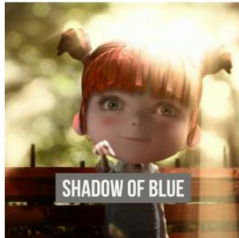


## Year 5 Spring 1 Curriculum Map

### English

As part of our new English curriculum we will be exploring a story through a short animation called 'Shadow of Blue'. This will be used to inspire a range of different writing genres, expanding the vocabulary we are using and different sentence structures.



### Maths

Number - Multiplication and Division  
Fractions – equivalent fractions.

This half term the children will be extending their understanding of multiplication and division and be exposed to a number of word problems.

We will also be finding equivalent fractions through simplifying and expanding and learn to convert between mixed numbers and improper fractions

### PSHE

#### Dreams and Goals

Stay motivated when doing something challenging.  
Keep trying when things are difficult.  
Work together and support others to achieve their goals.  
Have a positive attitude.  
Work hard to achieve goals.



### History

We will be looking at significant events in English history and in whose reign they occurred. These events include the Battle of Hastings, the Magna Carta, the 100 Years war and the War of the Roses

### Science

#### Materials and their Properties

We will be investigating different materials, how they react together, why some changes are reversible and others are irreversible.

### Computing

We will be improving our understanding of staying safe online, keeping our personal information safe and thinking critically about whether information on the internet is true. We will also be starting to look at spreadsheets.



### French

Clothing  
Verb – porter to wear/carry  
Fashion history  
Paris Fashion Week



### Art

#### Printing

Gain experience in overlaying colours.  
Show experience in a range of mono print techniques, e.g. using stencils, rolling ink out and placing paper on top then drawing onto the paper.  
Develop ideas from a range of sources.  
See positive and negative shapes (positive shapes occupy positive space. The area around positive shapes, the background, is negative space).  
Start to overlay prints with other media

### RE

#### Creation and Science

Make clear connections between Genesis 1 and Christian belief about God as Creator. Show understanding of why many Christians find science and faith go together

#### Music

##### Music for 18 Musicians – Steve Reich

Listen and reflect on a piece of orchestral music. Create a piece of music using instruments and voice. Perform as an ensemble.

### PE

Dance – 5 Boyle / Volleyball – 5 Bell  
Sports coach

# Year 5 Multiplication and Division

## Factors and Multiples

**A multiple is a number that can be divided evenly by a given number.**

For example,  $12 \times 1 = 12$ ,  
 $12 \times 2 = 24$ ,  $12 \times 3 = 36$

The multiples of 12 include: 12, 24, 36, 48...

**A factor is a number that is multiplied by another number to get a product.**

For example,  $12 \div 1 = 12$ ,  
 $12 \div 2 = 6$ ,  $12 \div 3 = 4$

The factors of 12 are: 1, 2, 3, 4, 6 and 12.

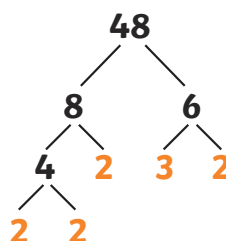
## Prime Numbers

A natural number greater than 1 with no divisors other than 1 and itself.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

## Prime Factors

Prime factors are the factors of a number that are prime. They can be found using a diagram like this:



## Common Factors

A common factor is a number which is a factor of two or more other numbers. For example, 3 is a common factor of 6 and 9.

## Multiplying and Dividing by 10, 100 and 1000

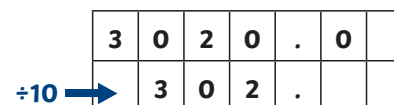
When dividing a number by 10, 100 or 1,000 the value of each digit is divided, sometimes giving a decimal point.

$$3020 \div 10 = 302$$

When multiplying a decimal number by 10, 100 or 1000, the value of each digit is multiplied.

$$3.02 \times 10 = 30.2$$

Each digit moves the necessary number of places to the right because dividing by 10 decreases the number.



Each digit moves the necessary number of places left because multiplying by 10, 100, or 1000 increases the number.



