Year 7 – HT5

Newsome Academy
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Knowledge Organisers

Name:

Team:

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Mathematics

Our students will:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.

- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language

- can **solve problems** by applying their mathematics to a variety of routine and non- routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

7.16 Percentages including increase and decrease

The learning outcomes for this topic are:

- Find 10%,5%,1% without a calculator
- Find more complex percentages
- Find any percentage of an amount using a calculator
- Increase or decrease by simple percentages without a calculator
- Write multipliers for increasing or decreasing by a percentage
- Increase and decrease using percentage multiplier

Key Word	Definition
Increase	Goes up in value
Decrease	Goes down in value
Interest	Extra money the bank gives you if you save with them
Depreciate	Similar to decrease, where a value falls
Multiplier	What you are multiplying by
Compound	Referring to the interest: interest paid on the initial investment plus previous year's interest
Simple	Not complicated. Referring to interest: same amount of interest based on the initial sum

Additional Resources

MathsWatch: 86, 87, 108

Corbett Maths: Videos 234, 235, 238, 239 ; Worksheets 234, 235, 238, 239

Careers Focus – Where could this take you?

As a **mortgage advisor** I use percentages when calculating how much a mortgage will cost a potential to repay each month in order to pay back the full loan. These calculations are important to ensure the bank earns money and we don't lend people more money than they can afford to repay.

Curriculum Links - Coherence

Required Knowledge:
- KS2 percentages

Applied to:
- 9H.04 percentages of amounts

Links across school:
- Interpreting graphs of soil samples (Geography)
- Explaining finds of an experiment (Science)

Key Concepts

Percentage of an Amount

A **percentage of an amount** allows us to calculate a percentage of a given number by either calculating simple percentages such as 10% and 1% and building the percentage up from there, or by using a percentage multiplier.

E.g. Find **21%** of **£500.**

Using simple percentages

100% is the original amount.
10% = £50
1% = £5
21% of **£500 = 2 x £50 + £5**
= £105

Using percentages multipliers

$21\% = \frac{21}{100} = 0.21$

21% of £500 = 0.21 x 500
= £105

Percentage Increase

Percentage increase means **adding a given percentage of a value onto the original value.** To do this we can either calculate the given percentage of the value and then add it on to the original value or use a percentage multiplier.

E.g.
Increase £50 by 10%

Add on percentage:	Multiplier:
10% of £50 = £5 £50 + £5 = £55	£50 x 1.1 = £55

Percentage Decrease

Percentage decrease means **subtracting a given percentage of a value from the original value.** To do this we can either calculate the given percentage of the value and then subtract it from the original or use a percentage multiplier.

E.g.
Decrease £50 by 10%

Subtract percentage:	Multiplier:
10% of £50 = £5 £50 - £5 = £45	£50 x 0.9 = £45

Concept – what it is

16% of £80
Find 10% by dividing by 10.
80 ÷ 10 = 8
Find 5% by halving the answer to 10%
8 ÷ 2 = 4
Find 1% by dividing 80 by 100.
80 ÷ 100 = 0.8
Add up your results.
8 + 4 + 0.8 = 12.8

Increase £620 by 12.5%.
This is a 12.5 %increase so we add 12.5 onto 100. As a decimal this is 1.125.
620 x 1.125 = £697.50

Decrease £435 by 15%
This is a 15% reduction. So we take off 15 from 100. As a decimal this is 0.85.
£435 x 0.85 = £369.75

Non-Concept – what it isn't

Increase by 5%. It is NOT x 0.05
It Is 1.05
It is NOT 1.5
It is 1.05

Decrease by 5%
It is NOT x 0.05
It is 100 – 5% = x 0.95

Standard Examples

Calculate 7% of 340

1% = 340 ÷ 100 = 3.4 or 340 x 0.07
7% = 3.4 x 7 =
23.8

Increase 40 miles by 43%

40 x 1.43 £ 2.616

Decrease 712kg by 24%

712 x 0.76
541.12 kg

Non-Standard Examples

James bought a house. In the first year the value of the house decreased by 10%. In the second year the value of the house increased by 10%. Is the house worth more, less, or the same as what James paid for it? Explain your answer

If the house cost £100,000
1st year = £90,000
2nd year = £99,000
Overall 1% less

Increase by 120%
You want the original amount of 100% plus an extra 120% = 220%
X 2.2

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Useful Formulae and Hints

When you are dividing by 10, take care of the decimals

50% = 0.5
5% = 0.05

50% - divide by 2
25% - divide by 4
10% - divide by 10
5% - divide 10% by 2
1% - divide by 100
½% - divide 1% by 2
2% - 2 x 1%
15% - 10% = 5%
37% - 3 x 10% plus 5% plus 2 x 1%

Money: remember an answer of 16.5 should be written as £16.50 to include the pence.

Increasing an amount – add the percentage onto 100

Decreasing an amount – deduct the amount from 100.

GCSE Questions

1 Work out 10% of £95

(Total for question 1 is 1 mark)

2 Work out 50% of 1200 grams

(Total for question 2 is 1 mark)

3 Work out 1% of 200 litres

(Total for question 3 is 1 mark)

6 Find 36% of 2500

(Total for question 6 is 2 marks)

4. Calculate 3.5% of 140g

.....g
(2)

8 Which is greater

25% of 90 or 28% of 82

You must show your working.

(Total for question 8 is 3 marks)

6. Increase £2400 by 9%

8. Decrease 18000 by 6%

11. Oliver's salary is £18,000 and he is due to get an increase of 4%.
How much will this increase be?

£.....
(2)

12. A new TV is priced at £320
In a sale it is reduced by 45%

Calculate the sale price

£.....
(3)

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7.17 Percentage change

The learning outcomes for this topic are:

- Write a number as a percentage of another
- Find simple percentage profit
- Write a number as a percentage of another when in different units
- Find a simple percentage loss
- Find a decimal multiplier and use it to calculate a percentage change
- Solve catch and release percentage problems

Key Word	Definition
Profit	Extra money after all monies spent has been taken out
Loss	Monies paid out are more than monies taken
Interest	An amount the bank pays you for saving with them.
Depreciation	The value of the initial amount goes down
Change	Either an increase or a decrease
Proportion	A relationship which maintains constant ratio. Part of a whole

Additional Resources

MathsWatch: 88, 89, 109

Corbett Maths: Videos 233, 391 , ; Worksheets 233, 391

Careers Focus – Where could this take you?

As a **small business owner** I need to be aware of the percentage profit or loss I make on each transaction. I need to carefully consider my mark up and how much I sell my products for to ensure I stay profitable. My percentage profit is key to understanding whether or not I can afford the charges from third party sellers.

