YEAR 8 **Autumn Term 2- Genetics and evolution, Separating mixtures, Forces and motion**

THE MILTON KEYNES ACADEMY
Creative Education Trust

Key Vocabulary for Lessons

Atom	The smallest particle of a chemical element that can exist.
Subatomic Particle	A particle which makes up an atom.
Nucleus	The middle of an atom.
Element	Substances made up of only one type of atom are called elements.
Compound	When two or more atoms combine through a chemical reaction.
Molecule	A group of atoms bonded together,
Chemical symbol	A shorthand way of referring to a specific chemical element.
Chemical formulae	Shows how many atoms of each element there are in a molecule
Subscript	Character, usually a letter or number, that's printed slightly below and to the side of another character.
Chemical change	Usually, irreversible chemical reaction involving the rearrangement of the atoms.
Apparatus	A set of materials or equipment you need for a practical
Properties	characteristic of a substance that is observed during a reaction in which the chemical composition or identity of the substance is changed.
Density	Mass per unit volume
Mass	Mass is a measure of the amount of matter in an object. Mass is usually measured in grams (g) or kilograms (kg).
Volume	A measure of the amount of space that matter occupies. The unit of volume is cubic metres (m3).
Observation	What do you see in a practical
Irreversible	Reactions where the products cannot turn back into the reactants
Physical change	Usually, a reversible change in the physical properties of a substance
Conservation	Where no atoms are lost or made in a chemical reaction.
Reactants	Substances that you react together in a chemical reaction to *make products.*
Products	A substance that is formed as the result of a chemical reaction.
Melting	Change of a solid into a liquid when heat is applied.
Freezing	The process through which a substance changes from a liquid to a solid
Evaporation	An element or compound changes from its liquid state to its gaseous state.
Cooling curve	a line graph that represents the change of phase of matter, typically from a gas to a solid or a liquid to a solid.
Thermometer	Device for measuring temperature.
Heating curve	A graph plotting temperature against time, showing the amount of energy a substance has absorbed with increasing temperature.
Diffusion	The movement of a substance from an area of high concentration to an area of lower concentration.
Concentration	Refers to the amount of a substance in a defined space.
Fluids	A substance that flows, deforms, and changes shape when subject to a force, or stress.

Force	A push or a pull that acts on an object.
Magnitude	The size of a force.
Newtons	The unit used to measure force.
Normal reaction force	When an object pushes on a surface like a table, wall or the ground, the surface pushes back on the object with a balancing force.

Unbalanced forces	When the force applied in one direction is greater than the force applied in the opposite direction.
Balanced forces	When the force applied in one direction is equal to the force applied in the opposite direction.
Contact force	A force that only affects objects that are touching one another.
Non-contact force	Forces that do need to be touching an object to interact with it.
Gravity	The force that attracts objects together.
Mass	The amount of matter an object is made of in grams.
Gravitational field strength	This is a way of measuring how much gravity there is. The gravitational field strength at the Earth's surface is 10N/Kg.
Weight	The mass and gravitational field strength combined of an object.
Zero Error	When a scale shows a number when it should show zero
Newton meter	A device that measures the force applied to it (in newtons).
Mass balance	A device for measuring the mass (in grams) of an object.
Work done	The amount of energy transferred.
Energy	The ability to do work.
Work	The energy transferred by a force. Work done (joules, J) = force (newtons, N) x distance moved in the direction of the force (metres, m)
Joules	The unit of energy.
Kinetic store of energy	The store of energy that a moving object has.
Gravitational potential store of energy	The store of energy that an object has because of its height above the ground.

MS Forms

- Homework will be set via MS Forms every week
- You will be given a set of questions alongside key word definitions to answer
- Each week will be a different discipline and will recap your prior learning.

Additional Opportunities

Cognito- This is a youtube channel that can be used to supplement and recap your learning
https://cognitoedu.org/resources/ks3/science