MATHS learning springboards

Operations using brackets (and algebra)

Using natural materials to represent numbers

Aim: Pupils use objects to represent numbers to add a new dimension to the task. It provokes mathematical conversation and reasoning in an active way to reinforce learning that previously took place inside the classroom.

- Pupils gather a range of resources and allocate a value to them.
- Stone=1, green leaf=2, brown leaf= 3, twig=5 etc...
- Working in groups pupils set tasks for each other. Eg Stone + green Leaf x brown leaf = twig, but (stone + green leaf) x twig = conker.
- Chalk is used for brackets and symbols.
- In KS3 this can be extended to using further algebraic notation.

More springboards:

• Maths Learning springboard - Place value

Key vocabulary: brackets, symbols, algebra, notation, value, reasoning

Success criteria:

- \checkmark I can use abstract materials to represent numbers and calculations
- 🗸 🛛 I can explain my reasoning

Resources:

Found objects as resources, Chalk for the brackets and symbols



Leaf logic

Carrol diagrams and Venn diagrams

Aim: Pupils use Venn diagrams and Carrol diagrams for sorting leaves.

Depending on the age/stage of the pupils, suggest labels for the columns and rows, or groups of pupils could set challenges for one another to guess the row and column labels.

Progress to Venn diagrams when Carrol diagrams are mastered.

Check out the Creative Star website for more leaf logic ideas (and much, much more besides!)



Key vocabulary: Venn diagram, Carol diagram

Success criteria:

- I understand and can explain how to use a Venn diagram and a Carol diagram
- \checkmark I can use either to sort leaves

Resources:

You can use any leaves for this, especially in Autumn when there is a wide variety of colours.