Curriculum Links - Coherence

Required Knowledge:
- 7.15 Fractions, decimals and percentages

Applied to:
- 9F.19 Best buys, Ratio

Links across school:
- Percentage increase/decrease in GDP (Business)

Key Concepts

Percentage Change

In order to calculate percentage change:

1. Work out how much the value has changed using subtraction
2. Apply the percentage change formula

$$\text{Percentage change} = \frac{\text{Change}}{\text{Original}} \times 100$$

This can then be worked out using a calculator.

One number as a percentage of another

To write **one number as a percentage of another**, write the number as a fraction and work out an equivalent fraction with a denominator of 100.

Alternatively we can write the fraction and multiply by 100.

E.g.

Express 20 out of 50 as a percentage → $\frac{20}{50} = \frac{40}{100} = 40\%$ OR $\frac{20}{50} \times 100 = 40\%$

Capture Recapture

Capture recapture is a sampling technique used to **estimate population size**. This has real life applications.

To do this we need to set up a **controlled investigation** where the objects (usually **animal populations**) are **captured**, **marked**, **released**, and then **recaptured** after a period of time. The proportion of the marked members in the second sample can give an estimate to the population size. To work out an estimate for the total population we use the formula:

$$\frac{M}{N} = \frac{R}{T}$$

Where:
M = Total marked R = Number of marked recaptured
N = Total population T = Total recaptured on second visit

Concept – what it is

Percentage Change:
show that change as a **percent of the old value** ... so divide by the old value and make it a percentage:
So the percentage change from 5 to 7 is:
*2/5 = 0.4 = **40%***

Step 1: Divide the New Value by the Old Value (you will get a decimal number)
Step 2: Convert that to a percentage (by multiplying by 100 and adding a "%" sign)
Step 3: Subtract 100% from that.

Non-Concept – what it isn't

Careful when you are putting the values into a fraction. The new value is the numerator. The old value is the denominator

Careful when you have multiple percentage changes. You can not add the percentages together. You need to calculate each step separately.

Standard Examples

The number of TVs sold increased from 70 to 98

Work out the percentage increase.

$\frac{28}{70} \times 100$ $\frac{4}{10} \times 100$

40 %

Peter's weight decreases from 80kg to 64kg.

Calculate the percentage decrease in Peter's weight.

$\frac{16}{80} \times 100$ $\frac{2}{10} \times 100$

20 %

Non-Standard Examples

A television costing £500 was reduced by 10% in a sale.
2 weeks later the sale price was reduced by 10%. Find the overall percentage reduction in price.
10% of £500 = £50
£500 − £50 = £450
10% of £450 = £45
£450 − £45 = £405
The old value is £500 and the new value is £405.
Change: £500 − £405 = £95
% change = $\frac{95}{500} \times 100$
% change = 19%

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The learning outcomes for this topic are:

- Write a number as a percentage of another
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- Write a number as a percentage of another when in different units
- Find a simple percentage loss
- Find a decimal multiplier and use it to calculate a percentage change
- Solve catch and release percentage problems

Useful Formulae and Hints

Careful when you are putting the values into a fraction. The new value is the numerator. The old value is the denominator

Careful when you have multiple percentage changes. You can not add the percentages together. You need to calculate each step separately.

Percentage profit/loss/change = (new – old)/old x 100

GCSE Questions

1. For every 50 students at Hightown School, 29 are girls.

(a) Work out 29 as a percentage of 50.

.....%
(2)

1000 students attend Hightown School.

(b) How many girls attend Hightown School?

.....
(2)

9. There are 600 people at a football match.
There 222 children at the match.

Write 222 out of 600 as a percentage.

.....%
(2)

1 Emma buys a house for £201 500
She sells the house for £213 590

Calculate the percentage profit Emma makes.

(Total for question 1 is 3 marks)

4 Last year Victoria paid £354 for her car insurance

This year she has to pay £329 for her car insurance.

Work out the percentage decrease in her car insurance.

Give your answer to 1 decimal place.

(Total for question 4 is 3 marks)

12 Theo buys 24 packs of crisps.
He pays £3 for the crisps.

Theo sells each pack of crisps for 50p.

Work out Theo's percentage profit.

(Total for question 12 is 3 marks)

Question 1: Hannah wants to estimate the number of eels in a lake.
She catches and rings 50 eels.
She returns the 50 eels to the lake.
The next day Hannah catches 400 eels.
Of these 400 eels, 10 are ringed.

Work out an estimate for the total number of eels in the lake.

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7.18 Ratios

The learning outcomes for this topic are:

- Simplify simple two or three part ratios
- Find equivalent ratios
- Share an amount into a two part ratio
- Share an amount in a three part ratio
- Use equivalent ratios where one person's share is given rather than total
- Use equivalent ratios where difference is given

Key Word	Definition
Ratio	How many parts each side has. E.g. Red: Blue 3:2 3 reds for every two blues
Proportion	A relationship which maintains a constant ratio. Part of a whole
Fraction	A part of a whole that has been divided into equal amounts. It describes how many parts you are talking about
Direct proportion	A relationship in which one variable increases or decreases at the same rate as another
Sharing	dividing according to a ratio
Simplify	To make a ratio easier to work with by reducing it to the lowest propotional values
Equivalent	The same as. Proportionally identical.
Difference	one subtract the other

Additional Resources

MathsWatch: 38, 106

Corbett Maths: Videos 269, 270, 271, 271a, b, and e; , ; Worksheets 269, 270, 271, 271a, b, and e;

Careers Focus – Where could this take you?

As a garden designer I use ratio is multiple areas of my work. Ratio is important when choosing how many of each type of plant to place in an area for it to be as aesthetically pleasing as possible. It is also important when mixing soils, cement and other materials for the garden.

Curriculum Links - Coherence

Required Knowledge:
- KS2 Ratio

Applied to:
- 9F.19 Direct Proportion
- 10H.05 Similar Triangles

Links across school:
- Changing recipes (Food and Nutrition)

Key Concepts

Ratio

Ratio is a **relationship between two or more quantities** showing the number of times one is contained within the other(s). Ratios are written in the form a:b, which is said "a to b".

We can use ratios in a variety of ways:

- How to work out ratios
- Simplifying ratios
- Dividing ratios
- Ratio to fraction
- Ratio scale
- Ratio problem solving

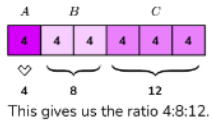
Dividing Ratios

Dividing ratios is a way of sharing a quantity in given parts of a ratio.

E.g. A bag contains 24 sweets. Three friends share the sweets in the ratio of 1:2:3. How many sweets does each person get?

If person A gets 1 share, person B gets 2 shares and person C gets 3 shares, each time the parts are shared, we are using 1+2+3=6 parts.

Each share is therefore worth 246=4.
If A gets 1 share, B gets 2 shapes and C gets 3 shares, we have



This gives us the ratio 4:8:12.

Ratio to Fractions

A ratio compares how much of one thing there is compared to another. It can be written using a ':', the word 'to' or as a fraction.

