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| **Jennett’s Park Primary School - Year 5 Long Term Plan 2022-23** |
| **Topic** | **Space** | **Japan** | **Ancient Egypt** |
| **WOW, trips, resources**  |  | Planetarium  | Martial arts workshop  | Interactive talk – what is it like to be at school in Japan? | Canopic Jars  |  |
| **Literacy**  | * Audio-visual description
* Create a persuasive piece about why someone should visit our planet as their holiday destination.
* Write a setting description about our planet
* Science double page spread about planets- fact file

Mission to Mars | • Create a biography of Katherine Johnson• Write a Sci fi short story• Create a poem in the style of ‘The Witch’* Writing up an investigation for science
 | * Retelling Japanese folk tale

* News report about a tsunami
* Haiku
 | * Non-chronological report on martial arts
* Adventure story based n The Uncommoners by Jennifer Bell
 | * Balanced argument: should it be made illegal to excavate tombs?

• Action-adventure story• Write up scientific investigation into mummification • persuasive speech linked to Earth day  | * Holiday booklet about country linked to international week
* Writing to entertain- poetry- cinquain
* Writing to entertain: suspense story

Ancient Egypt |
| **Maths****Decimals, Fractions, Mental Maths** | **Place Value**Represent numbers within a million (read and write)Compare numbers within a millionCount in 10s, 100s, 1,000s, 10,000s and 100,000s**Addition and Subtraction**Add numbers up to and above 4 digitsRound to check answersMissing numbers | **Multiplication, Division,**Understand prime numbers, square and cube numbersMultiples and factorsMultiply by 10, 100, 1000Divide by 10, 100, 1000**Fractions**Find equivalent fractionsConvert fractionsCompare fractionsAdd fractionsSubtract fractionsRounding numbers to 1,000,000 | **Multiplication/Division**Multiply multi digit sums (4 digit by 2 digit, 3 digit by 2 digit)Divide with remaindersUnderstand equivalent fractionsCovert mixed numbers to improper fractions and vice versaCompare and order fractions less than 1 | **Fractions B**Add and subtract mixed numbersMultiply fractions by an integer (unit and non unit)Use fractions as operatorsConvert decimals and fractionsOrder and compare decimals, fractions and percentages | **Decimals**Add and subtract decimal numbersAdd and subtract wholes and decimalsMultiply decimals by 10, 100, 1000Divide decimals by 10, 100, 1000Geometry: Shape Measure angles using protractorsCalculate angles (straight line and point)Calculate lengths and angles in shapes | **Geometry**Translate shapes (and with coordinates)Understand reflection (with coordinates)Understand km, kg, mm, mlUnderstand metric and imperial unitsConvert units of timeInterpret timetablesCompare and estimate volumeEstimate capacity |
| **Science****Investigations** | **Focus – Earth and Space*** Describe the Sun, Moon and Earth as approximately spherical bodies

• Galileo and Copernicus – geocentric and heliocentric• Describe the movement of the Earth and other planets relative to the solar system* Describe the movement of the moon relative to the Earth- oreo moons? Or Jaffa cakes

Science: Earth and Space• Use the idea of the Earth’s rotation to explain day and night and the apparent movement of the Sun across the sky – shadow experiment • Time zones Identify the effects of air resistance that act between moving surfaces.- investigationForces and magnets: • Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the fallinguse test results to make predictions to set up further comparative and fair testsrecord data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphsMission to Mars  | **Focus – Earth and Space**• use test results to make predictions to set up further comparative and fair tests• take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate • record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs• report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations• identify scientific evidence that has been used to support or refute ideas or arguments-Identify the effects friction, that act between moving surfaces.- record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs | **Focus - Properties and materials**• Compare and group together materials everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets. • Know that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution.• Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through One Boy’s War filtering, sieving and evaporating• Demonstrate that dissolving, mixing and changes of state are reversible changes • Explain that some changes result in the formation of new materials , and that this kind of change is not usually reversible, including changes associated with urning and the action of acid on bicarbonate of soda.• use test results to make predictions to set up further comparative and fair tests• take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate • record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs• report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations• identify scientific evidence that has been used to support or refute ideas or arguments, Materials and Changings States | **Focus - Properties and materials**• Compare and group together materials everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets. • Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating• Explain that some changes result in the formation of new materials , and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.Give reasons, based on evidence from comparative and fair tests, for the uses of everyday materials, including metals, wood, and plastic | **Focus – Forces (levers and pulleys)** Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect - what is the best solution to mummify apples/ how did the Egyptians mummify bodies?• Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with turning and the action of acid on bicarbonate of soda.• Describe the changes as humans develop to old age• Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each senseForces | **Focus** - **Animals including humans:** * Identify and name a variety of common animals that are carnivores, herbivores, and omnivores
* Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds, and mammals, including pets)

