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| **C:\Users\DaveR\Documents\Wigley & Penny Acres files\BOTH SCHOOLS\2019-2020\Logos\New logos\Logo\Federation logo 7.pngC:\Users\DaveR\Documents\Wigley & Penny Acres files\BOTH SCHOOLS\2019-2020\Logos\New logos\Logo\Federation logo 7.pngFederation of Penny Acres and Wigley Primary Schools – Topic Map**  **What A Disaster! 2023**  **Key Stage 2** | | | | |
| Curriculum driver(s) -  What Natural disasters are occurring in the World today?  Where about in the World are these disasters occurring? | | | Aims/Values drivers (taken from school’s key aims/values) –  To instil in the children the key skills and attitudes necessary for them to become motivated and independent learners, leaders and co-operative team players. (Working together on projects)  To develop the children’s respect for our world and provide opportunities for them to make a positive contribution to improving it. (The consequence of climate change to natural disasters.)  Our school’s key values underpin how we approach our work by:  Imagination, flair and creativity  Importance of individuality  Respect for and commitment to learning  Spirit of co-operation, trust and empathy  Positive challenge and aspiration | |
| Key Question drivers  How have natural disasters affected the lives of people in the past?  What causes natural disasters such as earthquakes, volcanoes and cyclones to occur?  Is there a pattern to where these happen in the world?  How is climate change contributing to these changes? | | | Authentic Outcome –  Create a film to inform about a reoccurring natural disaster. (Linked to English, computing and art work.) | |
| Visits/Visitors -  Video game museum – computing link | | |  | |
| English | | | | |
| Reading (including key texts) | Writing | | | Spelling and Grammar |
| Earth-shattering Events – Robin Jacobs (explanation text)  Classic American fiction – Wizard of oz  To extract key information from a text  Summarise a text  Explore vocabulary  Identify themes  Explore features of non-fiction texts | Identify and locate features of an explanation text.  Examine and write clear labels for a text.  Make notes and use these notes when writing an explanation text.  Proof-read work and edit to make sure explanation text features are added.  Comparing texts with film clips and using these to enhance meaning.  Writing character descriptions.  Writing from the point of view of other characters. | | | using fronted adverbials  prepositions [for example, before, after, during, in, because of]  Pronouns  Simple present tense  Impersonal language  Synonyms and antonyms’  using adjectives and adjectival phrases to describe people and places. |
| Tiered vocabulary | seismic seismologist displacement Richter scale magnitude | | | |
| intensity tsunami magnitude geology tectonic plates pressure devastation eruption quivering collapse friction cyclone magma dormant volcano extinct summit | | | |
| plate sunken mountains shaking damage pressure immediately lava flow earthquake | | | |
| Numeracy  Topics this term include: Place value, addition and subtraction, multiplication and division, perimeter and area. | | | | |
| **Fractions** | | | | |
| **Y3**  Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.  Recognise unit fractions and non-unit fractions with small denominators.  Recognise equivalent fractions with small denominators.  equivalent fractions with small denominators.  Compare and order unit fractions, and fractions with the same denominators. Solve problems that involve all of the above. | | **Y4**  Recognise and show equivalent fractions.  Count up and down in hundredths and divide tenths by ten.  Solve problems to calculate quantities, and fractions to divide quantities.  Add and subtract fractions with the same denominator.  Solve simple measure and money problems. | | |
| **Y5**  Compare and order fractions whose denominators are all multiples of the same number.  Identify, name and write equivalent fractions.  Recognise mixed numbers and improper fractions and convert from one form to the other.  Add and subtract fractions with the same denominator and denominators that are multiples of the same number.   Multiply proper fractions and mixed numbers by whole numbers. | | **Y6**  Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.  Compare and order fractions, including fractions > 1.  Add and subtract fractions with different denominators and mixed numbers.  Multiply simple pairs of proper fractions.  Divide proper fractions by whole numbers. | | |
| **Decimals and Percentages** | | | | |
|  | | **Y4**  Recognise and write decimal equivalents.  Find the effect of dividing a one- or two-digit number by 10 and 100,  Round and compare decimals. | | |
| **Y5**  Read and write decimal numbers as fractions.   Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.  Round decimals with two decimal places to the nearest whole number and to one decimal place.  Read, write, order and compare numbers with up to three decimal places.  Solve problems involving number up to three decimal places.  Recognise the per cent symbol (%) and understand that per cent relates to ‘number of parts per hundred’, and write percentages as a fraction with denominator 100, and as a decimal.  Solve problems which require knowing percentage and decimal equivalents and those fractions with a denominator of a multiple of 10 or 25. | | **Y6**  Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.  Multiply one-digit numbers with up to two decimal places by whole numbers. Use written division methods in cases where the answer has up to two decimal places.  Solve problems which require answers to be rounded to specified degrees of accuracy.  Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. | | |
| **Measurement** | | | | |
