

Y5 Maths Activity Grid

Year 5 maths skills checklist:

- ✓ Count forward or backwards in steps of powers of 10 for any given number up to 1,000,000.
- ✓ Count up and down in thousandths; recognise that thousandths arise from dividing an object into 1000 equal parts and in dividing numbers or quantities by 1000.
- ✓ Add and subtract numbers mentally with increasingly large numbers.
- ✓ Add and subtract whole numbers with more than 4 digits including using formal written methods (columnar addition and subtraction).
- ✓ Identify multiples and factors including finding all factor pairs of a number and common factors of two numbers.
- ✓ Multiply and divide numbers mentally drawing upon known facts.
- ✓ Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers and establish whether a number up to 100 is prime and recall prime numbers up to 19.
- ✓ Multiply numbers up to 4-digits by a 1-digit or 2-digit number using a formal written method, including long multiplication for 2-digit numbers.
- ✓ Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.
- ✓ Read and write decimal numbers as fractions, e.g. $0.71 = 71/100$.
- ✓ Measure and calculate the perimeter of composite rectilinear shapes in cm and m.
- ✓ Calculate & compare the area of rectangles (including squares, & including using standard units, square centimetres (cm²) and square metres (m²) & estimate the area of irregular shapes.
- ✓ Know angles are measured in degrees; estimate and compare acute, obtuse & reflex angles.
- ✓ Identify angles at a point on a straight line & $\frac{1}{2}$ a turn (total 180 degrees); and identify angles at a point & one whole turn (total 360 degrees); Identify other multiples of 90 degrees.
- ✓ Draw given angles, and measure them in degrees
- ✓ Solve comparison, addition and difference problems using information presented in a line graph.
- ✓ Interpret negative numbers in context, count forward and backwards with positive and negative numbers including through zero.
- ✓ Read Roman numerals to 1000 and recognise years written in Roman numerals.
- ✓ Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.
- ✓ Divide numbers up to 4-digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context.
- ✓ Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.
- ✓ Recognise mixed numbers and improper fractions, and convert from one form to the other and write mathematical statements.
- ✓ Calculate and compare the area of rectangles (including squares) including using standard units, square centimetres (cm²) and square metres (m²) & estimate the area of irregular shapes.
- ✓ Estimate volume (e.g. using 1 cm³ blocks to build cubes, including cuboids) & capacity (e.g. using water).
- ✓ Convert between different units of metric measure (e.g. km/m; cm/m; cm/mm; g/kg; l/ml).
- ✓ Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language and know that the shape has not changed
- ✓ Distinguish between regular and irregular polygons based on reasoning about equal sides and angles
- ✓ Identify 3D shapes, including cubes and other cuboids, from 2D representations
- ✓ Use the properties of rectangles to deduce related facts & find missing lengths & angles.
- ✓ Solve comparison, addition and difference problems using information presented in a line graph
- ✓ Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit
- ✓ Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10000 or 100000.
- ✓ Solve addition and subtraction multi-step problems in contexts, deciding which operations & methods to use and why.
- ✓ Recognise and use square numbers and cube numbers, and the notation for square² and cubed³.
- ✓ Compare and order fractions whose denominators are all multiples of the same number.
- ✓ Round decimals with two decimal places to the nearest whole number and to one decimal place.
- ✓ Read, write, order and compare numbers with up to three decimal places.
- ✓ Recognise the percent symbol (%) and understand that per cent relates to 'number of parts per hundred, and write percentages as a fraction with denominator 100, and as a decimal.
- ✓ Solve problems involving converting between units of time.
- ✓ Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.

Maths learning activities can be accessed through the following websites:

http://www.bbc.co.uk/schools/websites/4_11/site/numeracy.shtml

<https://www.topmarks.co.uk/maths-games/7-11-years>

<https://mathsframe.co.uk/en/resources/category/22/most-popular>

<https://www.oxfordowl.co.uk/for-home/kids-activities/fun-maths-games-and-activities/#maths-7-9>

<https://www.bbc.co.uk/bitesize/subjects/z6vg9j6>

<https://play.trockstars.com/auth/school/student/18610>

Choose an activity from below and complete it on squared paper if possible. Remember to add the date.

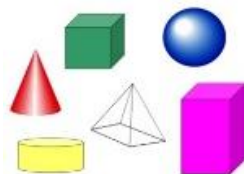
Timeline

Can you keep a timeline of what you do in a day and write the correct time next to what you did? Use 24hr times and create a timetable in a grid.



Shape Hunt

Go on a shape hunt around your house. Draw and label 2D and 3D shapes (name, no. of sides and vertices) you can see in your house. State which are regular and irregular shapes.



Target Number

Choose numbers from 1 to 9 and set a three digit and four-digit target number. Add, subtract, multiply and divide the numbers to reach your target number.



Money

Play shops at home and make different amounts using different coins and record what you bought in your book and what coins you used to pay. Can you work out change from notes?



Measure

Follow/create a recipe and measure out all the ingredients you use. Record the ingredients and measures used. Write measurements in g and kg etc.



Data Collection

Find some measurements e.g. rainfall in Darlington. Create a line graph, bar chart or table to show the measurements.

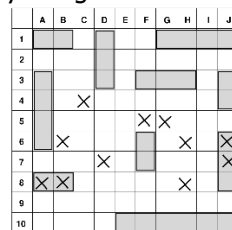
Label the axis and give it a title.

<https://www.accuweather.com/en/gb/stockton-on-tees/ts18-4/may-weather/325683>

Challenge: Write some questions based on the data.

Co-ordinates

Create a battleships board game using a four co-ordinate grid. Think about making the ships different lengths. Play the game.



Number Problems

Create your own addition and subtraction problems using numbers between 1001 and 999,999. Write the question, working out and the answer.



E.g. There was 1843l of water in one tank. This tank was used to fill an empty tank that has the capacity to hold 1600l. How much water is left in the original tank?

Number Talk

Create 10 if 'I know...' patterns.

E.g.
If I know $6 \times 7 = 42$
I know $60 \times 7 = 420$ and
 $0.6 \times 7 = 4.2$.



Shape Art

Can you draw a picture using different 2D shapes? Create some geometric art like we have been doing in ICT.



Challenge: Now create a geometric picture using ICT.

Roman Numerals

Can you write the Roman numerals to 50? Now make up some addition and subtraction number sentences involving Roman numerals.

I = 1 C = 100
V = 5 D = 500
X = 10 M = 1000
L = 50

Measure

Using a tape measure, find the perimeter of your bedroom, kitchen etc...



Challenge: Now find the area of each room.

Decimals Game

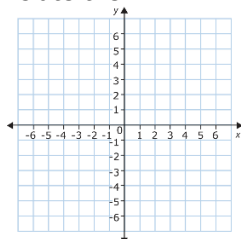
Using dice, create decimal numbers to two decimal places e.g. 4.56. Then round it to the nearest whole number and nearest tenth.

E.g. $4.56 = 5$
 $4.56 = 4.6$



Co-ordinates

Draw a 4 quadrant co-ordinate grid then draw squares, rectangles and triangles and translate them.



Challenge: Reflect some shapes too.

Adding/Subtracting Decimals

Roll dice to create two decimal numbers (they can have a different number of decimal places). Now add and subtract them.
e.g. $3.4 + 5.67 = 9.07$

10 000	1000	100	10	1	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$



Times Tables

Download the SUMDOG app, login and complete the activities given. Focus on all your times tables.



Challenge: Ask an adult to quick-fire 10 times tables questions to you and give you 3 seconds to answer each correctly.