

**SCIENCE**

We will be learning about Earth and Space, linking with this term’s Big Question. The children will be learning about the movement of the Earth, the planets and the moon, and the relationship between these spherical bodies. We will find out all about the way in which ideas of the solar system have developed through the work of Ptolemy, Alhazen and Copernicus. We hope to host the inflatable planetarium from Herstmonceux Science Centre for a journey through space from the comfort of our school hall. With Miss O’Rourke, we will be learning all about electricity. The children will experiment with variations in circuits, testing theories using a range of components and exploring the outcomes. They will record their circuits using diagrams and apply this knowledge to make predictions.

**HUMANITIES**

In History we will be learning about the Space Race between the USA and former Soviet Union, developing our awareness of different viewpoints. We will learn about Yuri Gagarin – the first man in space – and Neil Armstrong – the first man on the moon, not forgetting Valentina Tashkova – the first woman in space and the lesser-known Michael Collins, without whom the Apollo 11 moon landings would not have been possible.

**PE AND GAMES**

PE this term will be taught on Wednesday mornings with Miss O’Rourke and Tuesday afternoon with Miss James. Our units will be Outdoor Adventure Activities, with a focus on trust, teamwork and communication; and Net and Court games.

**ENGLISH**

This term our main class text will be ‘Wonder’ by RJ Palacio, which follows the main character, space-obsessed Auggie, as he starts school for first time, having previously been home-schooled. It is a beautifully written book and a definite recommendation for your home bookshelves! We will be continuing to use our VIPERS approach to develop comprehension of texts, with a particular focus on retrieval and inference. In our writing, we will be looking at using consistently accurate punctuation in simple and compound sentences. We will be composing recounts in role, balanced arguments and newspaper reports linked to our topic work and Big Question. Our reading for pleasure book is ‘No Ballet Shoes in Syria’ by Catherine Bruton.

**St. Michael’s CE Primary School  
Curriculum Overview  
Autumn Term 1 2020  
Neverland Class – Years 5 and 6  
Class teacher: Miss James  
What if there was no gravity?**



**RE, RSHE AND CITIZENSHIP**

In RE we will be considering the Christian stories of Creation and Fall. We will be asking theological questions and considering whether Creation and Science are conflicting or complementary. Our whole-school theme for RSHE is ‘Being Me in My World’ where we will be exploring how to tackle new challenges and setting goals. We will also be looking at the balance of rights and responsibilities.

**MATHEMATICS**

We will begin the term with a focus on place value, identifying the value of the digits in a number, comparing and ordering numbers and exploring different ways we can partition numbers. We will use a range of manipulatives and models to represent our maths. We will also be looking at rounding numbers and how negative numbers work. We will then move on to looking at the four operations (addition, subtraction, multiplication, division), with a particular focus on completing long division for the Year 6s. We will also be developing our understanding of the relationships between the operations and exploring the inverse. It is imperative that the children keep their times table knowledge active for quick recall of facts to support them as we tackle higher-level content.

**CREATIVE ARTS**

In Art, we will also be looking at the work of Peter Thorpe and the children will use the chalk pastels to create their own space-themed pictures with an abstract background and space feature in the foreground. We will also look at and respond to imagery used in vintage Soviet propaganda featuring the Space Race.

**COMPUTING**

In computing we will be revising and learning the skills we would need in order to access and complete home-learning tasks independently. This will include engaging with the software available through the children’s Office365 @playdenschool.com email accounts and responsible use of email and the internet.

### Key Topic Vocabulary

**Solar System** – the Sun, together with the planets, asteroids, comets etc. in orbit around it.

**orbit** – the regularly repeated course of a moon, spacecraft etc. around a star or planet.

**planet** – a large, spherical mass in space that orbits a star.

**asteroid** – a small rocky planet orbiting the sun.

**comet** – mass of ice and dust with a long tail, moving around the solar system.

**poles** – either of the two points (North Pole or South Pole) at opposite ends of a planet's axis.

**axis** – an imaginary line around which an object or shape rotates.

**star** – a large ball of burning gas which appears as a glowing point in the night sky.

#### Planets of the Solar System:

Mercury

Venus

Earth

Mars

Just

Saturn

Uranus

Neptune

**Ptolemy** – ancient Greek mathematician, astronomer and geographer who believed that all celestial bodies orbited the Earth.

**Alhazen** – Muslim physicist and mathematician from 900-1000AD, who laid the foundations for telescope astronomy through his study of optics.

**Copernicus** – Polish, Renaissance-era mathematician and astronomer who formulated a model of the universe that placed the Sun, rather than the Earth, at the centre of the universe, with the Earth and other planets orbiting the Sun.

**Space Race** – a 20<sup>th</sup> century competition between two Cold War rivals (USSR and US) to achieve firsts in spaceflight capability.

**USSR/Soviet Union** – a state that existed from 1922-1991 and included many Eurasian countries including Russia, Poland, Czechoslovakia, Ukraine and Kazakhstan, among others.

**Sputnik** – the name of sequential space missions by the USSR.

**Apollo** – the name of sequential space missions by the US, including Apollo 11: the moon landings.

**propaganda** – information, especially of a biased (and sometimes misleading) nature, used to promote a political message.

### Key Maths Vocabulary

**place value** – the value each digit represents, dependent on the digit's position or place in a number. For example: in 1482 the digits represent 1 thousand, 4 hundreds, 8 tens and 2 ones respectively; in 12.34 the digits represent 1 ten, 2 ones, 3 tenths and 4 hundredths respectively.

**digit** - one of the symbols of the number system (including 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9). The number 29 is a 2-digit number; there are three digits in 2.95. The position or place of a digit in a number conveys its value.

**place holder** – where the zero digit is used as a place holder to show the absence of a value in a column. e.g 704 represents seven hundreds and 4 ones.

**partition** - to split a number into component parts. The two-digit number 38 can be partitioned into  $30 + 8$  or  $19 + 19$ .

**round** - in the context of a number, express it to a required degree of accuracy. 543 rounded to the nearest 10 is 540.

**negative number** – a number less than zero. Example:  $-0.25$ . Where a point on a line is labelled 0 negative numbers are all those to the left of the zero on a horizontal numberline.

**power of 10** – e.g. 10, 100, 1000, 10,000, 100,000, 1,000,000.

**operation** – a rule for combining two numbers in the set to produce a third also in the set. Addition, subtraction, multiplication and division are all operations.

**rule** – a statement that describes the way that things will happen in a particular situation.

**inverse operation** - operations that, when they are combined, leave the entity on which they operate unchanged. For examples: addition and subtraction are inverse operations e.g.  $5 + 6 - 6 = 5$ ; multiplication and division are inverse operations e.g.  $6 \times 10 \div 10 = 6$ .

**FOR GRAMMAR TERMS – REFER TO HANDOUT FROM THE WELCOME PACK IN SEPTEMBER. PLEASE LET ME KNOW IF YOU WOULD LIKE AN ADDITIONAL COPY.**