



Learning objectives and skills

Advent		Lent		Pentecost	
<u>Where Does All That Food Go? Our Changing World</u>	<u>Good Vibrations Our Changing World</u>	<u>In a state</u>	<u>In a state Switched on</u>	<u>Who am I? Human Impact Our changing world</u>	<u>Human Impact Our changing world</u>
<p>Where Does All That Food Go?</p> <p>1: What do we know about food?</p> <ul style="list-style-type: none"> Asking relevant questions and using different types of scientific enquiries to answer them. <p>2: Where does the food go inside your body?</p> <ul style="list-style-type: none"> Gathering, recording, classifying and presenting data in a variety of ways to help in answering the question. <p>3: What sort of teeth do we have?</p> <ul style="list-style-type: none"> Making systematic and careful observations <p>4: Why do we have different types of teeth?</p> <ul style="list-style-type: none"> Using straightforward scientific evidence to answer questions to support their findings <p>5: How can we look after our teeth?</p> <ul style="list-style-type: none"> Gathering, recording, classifying and presenting data in a variety of ways to help in answering the question. <p>6: What do animals eat?</p> <ul style="list-style-type: none"> Gathering, recording, classifying and presenting data in a variety of ways to help in answering the question. <p>7: What do animals' teeth tell us?</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to simple scientific ideas and processes. <p>8: How is food broken down?</p> <ul style="list-style-type: none"> Gathering, recording, classifying and presenting data in a variety of ways to help in answering the question. <p>9: How can we model the digestive system?</p>	<p>Good Vibrations</p> <p>1: What do we know about sounds?</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to simple scientific ideas and processes. <p>2: How are sounds made?</p> <ul style="list-style-type: none"> Recording findings using simple scientific language, drawings, labelled diagrams, bar charts, and tables. <p>3: How do sounds travel?</p> <ul style="list-style-type: none"> Using straightforward scientific evidence to answer questions to support their findings. <p>4: How can we make a sound louder and quieter?</p> <ul style="list-style-type: none"> Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. <p>5: How do sounds change as we move away from the source?</p> <ul style="list-style-type: none"> Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. <p>6: How can we change the pitch of a plucked note?</p> <ul style="list-style-type: none"> Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. <p>7: How can we use air to make music?</p> <ul style="list-style-type: none"> Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. 	<p>In a state</p> <p>1: What are my properties?</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to simple scientific ideas and processes. <p>2: What happens to the ice hands?</p> <ul style="list-style-type: none"> Setting up simple practical enquiries, comparative and fair tests. <p>3: What makes a difference to how fast ice melts?</p> <ul style="list-style-type: none"> Gathering, recording, classifying and presenting data in a variety of ways to help in answering the question. <p>4: What are melting and freezing?</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to simple scientific ideas and processes. <p>5: Are spaces really empty?</p> <ul style="list-style-type: none"> Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. <p>6: What state am I in?</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to simple scientific ideas and processes. <p>7: How can we get it dry?</p> <ul style="list-style-type: none"> Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. <p>8: What is evaporation?</p>	<p>In a state</p> <p>Enrichment 1: Which chocolate should we choose?</p> <ul style="list-style-type: none"> Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. <p>Enrichment 2: Why do we put salt on icy roads?</p> <ul style="list-style-type: none"> Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. <p>Enrichment 3: How does the thermometer work?</p> <ul style="list-style-type: none"> Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. <p>Switched on</p> <p>1: What makes it work?</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to simple scientific ideas and processes. <p>2: Can you light the bulb?</p> <ul style="list-style-type: none"> Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. <p>3: How does a circuit work?</p> <ul style="list-style-type: none"> Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. <p>4: Why doesn't it work?</p> <ul style="list-style-type: none"> Recording findings using simple scientific language, drawings, 	<p>Who am I?</p> <p>(Revisit <i>Where does all that food go?</i> topic)</p> <p>6: What do animals eat?</p> <ul style="list-style-type: none"> Gathering, recording, classifying and presenting data in a variety of ways to help in answering the question. <p>7: What do animals' teeth tell us?</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to simple scientific ideas and processes. <p>1: Who are you?</p> <ul style="list-style-type: none"> Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. <p>2: Who are you?</p> <ul style="list-style-type: none"> Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. <p>3: Who lives here?</p> <ul style="list-style-type: none"> Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. <p>4: Who lives here?</p> <ul style="list-style-type: none"> Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. <p>5: How are vertebrates grouped?</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to 	<p>Human Impact</p> <p>(Revisit <i>In a state?</i> topic)</p> <p>10: Where did the water come from?</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to simple scientific ideas and processes. <p>11: Where does rain come from?</p> <ul style="list-style-type: none"> Recording findings using simple scientific language, drawings, labelled diagrams, bar charts, and tables. <p>1: What impact do humans have locally?</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to simple scientific ideas and processes. <p>2: How can we find out about litter?</p> <ul style="list-style-type: none"> Gathering, recording, classifying and presenting data in a variety of ways to help in answering the question. <p>3: What types of litter are dropped locally?</p> <ul style="list-style-type: none"> Gathering, recording, classifying and presenting data in a variety of ways to help in answering the question. <p>4: What types of litter are dropped locally?</p> <ul style="list-style-type: none"> Gathering, recording, classifying and presenting data in a variety of ways to help in answering the question. <p>5: Why does clearing litter matter?</p> <ul style="list-style-type: none"> Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. <p>6: What happens when a food chain is broken?</p> <ul style="list-style-type: none"> Gathering, recording, classifying and presenting data in a variety of ways to help in answering the question. <p>7: What is the impact of habitat destruction in other parts of the world?</p> <ul style="list-style-type: none"> Gathering, recording, classifying and presenting data in a variety of ways to help in answering the question.

