

Second Level

Number and Number Processes

Range of numbers

1. Your child will be talking about, writing and ordering numbers from 0 – 100000, then later up to 1,000,000.



2. Later, your child will be working with negative numbers
3. Your child will be working with decimals to 1 and 2 places, then later to 3 places
4. Your child will be using fractions, equivalent fractions and decimals

Examples of activities:

- Point out numbers in your child's environment eg newspaper reports regarding number of attendees at events, lottery winners etc
- Look at weather pages in newspapers, internet etc. Look for places which have temperatures below freezing

A screenshot of a travel agent's website showing exchange rates for various countries. The table lists countries and their corresponding exchange rates.

CANADA	CAD	0.9531	1.0492
CHINA	CNY	0.1563	6.4002
EURO	EUR	0.6554	1.5258
JAPAN	JPY	10.232	0.0977
SINGAPORE	S\$	0.7132	1.4020
HONG KONG	HK\$	0.0200	50.0000
NEW ZEALAND	NZ\$	1.2848	0.7782

- Look at exchange rates in travel agents, often these are given to three decimal places

Addition and Subtraction

1. Your child will be mentally adding and subtracting numbers to 99, multiples of 10 and 100
2. Your child will be adding and subtracting numbers with 4 digits, with at most 2 decimal places

Eg £14.50 - £1.75

3. Applying the above in number, money and measure
4. Your child will then be mentally adding and subtracting 2 digit numbers including decimals

Eg 7.4 + 8.1

5. Adding and subtracting numbers with up to 3 decimal places

Eg $42.357 + 34.389$

6. Working with positive and negative numbers such as calculating the rise and fall of temperature

Examples of activities:

- Play darts and ask your child to mentally keep score
- Look at winning lottery numbers and add them together mentally
- Choose telephone numbers of known friends/relatives and add or subtract them



- Play 'Countdown'
- Compare temperatures in other countries with that in Britain

Multiply and Divide

1. Your child will be mentally multiplying and dividing whole numbers by single digits

eg $245 \div 8$ $150 \div 5$ 26×3

2. Your child will be mentally multiplying and dividing 4 digit numbers, including decimals by 10, 100 and later 1000

eg $1180 \div 10$ $2400 \div 100$ 21.63×10 48.95×100
 $1180 \div 100$ $2400 \div 1000$ 21.63×100 48.95×1000

3. Your child will be multiplying and dividing numbers with at least 3 digits and up to 2 decimal places and then later numbers with at least 4 digits and up to 3 decimal places.
4. Your child will be applying all of the above in number, money and measure

Examples of activities:

- Play 'Bingo' – calling the numbers as multiplication or division sums eg 4×8 and a counter is placed on 32
- Play with dice and multiply the numbers together
- Play games found on websites listed

Fractions, decimal fractions and percentages

1. Your child will be using the terms numerator and denominator
numerator

$$\frac{2}{5}$$

denominator

2. Your child will begin to find simple fractions, eg $1/7$, $3/4$, $3/5$, 50% of quantities involving up to 4 digits
3. Your child will be finding widely used fractions and percentages of whole numbers



eg 75% or $3/4$ of 200 = 150

4. Your child will be simplifying fractions

$$\begin{aligned} & \frac{24 \div 2}{40 \div 2} = \frac{12}{20} \\ \text{or} & \frac{24 \div 4}{40 \div 4} = \frac{6}{10} \\ \text{or} & \frac{24 \div 8}{40 \div 8} = \frac{3}{5} \end{aligned}$$

eg



5. Your child will be using mixed and improper fractions

Examples of activities:

- Look at sales prices and find out what things would cost



- Discuss news/ current affairs programmes which report on percentages and fractions

Money



1. Your child will be working with all coins and notes in a variety of calculations
2. Your child will be 'buying' items within given budgets
3. Your child will be working out most cost-effective offers eg buy 1 get 1 free etc



