

Camelford Primary School Maths Skills Progression

Maths Pathway- ARB

Subject Lead: Jordan Garratt

INTENT:

Maths is a practical subject that pupils will encounter in everyday life. Maths encourages children to learn to build on past knowledge to solve problems. At Camelford Primary ARB, we encourage children to use their creativity and imagination, to solve maths problems in a range of real life contexts, through play and through group and 1:1 intervention work. This will support our learners to become confident to be as independent as possible in the outside world.

IMPLEMENTATION:

Through a variety of creative and practical activities, we teach the knowledge, understanding and skills needed to solve maths problems.

These include;

Geometry:

- Have opportunities to explore a range of shapes and measuring equipment
- . Gain understanding of the properties of shapes, materials and objects
- . Gain understanding on differentiating items into categories
- . Use shapes to create products, artworks and to solve problems

Number / Measure:

- . Grow a deep understanding of cause and effect
- . Use knowledge of numbers and number facts to make choices and solve problems
- select from and use a wider range of tools and equipment to perform practical tasks and solve problems

Statistics:

- log, investigate and analyse a range of data
- Show persistence when improving you're efforts to gain the desired result
- understand how objects can be categorised

IMPACT:

We ensure the children:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly mathematical world
- build and apply a repertoire of knowledge, understanding, skills and vocabulary in order to solve real life problems
- understand and apply the principles of maths in all contexts in every day life, i.e making choices.

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	Year 1			Year 2			Year 3			Year 4		
	Ourselves (12 weeks) Evolution of Man Science Focus	Our School (12 weeks) Our Community, Our World Geog Focus	Weather & Seasons (12 weeks) Environmen tal Warrior Science Focus	Toys (12 weeks) Invasion & Rebellion History focus	Spring & Growth (12 weeks) Environme ntal Warrior Science Focus	Creatures great & small (12 weeks) Evolution of Man Science Focus	Colour & Light (12 weeks) Environme ntal Warrior Science Focus	Communiti es & Cultures (12 weeks) Our Community , Our World Geog Focus	On the move (12 weeks) Evolution of Man Science Focus	Journeys (12 weeks) Transport & Railways- British Values History Focus	Houses & Homes (12 weeks) Invasion & Rebellion History Focus	Out & About (12 weeks) Transport & Railways- British Values History Focus
	Number and the number system and using and applying											
A R B	Measures Time	Fractions	Measures Capacity	Geometry Position and movement	Measures Money	Geometry Patterns & shapes	Measures Capacity	Geometry Exploration	Geometry 2-d Shapes	Geometry 3-d shapes	Measures Length	Fractions
	Geometry 2-d Shapes	Geometry Exploration	Geometry 3-d shapes	Data- responding, organising & using	Measures Weight	Measures Length	Measures Time	Geometry Position and movement	Geometry Patterns and shapes	Measures Weight	Data- responding, organising and using	Measures Money

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The following documents detail the Engagement Steps and Primary Steps statements and the progression of skills within each of the given topic areas. Each progression of skills document shows expectations for levels Engagement Steps 1-6 and Primary Steps 1-3.

How should this be used to help plan learning opportunities?

Teachers must ensure that they use the progression of skills to guide their planning, teaching and assessment. They should inform their planning for each child inline with their level in each subject area. However, due to the fact that we have mixed classes at Camelford ARB, teachers must use their professional judgement.

How can this be used by subject leads and SLT?

Subject Leads and SLT should use the progression of skill statements and subject coverage documents to ensure the correct coverage is happening across the school, at the right times, that the areas being taught are relevant (as per the pathway) and that they are pitched to the right level ensuring challenge. The journey of a child in their time at Camelford ARB should be carefully monitored to ensure their learning is progressive and varied.

Engagement Steps 1-6

Cognition & Learning: Exploration Description

This shows whether a pupil can build on their initial reaction to a new stimulus or activity; for example, whether they display more than an involuntary or startled reaction to the activity. Additionally, the pupil may be interested in and curious about the stimulus or activity; for example, they may notice it or reach out to it.

Exploration becomes more established when the pupil is still responsive to the same stimulus or activity when it is presented in different contexts or environments; for example, a different time of day, a different place or with different people.

Exploration is important in identifying which stimuli or activities interest the pupil and motivate them to pay attention and investigate them further, so that they can develop new knowledge and skills.

Cognition & Learning: Realisation Description

This shows how the pupil interacts with a new stimulus or activity or discovers a new aspect of a familiar stimulus or activity. They will display behaviours that show they want more control of the stimulus or activity, for example by stopping it or trying to make changes to it. The pupil will often show what familiar adults consider to be 'surprise', 'excitement', 'delight', 'amazement' or 'fear'.

Realisation becomes more established when the pupil uses the newly developed skills or knowledge in new ways and in different contexts or environments. This is important as it can keep the pupil excited in their education and prevents an activity from becoming routine.

Cognition & Learning: Anticipation Description

This shows how much the pupil predicts, expects or associates a stimulus or activity with an event. They may anticipate that a familiar activity is about to start or finish by interpreting cues or prompts such as auditory (what they hear), tactile (what they feel) and visual (what they see).

Anticipation becomes more established when the pupil shows awareness that a familiar activity is about to start or finish, even when cues and prompts are reduced.

Anticipation is important in measuring the pupil's understanding of cause and effect; for example if they do this, then something will happen. This prepares the brain and helps with the pupil's memory and sequencing.

Cognition & Learning: Persistence Description

This shows whether the pupil can sustain their attention in a stimulus or activity for long enough that they can actively try to find out more and interact with it.

Persistence becomes more established when the pupil shows a determined effort to interact with the stimulus or activity. They will do this by showing intentional changes such as changes in their gaze, posture and hand movement.

Persistence is important so that the pupil maintains an activity long enough to develop, reinforce, and apply their skills or knowledge so they can achieve their desired outcome.

Cognition & Learning: Initiation Description

This shows how much, and the different ways, a pupil investigates a stimulus or activity in order to bring about a desired outcome. The pupil will act spontaneously and independently during a familiar activity without waiting for direction.

Initiation becomes more established when the pupil shows they understand how to create an impact on their environment in order to achieve a desired outcome.

Initiation is important to establish how well the pupil is developing independence, which is required for more advanced progression.

Primary Steps: 1-3

Maths: Number

This shows whether the pupil can use their knowledge and skills of numerals and number facts to solve problems.

Maths: Geometry

This shows whether the pupil can use their knowledge of shape to differentiate and solve problems.

Maths: Measurement

This shows whether the pupil can use their knowledge of length, weight and capacity to solve problems.

Maths: Statistics

This shows whether the pupil can gather, read and analyse data. This also shows whether the pupil can differentiate objects from one another and make adjustments to improve an outcome.

*beyond these assessment tools and statements, pupils in ARB would move on to YR1-YR6 statements for assessment found under the same categories on B2 Connecting Steps. We do not currently have pupils in our ARB working close to this level.