



Ambition - Community - Equality

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Topic: What's beyond the sky?	
Year Group: 5	Term: Summer 2
Ambition: Know that inventors were ambitious to develop the world's technology Know that combined ambitions create a shared goal (NASA)	
Community: Know that communities are effected by new knowledge and technological advances	
Equality: Know that everyone has the same right to pursue their ambitions	

Links to Prior Learning

Y5-knowledge of The U.S.A	Y3 Who helped to change the world?		
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Writing Opportunities Through Topic Lessons

Information text: The theory of gravity	Double page spread: Galileo	Newspaper report: The First Moon Landing	Recount- planetarium visit: My Experience
Information: The Solar System			Independent writing opportunity Report: ways to show thanks including how Muslims and Christians show thanks

Key Texts

Cosmic Frank Cottrell Boyce	Alien Landings Pie Corbett	Hidden Figures Margot Shetterly	One Giant Leap: A Historical Account of the First Moon Landing Robert Burleigh
Made Among The Stars Roda Ahmed	Here We Are Oliver Jefferies		

Key Vocabulary

theory, discovery, telescope, inventor, gravity, NASA, significant, astronomer	Earth, sun, axis, spin, moon,	Art abstract, representation, combining, collage, technique, artistic elements, overlay	Computing/DT: Microbit, program, input, output, algorithm, sequence, variable, connection, positive, negative
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Projects

Art project:
Explore different media to create effects influenced by Peter Thorpe

Computing/ DT project:
Programming- Design a gadget that can that either responds to changes in light level or temperature

Concrete Knowledge

History
Know about the achievements of Galileo and its impact on the knowledge of space

History
Know that Neil Armstrong was the first man to walk on the moon in 1969

History
Know about the achievements of Katherine Johnson, Dorothy Vaughan and Mary Jackson to NASA and why this is significant

Geography
Know that the earth rotates on its axis and that this causes day and night

Art
Know that abstract art does not represent a place/ person in the natural world

Art
Know that different media can be combined to create an effect

Ed. visit follow up:
Recount- planetarium visit: My Experience

DT

- Know that materials have both functional properties and aesthetic qualities
- Know that mechanical and electrical systems have an input, process and output
- Know how more complex electrical circuits and components can be used to create functional products
- Know how to program a computer to monitor changes in the environment and control their products

Skill Progression

History
I can describe Isaac Newton's theory about gravity and its impact on the world

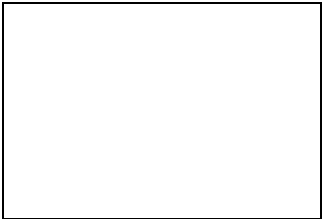
Geography
I can explain how day and night occurs



Art
I can experiment with textures created by pastels, paint and paper

Art
I can use artistic elements to describe the different effects made by combining media

Art
I can choose the media for my composition
I can use different media to create an abstract composition



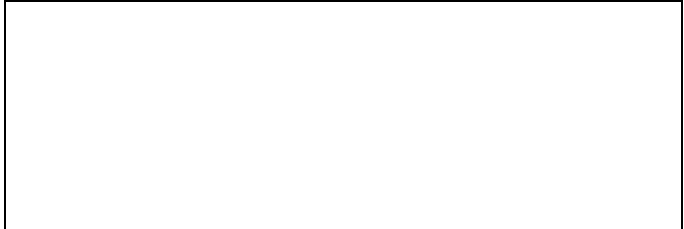
- DT: Design**
- I can describe the purpose of their products
 - I can indicate the design features of their products that will appeal to intended users
 - I can explain how particular parts of their products work carry out research, using surveys, interviews, questionnaires and web-based resources
 - I can identify the needs, wants, preferences and values of particular individuals and groups
 - I can develop a simple design specification to guide my thinking
 - I can make design decisions, taking account of constraints such as time, resources and cost

- DT: Make**
- I can produce appropriate lists of tools, equipment and materials that I will need
 - I can formulate step-by-step plans as a guide to making
 - I can demonstrate resourcefulness when tackling practical problems

- DT: Evaluate: Existing products**
- I can investigate and analyse:
- how well products have been designed
 - how well products have been made
 - why materials have been chosen
 - what methods of construction have been used
 - how well products work
 - how well products achieve their purposes
 - how well products meet user needs and wants
- I can investigate and analyse:
- how much products cost to make
 - how innovative products are
 - how sustainable the materials in products are
- what impact products have beyond their intended purpose

- DT: Evaluate own products**
- I can identify the strengths and areas for development in their ideas and products
 - I can consider the views of others, including intended users, to improve their work
 - I can critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make
 - I can evaluate my ideas and products against my original design specification

- DT and Computing**
- Know that mechanical and electrical systems have an input, process and output
 - Know how more complex electrical circuits and components can be used to create functional products





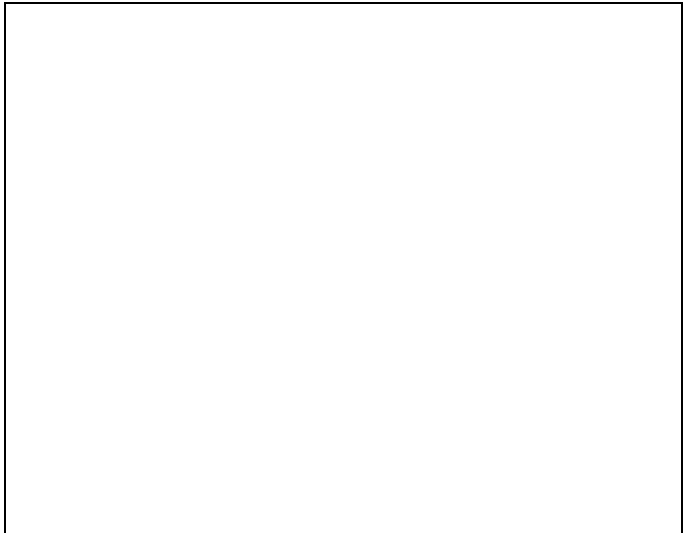
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- Know how to program a computer to monitor changes in the environment and control their products

Computing only

- I understand what data is, how to classify it and how it might be used.
- I can write a simple program using sensors
- I can use a micro:bit to collect data
- I can write a program using that uses data as a condition
- I can write a program to use a micro:bit as a digital assistant



Science, Music, R.E., PSHE, French and P.E. units

Science Space	Music Blues (continued from last half term)	R.E. Being Thankful Being Imaginative and Explorative	PSHE Keeping relationships healthy and safe
P.E. Strike & Field-Rounders	French My Home (Intermediate Language Unit)		

Maths in Context

Link to Science: gravity, forces	DT: Measuring		
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Cultural Capital

Self-control and self-discipline	Adaptability & Resilience	Taking responsibility	Self-reflection
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Our place in the world	Ambition	Care and respect	Appreciation
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Livelihood	Communication	Cultural diversity and equality	Technological advancements

Cultural and Artistic Icons

Galileo	Neil Armstrong 'The Hidden Figures': Katherine Johnson, Dorothy Vaughan and Mary Jackson	Holst, The Planets: Jupiter and Mars	Margret Hamilton
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Health Education, Money Management, Environmental Education

Is there an environmental impact of rocket launches?			
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Rights Respecting

Article 29: Every child has the right to develop their talents and abilities	Wider links Article 30: Right to practice your own culture and beliefs	Wider links Article 8: Right to an identity	Wider links Article 4: Right to protection of rights
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Enrichment experiences and Community Involvement

Planetarium visit			
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Supporting Texts