In order to convert ratios to fractions when we have the ratio a:b, where both values are parts of the total, we can say that for the ratio :

$\frac{a}{a+b}$ and $\frac{b}{a+b}$

E.g. In the diagram below is a bar model that represents the ratio of blue:red as 3:2 (3 to 2). There are 3 blue blocks, 2 red blocks which means there are 5 blocks in total.

The fraction for blue is $\frac{3}{2+3} = \frac{3}{5}$.

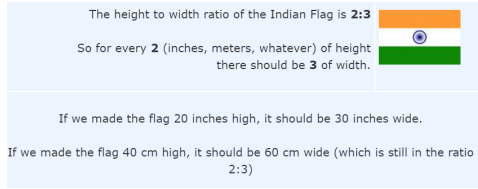
The fraction for red is $\frac{2}{2+3} = \frac{2}{5}$.

Concept – what it is

A ratio **compares values**.
A ratio says how much of one thing there is compared to another thing.

3 : 1

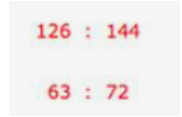
There are 3 blue squares to 1 yellow square



Non-Concept – what it isn't

It is not a fraction.
2:3 does NOT convert to $\frac{2}{3}$
Nor is it a percentage.

NB this is metres to km
So actually 50:2000



Simplify 126:144
This is not finished
It should be 7:8

Standard Examples

Simplify 25:35
Divide each side by 5.
Equals 5:7

Share £20 in a ration of 2:3

5 lines so £20 ÷ 5 = 4

4 4 = 8

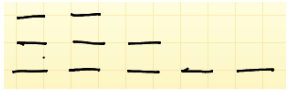
4 4 4 = 12

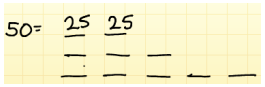
Fraction: total of 5 lines so $\frac{2}{5}$ and $\frac{3}{5}$

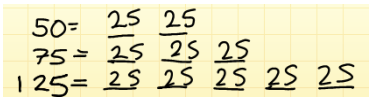
Non-Standard Examples

Three angles are in the ratio 2 : 3 : 5
The smallest angle is 50°

Work out the sizes of the other two angles







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- Use equivalent ratios where difference is given

Useful Formulae and Hints

Don't forget that ratio is written as a : b not as a fraction.

Always draw the lines in one on top of the other. Fill in what you know and then the other lines will all be the same.

Do you need to simplify to make the question easier?

Is it as simple as you can make it?

Do you need to increase the amounts to make the question work?

Remember to increase both sides the same so the proportions remain the same.

GCSE Questions

5 (a) Write the ratio 15 : 35 in its simplest form. (1)

((b) There are red shapes and blue shapes in a box, $\frac{2}{3}$ of the shapes are red

Write the ratio of red shapes to blue shapes. (1)

(Total for question 9 is 2 marks)

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1 Will and Olly share £80 in the ratio 3 : 2

Work out how much each of them get.

(3 marks)

---

2 Molly, Paige and Demi share 42 sweets in the ratio 3 : 2 : 1

Work out the number of sweets that each of them receives.

(3 marks)

---

5 Jerry and Mick share some money in the ratio 2 : 3
Mick gets £900

Work out how much money Jerry gets.

(3 marks)

---

6 Ali and Steve share some sweets in the ratio 2 : 7
Steve gets 30 more sweets than Ali.

Work out how many sweets Steve gets.

(3 marks)

---

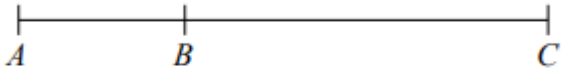
7 Dave is making cookies.
He mixes flour, butter and sugar in the ratio 6 : 4 : 1

Dave uses 160 grams of butter.
Work out how much flour and sugar Dave uses.

(3 marks)

---

3 *ABC* is a straight line.



The length of *BC* is three times the length of *AB*.

AC = 80 metres.
Work out the length *BC*.

(3 marks)

---

11 Megan is going to make a drink using the instructions below.

> Mix 2 parts of fruit juice
> with 5 parts of sparkling water

Megan has 180 m*l* of fruit juice and 400 m*l* of sparkling water.

What is the greatest amount of the drink Megan can make?

(3 marks)

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7.19 Averages

The learning outcomes for this topic are:

- Find the mode from a list of data
- Find the range from a list of data
- Find the median from a list of numbers
- Find the mean from a list of data
- Compares two lists of data using the mean/median and the range
- Find a list of numbers given information about their averages

Key Word	Definition
Mean	The nasty one. Add them all up, divide by how many there are
Median	The *middle*. Oder them. If two middles add them up and divide by 2
Mode	The *most* common. The one that has the most of them
Range	Maximum – Minimum. Biggest take away the smallest. Must be ordered
Average	All the above. Usually referring to the mean.
Consistency	Steady, even, not contradicting one another
Spread	How the data are distributed.
Suitable	Something sensible

Additional Resources

MathsWatch: 62

Corbett Maths: Videos 50, 53, 56, 57, , ; Worksheets 50, 53, 56, 57,

Careers Focus – Where could this take you?

I am a scientist who works for a **government agency**. I will analyse and interpret data to gain information on a variety of different subjects and problems. I will then produce papers for ministers to read to influence policies that are made by the government.

Curriculum Links - Coherence

Required Knowledge:
- KS2 averages

Applied to:
- 8.22 Mean from Group data
- 10H.20 Cumulative Frequency Diagrams and Box

Links across school:
- Econometrics (Business)
- Interpreting statistics(Geography)

Key Concepts

Mean, Median, Mode

The **mean, median and mode** in maths are averages.

Mean:
Find the total of the values and divide the total by the number of values.

$$\text{mean} = \frac{\text{total}}{\text{number of values}}$$

Median:
Arrange the values in numerical order, from the smallest value to the highest value and find the middle value.

Mode:
Find the most frequently occurring item in the data set.

Mean, Median, Mode

In order to find the **mean, median or mode** here are some tips to consider:

1. **Mode** - consider how many times the values occur; there may be two modes (bimodal)
2. **Median** - make sure the list of values is in numerical order, and find the middle of the set
3. **Mean** - find the total and divide by the number of values

Range

The range is a measure of how spread out a set of data is.

To calculate the range we find the difference between the highest value and the lowest value.

$$\text{Range} = \text{highest value} - \text{lowest value}$$

E.g. Work out the range
5 8 10 11 13

$$\text{Range} = \text{highest value} - \text{lowest value} = 13 - 5 = 8$$

Concept – what it is

Example: 3, 13, 7, 5, 21, 23, 39, 23, 40, 23, 14, 12, 56, 23, 29

When we put those numbers in order we have:

3, 5, 7, 12, 13, 14, 21, 23, 23, 23, 23, 29, 39, 40, 56

There are **fifteen** numbers. Our middle is the **eighth** number:

3, 5, 7, 12, 13, 14, 21, 23, 23, 23, 23, 29, 39, 40, 56

3, 7, 5, 13, 20, 23, 39, 23, 40, 23, 14, 12, 56, 23, 29

In order these numbers are:

3, 5, 7, 12, 13, 14, 20, **23, 23, 23, 23**, 29, 39, 40, 56

We can now easily see which numbers appear **most often**.

