

# Using Number Operations Accurately

USING ADDITION AND SUBTRACTION TO CRACK A CODE

## ESSENTIAL QUESTION

### Why is it important to add and subtract accurately?

#### WHAT ARE WE LEARNING?

- Numbers that add to 20
- Numbers that subtract to 20
- To check answers for accuracy

#### TRY THIS WITH

- Years 1-3
- Students who have an interest in solving mysteries
- Students who love number puzzles

## FIND

- Choose
- Predict
- Define
- Observe
- Compare
- Which

Play Around the World.  
Stand in a circle. The first player stands facing another student. Give the two students an addition or subtraction equation they will be able to do in their heads. Whoever answers correctly first moves around the circle playing each person until they are beaten and replaced. Explain to the students that even when they're not competing they should answer in their heads to warm up for their turn. Ask students what happens if they get an answer wrong. Use their answers to discuss the importance of accuracy. Review strategies for checking their addition and subtraction answers.

## APPLY

- Calculate
- Reorganise
- Transfer
- Interpret
- Practice
- Develop

Divide students into pairs.  
Give each pair two or three die and up to 20 counters.  
Take it in turns to roll each dice.  
Add or subtract the numbers that are rolled. Whoever is the first to answer correctly wins a counter. First to get five counters wins. If the answer is wrong the counter as to be given back.  
Use appropriate strategies to check answers. For example, use a number line, a ruler, counting the dots on the dice or counters to help.  
Remind students to subtract the smaller number from the bigger number on a subtraction round.

## PRODUCE

- Estimate
- Compare
- Consider
- Interpret
- Think
- Agree

Explain the steps of the the Crack the Code activity.  
Tell students they are going to be detectives and they will only solve the puzzle and colour it correctly if they 'crack the code' by finding the right answers to the equations.  
Use the magnifying glasses to view the equations and then answer them individually or with support.  
Check each answer (using an appropriate strategy or equipment) before using it to find the corresponding colour in the code.  
Colour each section the appropriate colour to complete the picture.  
Share the completed work. Does everyone have the same result? Can any mistakes be identified and fixed up with the help of someone who has cracked the code accurately?

## SUCCESS CRITERIA

Students can check they have successfully completed the challenge by::

- Solving all the equations correctly
- Using a strategy and / or equipment to check their answers
- Translating the answer to the correct colour ensuring that the picture is completed accurately

PRINCIPLES	VALUES	KEY COMPETENCIES	LEARNING AREAS	WORD BANK	RESOURCES REQUIRED
Coherence Inclusion	Innovation, inquiry and curiosity Excellence	Thinking Using language, symbols and texts	Mathematics and Statistics	Operation Equation Addition Subtraction	<u>Crack the Code</u> activity