

Curriculum Plan for Academic Year 2022-23:

Maths

Kites ARB, Cape Cornwall School

	Autumn Term (A)	Autumn Term (B)	Spring Term (A)	Spring Term (B)	Summer Term (A)	Summer Term (B)
Unit	Money (Life Skills for Maths)	Shape (Geometry & Measurement)	Ratio, Proportion and Rates of Change (Ratio and Proportion)	Date and Time (Life Skills for Maths)	Addition, Subtraction, Multiplication and Division (Number)	Data Handling (Statistics)
Topics	<ul style="list-style-type: none"> • Introduction to Money • Recognising and working with coinage • Recognising and working with Banknotes • Calculating Change • Money in Context • Converting Currency 	<ul style="list-style-type: none"> • 2D shape • 3D shape • Calculating circumference, area and volume of circular and cylindrical shapes • Polygons and Triangles • Vertices, Edges and Faces • Angles 	<ul style="list-style-type: none"> • Introduction to Ratio • Expressing Quantity as a Fraction • Reducing to Simplest Form • Percentage • Scale Factors • Changing between standard units 	<ul style="list-style-type: none"> • Telling the time to the hour • Big and Short Hands • Telling the time in 30 minute increments • Telling the time in 15 minute increments • Telling the time in blocks of 5 minutes • Digital Clocks • The 24 Hour Clock • AM, PM and the 24 Hour Clock • Timetables • Dates 	<ul style="list-style-type: none"> • Basic skills and arithmetic • Column Addition • Column Subtraction • Box Method Multiplication • Relationships between Multiplication and Division • Bus Stop Division 	<ul style="list-style-type: none"> • Collecting Data • Tally Charts • Extracting Information from Charts and Graphs • Presenting Data in different formats • Pictograms • Bar Charts • Line Graphs • Pie Charts • Positive and Negative Trends
Learning Objectives	<p>To understand what is meant by currency as well as how we use currency.</p> <p>To be able to recognise and name different examples of coinage as well as banknotes.</p> <p>To be able to calculate change from different amounts of money.</p> <p>To understand value and money in context.</p> <p>To be able to name different types of currency.</p> <p>To be able to convert between different types of currency.</p>	<p>To understand what is meant by 2D shape.</p> <p>To be able to identify and give examples of 2D shapes.</p> <p>To understand what is meant by 3D shape.</p> <p>To be able to identify and give examples of 3D shapes.</p> <p>To understand the difference parts of circular objects.</p> <p>To be able to calculate the circumference, area and volume of circular and cylindrical shapes.</p> <p>To understand what is meant by a polygon and give examples.</p> <p>To understand what is meant by a triangle and give examples of different types of triangle.</p> <p>To be able to explain what is meant by vertices, edges and faces and apply this to examples of different 2D and 3D objects.</p> <p>To understand what is meant by an angle and to be able to</p>	<p>To be able to understand what is meant by "ratio".</p> <p>To be able to give examples of ratio in an everyday setting.</p> <p>To be able to translate information about different ratios in to numeric form.</p> <p>To be able to understand what is meant by fractions, decimals and percentages and convert between all three groups.</p> <p>To understand what is meant by simplest form and demonstrate this when presented with different numbers.</p> <p>To understand what is meant by percentage and to be able to calculate percentages.</p> <p>To understand how to calculate percentage increase and decrease as well as a percentage of a given number.</p> <p>To understand what is meant by scale factors.</p> <p>To be able to change between standard units of measurement.</p>	<p>To be able to tell the time to the hour using an analogue clock.</p> <p>To understand the difference between the big, short and second hands on a standard clock.</p> <p>To be able to tell the time accurately to 30 minute intervals.</p> <p>To understand the term half past.</p> <p>To be able to tell the time accurately to 15 minute intervals and understand the terms quarter-past and quarter-to.</p> <p>To be able to tell the time in intervals of five minutes or less. To be able to demonstrate an understanding of time in context.</p> <p>To understand how to transfer understanding from an analogue clock to a digital clock.</p> <p>To understand how to transfer understanding between a 12 and 24 hour clock.</p> <p>To be able to convert time from a 24-hour format to a 12-hour format and vice versa.</p> <p>To understand what is meant by AM and PM and how these are shown on different clocks.</p>	<p>To be able to answer basic questions relating to addition and subtraction.</p> <p>To be able to explain what is meant by addition and subtraction.</p> <p>To be able to explain how to work out basic addition and subtraction questions using a guide.</p> <p>To be able to complete column addition questions for larger numbers.</p> <p>To be able to complete column subtraction questions for larger numbers.</p> <p>To have an understanding of basic multiplication questions.</p> <p>To be able to complete more complex multiplication questions using box method multiplication.</p> <p>To understand the similarities and differences between multiplication and division.</p> <p>To be able to complete basic division questions using a visual aid.</p>	<p>To understand what is meant by data and why it is important to collect and analyse data.</p> <p>To be able to record data about a particular topic using a tally chart.</p> <p>To be able to present, extract and analyse the information on a tally chart.</p> <p>To be able to extract information from a variety of charts and graphs.</p> <p>To be able to present information in different formats.</p> <p>To understand what is meant by, as well as extracting information from and present information using:</p> <ul style="list-style-type: none"> - Pictograms - Bar Charts - Line Graphs - Pie Charts <p>To understand what is meant by a positive and a negative trend.</p>

