

YEAR 7 – SCIENCE

Energy and Forces

Know:

- The 8 energy stores and 4 energy transfers
- Units of energy are joules (J)
- Definition of conservation of energy
- Know what a force is and the effects that they have on objects
- Units of force are newtons (N)
- Define work done as energy transferred

Can:

- Give examples of the 8 energy stores and 4 energy transfers
- Convert between joules and kilojoules
- Know how to solve an equation e.g. work done = force x distance
- Give examples of contact and non-contact forces
- Identify situations where forces are in equilibrium
- Calculate resultant force

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Particles

Know:

- Definition of an element, compound and mixture.
- The names of changes of state and how these relate to energy, arrangement and movement of particles.
- Definition of diffusion.

Can:

- Draw particle diagrams for the three states of matter.
- Describe the behaviour of the particles in a solid, liquid and gas.
- Identify elements, compounds and mixtures.

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Cells

Know:

- The differences and function of the organelles in animal and plant cells
- The word equations for photosynthesis and respiration and where they take place
- The hierarchal organisation of multicellular organisms cell-tissues-organs-organ systems-organism

Can:

- Label and explain the function of organelles in plant and animal cells
- Identify and state the differences between cells, tissues, organs and organ systems
- Use a Light microscope.
- Explain diffusion