## 4-digit × 2-digit carrying not shown

5368	Write the numbers above each other in columns.
× 24	
5368	
× 24	Multiply 5368 × 4
21472	
5368	
× 24	Multiply 5368 × 20
21472	
107360	
21472	
+ 107360	Add the products
128832	

## Square and Cube Numbers

$1^2 1 \times 1 = 1$	$1^3 1 \times 1 \times 1 = 1$
$2^2 2 \times 2 = 4$	$2^3 2 \times 2 \times 2 = 8$
$3^2 3 \times 3 = 9$	$3^3 3 \times 3 \times 3 = 27$
$4^2 4 \times 4 = 16$	$4^3 4 \times 4 \times 4 = 64$
$5^2 5 \times 5 = 25$	$5^3 5 \times 5 \times 5 = 125$
$6^2 6 \times 6 = 36$	$6^3 6 \times 6 \times 6 = 216$
$7^2 7 \times 7 = 49$	$7^3 7 \times 7 \times 7 = 343$
$8^2 8 \times 8 = 64$	$8^3 8 \times 8 \times 8 = 512$
$9^2 9 \times 9 = 81$	$9^3 9 \times 9 \times 9 = 729$
$10^2 10 \times 10 = 100$	$10^3 10 \times 10 \times 10 = 1000$
$11^2 11 \times 11 = 121$	$11^3 11 \times 11 \times 11 = 1331$
$12^2 12 \times 12 = 144$	$12^3 12 \times 12 \times 12 = 1728$

## Short Division

$$84 \div 6$$

**1** Partition 84 into tens and ones.

Work out how many 6s divide into 80 so that the answer is a multiple of 10. In this case, the highest multiple of 10 divisible by 6 is 60. Partition 84 into 60 and 24 then divide each number by 6.

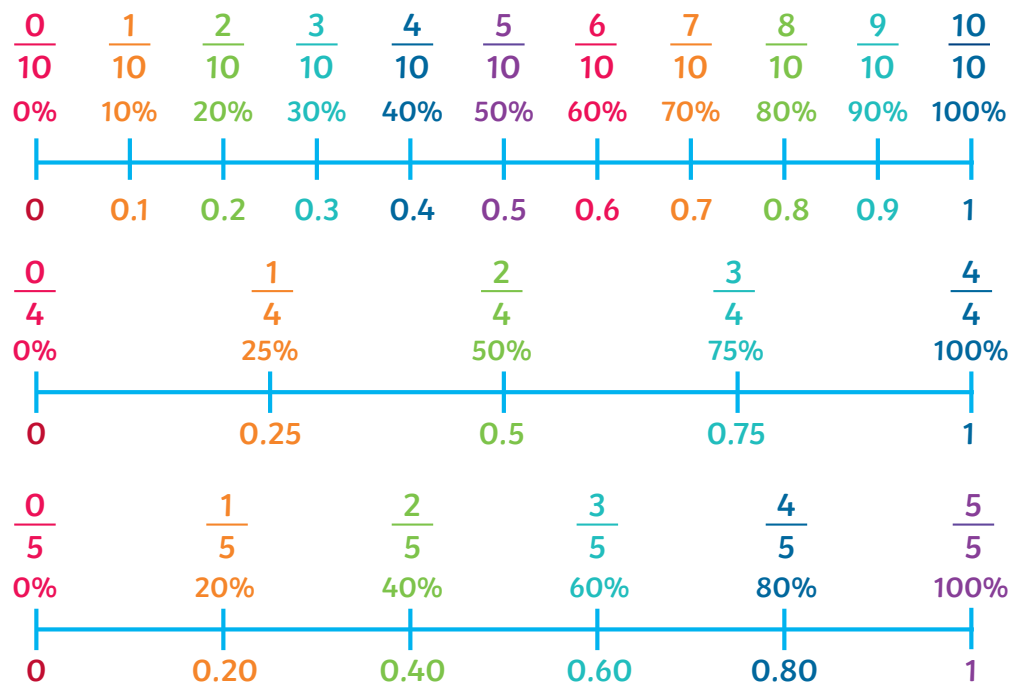
**2** Combine the totals.

