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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 2No 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 whetheror 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 goodconductors | 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 objectsYear 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 voltagein 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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