**Living things and their habitats:*** Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
* Describe the life process of reproduction in some plants and animals
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| **Living things and their habitats** |
| **Animals including humans** |
| **Properties and changes in materials** |
| **Forces**  |
| **Earth and Space**  |
| **Art** * Drawing
 | Artist – Vincent Van Gogh Media – paint, oil pastelsFocus: Impressionism Painting: stippling, blending paints to create an atmosphere, Oil pastels: shadows, creating textureTo know that the artist is still an inspiration and how they inspired others and contributed to the impressionism movement. To understandTo understand what impressionism is, how it was created.* Looking at different impressionist paintings, different paintings by Van Gogh and discussing how we know these are impressionsim
* Extension task on how we know Van Gogh is still an inspiration today, and who he inspired

To critique a historical artist * Critiquing Van Gogh’s work

To explore how the use of complementary and analogous colours to create different effects and moods* Mixing colours to create analogous colours, and explaining how these put together on a canvas create an impression of the sky

Learn about great artists, architects and designers in history: Van Gogh Improve their mastery of art and design techniques: drawing and collageCreate sketchbooks to record their observations and use them review and revisit ideas | **Artist**: Peter Thorpe**Media**: Collage: layering texturesPainting: applying with a variety of implements to create different effectschalk pastels: blending**Focus**: Abstract ExpressionismTo know how Peter Thorpe has contributed to Abstract expressionism. To understand: what abstract expressionism is, how it was established and other artists in this style. Sketching our designs, and using methods to create texture and shadingTo review and evaluate the effectiveness of their sketches and make improvementsTo use a range of artistic painting tools to create different paint effects | **Artists**: Ozamu Tezuka, Rumiko Takhashi**Media**: Paper, Drawing**Focus**: OrigamiTo know how to precisely fold paper and create sculpturesTo understand how Manga artists create their characters and to produce a piece of art drawn in the Manga style | **Architects**: The EgyptiansCanopic Jars**Media** Sculpture- clay**Focus** To learn how to manipulate clayTo understand the importance of canopic jars in Egyptian culture and their importance in us helping to discover more about them. Architects: To understand the canopic jars were stored in tombs, in Great Pyramids, which the Egyptians designed, and that these have withstood the test of time To understand why canopic jars were used and what they represented in Egyptian culture To manipulate clay and a range of tools creatively to make a canopic jar To develop control over the size and position of their sculptures, such as the creature’s features, and the lid of the jar, and ensure that it is proportionate | **Designer**: Angie Lewin **Media**: Paint Printing on poster board**Focus**:To know who the artist is and that they celebrate the UK’s flora and fauna To know about several different styles of printing and where these prints were most popular: e.g., wood block printing: Japan To design our prints and sketch our ideas To review and evaluate the use of space and shape, and the level of detail needed in printing designs To use printing to create own imaginative design inspired by Lewin To use printing to create designs with distinct shapes |
| * Sculpture
 |
| * Painting
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| **Computing** | **Compare a range of online sites for doing Internet research on- Katherine Johnson research**•Cross-reference search results to help validate information on them- biography- information on Katherine Johnson. **E Safety**•Understand the term ‘digital footprint’ and describe strategies for reducing it. •Know how to stay safe when watching and recording videos onlineOnline Safety  |  Enter formulae into a spreadsheet to solve calculations and model scenarios, including using =SUM() and statistical functions. • Change the format of cells of cells using: text alignment, borders and data types.• Children develop the excel spreadsheet skills to record a data handling project- recording the movements of the sun.  | Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation• To use condition start-action in code • To use condition switches between actions in code • Start to use condition-starts-action in a loop code • Loops and conditionals in coding (lessons 6-15)• https://studio.code.org/s/express-2019 |  Compare techniques used for manipulating and putting pressure on people online (e safety afternoon)• Understand how to safely send digital messages• https://microbit.org/lessons/musical-microbit-unit-overview/ Pupils compose musical phrases and write algorithms to play their phrases on pitched instruments (e.g. glockenspiels)• They then programme the micro:bit to play their phrases when events are triggered and experiment with using the accelerometer. Finally, they consider whether the micro:bit can be used as a music-making device, especially for those who might not have access to instruments.• Pupils learn to use the if-then function and loop code instructions. | Create a multimedia on-screen presentation over several slides, adding animation and transition effects to enhance it- for RE• Children design and make a multi-media presentation about a learning topic or them self- for RE• Compare ways for manipulating digital images to enhance them- Egyptian art where they took a photo of themselves (if time, if not carry over to term 6 )• Create pictures using drawing tools (shapes)- could create hieroglyphs of their own? Or edit images in Egyptian art. | Enter formulae into a spreadsheet to solve calculations and model scenarios, including using =SUM() and statistical functions. • Change the format of cells of cells using: text alignment, borders and data types• Children develop the excel spreadsheet skills to record a data handling project-. • Children design and make a multi-media presentation about a learning topic or them self- JP documentary/ Horrible histories on the Egyptiansdt link: • https://microbit.org/lessons/data-handling-unit-summary/ Children write and evaluate algorithms and programs using selection and repetition to use micro:bit as a temperature recorder, an automatic warning system and a digital assistant. Lesson 3 especially as they have to create their own product- explain that they are going to design a gadget that can that either responds to changes in light level or temperature Could this be linked to climate change? |