<ul style="list-style-type: none"> Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. <p>Enrichment 1: How good is toothpaste?</p> <ul style="list-style-type: none"> Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. <p>Enrichment 2: Can we make a good toothpaste?</p> <ul style="list-style-type: none"> Setting up simple practical enquiries, comparative and fair tests. <p>Our Changing World 1: How can we classify trees by looking at their leaves?</p> <ul style="list-style-type: none"> Recording findings using simple scientific language, drawings, labelled diagrams, bar charts, and tables. 	<p>8: How can we use air to make music?</p> <ul style="list-style-type: none"> Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. <p>Enrichment 1: How can we make the best string telephone?</p> <ul style="list-style-type: none"> Setting up simple practical enquiries, comparative and fair tests. <p>Enrichment 2: How can we muffle sound?</p> <p>Enrichment 3: Can all animals hear?</p> <p>Our Changing World 2: How can we classify and identify deciduous trees in winter?</p> <ul style="list-style-type: none"> Gathering, recording, classifying and presenting data in a variety of ways to help in answering the question. 	<ul style="list-style-type: none"> Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. <p>9: What is boiling?</p> <ul style="list-style-type: none"> Using straightforward scientific evidence to answer questions to support their findings. <p>10: Where did the water come from?</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to simple scientific ideas and processes. <p>11: Where does rain come from?</p> <ul style="list-style-type: none"> Recording findings using simple scientific language, drawings, labelled diagrams, bar charts, and tables. <p>12: What have we learned about changes of state?</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to simple scientific ideas and processes. 	<p>labelled diagrams, bar charts, and tables.</p> <p>5: What does a switch do?</p> <ul style="list-style-type: none"> Recording findings using simple scientific language, drawings, labelled diagrams, bar charts, and tables. <p>6: What can we use instead of wires?</p> <ul style="list-style-type: none"> Asking relevant questions and using different types of scientific enquiries to answer them. Setting up simple practical enquiries, comparative and fair tests. <p>7: What types of material conduct electricity?</p> <ul style="list-style-type: none"> Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. <p>8: How are electrical conductors and insulators used?</p> <ul style="list-style-type: none"> Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. <p>9: What do we now know about electricity?</p> <ul style="list-style-type: none"> Using straightforward scientific evidence to answer questions to support their findings. 	<p>simple scientific ideas and processes.</p> <p>6: How are vertebrates grouped?</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to simple scientific ideas and processes. <p>7: How are invertebrates grouped?</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to simple scientific ideas and processes. <p>8: How are invertebrates grouped?</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to simple scientific ideas and processes. <p>Our Changing World 4: How can we classify plants by looking at their flowers?</p> <ul style="list-style-type: none"> Recording findings using simple scientific language, drawings, labelled diagrams, bar charts, and tables. <p>5: How can we classify plants by looking at their flowers?</p> <ul style="list-style-type: none"> Recording findings using simple scientific language, drawings, labelled diagrams, bar charts, and tables. 	<p>Enrichment 1: What do zoos do? Recognizing statements that do and do not support an argument</p> <p>Enrichment 2: Should we have zoos?</p> <ul style="list-style-type: none"> Using straightforward scientific evidence to answer questions to support their findings. <p>Our Changing World 6: How can we classify plants by looking at their flowers?</p> <ul style="list-style-type: none"> Recording findings using simple scientific language, drawings, labelled diagrams, bar charts, and tables.
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#BTK and Links with other subjects

PHSE – How to look after ourselves			#BTK – Why are Lighthouses important.		#BTK – Looking after the environment. Genesis 2:15 The LORD God took the man and put him in the garden of Eden to work it and keep it.
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Key Vocabulary

