

YEAR 5 Maths Attainment Statements – Examples of Teaching Activities

The following activities provide examples of the types of teaching activities undertaken in school - it is not an exhaustive list and some of these activities would be undertaken with teacher support. A child successful in these activities is demonstrating an excellent understanding of the concept and shows a depth of understanding. Many of these activities can be used at home – please use these as an opportunity to talk together about maths rather than a test of what you child can do or can't.

Maths Aspect: Number and Place Value

- Spot the mistake: 177000,187000,197000,21700 What is wrong with this sequence of numbers?
- True or False? - When I count in 10's I will say the number 10100?
- What comes next? $646000-10000= 636000$, $636000 -10000 = 626000$, $626000- 10000 = 616000$
- Do, then explain - 747014 774014 747017 774077 744444 If you wrote these numbers in order starting with the smallest, which number would be third? Explain how you ordered the numbers.
- Do, then explain - Show the value of the digit 5 in these numbers? 350114, 567432 ,985376. Explain how you know.
- Make up an example- Give further examples- Create six digit numbers where the digit sum is five and the thousands digit is two. Eg 3002000, 2102000 - What is the largest/smallest number?
- Possible answers - A number rounded to the nearest thousand is 76000. What is the largest possible number it could be?
- What do you notice? - Round 343997 to the nearest 1000. Round it to the nearest 10000. What do you notice? Can you suggest other numbers like this?

Maths Aspect: Addition and Subtraction

- True or false? - Are these number sentences true or false?
 $6.17 + 0.4 = 6.57$
 $8.12 - 0.9 = 8.3$ Give your reasons.
- Hard and easy questions - Which questions are easy /hard?
 $213323 - 70 =$
 $512893 + 300 =$
 $819354 - 500 =$
 $319954 + 100 =$ Explain why you think the hard questions are hard?
- Convince me - $\underline{\quad} + 1475 = 6 _24$ What numbers go in the boxes? What different answers are there?
- Making an estimate- Which of these number sentences have the answer that is between 0.5 and 0.6
 $11.74 - 11.18$
 $33.3 - 32.71$
- Always, sometimes, never - Is it always, sometimes or never true that the sum of four even numbers is divisible by 4.

Maths Aspect: Measurement

- Put these amounts in order starting with the largest. 130000cm, 13 m, Explain your thinking.
- Undoing - A school play ends at 6.45pm. The play lasted 2 hours and 35 minutes. What time did it start?
- Write more statements - Mr Smith needs to fill buckets of water. A large bucket holds 6 litres and a small bucket holds 4 litres. If a jug holds 250 ml and a bottle holds 500 ml suggest some ways of using the jug and bottle to fill the buckets.
- Always, sometimes, never- When you cut off a piece of a shape you reduce its area and perimeter.
- Put these lengths of time in order starting with the longest time. 105 minutes,1 hour 51 minutes, 6360 seconds.
- The answer is 0.3km. What is the question?
- What do you notice?- What do you notice? 1 minute = 60 seconds, 60 minutes = _____ seconds

Maths Aspect: Multiplication and Division

- Missing numbers - $6 \times 0.9 = \underline{\quad} \times 0.03$, $6 \times 0.04 = 0.008 \times \underline{\quad}$ Which numbers could be written in the boxes?
- Making links – Apples weigh about 170 g each. How many apples would you expect to get in a 2 kg bag?
- Use a fact - $3 \times 75 = 225$. Use this fact to work out $450 \div 6 =$, $225 \div 0.6 =$
- To multiply by 25 you multiply by 100 and then divide by 4. Use this strategy to solve 48×25 , 78×25 , 4.6×25
- Making links- $7 \times 8 = 56$. How can you use this fact to solve these calculations? $0.7 \times 0.8 =$, $5.6 \div 8 =$
- What goes in the missing box?
 $12 \underline{\quad} 2 \div 6 = 212$
 $14 \underline{\quad} 4 \div 7 = 212$
 $22 \underline{\quad} 3 \div 7 = 321 \text{ r } 6$
 $323 \times \underline{\quad} 1 = 13243$
- Always, sometimes, never?
Is it always, sometimes or never true that multiplying a number always makes it bigger
Is it always, sometimes or never true that prime numbers are odd.
Is it always, sometimes or never true that when you multiply a whole number by 9, the sum of its digits is also a multiple of 9
- Use the inverse- Use the inverse to check if the following calculations are correct:
 $4321 \times 12 = 51852$
 $507 \div 9 = 4563$
- Size of an answer - The product of a two digit and three digit number is approximately 6500. What could the numbers be?