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| Design Technology levers, sliders, wheels and axles | **Focus** – Rocket for cardboard day **Evaluate** – **Design and Make**–Rockets for cardboard box day Create a rocket:• Design purposeful, function, appealing products for themselves and other users based on design criteria • Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and ,where appropriate, information and communication technology |  | **Focus** – Kintsugi**Evaluate** – **Design and Make**–Kintsugi is the Japanese art of putting broken pottery pieces back together with gold — built on the idea that in embracing flaws and imperfections, you can create an even stronger, more beautiful piece of art.Children will decorate a plate that they will then break and repair in the style of Kintsugi  |  |  | **Focus** – Shadufs**Evaluate** – **Design and Make**–Design purposeful, function, appealing products for themselves and other users based on design criteria• Generate, develop, model and communicate their ideas through talking, drawing, templates, mock0ups and ,where appropriate, information and communication technology • Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping , joining and finishing]• Select from and use a wide range of materials and components, including, construction materials, textiles and ingredients, according to their characteristics• Investigate and analyse a range of existing products (look at different pulley systems and old Egyptians systems?)• Evaluate their ideas and products against their own design criteria and consider the views of others to improve work • Understand how key events and individuals in design and technology have helped shape the world- • Understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages)• Apply their understanding of how to strengthen, stiffen and reinforce more complex structuresMicrobit programming DT- see computing curriculum plan above in this term.  |
| **Cooking and Nutrition**  |  |  | Japanese bento boxes, designing a bento box and then creating it in class. |  | Cook a meal- using ancient Egyptian recipe- ‘prepare and cook a variety of predominately savoury dishes using a range of cooking recipes’ |  |
| **Geography****Maps and Atlases**  | **Focus** –Where in Bracknell should we build a space shuttle launchpad? Climates zones, biomes- choose a couple, Vegetation belts (specific plants within those biomes): a biome is a climate zone and everything that lives in it. Use maps/globe/atlases to locate continents and countries. Use 8 point compass, 4 figure grid references, symbols and keys (can link to PE for compass points etc and symbols via orienteering- may just want 4 compass points initially)Significance of GMT- link to space and the time zones Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer, and Capricorn, Artic and Antarctic circle- link to biomes and equator and heat.Fieldwork of local area surrounding school Including sketches, maps, plans, graphs and digital technology. | **Focus** – Where in Bracknell should we build a space shuttle launchpad? Climates zones, biomes- choose a couple, Vegetation belts (specific plants within those biomes) build up over the year about biomes. remember: a biome is a climate zone and everything that lives in it. • Use maps/globe/atlases to locate continents and countries. • Use 8 point compass, 4 figure grid references, symbols and keys (PE links and orienteering and Space investigations)• Significance of GMT- link to space and the time zones • Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer, and Capricorn, Artic and Antarctic circle- link to biomes and equator and heat.Fieldwork of local area surrounding school Including sketches, maps, plans, graphs and digital technology. | **Focus** – **Name, locate, identify**Main cities in England and the UKUse maps/globe/atlases to locate continents and countries. | **Focus** – **Name, locate, identify** Continents, main countries including N and S America, some key states of America and their features.Use maps/globe/atlases to locate continents and countries. | **Focus** –**Describe and understand:**Climates zones, biomes and vegetation belts, Understand how humans affect the Earth over time. Why and how do people seek to sustain their environment?Climate Change | **Focus** – **Describe and understand:**Coasts, erosion and depositionUse maps/globe/atlases to locate continents and countries |
| Locational knowledge* The world’s seven continents and five oceans
 |
| * name, locate and identify characteristics of the

