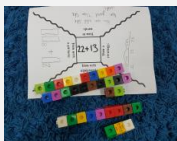


RESOURCES

We use a variety of resources to support the children's learning. These include;

Dry wipe boards
Numicon
Tens Frames
Empty number lines.
Subitising Cards
Straw Bundles



Unifix Cubes
Think Boards
Bead Strings
Assorted Dice
Counters
Loose parts

Find out more about **Numicon** here -

<https://global.oup.com/education/content/primary/series/numicon/?region=uk>



Outdoor Learning

We are fortunate in Aberdour that we are surrounded by a beautiful and varied outdoor space. The staff and children use this to their advantage when teaching and learning conceptual numeracy strategies.

When outdoors, teachers and support staff, plan for opportunities so that children can learn new concepts in numeracy, put taught skills into practice in a natural way and problem solve to support children in transferring their numerical concepts to new and unfamiliar learning.



Please find a list of websites we use in school that can also be used at home.

<https://www.doorwayonline.org.uk/number/>

<https://home.oxfordowl.co.uk/>

<https://www.sumdog.com>

<https://www.topmarks.co.uk/>

<https://mathsframe.co.uk/>

<https://www.bbc.co.uk/bitesize>

<https://www.bbc.co.uk/bitesize/subjects/z826n39>

<https://appuk.idlsgroup.com/#/login>

<https://www.mathsweek.scot/activities>

<https://nrich.maths.org/>

Please Note

Children must be supervised when on the Internet. Some websites may give the children the opportunity to purchase additional accessories for a game and may also allow your child to play online with others.

It is therefore important parents/carers remain vigilant when children are using these websites. We advise that you always check websites before a child accesses them. Please note that these websites are not monitored by the school.



Conceptual Numeracy: A guide for parents in P1-3/P4-7

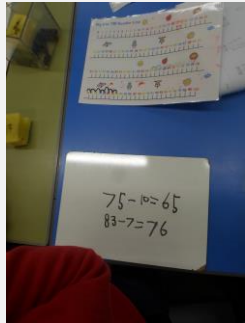
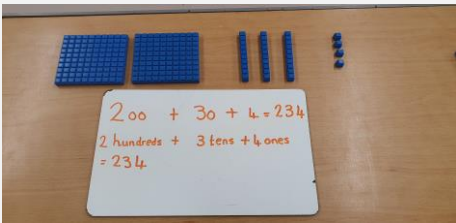
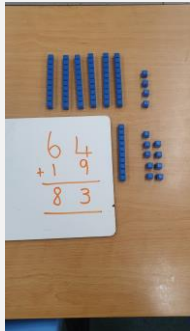


This leaflet will help guide you through our teaching, learning and assessment of conceptual numeracy.

As you become familiar with our approaches it will help you in supporting your child at home with their learning across addition, subtraction, multiplication and division.

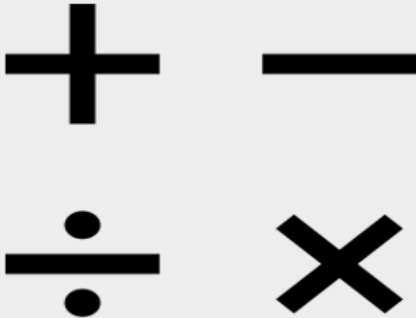
ADDITION

Children are taught to understand addition as combining sets and counting on. Below are some examples of the ways we would use to illustrate concepts in addition for children.



SUBTRACTION

Children are taught to understand subtraction as taking away (counting back) and finding the difference (counting on/up).



Here at Aberdour Primary School, we use conceptual numeracy as an approach to ensure our pupils are not just learning procedures and rules in numeracy but are developing a deeper understanding of the concepts being taught. It's important to us that in using this approach enables our children to make links which they are then able to transfer across the four operations of addition, subtraction, multiplication and division.

The children are given daily opportunities to apply their skills to new situations and solve problems, and to learn in a more practical way. They are encouraged to talk about and share their learning and strategies in numeracy as this helps develop and support their thinking around concepts. This then enables teachers to address any misunderstandings that may arise.

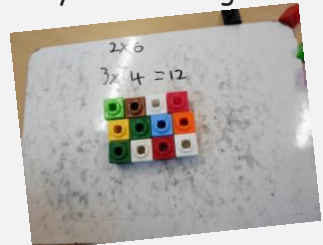
Calculations are put into practical contexts so that the child sees the relevance of the method they are learning.