$$\begin{array}{r} 10 + 4 \\ 6 \overline{) 60 + 24} \end{array}$$

**3** This can be shortened to:

$$\begin{array}{r} 14 \\ 6 \overline{) 84} \end{array}$$

# Year 5 Fractions



**Percent: Number of parts per 100.**

1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
11%	12%	13%	14%	15%	16%	17%	19%	19%	20%
21%	22%	23%	24%	24%	26%	26%	28%	29%	30%
31%	32%	33%	34%	35%	36%	37%	38%	29%	40%
41%	42%	43%	44%	45%	46%	47%	48%	49%	50%
51%	52%	53%	54%	55%	56%	57%	58%	59%	50%
61%	62%	63%	64%	65%	66%	67%	68%	69%	70%
71%	72%	73%	74%	75%	76%	77%	78%	79%	80%
81%	82%	83%	84%	85%	86%	87%	88%	89%	90%
91%	92%	93%	94%	95%	96%	97%	98%	99%	100%

## Equivalent Fractions:

Fractions which have the same value.

## Adding and

## Subtracting Fractions:

When the denominators are the same, you simply add or subtract the numerators.

$$\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$$

When the denominators are not the same, find the lowest common denominator and rewrite the fractions. Then, add or subtract the numerators.

$$\frac{2}{5} + \frac{1}{10} = \frac{4}{10} + \frac{1}{10} = \frac{5}{10} = \frac{1}{2}$$

## Multiplying Fractions:

When multiplying a proper fraction, multiply the numerator by the multiplier.

$$\frac{2}{3} \times 5 = \frac{10}{3} = 3 \frac{1}{3}$$

## Round to the nearest whole

**number:** Round to a number which has no digits beyond the ones place holder. For example, 2, 45, 70.

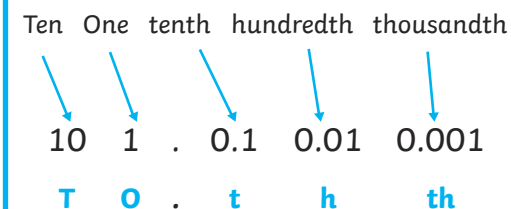
## Round to one decimal place:

Round to a number which has no digits beyond the tenths place holder. For example, 2.3, 45.1, 70.4

## Round to two decimal place:

Round to a number which has no digits beyond the hundredths place holder. For example, 2.31, 45.19, 70.44

## Tenths, Hundredths and Thousandths:



## Mixed Numbers

Mixed numbers contain a whole number and a fraction.

$$2 \frac{1}{4}$$

$2 \frac{1}{4}$  is a mixed number.

The whole number is 2.

The fraction is  $\frac{1}{4}$ .

## Improper Fractions

An improper fraction is a fraction where the numerator is greater than or equal to the denominator.

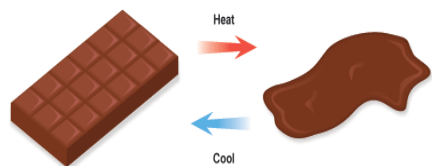
$$\frac{5}{3}$$

← numerator

← denominator

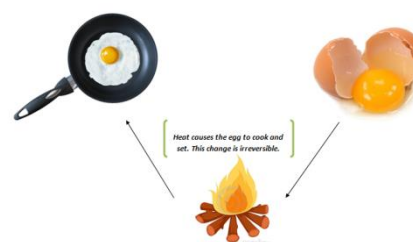


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**Reversible Change**

**Changes that can be switched back and are not permanent. E.g. dissolving, melting, and freezing.**

A **reversible change** is a chemical change where no new materials are created and the original material can be recovered. Examples include freezing water to make ice or melting chocolate.

**Irreversible change**

**Changes that cannot be reversed back to their original state. E.g. burning, rusting**

Cooking an egg is an **irreversible** change. The cooked egg cannot be turned back into a raw egg.