| **Y3**  Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).  Measure the perimeter of simple 2-D shapes.   Add and subtract amounts of money to give change.  Tell and write the time. | | **Y4**  Convert between different units of measurement.  Measure and calculate the perimeter of a rectilinear figure.  Find the area of rectilinear shapes by counting squares.  Estimate, compare and calculate different measures, including money. Read, write and convert time between analogue and digital clocks and solve problems involving time. | | |
| **Y5**  Convert between different units of metric measurements.  Understand and use approximate equivalences between metric units and common imperial units.  Calculate and compare the area of rectangles.  Estimate volume.  Solve problems involving converting between units of time. | | **Y6**  Solve problems involving the calculation and conversion of units of measurement.  Use, read, write and convert between standard units, converting measurements of length, mass, volume and time.  Convert between miles and kilometres. Recognise that shapes with the same areas can have different perimeters and vice versa.  Recognise when it is possible to use formulae for area and volume of shapes.  Calculate the area of parallelograms and triangles.   Calculate, estimate and compare volume of cubes and cuboids | | |
| Science | | | | |
| **LKS2 – States of Matter**  - Asking relevant questions and using different types of scientific enquiries to answer them  - Setting up simple practical enquiries, comparative and fair tests  - Recording findings using drawings, labels, charts and diagrams  - Reporting and presenting findings from enquiries  - Identifying differences and similarities  - Making systematic and careful observations and taking measurements  - Using results to draw simple conclusions  - Comparing and grouping materials according to whether they are solids, liquids or gases  - Observing that some materials can change state when they are heated or cooled and measuring the temperature at which this happens  - Identifying the part played by evaporation and condensation in the water cycle and associating the rate of evaporation with temperature  Vocabulary- solid, liquid, gas, boiling, freezing, melting, water cycle, temperature, thermometer, condensation, evaporation | | | | |
| **UKS2 – Properties and Changes of Materials**  - Planning different types of scientific enquiries to answer questions  - Controlling variables  - Reporting and presenting findings from enquiries  - Comparing and grouping materials based on their properties  - Dissolving and recovering materials using filtering, sieving and evaporating  - Demonstrating that dissolving, mixing and changes of state are reversible changes  - Giving reasons, based on evidence, for the uses of everyday materials including metals, wood and plastic  - Explaining that some changes result in the formation of new materials  Vocabulary- evaporate, dissolve, condense, reversible, irreversible, soluble, solution, filter, sieve, conductivity, hardness, transparency, thermal, flexible, insulator, state | | | | |
| Computing  Key vocabulary: animation, aspect ratio, camera, cel, computer generated imagery, 2D, 3D | | | | |
| Y3/4  **Animation**  - Using cameras and capture devices  - Using a graphics and paint package to create different effects  - Using animation and film creating and editing software to create a sequence to communicate a story or idea  - Using technology safely, responsibly and respectfully | | | | |
| Y5/6  Animation (as above and:)   * Be responsible, competent. Confident and creative users of information and communication technology. * Evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems. | | | | |
| Geography  Key Vocabulary: world, Earth, continent, ocean, country, capital city, United Kingdom, England, Scotland, Wales, Northern Ireland, Continents, Europe, Africa, Asia, North America, South America, Oceania, Arctic, Antarctic, topographical feature, coast, river, island, cape, delta, peninsula, gulf, mountain, hill, valley, plateau, plain, desert, water cycle, evaporation, transpiration, condensation, precipitation, range, tectonic plates, force, contour, altitude, elevation, erosion, summit, peak, ascent, descent, vegetation, biome | | | | |
| Locate the world’s countries, using maps to focus on North America. This will include the location and characteristics of the world’s most significant human and physical features. They should develop their use of geographical knowledge, understanding and skills to enhance their locational place knowledge.  Locate the world’s countries, using maps to focus on North America, concentrating on their environmental regions, key physical and human characteristics, countries and major cities. | | | | |
| Understand geographical similarities and differences through the study of human and physical geography of a region within North America.  Describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts, rivers, volcanoes and earthquakes. | | | | |
| RE  Key Vocabulary: decision, temptation, inspirational, believer, beliefs, rules, parable, Jesus, Christian, Christianity, dilemma | | | | |
| **Key Question L2.9 What can we learn from religions about deciding what is right and wrong?**  Give examples of rules for living from religions  and suggest ways in which they might help  believers with difficult decisions.  • Make connections between stories of  temptation and why people can find it difficult  to be good.  • Give examples of ways in which some  inspirational people have been guided by their religion.  • Discuss their own and others’ ideas about how  people decide right and wrong. | | | | |
| **Key Question U2.2 What would Jesus do? (Can we live by the values of Jesus in the twenty-first century?)**  Outline Jesus’ teaching on how his followers  should live.  • Offer interpretations of two of Jesus’  parables and say what they might teach  Christians about how to live.  • Explain the impact Jesus’ example and  teachings might have on Christians today.  • Express their own understanding of what  Jesus would do in relation to a moral  dilemma from the world today. | | | | |
| PSHE/Modern British Values | | | | |