MULTIPLICATION

Children are taught to understand multiplication as repeated addition.



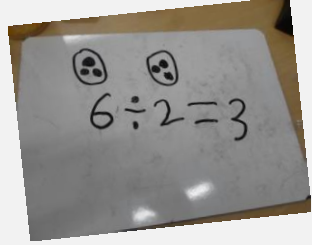
Calculations are put into practical contexts so that the child sees the relevance of the method they are learning.



A good knowledge and quick recall of times tables is also essential to children's mathematical progress. The children are taught up to 12 x 12. It is very important that children practice their times tables frequently at home.

DIVISION

Children are taught to understand division as sharing and grouping. We also ensure that children are taught to recognise the links between multiplication and division.



PLAY

Here in Aberdour we promote a playful pedagogy through nursery, P1 and P2.

Play is the vehicle we use to teach numerical concepts to our young learners.

In P1 and P2, as well as play, we also use a mixture of child initiated, teacher initiated, and teacher directed activities to teach conceptual numeracy and progress learning further.

Across the early years we use observations to determine what the children have learned through play and how we can facilitate this further and move learning on to the next stage.

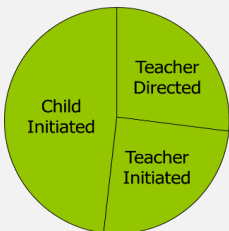
Child Initiated Learning is

- spontaneous and unpredictable
- open ended
- develops skills
- relates to the children's interests
- children leading learning
- children creating their own challenge



Teacher Initiated Learning is

- intended-potential learning
- challenging
- introduces new learning / concepts
- differentiated for pupils



Teacher Directed Learning is

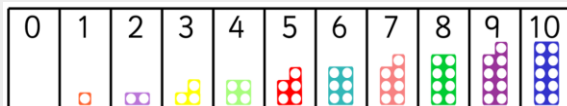
- planned and specific
- provides challenge
- can be achieved independently or with adult support
- may be targeted to specific groups to meet learning needs

The Conceptual Understanding in Numeracy approach focuses on developing a deeper understanding of number concepts through structured activity, developing strategies, use of concrete resources and making relevant links across numeracy.

To support your child at home, we have listed the resources and strategies we promote across P1-P3 and throughout the school.

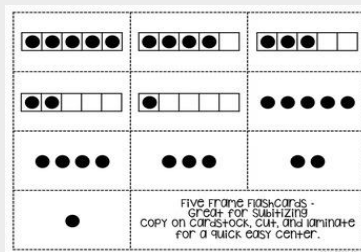
Numicon

Numicon is an excellent resource which we use to support conceptual numeracy. It is introduced to children in P1. It allows children to see how numbers are represented, and supports their thinking around addition, subtraction, multiplication and division.

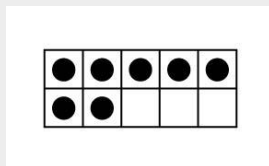


Five-Frames and Ten-Frames

A five-frame is a 1 x 5 rectangular array which is used to support children's thinking about combinations to 5. e.g. $3 + 2 = 5$

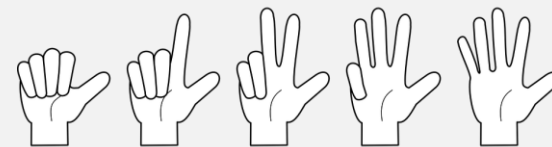


A ten-frame is a 2 x 5 rectangular array which is used to support children's thinking about combinations to 10 and beyond. e.g. $5 + 5 = 10$



Finger Patterns

Finger patterns are used to allow the child to develop understanding of the combinations of numbers to 10.



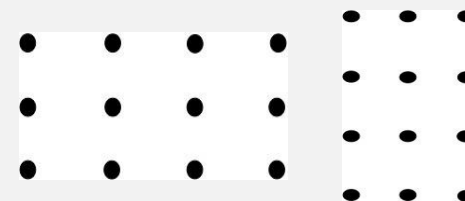
Dot Patterns

Dot patterns are used to allow the pupils to build a visual picture of the value of a digit.



Arrays

Arrays are used to help develop children's visual understanding of multiplication tables. e.g. this array has 3 rows of 4 columns and is called a 3 x 4 array. Rotating arrays allows children to see that multiplication is reversible too. 3×4 or 4×3



Think boards

We use these to represent number calculations in a variety of ways.