In this case the mode is **23**.

Non-Concept – what it isn't

MEDIAN
It is NOT the middle of a random set of data.
It must be ordered first.
RANGE
Again, it is not the last number subtract the first number UNLESS the data are organized in order.

Standard Examples

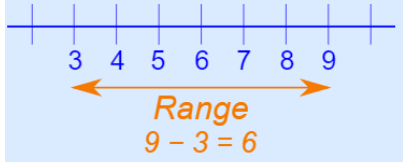
Example 1: What is the Mean of these numbers?

6, 11, 7

- Add the numbers: **6 + 11 + 7 = 24**
- Divide by *how many* numbers (there are 3 numbers): **24 / 3 = 8**

The Mean is 8

So the range is 9 – 3 = **6**.



Non-Standard Examples

There are now **fourteen** numbers and so we don't have just one middle number, we have a **pair of middle numbers**:

3, 5, 7, 12, 13, 14, 21, 23, 23, 23, 23, 29, 40, 56

In this example the middle numbers are **21 and 23**.

To find the value halfway between them, add them together and divide by 2:

21 + 23 = 44
then **44 ÷ 2 = 22**

Example: {1, 3, 3, 3, 4, 4, 6, 6, 6, 9}

3 appears three times, as does 6.

So there are two modes: at **3** and **6**

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- Compares two lists of data using the mean/median and the range
- Find a list of numbers given information about their averages

Useful Formulae and Hints

Mode is the Most common.
The beginning is the same and the number of letters is the same.

Median is the Middle number. The number of letters is the same. Don't forget to ORDER them first.

Range is like the English word. The Distance between them. So the Maximum (biggest) subtract (take away) the Minimum (smallest).

The Mean is the nasty one because you have to do the most work. Add them all up and divide by the number there is. It's like spreading them all evenly.

GCSE Questions

5 Here are six cards. Each card has a number on it.

19	7	11	8	15	15

(a) Work out the range of the numbers on the cards. (1)

(b) Work out the mean of the numbers on the cards. (2)

(Total for question 5 is 3 marks)

Here is a list of numbers.

8 6 4 5 9 8

(a) Work out the median

Here are six cards.
There is a number on each card.
Two of the numbers are hidden.

4	5	?	6	3	?

The mode of the six numbers is 4
The mean of the six numbers is 5

(b) Work out the two numbers that are hidden.

(Total for question 8 is 4 marks)

1 Here is a list of 10 numbers.

2 3 4 4 4 5 6 6 7 7

(a) Work out the range. (1)

(b) Find the mode. (1)

(c) Calculate the mean. (2)

(Total for question 1 is 4 marks)

4 Here are the weights, in grams, of 6 potatoes

150 129 125 133 144 105

(a) Work out the range. (1)

(b) Work out the median weight. (2)

(Total for question 4 is 3 marks)

9 Here is a list of numbers.

14 19 15 20 11 14 19

(a) Find the range (1)

(b) Calculate the mean (2)

Andrew says,
"The median is the middle number, so the median is 20."

(c) Andrew is incorrect, explain why. (2)

(Total for question 9 is 5 marks)

7.20 Measuring and drawing angles

The learning outcomes for this topic are:

- Measure an acute or obtuse angle accurately
- Measure a reflex angle
- Draw an acute or obtuse angle
- Draw a reflex angle
- Bisect an angle by measuring
- Draw a diagram from a sentence by measuring an angle

Key Word	Definition
Acute	Cute - smaller than 90°
Obtuse	Larger than 90°, less than 180°
Reflex	Larger than 180°, less than 360°
Accuracy	Be neat and correct. Exams usually allow ±2°
Clockwise	The way the hands turn on a clock, if starting at 12 - going right
Anticlockwise	The opposite to a clock, if starting at 12 - going left
Bisect	Cut exactly in half
Construct	Build. Draw yourself.

Additional Resources

MathsWatch: 13, 46

Corbett Maths: Videos 28, 31, 38, ; Worksheets 28, 31, 38

Careers Focus – Where could this take you?

Surveying is all about triangles. What ever is being surveyed – a building site, a battlefield or entire country – the surveyor is building up a series of measurements of angles and lengths in triangles..

Curriculum Links - Coherence

Required Knowledge:
- KS2 types of angle

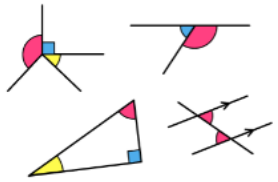
Applied to:
- 7.20 angles in triangles and Quadrilaterals
- 10H.04 Trigonometry

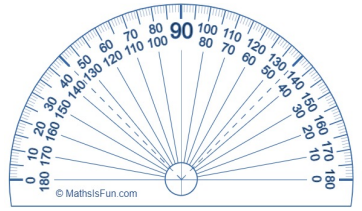
Links across school:
- Bearings (Geography)
- Construction (DT)

Key Concepts

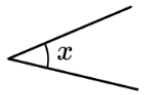
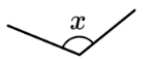
Angles

Angles measure the **amount of turn** required to change direction. At GCSE we can measure angles using a **protractor** using **degrees**. If the diagram is **not drawn to scale** we can determine missing angles by using **angle facts** (also referred to as angle properties or angle rules). There can be multiple different approaches to find a missing angle.

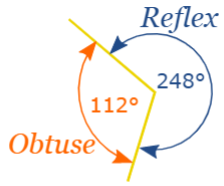




There are different types of angles.

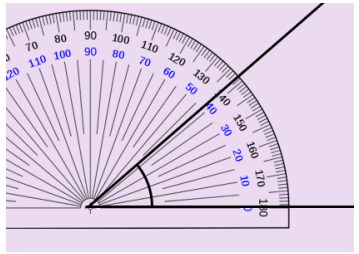
Type of Angle	Description	Diagram
Acute angle	$0 \leq x^\circ < 90$	
Right angle	90°	
Obtuse angle	$90 < x^\circ \leq 180$	
Reflex angle	$180 < x^\circ \leq 360$	

Concept – what it is

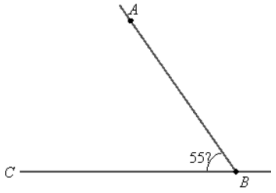


The smaller angle is an **Obtuse Angle**, but the larger angle is a **Reflex Angle**

This angle is 42°



Non-Concept – what it isn't



This angle is 55°
It is NOT 125°
Careful to start measuring from 0 and NOT 180.

Protractors usually have two sets of numbers going in opposite directions.

Be careful which one you use!