<p>Where Does All That Food Go?</p> <p>solid, liquid, hard, soft, pour, flow, pile, pool, surface, horizontal, runny, viscous, sticky, grain, powder, ice, water, temperature, cool, cooling, warm, warming, hot, degree Celsius, melt, melting, freeze, freezing, solidify, solidifying, heating, states of matter, change of state, melting point, freezing point, process, gas, air, carbon dioxide, helium, oxygen, bubbles, empty, particle, weight,</p>	<p>Good Vibrations</p> <p>sound, loud, quiet, high, low, repeating, continuous, strike, blow, shake, pluck, vibration, vibrate, solid, gas, volume, strength of vibrations, sound source, fainter, distance, pitch, particles, question, investigation, fair test, change, measure, predict, prediction, explanation, observations, draw conclusions</p> <p>Our Changing World</p>	<p>In a state</p> <p>sound, loud, quiet, high, low, repeating, continuous, strike, blow, shake, pluck, vibration, vibrate, solid, gas, volume, strength of vibrations, sound source, fainter, distance, pitch, particles, question, investigation, fair test, change, measure, predict, prediction, explanation, observations, draw conclusions</p>	<p>In a state</p> <p>sound, loud, quiet, high, low, repeating, continuous, strike, blow, shake, pluck, vibration, vibrate, solid, gas, volume, strength of vibrations, sound source, fainter, distance, pitch, particles, question, investigation, fair test, change, measure, predict, prediction, explanation, observations, draw conclusions</p> <p>Switched on</p>	<p>Who am I?</p> <p>features, sequence, key, distinguish, similarities, differences, vertebrate, fish, amphibian, reptile, bird, mammal, backbone, hair, scales, feathers, eggs, wings, beak, lungs, gills, cold blooded, warm blooded, suckle, head, thorax, abdomen, wing, segment, antennae, insects, arachnids (spiders), crustaceans, myriapods, molluscs,</p>	<p>Human Impact</p> <p>environment, impact, positive, negative, litter, pollution, waste, biodiversity, habitat, derelict, graffiti, traffic, destroy, create, location, food chain, producer, consumer, human impact, global issue, destruction, deforestation, rainforest, climate, climate change, zoo, endangered, breed, wild, natural, predator, prey, conservation, categories, tally chart, pictogram, bar chart, axes, scale, opinion, point of view, argument, viewpoint, debate</p>
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<p>compress, squash, shape, volume, dry, evaporate, evaporation, water vapour, boil, boiling, boiling point, steam, thermometer, data logger, sensor, droplets, condense, condensation, water, droplets, cycle, model, snow, expand, scale, calibrate, heat sensitive, sensor, observe, measure, fair test, variable, collect, present, interpret, data, axis, scale, interval, control, keep the same, evidence, annotate, accuracy, describe, explain, evaluate, reliable, repeatable</p> <p>Our Changing World stalk, simple and compound leaves, leaflet, leaf edge (entire, lobed, toothed, wavy), leaf arrangement (alternate, opposite, whorled)</p>	<p>stalk, simple and compound leaves, leaflet, leaf edge (entire, lobed, toothed, wavy), leaf arrangement (alternate, opposite, whorled)</p>		<p>electricity, electrical, mains, plugged in, battery, power, rechargeable, solar, wind up, sound, light, heat, movement, cell, wire, bulb, bulb holder, buzzer, motor, component, circuit, complete circuit, short circuit, flow, break, make, metal, connect, disconnect, terminal, positive, negative, switch, press switch, toggle switch, tilt switch, pendulum switch, property, electrical conductor, electrical insulator, electron, filament, sets, Venn diagram, Carroll diagram, table, conclusion, evidence, annotate</p>	<p>worms, observations, sort, group, classify, identify</p>	<p>Our Changing World stalk, simple and compound leaves, leaflet, leaf edge (entire, lobed, toothed, wavy), leaf arrangement (alternate, opposite, whorled)</p>
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	<h2>Working scientifically statements.</h2>
<p>Planning</p>	<ul style="list-style-type: none"> Asking relevant questions and using different types of scientific enquiries to answer them. Setting up simple practical enquiries, comparative and fair tests.
<p>Observing</p>	<ul style="list-style-type: none"> Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.
<p>Recording</p>	<ul style="list-style-type: none"> Gathering, recording, classifying and presenting data in a variety of ways to help in answering the question. Recording findings using simple scientific language, drawings, labelled diagrams, bar charts, and tables.
<p>Concluding</p>	<ul style="list-style-type: none"> Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Identifying differences, similarities or changes related to simple scientific ideas and processes. Using straightforward scientific evidence to answer questions to support their findings.
<p>Evaluating</p>	<ul style="list-style-type: none"> Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.