St Joseph's Primary Catholic School

Parent Workshop

AIMS OF THE WORKSHOP

- ✓ To outline the main changes to the primary maths curriculum.
- ✓ To explain about the different strands of the Mastery Curriculum.
- ✓ To provide parents with ideas and activities that they can use at home to support children's maths development.

KEY AIMS OF THE NEW MATHS CURRICULUM

- **Fluent recall** of **mental maths facts** e.g. times tables, number bonds. Etc.
- To **reason** mathematically – children need to be able to **explain** the mathematical concepts with number sense; they must explain **how** they got the answer and **why** they are correct.
- **Problem solving** – applying their skills to real-life contexts.

There are high expectations that children will cover maths objectives for their year group. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content.

Those who are not sufficiently fluent with earlier material should consolidate their understanding, including additional practice, before moving on.

We do this by using

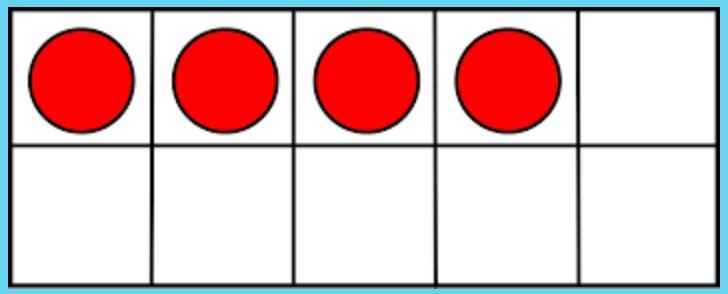
- Concrete, pictorial, abstract approach at all ages.
- Fluency
- Mastery
- Greater Depth

CONCRETE EXPERIENCES

This is a hands on component using real objects and it's the foundation for conceptual understanding.

PICTORIAL EXPERIENCES

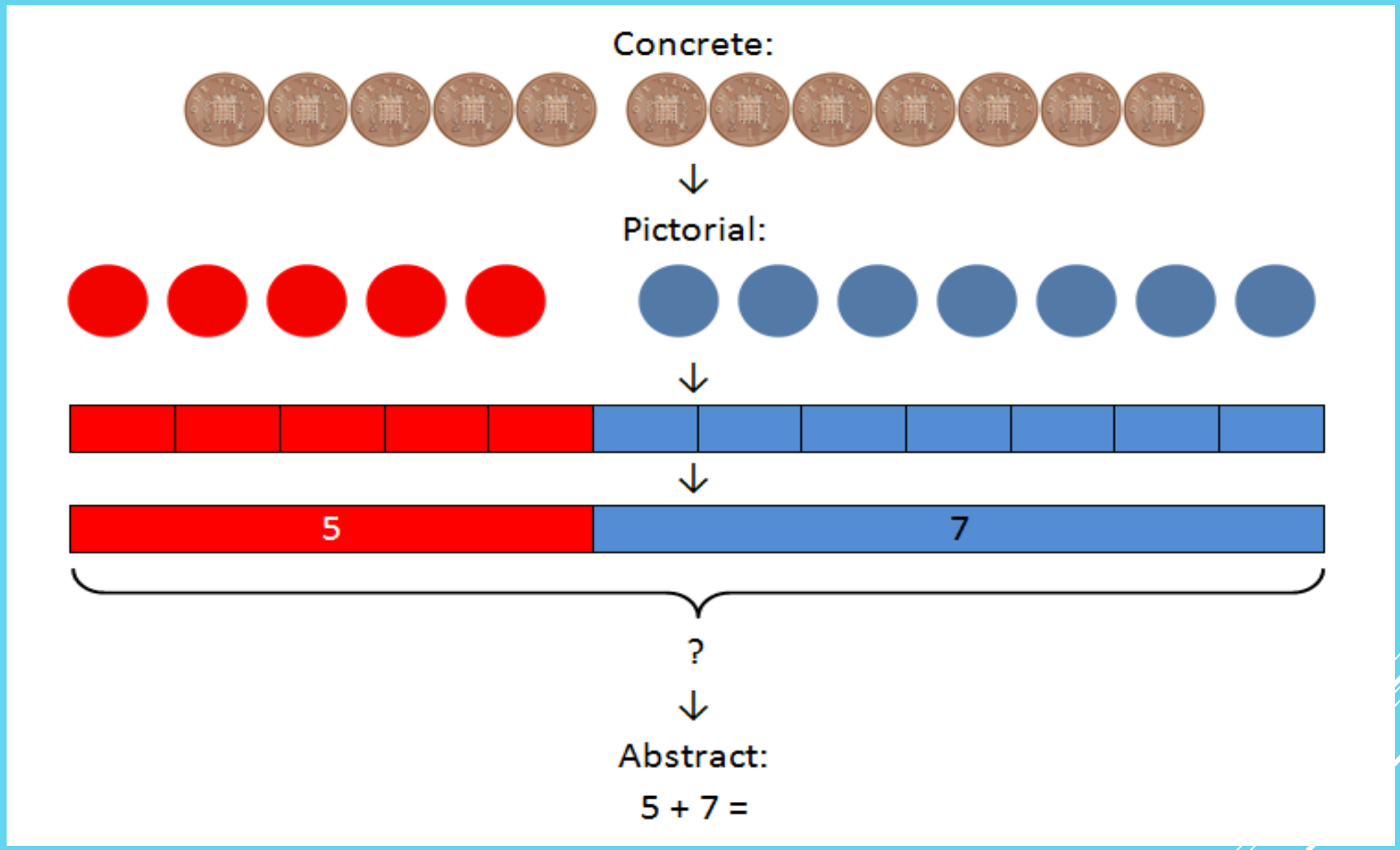
Using representations, such as a diagram or picture for the problem.