When in doubt think *"should this angle be bigger or smaller than 90° ?"*

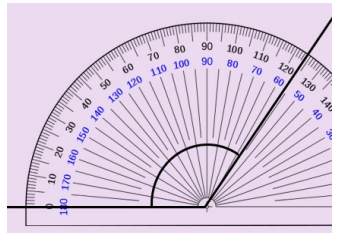
Standard Examples

https://www.mathsisfun.com/geometry/protractor-using.html

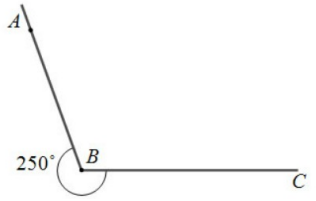
https://www.bbc.co.uk/bitesize/topics/zb6tyrd/articles/z29kg7h

These are both good websites to go through the practice step by step.

124°



Non-Standard Examples



7.20 Measuring and drawing angles

The learning outcomes for this topic are:

- Measure an acute or obtuse angle accurately
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- Draw a diagram from a sentence by measuring an angle

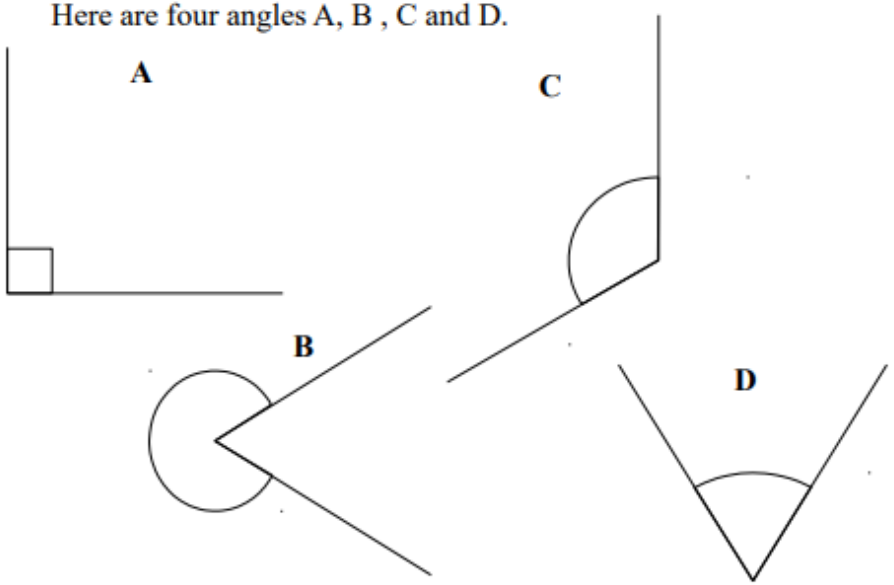
Useful Formulae and Hints

Remember:

- Use a sharp pencil.
- Draw slowly and carefully
- You can have 2 degrees wrong but no more
- Label your angle
- Always use a ruler. DO NOT draw free hand.
- When using a protractor – make sure the line on the paper is completely covered by the 180/0 line on the protractor – the middle of the protractor goes on the end of the line on your page - always start at 0 degrees. Sometimes this is on the outside sometimes on the inside.

GCSE Questions

1 Here are four angles A, B , C and D.



(a) Measure the size of angle C.

(b) Match the angle mathematical name to the angle.

Mathematical Name	Angle
Acute Angle	
Obtuse Angle	
Right Angle	
Reflex Angle	

(Total for question 7 is 3 marks)

2 Draw an angle of 60°
Label the angle *A*.

(Total for question 2 is 1 mark)

3 Draw an angle of 110°
Label the angle *B*.

(Total for question 3 is 1 mark)

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English

Our students will:

- read easily, fluently and with good understanding
- develop the habit of reading widely and often, for both pleasure and information
- acquire a wide vocabulary, an understanding of grammar and knowledge of linguistic conventions for reading, writing and spoken language
- appreciate our rich and varied literary heritage
- write clearly, accurately and coherently, adapting their language and style in and for a
- range of contexts, purposes and audiences
- use discussion in order to learn; they should be able to elaborate and explain clearly their understanding and ideas
- are competent in the arts of speaking and listening, making formal presentations, demonstrating to others and participating in debate.

Year 7 Short Stories

The aims of the sequence of learning are to ensure that all students:

- **AO2:** Analyse language and structure and effectiveness of meaning
- **AO5**: Communicate clearly, effectively and imaginatively, using structural features to support coherence.

Keyword	Definition
Narrative	Another word for story.
Plot	What happens in the story or narrative.
Setting	Where the story takes place
Characters	The people in the story.
Alliteration	A series of words that begin with the same sound used next to or near each other (e.g. Happy hummingbirds that hover in harmony.).
Personification	Making an object or thing perform an action usually associated with a human (e.g. 'Dancing leaves').
Flashback	Looking back on a memory or event that happened before the main story takes place.
Perspective	A particular way of viewing or thing about something.
Narrator	The person who tells the story (see narrative perspective)
Socratic method	A form of co-operative argument where individuals ask and answer questions to stimulate critical thinking and generate ideas.

Key Concepts

What is a short story?

A short story is a prose narrative which often deals with a single incident or event. It will share many features with a novel, such as characters and themes but is much shorter and can usually be read in less than half an hour. They are often published in magazines or collected into an anthology with other short stories.

Narrative Perspective

1st person Told from the perspective of the speaker/narrator. Uses the pronouns 'I', 'my', 'our' etc.

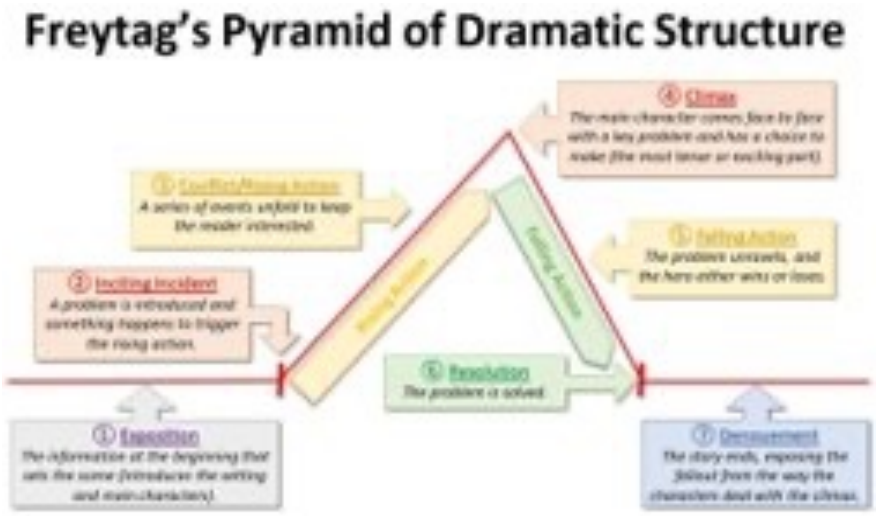
2nd person Speaks directly to the reader, suggesting that they are somehow involved in the story. Uses pronouns 'you', 'your', 'our' etc.

