Key Stage 3 Semi-Formal
Mathematics Long Term Plan
Planning Year 1-3


# Unit Skill and Knowledge Development 

## Mathematics

Key Stage 3 Semi-Formal

## Unit

## Planning Years 1, 2, 3

## Autumn

Encourage the children to build and identify numbers to 20 and beyond using a range of resources. 10 frames, number shapes, towers of cubes, rekenreks and bead strings all support the children to see that larger numbers are composed of full 10 s and part of the next 10 . Provide opportunities for children to recognise that the numbers 1-9 repeat after every full 10 . So, they have 1 full ten and 1,1 full ten and 3 etc. Then 2 full tens and 2.
Provide regular opportunities for children to count on and back beyond 10. Representations which clearly show the full 10s and the part of 10 , for example 14 is one full ten and four. Encourage counting on or back from different starting points, to say what comes before or after a given number and to place sequences of numbers in order. You can also challenge them to find larger numbers on number tracks and 100 squares.

## Spring

The children will use real objects to see that the quantity of a group can be changed by adding more. The first, then, now structure can be used to create mathematical stories in meaningful contacts. At first, the children may need to recount all of the items to see how many they have altogether. Encourage the children to represent the number stories using 10 frames, number tracks and their fingers.
The children use real objects to see that the quantity of group can be changed by taking items away. The first, then, now structure can again be used to create mathematical stories in meaningful contexts. Encourage the children to count out all of the items at the start, take away the required amount practically, and then subitise or recount to see how many are left. Continue to encourage the children to represent the number stories using 10 frames, number tracks and their fingers.

## Summer

The children will learn that double means 'twice as many'. They should be given opportunities to build doubles using real objects and mathematical equipment. Building numbers using the pair-wise patterns on 10 frames helps the children to see the doubles. Mirrors an barrier games are a fun way for children to see doubles as they build and to explore early symmetry. Encouraged children to say the doubles as they build them for example 22 is 4. Provide examples of doubles and non- doubles for the children to sort an explain why.
The children will probably already have some experience of sharing and will be quick to point out when items are not shared fairly. During snack time or group activities, encouraged them to cheque that the items are shared equally and that everyone has the same. The children should also be given opportunities to recognise and make equal groups. For example, can you put three crackers on each plate or plant two flowers in each pot. What groups do they notice on a beat string? the children will notice that sometimes there are items left over when they share, or group full stop encouraged them to come up with their own suggestions for how to resolve this.
The children begin to understand that some quantities will share equally into two groups, and some won't. They may also notice that some quantities can be grouped into pairs, and some will have one left over. Provide opportunities for them to explore these ideas in different contexts as they play and talk about what they notice. Encourage the children to notice the odd uneven structure on the number shapes an by building pair-wise patterns on the 10 s frames.

# Unit Skill and Knowledge Development 

## Mathematics

## Key Stage 3 Semi-Formal

## Planning Years 1, 2, 3

## Autumn


Provide regular opportunities for the children to complete jigsaws and shape puzzles. They need opportunities to select and rotate shapes to fill a given space. Encourage them to explain why they chose a particular shape and why a different shape wouldn't fit. Provide opportunities for the children to match arrangements of shape, prompting them to use positional language to describe where the shapes are in relation to one another. Ask the children to select shapes to complete picture boards or tangram outlines.

## Spring

Children understand that shapes can be combined and separated to make new shapes. Provide opportunities for the children to feed shapes together and break shapes apart and notice the knew shapes they have created. Investigate how many ways are given shape can be built using smaller shapes. Encourage the children to explore the different shapes they can make by combining a set of given shapes in different ways.

## Summer

Children understand that places an models can be replicated and need to experience looking at these from different positions. Provide opportunities for children to replicate simple constructions, models, real places, and places in stories. Prompts them to use positional language to describe where objects are in relation to other items. The use of gesture to accompany the positional language can also support understanding. Encourage children to visualise simple models by playing barrier games and providing the verbal instructions for them to follow as they build.