Maths Aspect: Fractions (including Percentages and Decimals)

- Spot the mistake- 0.088, 0.089, 1.0. What comes next? 1.173, 1.183, 1.193
- Continue the pattern. What do you notice?
 $0.085 + 0.015 = 0.1$
 $0.075 + 0.025 = 0.1$
 $0.065 + 0.035 = 0.1$ Continue the pattern for the next five number sentences.
- True or false?
0.1 of a kilometre is 1m.
0.2 of 2 kilometres is 2m.
0.3 of 3 Kilometres is 3m
0.25 of 3m is 500cm.
 $2/5$ of £2 is 20p
- Give an example of a fraction that is more than three quarters. Now another example that no one else will think of. Explain how you know the fraction is more than three quarters.
- Imran put these fractions in order starting with the smallest. Are they in the correct order? Two fifths, three tenths, four twentieths. How do you know?
- Missing symbol - Put the correct symbol $<$ or $>$ in each box. $4.627 \underline{\quad} 4.06$, $12.317 \underline{\quad} 12.31$
- What needs to be added to 3.63 to give 3.13? What needs to be added to 4.652 to give 4.1?
- Do, then explain - Circle each decimal which when rounded to one decimal place is 6.2. 6.32, 6.23, 6.27, 6.17
Explain your reasoning
- Odd one out. - Which is the odd one out in each of these collections of 4 fractions;
 $6/10$, $3/5$, $18/20$, $9/15$
 $30/100$, $3/10$, $6/20$, $3/9$ Why?
- What do you notice? Find $30/100$ of 200, Find $3/10$ of 200. What do you notice? Can you write any other similar statements?
- Ordering - Put these numbers in the correct order, starting with the largest. $7/10$, 0.73, $7/100$, 0.073, 71%
- Which is more - 20% of 200 or 25% of 180? Explain your reasoning
- What do you notice?
 $3/4$ and $1/4 = 4/4 = 1$
 $4/4$ and $1/4 = 5/4 = 1 \frac{1}{4}$
 $5/4$ and $1/4 = 6/4 = 1 \frac{1}{2}$ Continue the pattern up to the total of 2. Can you make up a similar pattern for subtraction?

- The answer is $1\frac{2}{5}$, what is the question.
- Continue the pattern
 $\frac{1}{4} \times 3 =$
 $\frac{1}{4} \times 4 =$
 $\frac{1}{4} \times 5 =$
- Continue the pattern for five more number sentences. How many steps will it take to get to 3?
- $\frac{5}{3}$ of 24 = 40. Write a similar sentence where the answer is 56. The answer is $2\frac{1}{4}$, what is the question.
- Give your top tips for multiplying fractions.
- Undoing- I divide a number by 100 and the answer is 0.3. What number did I start with? Another and another
- Write down a number with two decimal places which when multiplied by 100 gives an answer between 33 and 38.
 ... and another, ... and another,

Maths Aspect: Geometry

- What's the same, what's different? - What is the same and what is different about the net of a cube and the net of a cuboid?
- Always, sometimes, never- Is it always, sometimes or never true that the number of lines of reflective symmetry in a regular polygon is equal to the number of its sides n.
- Other possibilities- A rectangular field has a perimeter between 14 and 20 metres . What could its dimensions be?
- Convince me- What is the angle between the hands of a clock at four o'clock? At what other times is the angle between the hands the same? Convince me.
- Working backwards - A square is translated 3 squares down and one square to the right. Three of the coordinates of the translated square are: (3, 6) (8, 11) (8, 6) What are the co-ordinates of the original square?

Maths Aspect: Statistics

- True or false? (Looking at a train time table) "If I want to get to Exeter by 4 o'clock this afternoon, I will need to get to Taunton station before midday". Is this true or false?
- Convince me. Make up your own 'true/false' statement about a journey using the timetable.