3rd person Told by the perspective of a narrator who knows what characters are feeling and thinking. Uses pronouns such as 'he', 'she', 'they' etc.

Structure terminology:

Sentence length- How long or short a sentence is and the number of clauses it contains can change the effect that it has. For example, short sentences are often used to create tension whereas longer sentences can have a gentle, soothing effect.

Narrative structure- Choosing where to start a story can change the meaning or tone. Sometimes writers choose to start at the end or in the middle to create confusion or mystery. Sometimes they follow a simple 5-part structure in that order.



Year 7 Short Stories

The aims of the sequence of learning are to ensure that all students:

- **AO2:** Analyse language and structure and effectiveness of meaning
- **AO5**: Communicate clearly, effectively and imaginatively, using structural features to support coherence.

Retrieval Practice

Questions	Answers
What is repetition?	Using a word, phrase or idea more than once to draw attention to it, e.g., The room fell quiet. Deathly quiet.
What is Imagery?	Creating a mental picture for the reader through appealing to the senses.
What is a simile?	Comparing one thing to another using like or as.
What is a metaphor?	Describes an object or action in a way that isn't literally true, but helps explain an idea or make a comparison
What is a noun?	A word for an object, person, place or thing.
What is an adjective?	A word that modifies a noun, e.g., blue, crooked, full.
What is a verb?	A word that denotes an action or a state of being e.g., Run, writing, spoke.
What is an adverb?	A word that modifies a verb, e.g.,Quietly, strangely, suddenly.

Career Focus - Where could this take you?

I am a novelist. I write stories for books. To be a successful novelist, you need to have a great imagination and a love for writing. You should be able to come up with interesting characters and plot lines and be able to write in a way that keeps readers interested. You also need to have patience, because writing a novel can take a long time.

Challenge Activities

Can you create a short story?

- **Where is it set?**
- **Who is your main character?**
- **Will it have a happy or sad ending?**

Remember that your story must follow the narrative arc and have a clear beginning, middle and ending. Focus on one problem to keep your story short.

Topic Links

This topic links to:

Drama - Characterisation and setting. Scripting and performance of a radio play

Geography- Consideration and representation of other cultures and heritages.

RE- Mythology and symbolism

Additional Resources

To further practise and develop your knowledge see

BBC Young Writers' Award - Teaching Resources - BBC Teach

https://www.bbc.co.uk/teach/student-critics/zxhqdp3

Free Short Stories - TSS Publishing (theshortstory.co.uk)

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Science

Our students will:

- develop **scientific knowledge and conceptual understanding** through the specific disciplines of biology, chemistry and physics
- develop understanding of the **nature, processes and methods of science** through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the **uses and implications** of science, today and for the future.

Year 7 Reproductive Systems

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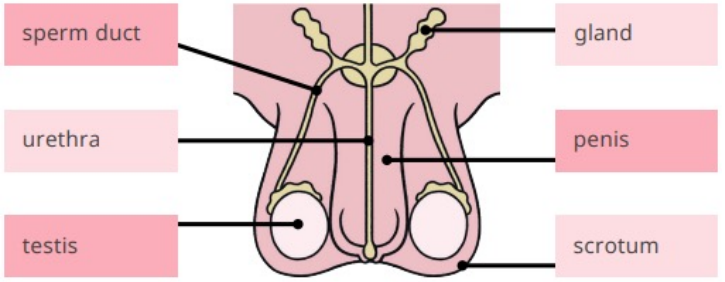
The aims of the sequence of learning are to ensure that all students:
- **Describe the biological processes involved in human reproduction**
- **Explain how plants reproduce and disperse seeds**

Keyword	Definition
Biological sex	Determined by the reproductive organs a person has and the sex chromosomes in their body.
Gamete	A sex cell.
Egg cell	The female sex cell that is released from the ovaries.
Sperm	The male sex cell that is produced in the testes.
Adaptation	The features that a cell has that allow it to perform a particular function.
Puberty	A period when changes occur in males and females to allow them to become sexually mature.
Hormone	A chemical messenger that travels around the body.
Oestrogen	The main female reproductive hormone that thickens the uterus wall.
Testosterone	The main male reproductive hormone that stimulates sperm production.
Conception	The process of becoming pregnant.
Fertilisation	When the sperm and the egg cell fuse together to form a cell.
Embryo	The first 8 weeks of development once a sperm and egg fuse.
Foetus	8 weeks after conception the embryo becomes a foetus.
Contraception	Methods that can be used to prevent pregnancy.

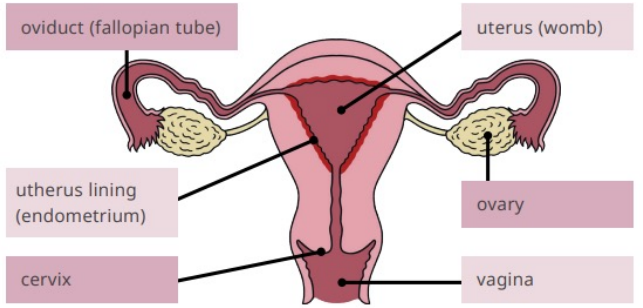
Key Concepts

Male reproductive system



Sperm duct	Carries sperm cell to the urethra
Urethra	A tube that transports urine or semen
Testis	Produces sperm cells
Gland	Produces a fluid for the transport of sperm cells
Penis	Where urine and semen pass out of the body
Scrotum	Where the testes are found

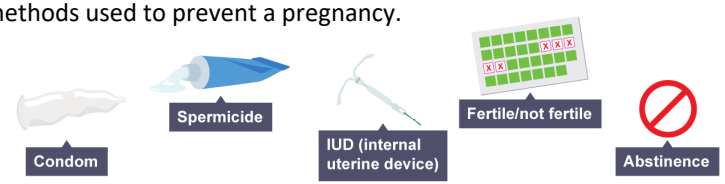
Female reproductive system



Oviduct	Carries egg cells to the uterus
Cervix	Ring of muscle at the bottom of the uterus
Uterus	Where the foetus develops during pregnancy
Ovary	Where egg cells mature and are released
Vagina	A tube leading from the cervix to outside the body

Contraception

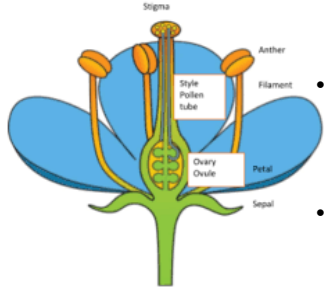
There are **mechanical, chemical, surgical and natural** contraceptive methods used to prevent a pregnancy.



The natural method may be chosen by some groups opposed to contraception for religious or ethical reasons.