ABSTRACT EXPERIENCES

The symbolic stage – a pupil is now capable of representing problems by using mathematical notation

5 + 7 =


Concrete:
Pictorial:
5
7
?
Abstract:
5 + 7 =

WHAT ARE THE CHARACTERISTICS OF A CHILD WHO IS GOOD AT MATHS?

We encourage the children to:

- Take risks
- Ask questions and explore alternative solutions without the fear of being wrong.
- Enjoy exploring and applying mathematical concepts to understand and solve problems.
- Explain their thinking and presenting of ideas in a variety of ways.
- Become fluent, flexible thinkers able to see and make connections.

KEY DIFFERENCES
NEW MATHS CURRICULUM:

Up to the end of Year 2 the emphasis is on:

- Working mentally,
- Calculations recorded in horizontal number sentences
- Some jottings for more challenging numbers
- Models and Images

In Year 3-6 children will be gradually taught more formal written methods of calculation but they will still use mental methods and jottings where appropriate.

MENTAL MATHS

The ability to calculate mentally forms the basis of all methods of calculation. This involves:

- Instant recall of number facts (+ - x ÷).
- Have a secure understanding of place value and the number system.
- Know the best strategy to apply to a calculation.
- Understand the language and rules of maths.

WRITTEN METHODS

- Throughout their primary years, children should progress from informal jottings to efficient written methods for each of the four operations.

- Standard written methods should only be introduced when a child has a secure knowledge and understanding of the process involved and can clearly explain the strategies they have used.

- Children become secure with these methods when they have regular practice and persevere!

Assessment at St Joseph's

- Termly tests to assess children's progress in line with the key objectives for their year group.

- Use to inform future lesson planning.

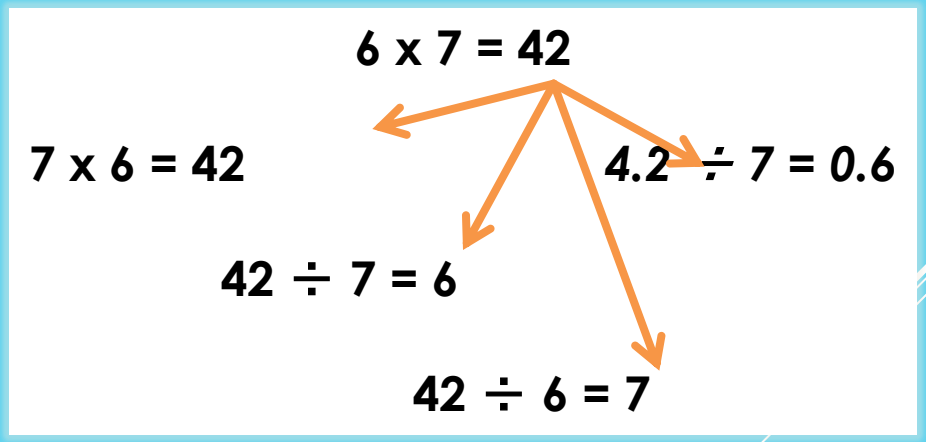
- Show where they are up to in relation to year group objectives (working at, expected and greater depth).

- Gaps used to set children's targets.

- In addition, we have weekly basic skills sessions which are also linked to the yearly objectives .

KEY INSTANT RECALL FACTS

- Times tables up to 12 x 12
- Square numbers
- Prime numbers
- Fraction, decimal and percentages equivalences
- Metric conversions



GOOD PRACTICE IN MATHEMATICS

- All children need to learn maths in a real life context.
- As well as knowing 7x7=49. Children need to be able to do the following:
- There are 7 fields, each field has 7 sheep in them. How many sheep are there in total?

- Children need to be able to explain how they have calculated or solved a problem.

- In the maths curriculum, written calculations are taught at an earlier age. The mental methods are essential for supporting pupils understanding of these written calculations.

HOW YOU CAN HELP AT HOME

- As a parent/ carer it is essential that you help your child with their maths skills at home.
- This does not always mean sitting down with your child.
- Firstly try to make maths as much fun as possible - games, puzzles and jigsaws are a great way to start. It's also important to show how we use maths skills in our everyday lives and to involve your child in this. Identifying problems and solving them can also help your child develop maths skills. If you see him or her puzzling over something, talk about the problem and try to work out the solution together.
- Don't shy away from maths if you didn't like it at school. Try to find new ways to enjoy the subject with your child.

HOW TO HELP AT HOME – USEFUL WEBSITES

- www.mathszone.co.uk
- http://www.bbc.co.uk/bitesize/ks1/maths/
- http://www.familylearning.org.uk/online_math_games.html
- www.sesamestreet.org
- www.topmarks.co.uk

Overview

- Secure mental strategies from YR.
- A solid understanding of the number system.
- Practical, hands on experience including counters and base 10 apparatus.
- Visual images including number lines and arrays.
- Secure understanding of each stage before moving onto the next.
- The questions at the forefront of their minds:
- ‘Can I do it in my head? If not which method will help me?’