of a leaf where gas exchange occurs	Pure Only contains one type of substance	Particle The smallest piece of matter
Chloroplast	Organelle which is the site of photosynthesis	Impure Contains mixtures of different substances	Chemical change A chemical reaction in which a new substance is formed, usually irreversible
Peer review	The evaluation of scientific, academic or professional work by others working in the same field	Solute The substance that dissolves to make a solution	Physical change A change where no substances is formed, usually reversible
		Solvent The substance that dissolves the solute	Change of state A physical process where matter changes state
		Solution A mixture of a solvent and solute	
		Dissolve When a soluble solid and a solvent form a solution	
2: Adaptations of the Leaf		4: Separation Techniques	6: Conservation of Mass and Density
Epidermis	A thin, transparent layer of the leaf which allows sunlight into leaf	Soluble A substance that will dissolve in a solvent	Conservation of mass Matter cannot be created or destroyed, just transferred from one form to another
Cuticle	Thin and waxy to protect the plant and prevent water loss but allowing sunlight through	Insoluble A substance that will not dissolve in a solvent	Mass The amount of matter in a given volume
Air space	The space within the leaf to allow the diffusion of gases <i>e.g. carbon dioxide</i>	Chromatography A method to separate soluble substances	Volume The quantity of three-dimensional space taken up by a substance
Guard cells	Control the opening and closing of the stomata	Chromatogram The visible result of chromatography	Density The mass per unit volume of a substance
Root hair cell	Increases the surface area of the root to increase water uptake	Filtration A method to separate an insoluble solid	Compare Looking at the similarities and difference
Surface area	The amount of exposed area there is	Crystallisation A method to separate a soluble solid	Anomaly A result that does not fit a pattern
		Distillation A method to separate solutions of different boiling points	