Plant reproductive systems

How seeds are made



- Pollen is carried by insects or blown by the wind from one flower to another. This process is called pollination.
- Pollen reaches the new flower and travels to the ovary where it fertilises egg cells (ovules) to make seeds. This is fertilisation.
- The seeds are scattered by animals or the wind. This process is called dispersal. Some of the seeds will grow into new plants.

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Year 7 Reproductive Systems

The aims of the sequence of learning are to ensure that all students:
- **Describe the biological processes involved in human reproduction**
- **Explain how plants reproduce and disperse seeds**

Retrieval Practice

Questions	Answers
What is the fusion of egg and sperm called?	Fertilisation
How is a sperm cell adapted for fertilisation?	A long tail to allow it to move towards the egg cell. Many mitochondria to release energy for movement.
How is an egg cell adapted for fertilisation?	Large size for nutrients for growing embryo. Cell membrane changes after fertilisation to stop more sperm from entering.
What is the name given to a developing baby more than eight weeks after conception?	Foetus
Describe the changes that occur in males during puberty.	Facial hair, growth spurt, mood changes, penis and testes grow, underarm and pubic hair grow, testes produce sperm.
Describe the changes that occur in females during puberty.	Growth spurt, mood changes, breasts develop, hips widen, menstrual cycle begins, pubic and underarm hair grow, vaginal discharge occurs.
Name the parts of the male reproductive system.	Testes, Penis, Urethra, Sperm duct, Gland and Scrotum.
Name the parts of the female reproductive system.	Ovaries, Oviduct, Uterus, Cervix, Vagina
Where does fertilisation take place?	In the oviduct (fallopian tubes)
Where does the embryo/foetus develop?	In the uterus
Name the parts of a flowering plant.	Stem, Sepal, Ovary, Ovule, Filament, Anther, Petal, Stigma, Style
What is pollination?	When pollen is transferred by insects or wind from one flower to another
How are seeds dispersed?	Via animals, the wind or water

Career Focus - Where could this take you?

I am a Horticulturist. I grow and sell plants for food and for display. I have a good understanding of how plants reproduce and how to maximise growth.
The qualities I need for this job include patience to experiment with growing unusual or exotic plants, and resilience as sometimes the growth of plants in out of my control and may be affected by thigs such as pests and weather.
I sometimes sell directly to the public at markets, or I sell to shops and restaurants. I need a good understanding of how to make a profit.
I became a horticulturist through an apprenticeship and completing college courses.

Challenge Activities

1. Make flash cards for the key words.
2. Create a mind map of the reproductive systems topic. Remember to include key words and links between information.
3. Produce a fact file or a poster about plant reproduction and seed dispersal. Include some examples of unusual plants.
4. Write a letter to a teenager explaining the changes that will happen during puberty and why these changes happen.
5. Research a scientist that changed our understanding of reproduction.

Topic Links

This topic links to:
- Specialized cells
- Interdependence

We will also be practising how to
- Research information
- Test different methods of seed dispersal

Additional Resources

To further practise and develop youR knowledge see:

Educake - https://www.educake.co.uk/
BBC Bitesize - https://www.bbc.co.uk/bitesize/topics/zybbkqt
YouTube Cognito - https://www.youtube.com/watch?v=Gf_WLrXAqIA

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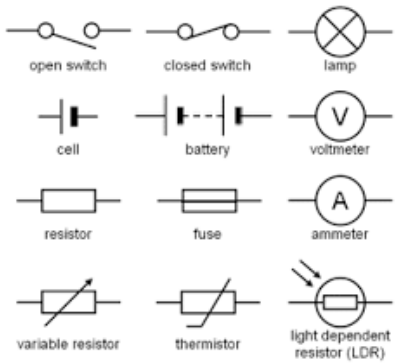
Year 7 Electric Circuits

The aims of the sequence of learning are to ensure that all students:
- **Describe series and parallel circuits**
- **Explain the uses of magnets**

Keyword	Definition
Circuit	A complete loop of conductors that allow electricity to flow.
Charge	Flows in an electric circuit. This is the negative electrons moving around the circuit.
Current	The flow of electrical charge. Measured in amps (A)
Potential Difference	The amount of push (energy) provided by the battery. Also known as voltage (V).
Resistance	A measure of how difficult it is for a charge to pass through a component such as a bulb or resistor.
Component	Part of a circuit, usually drawn as a symbol.
Series	Components are linked one after another, making one loop.
Parallel	Components are linked in more than one loop.
Ammeter	An instrument used to measure current in a circuit.
Voltmeter	An instrument used to measure the potential difference between two points in a circuit.
Battery	Store chemical energy and transfer it as current in an electrical circuit.
Magnetism	A non-contact force where magnetic materials are attracted to a magnet.
Magnetic Field Lines	The magnetic field around a magnet drawn as lines. Moving from the north pole to the south pole.
Electromagnet	Can be created when an electric current is passed through a metal resulting in a magnetic field.

Key Concepts

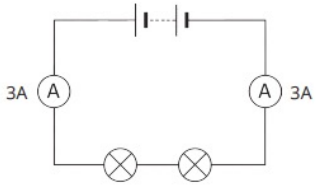
Circuit Diagrams



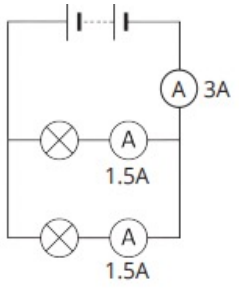
- Circuit diagrams are used to show how electrical **components** are connected in a **circuit**.
- Individual circuit components are represented using circuit symbols.
- When drawing a circuit diagram these symbols are connected in either a series or a parallel circuit.

Series and Parallel Circuits

Series Circuits
When we connect **components** in series they are all in the same loop one after another.
The components are connected end-to-end with the last wire completing the circuit to form the single loop, meaning there is only one path for the **current** to flow.
The current is the same everywhere in a series circuit.

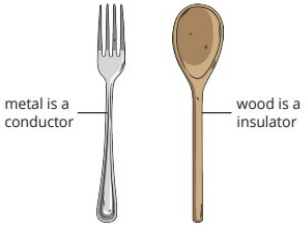


Parallel Circuits
When we connect **components** in **parallel**, the components are connected on different branches of the circuit. There are two or more 'loops' and multiple paths for a **current** to flow.
The current is split between multiple branches in a parallel circuit.



Resistance

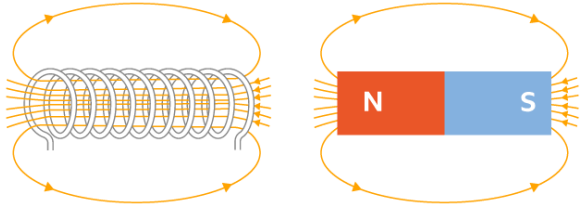
- Resistance (R) is a measure of how difficult it is for current to flow. Resistance is measured in units called ohms (Ω).
- The amount of **current** flowing in a circuit is affected by the resistance of that circuit.
- Each component in a circuit has a resistance.
- Resistance can be calculated using the equation:
  Resistance = potential difference ÷ current



Some materials are better conductors of electricity than others.
Conductors allow electrons to flow more easily, whereas insulators make this more difficult.

