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| PHYSICS | | | | |
| EYFS | KS1 | | LKS2 | UKS2 |
| ***UW*** *(The World)*  **40-60 months**  • I look closely at similarities, differences, patterns and change  **Early Learning Goal**  • I know about similarities and differences in relation to objects and materials  • I can talk about changes  **Exceeding statements**  • I am familiar with basic scientific concepts such as floating and sinking | Year 1  Seasonal changes  • I can observe changes across the four seasons  • I can observe and describe weather associated with the seasons and how day length varies | Year 2  No physics | Year 3 and 4  **Light**  • I recognise that light is necessary to see things  • I notice that light is reflected from some surfaces  • I recognise that light from the sun can be dangerous and that there are ways to protect eyes  • I recognise that shadows are formed when light is blocked by a solid object  • I can notice that shadow length changes according to the position of light source (including the position of the sun)  **Forces and magnets**  • I can compare how things move on different surfaces  • I recognise that some forces need contact between 2 objects, but magnetic forces can act at a distance  • I can observe that magnets attract or repel each other and attract some materials but not others  • I can group a variety of everyday materials according to their magnetic properties  • I can describe magnets as having 2 poles  • I can predict whether 2 magnets will attract or repel each other, depending on which poles are facing  **Sound**  • I recognise that vibrations from sounds travel through a medium to the ear  • I can suggest how a range of sounds are made and link them to vibrations  • I recognise that sounds get fainter as the distance from the sound source increases  • I can find patterns between the pitch of a sound and features of the object that produced it  • I can find patterns between the volume of a sound and the strength of the vibrations that produced it  **Electricity**  • I can name appliances that run on electricity and know which need mains electricity, battery power or either.  • I can make a simple series electrical circuit and name the basic parts of cells, wires,  bulbs, switches and buzzers  • I can identify whether or not a lamp will light in a simple series circuit, based on whether  or not the lamp is part of a complete loop with a battery  • I can use a simple switch in a circuit that opens and closes and associate this with whether or not a lamp lights in a simple series circuit  • I can name some common conductors and insulators and know that metals are good  conductors | Year 5  **Earth and Space**  • I can describe the movement of the Earth and other planets relative to the sun in the solar system  • I can describe the movement of the moon relative to the Earth  • I can describe the sun, Earth and moon as spherical  • I can explain the process of day and night using the concept of the Earth’s rotation  • I can explain the way the Sun’s (and shadows) position appears to change through the day with reference to the earth’s rotation  **Forces and magnets**  • I can explain that objects fall to Earth due to gravity  • I can explain the effects of air and water resistance and friction  • I recognise that some mechanisms, inc. levers, pulleys and gears allow a smaller force to have a greater effect  • I can describe how friction affects the movement of objects  Year 6  **Light**  • I can recognise that light travels in straight lines  • I can explain how objects are seen using the idea that light travels in straight lines  • I can explain that we see things because light travels from light sources to our eyes (or via reflections)  • I can use the idea that light travels in straight lines to explain that shadows have the same shape as the objects that cast them  **Electricity**  • I understand how lamp brightness and buzzer volume is affected by the voltage  in a circuit  • I can use recognised symbols to create a simple circuit diagram  • I can compare and give reasons for variations in how components function inc. the brightness of bulbs, the loudness of buzzers and the on/off position of switches |
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