Jennett's Park Creative Journey Planner YEAR.....5 TERM...Autumn 2

Empowering our children to flourish and achieve under God's love

Name of Unit: Space 2

The Context (Why): To fully emerge the children in their writing, science and art. They thoroughly enjoy the space topic.

They need to know and understand:

Maths – The four Operations:

- Column Addition with exchange
- Column Subtraction with exchange
- Inverse operations to check answers
- Multi step addition and subtraction problems
- Multiples, factors and common factors
- Square numbers and prime numbers
- Multiply and divide by 10, 100 and 1,000 and understand the multiples of 10, 100 and 1,000

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

Forces and magnets:

- Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object – investigation with flour and cocoa powder, dropping objects into it
- 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

- Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object – investigation with flour and cocoa powder, dropping objects into it

Art

- Artist: Peter Thorpe
- Abstract Expressionism
- Collage: layering textures
- Painting: applying with a variety of implements to create different effects
- chalk pastels: blending
- To 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 shading
- To review and evaluate the effectiveness of their sketches and make improvements
- To use a range of artistic painting tools to create different paint effects

Educating for Wisdom, Knowledge and Skills	**To help grow resourceful, resilient and reflective children who are equipped with the skills, knowledge and tenacity empower themselves, their learning throughout their lives.**
Educating for Hope and Aspiration	**To inspire and enrich lives beyond current opportunities and experiences in order to open minds to the potential their future holds**
Educating for Community and Living Well Together	**To be a multi-cultural, inclusive community of individuals loved by God who feel valued and involved where we create qualities of character to enable people to flourish.**
Educating for Dignity and Respect	**That children might know how much that they are loved and valued by so that they might show dignity and respect for themselves and others by carefully and safely thinking through their actions.**

History:

- 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)
- 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 ask and answer historical questions about the Space Race and key events.

Geography:

- Name, locate, identify continents, main countries including N and S America, some key states of America and their features- why build air shuttles bases here? Where in South America could they build one? Look at the human and physical features of these places: Climates zones, biomes- choose a couple, Vegetation belts (specific plants within those biomes)- look at a couple of key biomes in N and South America- 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 (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.

ICT:

- 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.

Spanish:

- Spanish phonics
- How to ask someone their name and respond to the question
- The names of the numbers 1-10
- The names of the colours

PE:

- The beginnings of the yoga practise and some basic poses

Immersion Activity- What do they need to know? How are you going to start with a bang?

Planetarium visit.

The Challenge or Big Questions

Without people becoming pioneers, is progress possible?

What skills do I need to become a rocket scientist?

Real life context and links to Wider World (International/ Charity/ World of Work)

Black history month- how Katherine Johnstone contributed to the space race

Progress that has happened because of pioneers- treatment of black people and woman back in America in the 60s.

Activities (Possible Route of learning)

- Biography of Katherine Johnstone.
- Sci fi novella to write
- Poem about an alien
- Recording shadow investigation data
- Continue to investigation where a suitable location is to build a space shuttle launch pad

Trips/ Visits / Experiences

Experience- rocket scientist discussion

Planetarium

Challenge 10 activities

- **Lecture**
- **Pictures to represent**

Oracy Links

Debating skills- presentations

Questions- discussion

Vocabulary

Orbit, Heliocentric, Geocentric, Vibrant, Atmosphere, axis, rocky planet, gas planet, light years, kilometres, mass , gravity, solar system

Literacy, Maths and Computing Links

ICT- Excel Graphs to represent shadow lengths and calculate sums – links to maths too

Literacy links – writing and displays

iPads for recording poems

How we will cover Owl Learning Behaviours and Rainbow Values in this journey

C - *Collaboration*
O - *Optimism*
P - *Perseverance*
P - *Pride*
I – *Independence*
C - *Challenge*
MD - *Managing Distractions*

Love *Honesty* *Respect* *Peace*
Forgiveness *Patience* *Support*
Kindness & Joy

Home Learning Projects

Final Quality Products

Biography poster on Katherine Johnstone

Science fiction story about their planet

Art work in the style of Peter Thorpe

How to Share and Celebrate Success

Perform poems -record on iPad