

Challenge pack

Space: Infinity

Learning Challenge

How can we help people experience space virtually?



Hooks or memorable experiences

Leicester Space centre visit



Public Product— what will the outcome look like to demonstrate learning?

Create a planetarium experience for our parents and other children in school using ICT, music and art as well as sharing some of our writing.

Class texts—whole class reading, extracts, thematic books

Main texts for planning:



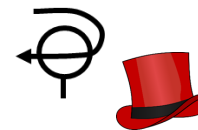
Additional books from book web:

Destination: Space, Planetarium by Chris Wormell, How to be a Space Explorer by Lonely Planet Kids, Georges secret key to the universe by Lucy Hawkins, See You in the Cosmos by Jack Cheng, The Jamie Drake Equation by Christopher Edge

Cognitive skills / Meta-learning— specific teaching examples to use in learning



Consequences and sequence - What events through history have caused space travel to be possible? What sequence did events in the past happen in?



Other People's Feelings - How do you think people felt who have experienced space? How could we recreate those feelings as part of our outcome?

Killer Questions—those asked to measure understanding of pupils

Where in the world have Space missions taken place from?

What is the significance of the Prime meridian and Greenwich meantime?

What is the relationship between the Prime Meridian and Space ?

What scientific information do we know about the solar system?

How has space inspired the art work and music of famous artists and composers?

Year group	5	Term	Spring	Challenge Pack	Space: Infinity—How can we help people experience space virtually?	
SUBJECT FOCUS (delete as required)		Children will learn about / will know WHAT? (Declarative knowledge)		Children will know HOW TO...? (Procedural knowledge)	Prior learning (Schemata)	Vocabulary
Geography		<ul style="list-style-type: none">Locate the world’s countries to focus on Europe (Inc. Russia) and North America: countries and major cities – locations of space mission locations.Prime/Greenwich Meridian and time zones (including day and night) - explain its significance, identify location		<ul style="list-style-type: none">G3.1 a Locate the world’s countries, using maps—types of maps, globeG3.1a Explain the significance of the Prime/Greenwich Meridian and times zones(including day and night) - know how to use map	Autumn term—Location and significance of Longitude, Latitude, Tropics, Arctic and Ant-arctic circles.	Country, Continent Europe, North America, South America, Russia Longitude, Latitude Tropics Grid references, co-ordinates Hemisphere
RE						
Art		<ul style="list-style-type: none">Painting and Sculpture, 3D – linked to creating space experience and DT	<ul style="list-style-type: none">A3.4a Plan and make sculptures using a range of natural and manmade resources with increasing accuracy and success in joining together materials.A3.4b Explore more complex patterns and shape using a variety of materials	Year 4—Sculpture - making and design linked to DT for contraption design and production	Sculpture Paper mache Modelling clay Texture Colour Join	
Design Technology		Props and models – space experience	<ul style="list-style-type: none">D3.1a Generate my own purpose(s) for the product that I am designing, drawing ideas from different sourcesD3.1c Create a specification for my design, refining my plans through the processD3.3a Use skills in different tools and equipment safely and accuratelyD3.4b Evaluate my production against the original idea, purpose and alterations needed	Year 4—Prototype of product – linked to Art (3D & Sculpture) and Science (Electricity)	Purpose, design, production Specification Process Tools (named as appropriate) Safety Evaluation Alterations	
Music		<ul style="list-style-type: none">ET – John WilliamsStar Wars composition, Garage bandListeningImprovising	<ul style="list-style-type: none">M3.3f I can confidently compose on electronic devices using compositional devices.M3.4c I can begin to identify works by the great composersM3.4f I can begin to identify a larger number of works by the great composers.M3.4d I listen to a wide variety of music and identify the musical genres.M3.4a I listen to a wide variety of musical genres and comment using a range of musical vocabulary.M3.3b I can record simple rhythms and melodies using treble notation.M3.3c I can confidently improvise as part of a group.	Autumn—Perform, guitar playing (ongoing) Global music – cultural genres of music	Composer Composition Garageband Electronic Improvisation Genre Pace, rhythm, sound Emotions Atmosphere Melody Notation Quaver, Crotchet, Stave	
ICT and Computing (including apps and digital pencil case)		<ul style="list-style-type: none">Manipulate sounds and musicPhotos and videos – multimediaOnline safety week	<ul style="list-style-type: none">C3.1c Combine a photos and video to create a multi-media presentation/animation/bookC3.1d To manipulate sounds/music	Autumn – Data handling and analysis Design and create systems	Photography Video Multimedia Editing Recording	
PSHE		Over page				
Relationships to Core subjects		Science—Earth and space				

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PSHE	<ul style="list-style-type: none"> • Keeping yourself safe (ICT link) • Keeping yourself safe – body changes and puberty • Physical health and mental wellbeing 			<ul style="list-style-type: none"> • PSHE3.1a I can identify changes in my body that happen in puberty • PSHE3.1b I can discuss who to access support from if I have concerns about my body • PSHE3.1e I can recognise that things I share online leave a digital footprint • PSHE3.1f I can discuss how bullying (including cyber) has a negative and often long lasting effect on wellbeing • PSHE3.4a I can discuss the challenges of making choices • PSHE3.4b I can describe how times of change can be difficult • PSHE3.4c I can plan ways to support my peers and self in times of need and develop resilience • PSHE3.4d I can practice short self-care techniques (e.g. mindfulness, importance of rest, time spent with friends and family, benefits of hobbies and interests) • PSHE3.4e I recognise that sometimes people experience mental ill health and that problems can be resolved with the right help • PSHE3.4f I can identify the risks associated with an unhealthy eating and other behaviours 	Citizenship Financial education	Puberty Male Female Digital footprint Bullying Harassment Trolling Wellbeing Mental health Decisions Adaptability Change Resilience Mindfulness