| Being healthy  LKS2  H1 – Exploring what affects their physical, mental and emotional health.  H2 – Understanding the concept and benefits of a balanced and healthy lifestyle.  H2 – Identify how to make informed choices.  H3 – Understand what is included in a balanced diet.  H3 – Understanding what may influence our choices.  H5 – Setting goals.  UKS2  H1 – Exploring what affects their physical, mental and emotional health.  H2 – Understanding the concept and benefits of a balanced and healthy lifestyle.  H3 – Exploring how we make choices about the food we eat.  H3 – Identify how we make choices about the food we eat.  H3 – Developing skills to make their own choices.  H4 – Recognising how images in the media do not always reflect reality.  H5 – Setting simple but challenging goals.  H16 – Exploring what is meant by the term habit and why habits can be hard to change. | | | | |
| Drug Education  LKS2  H2 – Recognising how to make informed choices.  H9 – Understanding that people have different attitudes to risk.  H10, H11 – Recognising predictions and assessing risks in different situations.  H14 – Where to get help and how to ask for help.  H17- Distinguishing between safe and harmful and to know some substances can be harmful if misused.  H21, H23 – Learning rules about staying safe.  UKS2  H2 – Knowing how to make informed choices.  H10,H17 – Identifying a range of drugs/substances and assessing some of the risks/effects.  H13 – Identifying influences and when an influence becomes a pressure.  H14 – Developing skills of how to ask for help.  H15 – Identifying basic emergency procedures.  H16 – Understanding the term ‘habit’ and why habits can be hard to change. | | | | |
| Art | | | | |
| **Painting – Volcanoes**  - Generating ideas in sketchbooks  - Appraising own and others’ work  - Learn about great artists (Nick Rowland, Utagawa Hiroshige, Warhol)  - Using different paints, painting tools and surfaces  - Controlling line, shape and pressure with painting tools  - Creating textures with painting techniques  - Describing and exploring composition  - Colour mixing (tertiary colours, hues, value and intensity) | | | | |
| DT  Key Vocabulary Y3/4: crumble controller, sparkle LED, light sensor, buzzer, micro USB cable, battery pack, crocodile clip, cable, micro bits,  Key Vocabulary Y5/6: as above and switch | | | | |
| **Electrical Systems – Simple Circuits (LKS2) and Complex Switches (UKS2)**  - Research and develop design criterion to create a functional, appealing product  - Communicating ideas through sketches, diagrams and prototypes  - Selecting tools and materials  - Measuring, marking, cutting and shaping, joining and finishing materials  - Creating a simple (LKS2) or complex (UKS2) circuit  - Computer programming to control a product (LKS2) or monitor changes in the environment to control a product (UKS2)  - Evaluating products  - Working safely | | | | |
| Music | | | | |
| Play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression.  Improvise and compose music for a range of purposes using the inter-related dimensions of music § listen with attention to detail and recall sounds with increasing aural memory.  Use and understand staff and other musical notations. A  Appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians.  Develop an understanding of the history of music.  These aims will be covered throughout the year by Wider Opportunities.  Penny Acres will participate in Young Voices in February. | | | | |
| PE | | | | |
| * swim competently, confidently and proficiently over a distance of at least 25 metres * use a range of strokes effectively [for example, front crawl, backstroke and breaststroke] * perform safe self-rescue in different water-based situations. | | | | |
| **Movement/Dance**  Perform dances using a range of movement patterns.  Compare their performances with previous ones and demonstrate improvement to achieve their personal best.  **Netball**  Use running, jumping, throwing and catching in isolation and in combination.  Play competitive games, modified where appropriate [for example, netball], and apply basic principles suitable for attacking and defending. | | | | |
| HOMEWORK OPPORTUNITIES | | | | |
| |  |  |  | | --- | --- | --- | | Gather facts about a famous disaster from around the world. Find an interesting way to present this e.g.   * poster * fact file   information booklet | Locate volcanoes from around the world.  Where are they?  What can you find out about those countries?  What do the flags look like for those countries? | Make your own tornado in a bottle.  Fill it with water. Add some washing-up-liquid and some glitter.  Turn it upside-down and shake it really fast.  Can you see a mini-tornado? | | Imagine your home was destroyed by a natural disaster and you have to make a shelter to live in.  Build your own den and take a photo as evidence. | Have a go at creating a lava cake.  <https://www.bbcgoodfood.com/recipes/easy-chocolate-molten-cakes>  There are lots of recipes online so just search *lava cake* to decide which cake you want to make. | Charles Francis Richter was an American physicist and psychologist who invented the Richter scale for measuring earthquake magnitude. Research and explain how earthquakes are measured around the world. You might want to include diagrams about what happens during an earthquake. | | Either, make a collage or a painting of a volcano, tsunami or tornado; | Build your own volcano:  <https://supersimple.com/article/make-a-volcano/>  Again, there are lots of websites online to help you make a model volcano. | Imagine you are witness to a natural disaster.  Can you write a story or newspaper report to describe what it was like? | | Create a power point about a natural disaster you have researched:   * hurricane * tsunami * volcanic eruption   earthquake | Make a volcano erupt.  Using baking soda combined with vinegar.  This is one of a few websites which give easy to follow instructions:  <https://www.sciencefun.org/kidszone/experiments/how-to-make-a-volcano/> | What is a super volcano?  Find out about the volcano at Yellowstone. Where is it? How big is it and what problems could it cause? | | | | | |