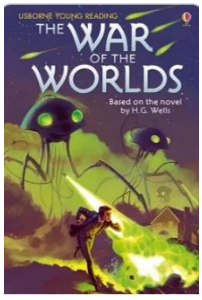
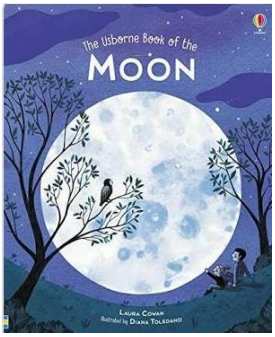
Alexandra Park Junior School

Medium Term Planning Autumn 1
Year 5

Topic:	Lost in Space	
Main Subject	Science	
Linked Subjects	Geography (world from the ISS), DT (Mars Rover), PSHE RE	
NC objective	Earth and Space	
Main subject key knowledge and skills	*describe the movement of the Earth, and other planets, relative to the Sun in the solar system. *describe the movement of the Moon relative to the Earth. *describe the Sun, Earth, Moon as approximately spherical bodies. *use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.	
Linked subject key knowledge and skills	*know the names of a number of European capitals. *use maps to locate European countries and capitals. *use maps and globes to locate the equator, the Tropics of Cancer and Capricorn and the Greenwich Meridian. *know about time zones and work out differences. *I can design a product that requires pulleys or gears. *I can make a prototype before making a final version. *I can make a product that relies on pulleys or gears. *I can link scientific knowledge to design by using pulleys or gears.	
Main Text	War of the Worlds 	
Main Writing Genre	Non- Chronological report	Explanation text - Night and day/phases of the moon
Vocabulary that will be taught	Topic: International Space Station, Time Zones, tropics, Polar regions, temperate. Science: Orbit, Rotation, Spherical, Axis, Star, Moon.	

Enrichment	Planetarium visit W2, Now Press Play, Science fiction films and Moon rock.
Weekly overview - PSHE (1 days)	TLC: I can discuss belonging to a community. TLC: I can discuss protecting our learning environment. TLC: I can discuss Britch values.
Weekly overview - Science (2 weeks)	L1: T.L.C: Can I describe the Sun, Earth and Moon as approximately spherical bodies? L1:T.L.C: Can I identify scientific evidence that has been used to support or refute ideas? L2 :T.L.C: Can I use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky? L2:T.L.C: Can I talk about and present findings from enquiries, including conclusions and causal relationships? L3 :T.L.C: Can I describe the movement of the Earth, and other planets, relative to the Sun in the Solar System? L3:T.L.C: Can I record data using scientific diagrams and labels? L4 T.L.C: Can I describe the movement of the Earth, and other planets, relative to the Sun in the Solar System? L5T.L.C: Can I report and present findings from enquiries using appropriate scientific language? L6 :T.L.C: Can I describe the movement of the Earth and other planets relative to the Sun? L6:T.L.C: Can I record data and results of increasing complexity in a line graph? L7: T.L.C: Can I describe the movement of the Moon relative to the Earth? L8: Assessment lesson
Weekly overview - Geography (2 weeks)	L1 - Per assessment question. L2 - T.L.C: Can I identify features on a world map and globe and recognise Lines of Latitude? L3- T.L.C: Can I research the features and conditions of different climate zones? L4- T.L.C: Can I describe the daily patterns of day and night and the significance of Lines of Longitude on time zones? L5- T.L.C: Can I describe features of the world based on their geographical locations? L6- T.L.C: Can I research the benefits and uses of the ISS? L7 - Assessment page
Weekly overview - DT (1 weeks)	L1: Can I come up with a range of ideas after I have collected information? (Design) L2: Can I use a range of tools and equipment expertly? (Make) L3: Can I test and evaluate my product? (Evaluate) L4: Can I use innovative combinations of electronics (or computing) and mechanics in product designs? (Technical Knowledge) L3: Can I test and evaluate my final product? (Evaluate)
Weekly overview - RE (1 week)	TLC: Can I examine why people talk to God. TLC: Can I understand how Muslims, Christians and Hindus pray. TLC: Can I identify similarities and differences in the way people worship.

Reflection of Learning	Podcast in Computing Quizzes and KWL
Sticky Knowledge	<u>Sticky knowledge</u> ❑ The ISS has been operational since 2000. It has been continuously occupied since then. Groups of astronauts stay for about six months conducting scientific research and the swap over with another group of astronauts. ❑ The ISS orbits the Earth at an altitude (height) of between 330km and 410km. ❑ It orbits at 17,500 miles per hour- it takes about 90 minutes to make an orbit. ❑ 45 minutes of the orbit will be in daylight and 45 minutes will be at night. ❑ It makes 15.7 orbits every day. ❑ The world map that is familiar to most of us is the Mercator projection, but it is full of distortions so some countries appear larger or smaller than they actually are. ❑ The Earth and other planets in our Solar System orbit the Sun. ❑ The Moon orbits the Earth. ❑ The Moon appears to change shape due to the amount of sunlight that we can see reflected on it. ❑ We have day and night because of the Earth's rotation on its axis. ❑ The Sun, Earth, Moon and the other planets in our Solar System are roughly spherical.
British values/citizenship	Compare: Will it be easier for people to go to space? Discuss: When will it be possible to take holidays in space?
Maths links	Line graphs - tracking daylight Working out your age on other planets Describing shapes (3D / 2D)
Computing links	Radio stations - podcast linking to knowledge Green screen news broadcast
Outdoor learning	Tracking shadows Checking the sun - where does it rise / set Simulating the planets orbit
Home learning	Research a planet Write a fact file on an astronaut Make your own planet / write a fact file on your planet