4. Your child will be calculating profit and loss within contexts
5. Your child will be comparing rates for buying goods
6. Your child will be exploring interest rates and an understanding of how debt can grow



Examples of activities:

- With your child, use different combinations of coins and notes to make totals of up to £20
- Use shopping catalogues to 'spend' money up to £100 or more (within given budget)
- Look at a take away food menu. Plan a meal for the family – working out total cost and change you would receive
- Point out interest rates and exchange rates in newspapers, shops, banks etc
- Look at offers in shops and work out best deal with your child



eg

3 for the price of 2

Time

1. Your child will be using and comparing 24 and 12 hour clock times
2. Your child will be reading 24 hour timetables
3. Your child will be calculating lengths of time in hours and minutes, including mentally
4. Your child will be timing activities in seconds, tenths and hundredths of seconds
5. Your child will be looking at measuring speed and the time taken for journeys based on given criteria

Examples of activities:

- Help your child to read TV times, cinema times etc using 24 hour clock
- Look at bus/train/ferry timetables and ask them to plan different journeys
- Help your child to set a digital alarm clock to wake the family in the morning



- Look at TV and cinema listings and ask your child to work out the length of programmes and films



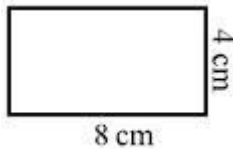
- Discuss and compare the times of athletics races on TV
- Play timing games – how long will it take you to set the table? etc



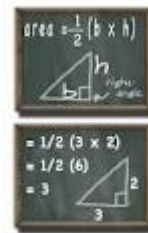
- Point out speed limits on roads
- Discuss estimated times for journeys taken to shops, visit friends/relatives etc

Measurement

1. Your child will be measuring with and using the following in calculations:
 - Length in millimetres, centimetres and metres
 - The weight of a range of items using grams and kilograms
 - The volume of liquids in millilitres and litres
2. Your child will be calculating the perimeter of shapes
3. Your child will be calculating the area of squares, rectangles and right angled triangles using formula

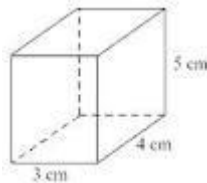


$$\begin{aligned}\text{Perimeter} &= 2b + 2l \\ &= 2 \times 4 + 2 \times 8 \\ &= 8 + 16 \\ &= 24\text{cm}\end{aligned}$$



$$\begin{aligned}\text{Area} &= \frac{1}{2}(b \times h) \\ &= \frac{1}{2}(3 \times 2) \\ &= \frac{1}{2}(6) \\ &= 3\text{cm}^2\end{aligned}$$

4. Your child will be calculating the volume of an object using formula



$$\begin{aligned}\text{Volume} &= b \times l \times h \\ &= 3 \times 4 \times 5 \\ &= 12 \times 5 \\ &= 60\text{cm}^3\end{aligned}$$

5. Your child will be calculating the area of regular and composite shapes using the above formulae

Examples of activities:

- Involve your child in the preparation of foods, using a measuring jug and scales for ingredients
- If ordering carpets/tiles/rugs etc for the house involve your child in measuring and calculating the area

- Check the temperature inside and out of the house
- Use planning programmes similar to those of 3D planner from Ikea to plan an actual or virtual room

Angle, symmetry and transformation

1. Your child will be giving directions for a route or journey



2. Your child will be using an eight point compass and later using bearings and distances to produce accurate scale drawings of routes such as:

A helicopter flies 70km south-east then 50km on a bearing of 055°. Make a scale drawing of this journey. Use a scale 1cm to 10km.



3. Your child will use co-ordinates to find points on a grid and then later use co-ordinates in all four quadrants to plot position.
4. Your child will create patterns by rotating a shape and identify lines of symmetry

Examples of activities:

- Plan out a route or journey using a map, point out the co-ordinates
- Use a compass to find the direction of friends' or relatives' houses from your own house
- During long journeys tick off landmarks en route
- Use maps of visitor attractions, underground, train and street maps on holiday

