

Angles

HERE'S THE MATHS

An angle is a measure of an amount of turn. A quarter of a whole turn is known as a right angle (or sometimes as a 'square' angle, because it is the same as the corner of a square). Two right angles make a straight line; three right angles make $\frac{3}{4}$ of turn and four right angles make a full turn. Your child is learning to recognise angles smaller than a right angle and larger than a right angle.

ACTIVITY

What to do

- Decide on a starting direction to face, e.g. the window.
- One person tosses the coins, the other turns.
- Roll the coins and count the number of 'heads'. This gives the number of right angle turns to make.
- Make the correct turn and explain your move e.g. if three heads are thrown, turn through $\frac{3}{4}$ of a turn and say, 'Three right angles is $\frac{3}{4}$ of a complete turn'.
- Change roles. Play for five minutes.

You will need:

- 4 coins

Variations

- Play for two minutes each and continue from the direction you finished facing after each go. Score 10 points every time a whole turn is completed.
- The person with the higher score is the winner.

QUESTIONS TO ASK

Use your arms to show me a right angle.

Use your arms to show me an angle that is smaller (or larger) than a right angle.

How many right angles make a complete turn?

Find three right angles that you can see.

Find an angle that is smaller (or larger) than a right angle that you can see.



Year 3 Maths Newsletter 3



Date: _____

Name: _____

MATHS TOPICS

These are the maths topics your child will be working on during the next three weeks:

- Addition
- Subtraction
- Angles

KEY MATHEMATICAL IDEAS

During these three weeks your child will be learning to:

- mentally add ones, tens and hundreds to a 3-digit number
- mentally subtract ones, tens and hundreds from a 3-digit number
- identify right angles, recognise two right angles make a half-turn, three make $\frac{3}{4}$ of a turn and four a complete turn
- identify whether angles are greater or less than a right angle.

TIPS FOR GOOD HOMEWORK HABITS

Turn off the TV and computer. Choose a quiet place, preferably sitting at a table, where your child can work comfortably without disturbance.

Addition

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Adding ones, tens and hundreds to a 3-digit number means answering calculations similar to: $234 + 7$, $234 + 70$ and $234 + 700$; and missing number calculations $234 + \square = 241$, $234 + \square = 304$ and $234 + \square = 934$. This involves using and applying knowledge of number bonds to 20. An empty number line is a useful model to help your child record their thinking, especially in examples where the tens or hundreds boundary is crossed.

ACTIVITY

231	457	989
845	502	673
326	718	164

You will need:

- set of cards with digits 1–9
- pencil and paper

What to do

- Choose one of the 1–9 cards. Do not put it back in the set.
- Take turns to add the chosen single digit number to each of the 3-digit numbers on the grid.
- Discuss which answers have crossed the tens boundary.
- Choose a different card and repeat.
- Play for 10 minutes at a time.

QUESTIONS TO ASK

What happens to the tens digit when you add 4 to 135?

What happens to the tens digit when you add 8 to 135?

Add 7 to each number in the top row of the grid.

Add 60 to each number in the middle row of the grid.

Add 200 to each number in bottom row of the grid.

Subtraction

HERE'S THE MATHS

Subtracting ones, tens and hundreds from a 3-digit number means answering calculations similar to: $612 - 5$, $612 - 50$ and $612 - 500$ and missing number calculations $612 - \square = 607$, $612 - \square = 562$ and $612 - \square = 112$. This involves using and applying knowledge of number bonds to 20. An empty number line is a useful model to help your child record their thinking, especially in examples where the tens or hundreds boundary is crossed.

ACTIVITY

What to do

- Choose three different cards from the 1–9 set and write a list of all the possible 3-digit numbers.
- Return the cards to the pack and choose a single card.
- Take turns to subtract the chosen single digit number from each of the 3-digit numbers.
- Choose different cards and repeat.
- Play for 10 minutes at a time.

Variation

- Give the single card a value ten times its face value and subtract that, e.g. if you pick a 4, subtract 40.

You will need:

- set of cards with digits 1–9
- pencil and paper

QUESTIONS TO ASK

Which number is written first in a subtraction calculation? Why?

What is $537 - 40$? Explain how you calculated the answer.

What must you subtract from 482 to leave zero in the tens column?

What must you subtract from 546 to leave zero in the ones column?

What must you subtract from 319 to leave zero in the hundreds column?