four countries and capital cities of the United Kingdomand its surrounding seas |
| Place knowledge |
| Human and physical geography |
| **History** **Skills** * To use primary resources to make explanations about the past
 | **Focus** – To know when, why and how the Space Race began and who was involved.Look at the representation and importance of women in the space race and how their roles progressed- Hidden figures- and how this affected women’s roles in this industry. To describe the key events in the space race (eBooks created on each key event by groups of chn)To ask and answer historical questions about the Space Race and key events.To know and correctly use the terms used to describe the Space Race: Satellites, orbit, NACA, NASA, ISS, Hubble Space Telescope, Soviet Union (and how Russia has changed names etc)Why the space race was important and what they believe to be the most important event in the Space Race, and why. To examine a range of historically significant sources of evidence of key events of the Space Race and the validity of the evidence: e.g. videos of Neil Armstrong in space, photos from the satellites, newspaper reports etc. Primary and secondary sources and how these are reliable. **Mission to Mars** | **Focus** – To understand the history of martial arts in JapanLook at the ruling dynasties of Japan and understand the history of their civilizationTo consider what Japan has contributed to the wider world.To consider Japan against other historical empires such as Greek and Roman and compare and contrast the culturesTo investigate the origins of Nintendo and consider the impact of gaming and anime on our world | **Focus** – To describe the difference between ancient and modern, locating ancient Egypt in time and place and e, noting other significant global civilisations of the eraTo examine how Egyptian relics were discovered and the significance of Howard Carter and Joanne Fletcher on our knowledge and understanding of the Egyptian civilisation To examine key events during the ancient Egyptian period- such as King Tut’s reign, Cleopatra and when these happened To ask and answer complex questions regarding the ethical and scientific justifications for tomb excavation; the consequences of taking such actions and the significance of excavating tombsTo explore a variety of ancient Egyptian artefacts and explain what they can tell us about everyday life in ancient Egypt- discuss how some Tombs have hieroglyphs scratched off- so they cannot be remembered. To know and correctly use the terms used to describe ancient Egyptian life: Sarcophagus, mummification, tombs, pyramids, shaduf, relics, hieroglyphs, high priest/ess, canopic jarsTo explain whether it should be legal or illegal to excavate tombs and the scientific and emotional / historical developments that arise from this.Ancient Egypt |
| * Changes within living memory.
 |
| * Events beyond living memory
 |
| * Lives of significant individuals
 |
| * Significant historical events, people and places in their own locality
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| **Languages**Language Angels - Spanish  | Me Presento (presenting myself) | Regular verbs  | Irregular verbs  |  Greetings  | Colours and Numbers | I can… |
| **PE** | JasminePersonal**Exceeding**I recognise my strengths and weaknesses and can set myself appropriate targets.I see all new challenges as opportunities to learn and develop.**Expected**I can cope well and react positively when things become difficult.I can persevere with a task and improve my performance through regular practice.**Emerging**I know where I am with my learning and I have begun to challenge myself. | JasmineSocial**Exceeding**I can negotiate and collaborate appropriately.I can give and receive sensitive feedback to improve myself and others.**Expected**I help organise roles and responsibilities and can guide a small group through a task.I cooperate well with others and give helpful feedback.**Emerging**I am happy to show and tell others about my ideas.I show patience and support others. | JasmineCognitive**Exceeding**I can develop methods to outwit opponents.I can and suggest patterns of play which will increase chances of success.**Expected**I can use awareness of space/others to make good decisions.I can understand ways (criteria) to judge performance.**Emerging**I can understand the simple tactics of attacking and defending.I can explain what I am doing well and I have begun to identify areas for improvement. | JasmineCreative**Exceeding**I can adapt and adjust my skills, movements or tactics so they are different to others.I can respond imaginatively to different situations.**Expected**I can change tactics, rules or tasks to make activities more fun or more challenging.I can link actions and develop sequences of movements that express my own ideas.**Emerging**I can recognise similarities and differences in movements and expression.I can make up my own rules and versions of activities. | JasminePhysical**Exceeding**I can perform a range of skills fluently and accurately.I can use combinations of skills confidently in specific contexts.**Expected**I can link actions together so that they flow.I can perform a variety of movements and skills with good body tension.**Emerging**I can select and apply a range of skills with good control and consistency.I can perform and repeat sequences with clear shapes and controlled movement. | JasmineHealth and Fitness**Exceeding**I can identify possible dangers when planning an activity.**Expected**I can self select and perform appropriate warm-up and cool down activities.I can record and monitor how hard I am working.I can explain how often and how long I should exercise to be healthy.I can describe the basic fitness components.I can explain why we need to warm-up and cool down.**Emerging**I can describe how and why my body changes during and after exercise. |
