

St Patrick's Problem Solving Resource Pack

St Patrick's Primary School uses the RUCSAC steps as the overarching process to teach the students to solve mathematical problems. The posters are on display in every classroom, from Kindy through to Yr6. The language used throughout the school is a common mathematical language. Please use this terminology with your children at home and it will assist in cementing the math's process in your child's long-term memory.

- R** Read the question carefully. What is the important information?
- U** Understand the question. What do you have to find out?
- C** Choose the right operation(s) and method of calculation.
- S** Solve the problem! Make sure you follow all the steps.
- A** Have you answered the question? What were you meant to find out?
- C** Check your answer. If possible, use the inverse to check your working out.

St Patrick's Bank of Problem Solving Strategies

The key problem solving strategies need to be taught and practiced; this will assist in the skills becoming more developed and a deeper understanding of when to use specific strategies will become apparent.

For some questions, once students understand what needs to be done, just one strategy is sufficient. For other questions, more than one strategy will be used. Sometimes a range of different strategies may be appropriate.

LOCATE THE KEY WORDS

- Underline them.
- Write them down.
- Read them a few times.
- Make sure I know what I have done.

LOOK FOR A PATTERN

- Is there a similar thing happening over and over?
- Will finding this help me solve the problem?

GUESS AND CHECK

- Think of a possible answer.
- Try and see if it works.
- Does the answer make sense?

MAKE A TABLE OR CHART

- Will something like this help me?
- Will it help me to see a pattern?

MAKE A DRAWING

- Can I draw about the problem in some way?
- Will a sketch help me see what needs to be done?

WORK BACKWARDS

- If I start at the end of the problem and work backwards, will it help?
- When I do this, does my answer work?

TRY A SIMILAR BUT EASIER PROBLEM

- What is the same about these two problems?
- Can I use this to help me with the harder problem?
- Can I see a pattern?

MAKE A MODEL

- Will a model made out of paper help me to solve the problem?
- Will a model made from blocks help me to solve the problem?

THINK CLEARLY

- What do I already know about the possible answer?
- What must the answer look like?
- What answers obviously do not work?