		calculate missing angles as well as names given to certain angles.		To be able to extract information from a timetable. To have an understanding of longer periods of time.	To be able to complete more complex division questions using the bus stop method. To be able to apply number skills to mathematical problems.		
Learning Outcomes	Students will have an understanding of and be confident with the use of different sums of money. Students will be able to use coins and banknotes and will understand the relationships between different values of coins and banknotes. Students will understand how to apply knowledge from this topic to everyday situations and will also have an understanding of money in different cultures and how to convert from one to another.	Students will be able to recognise and name a number of 2D and 3D shapes as well as understanding the difference in properties between the two. Students will be able to calculate different measurements based on circular and cylindrical objects. Students will understand what is meant by a polygon or a triangle and will be able to give examples of some different properties that each have. Students will have a good understanding of different angles within shapes as well as their terminology.	Students will be able to discuss ratio and its meaning using an everyday scenario as an example. Students will be confident on the differences and similarities between ratios and fractions and how they can convert between these numbers. Students will understand how to reduce fractions to their simplest form. Students will be confident in what is meant by percentage and how to calculate percentages. Students will be able to change between standard units of measurement with guidance.	By the end of the unit, students will have a good understanding of time across 12 hour clocks and 24 hour clocks. Some will be able to convert between these and will also understand the differences between analogue and digital clocks. Students will be able to confidently tell the time as well as putting a given time on to a clock face to demonstrate understanding. Students will be able to extract information from timetables that may appear in everyday life e.g. bus or train timetables. They will also be able to use their understanding of time in both formats to contextualise this information. Students will also look at dates and longer periods of time as well as converting between different periods of time.	Students will be confident in calculating answers to questions about addition, subtraction, multiplication and division. Students will have an understanding of some of the tools they will need to work out questions with larger numbers. Students will be able to demonstrate their ability to use column addition and subtraction as well as box method multiplication and bus stop division. They will also acquire skills which will help them to understand these things in context and apply them to everyday situations.	Students will have a good understanding of a variety of different charts and graphs used to present and record data. They will be confident in extracting information as well as presenting information using these formats. Students will be able to take information from a case study at school and convert this into a specified graph or chart. Students will also be able to discuss patterns in data with particular focus on positive and negative trends.	
Key Words	Currency, Coin, Banknote, Value	Vertex/Vertices, Acute, Obtuse, Straight, Right-Angle.	Quantity, Percentage	Time, Clock, Ante Meridian, Post Meridian, Midnight, Midday, Analogue, Digital, Quarter, Half, Hour, Minute, Second.	Addition, Subtraction, Multiplication, Division.	Positive and Negative Trends, (See Chart Names), Data	
Activities & Practical Tasks	<ul style="list-style-type: none"> • Role play activities involving money. • End of topic assessment. 	<ul style="list-style-type: none"> • End of topic assessment 	<ul style="list-style-type: none"> • End of topic assessment 	<ul style="list-style-type: none"> • Time assessment booklets • Regular testing of knowledge during beginning of lesson • End of topic assessment 	<ul style="list-style-type: none"> • End of topic assessment 	<ul style="list-style-type: none"> • Case studies in school based on real data • End of topic assessment 	