| **PSHE** | - To understand and list the attributes of a good friend- To identify the qualities of a good friend- To consider the rights and responsibilities we have in friendships- To explain what peer pressure is and know ways to challenge it- To explain the possible repercussions of feeling excludedFeelings | - To know where to turn in times of unhappiness or when witnessing something you are unsure about- To explain what makes a situation fair or unfair- To explain what it means to belong and explain why belonging is important- To identify places we feel we belong- To explore gender stereotypes- To explain why it is important to challenge gender stereotypes | - To explain what makes up a healthy meal- To explain the importance of nutrients and fibre- To explain the importance of hydration- To explain the importance of portion control- To interpret and understand the information on food labels- To know that legal and illegal drugs exist- To be aware of the risks associated with drug misuse | - To understand the benefits of a growth mindset and explain how we can further develop growth mindsets | - To explain how to keep safe online- To identify what we would do if we were worried or scared about something online- To explain what charity is and explain why people donate to charities- To fundraise for a charity- To understand deductions that are taken from payslips- To explain what budgeting is and why it is importantOnline Safety | - To explain what migration is- To explain why people might need to migrate- To explain how to keep safe when cycling- To explain the risks associated with cycling and recognise ways to minimise these risks- To set own short and long term goals- To consider the emotional and physical changes occurring during puberty- To explore male and female changes in more detail- To consider the impact of puberty on the body and understand the importance of physical hygiene |
| **RE** | How far would a Sikh go for his/her religion?DiwaliDiwali | Is the Christmas Story True?Do sacred texts have to be ‘true’ to help people understand their religion? | How can Brahman be everywhere and in everything?• Can arts help communicate religious beliefs?? | Did God intend Jesus to be crucified and if so was Jesus aware of this? | What is the best way for a Sikh to show commitment to God? | What is the best way for a Christian to show commitment to God? |
| **Music*** Singing songs and speaking chants and rhymes
 | CharangaLivin on a prayerTo identify and move to the pulse with ease.● To think about the message of songs.● To compare two songs in the same style, talking about what standsout musically in each of them, their similarities and differences.● Listen carefully and respectfully to other people’s thoughts about themusic.● When you talk try to use musical words.● To talk about the musical dimensions working together in the Unitsongs.● Talk about the music and how it makes you feel.● To know five songs from memory, who sang or wrote them, when theywere written and, if possible, why?● To know the style of the five songs and to name other songs from theUnits in those styles.● To choose two or three other songs and be able to talk about:○ Some of the style indicators of the songs (musicalcharacteristics that give the songs their style)○ The lyrics: what the songs are about○ Any musical dimensions featured in the songs and where theyare used (texture, dynamics, tempo, rhythm and pitch)○ Identify the main sections of the songs (intro, verse, chorusetc.)○ Name some of the instruments they heard in the songs○ The historical context of the songs. What else was going on atthis time? | Classroom Jazz 1To know five songs from memory, who sang or wrote them, when theywere written and, if possible, why?● To know the style of the five songs and to name other songs from theUnits in those styles.● To choose two or three other songs and be able to talk about:○ Some of the style indicators of the songs (musicalcharacteristics that give the songs their style)○ The lyrics: what the songs are about○ Any musical dimensions featured in the songs and where theyare used (texture, dynamics, tempo, rhythm and pitch)○ Identify the main sections of the songs (intro, verse, chorusetc.)○ Name some of the instruments they heard in the songs○ The historical context of the songs. What else was going on atthis time?To identify and move to the pulse with ease.● To think about the message of songs.● To compare two songs in the same style, talking about what standsout musically in each of them, their similarities and differences.● Listen carefully and respectfully to other people’s thoughts about themusic.● When you talk try to use musical words.● To talk about the musical dimensions working together in the Unitsongs.● Talk about the music and how it makes you feel. | Steel pan drums | Steel pan drums | Sing Up – Creating a beat and a rhythm | Sing Up – What will we do with the drunken sailor? |
| * play tuned and untuned instruments musically
 |
| * listen with concentration and understanding to a range of high-quality live and recorded music
 |
| * experiment with, create, select and combine sounds using the inter-related dimensions of music
 |