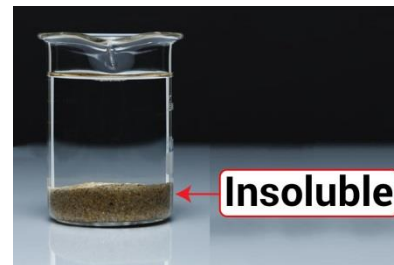
**Evaporation**

**Examples of Evaporation in our Everyday Lives**



**Separates a soluble solid and a liquid.**

**Evaporation** is a type of vaporization that occurs on the surface of a liquid as it changes into the gas phase.

**Insoluble**

**Solids that do not dissolve in a liquid.**

Substances that do not dissolve in water are called **insoluble**. Sand and flour are examples of insoluble substances.

**Soluble**

**Solids and gases that dissolve in liquids.**

**Soluble** – means when it is put in water it 'disappears'. We say it has dissolved and the resulting liquid is called a solution. E.g. salt in water. **Insoluble** – means when it is put in water it stays as a solid.

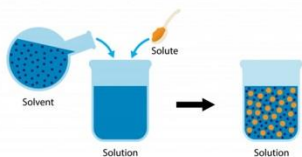
**Dissolve**

**A solid that completely mixes in with a liquid and cannot be seen.**

When you put sugar in a cup of tea it will **dissolve**.

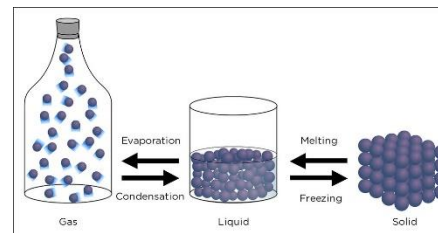
**Solution**

**Solute + Solvent → Solution**



**A mixture of a liquid with a dissolved solid or gas.**

A **solution** is a specific type of mixture where one substance is dissolved into another.

**States of Matter**

**States of matter are the different forms a material can take; solids, liquids or gases.**

Water can be a **solid, liquid or gas** depending on what temperature it is.



## Key Vocabulary

<b>assassination</b>	The murder of someone important.
<b>Commonwealth</b>	A group of countries, including the UK, which have agreed to work together and have a joint set of values.
<b>invade</b>	To raid or enter another area as an enemy.
<b>Magna Carta</b>	A list of promises that would make England a safer and fairer place to live.
<b>monarch</b>	A person who rules over a place, usually a king or queen.
<b>rebels</b>	A group of people who disobey or fight against a government.
<b>reign</b>	To rule over a country as the <b>monarch</b> .
<b>revolt</b>	To join with others to fight against the government.

**William the Conqueror – reigned 1066-1087**

- William believed that when King Edward died, he would be named as the next King of England.
- Edward announced Harold Godwinson as the next King and William was not happy.
- William **invaded** England from France in order to defeat Harold in battle and become King.
- William used fear to control the people of England and ordered them to pay huge taxes.

**King John – reigned 1199-1216**

- King John charged the English people high taxes so he could afford more weapons and soldiers for battles.
- The people got so fed up with this that they began to **revolt**.
- The **rebels** took control of London and made King John approve **Magna Carta**.



## King Henry VIII – reigned 1491-1547

While he was King, Henry wanted the next **monarch** to be male so that England would be in the strongest hands (he believed a daughter would not be clever enough to keep the peace). His first two wives gave birth to daughters and it wasn't until he married Jane Seymour that he finally got a son.



Catherine of Aragon  
(divorced)



Anne Boleyn  
(beheaded)



Jane Seymour  
(died)



Anne of Cleves  
(divorced)



Kathryn Howard  
(beheaded)



Katherine Parr  
(survived)



## Queen Anne – reigned 1702-1714

- Some people questioned whether Queen Anne was healthy enough to run the country as she suffered from terrible illnesses.
- She was a strong and calm leader who joined Wales, Scotland and England together as Great Britain.



## Queen Victoria – reigned 1837-1901

- Victoria survived seven **assassination** attempts. She had become unpopular for hiding away after her husband's death.
- During her **reign**, Britain became the most powerful country in the world.



## Queen Elizabeth II

- Elizabeth became Queen in 1952 and has **reigned** for over 60 years.
- Titles include: British Sovereign, Head of The **Commonwealth**, Head of the Armed Forces and Supreme Governor of the Church of England.