Electromagnets

When an electrical charge flows through a wire, a magnetic field is created. The larger the current the stronger the electromagnet. The strength can also be increased by increasing the number of coils around the iron core.



Year 7 Electric Circuits

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The aims of the sequence of learning are to ensure that all students:
- **Describe series and parallel circuits**
- **Explain the uses of magnets**

Retrieval Practice

Questions	Answers
What is a circuit?	A network of components connected by wires.
Name the component used to measure current.	An ammeter – measures current in amps (A).
Name the component used to measure potential difference.	A voltmeter – measures voltage in volts (V).
What is an electrical conductor?	A material that allows current to flow through it.
What is an electrical insulator?	A material that doesn't allow current to flow through it.
What is charge?	A property of a particle that is either positive or negative – measured in coulombs.
What is current?	How much charge passes a certain point each second – measured in amps.
What is a series circuit?	A series circuit is a circuit made from only one loop.
What is a parallel circuit?	A parallel circuit is a circuit made from multiple loops and junctions.
How does current behave in a series circuit?	Current is the same throughout the series circuit.
How does current behave in a parallel circuit?	Current splits at junctions in a parallel circuit; it is different in different loops.
What factors affect resistance?	The type of material, the width of the wire, the length of the wire and temperature.
How can we alter the strength of an electromagnet?	Increase the current or increase the number of coils.
What are the advantages of using an electromagnet?	The strength can be changed, it can be switched on and off, it can be reversed.

Career Focus - Where could this take you?

I am an electric vehicle mechanic. Recently there has been a huge increase in people switching to electric vehicles so my job is more important than ever.
To be an electric vehicle mechanic it is important that I understand circuits so I can easily identify faults. I start off by connecting a diagnostic system to the car to help identify the fault but sometimes I must figure out which component needs replacing myself.
In order to become qualified, I had to undergo a specialist training programme where I learnt about the risks involved and how the battery and motor worked.

Challenge Activities

1. Make flash cards for the key words.
2. Create a mind map of the electric circuits topic. Remember to include key words and links between information.
3. Draw a series and parallel circuit identify the key components. Compare the two circuits and explain what happens to bulbs in each circuit if one breaks.
4. Research more about electric cars and produce a fact file about them. How do they work? Are they better for the environment?
5. Find out about a scientist that changed our understanding of electricity. What experiments did they do? What technology did they invent?

Topic Links

This topic links to:
- Atoms
- Energy
- Organisation – the heart

We will also be practising how to
- Draw scientific diagrams
- Measure and calculate current
- Use equations

Additional Resources

To further practise and develop your knowledge see:

Educake - https://www.educake.co.uk/
BBC Bitesize - https://www.bbc.co.uk/bitesize/topics/zgy39j6/articles/zjm8kty
YouTube Cognito - https://www.youtube.com/watch?v=R3hdaLpq2AA

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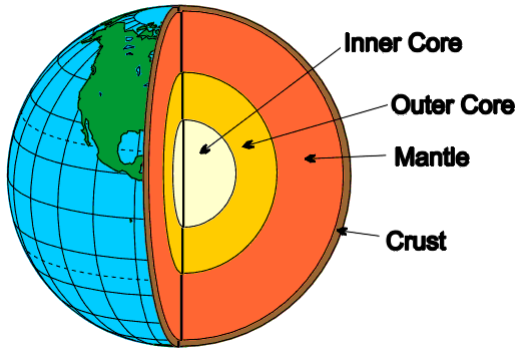
Year 7 Earth Cycles

The aims of the sequence of learning are to ensure that all students:
- **Describe the rock, water and carbon cycle**
- **Explain the effects of pollution and climate change**

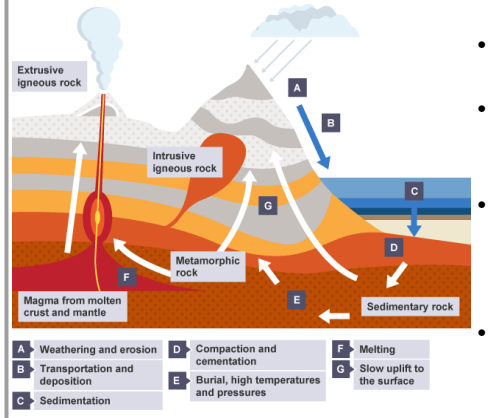
Keyword	Definition
Sedimentary Rock	Formed from the broken remains of other rocks that become joined together.
Igneous Rock	Formed from molten (liquid) rock that has cooled and solidified.
Metamorphic Rock	Formed from other rocks which change due to **heat** or **pressure**.
Evaporation	The process of turning a liquid into a gas..
Condensation	The process of turning a gas into a liquid.
Transpiration	When plants take up water from the soil and release it into the atmosphere vis their leaves.
Precipitation	Water that falls from clouds to the ground as rain, snow or hail.
Run off	Water that runs on the surface of the land.
Atmospheric CO2	The amount of carbon dioxide that is found in the air. Currently around 0.04%
Photosynthesis	The process green plants use to turn water and carbon dioxide into glucose and oxygen using light energy.
Respiration	The process of breaking down sugar in living organisms and returning it back to the atmosphere.
Decomposition	When living things are broken down into simpler molecules.
Global Warming	The long-term warming of the planet's overall temperature.

Key Concepts

The Structure of the Earth

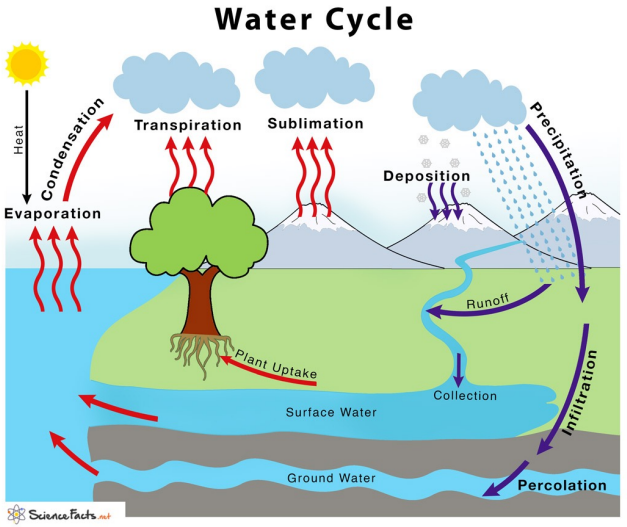


The Rock Cycle



- The rocks on Earth are constantly changing due to many different processes.
- There are three main types of rock, with rocks changing between each type over millions of years.
- There are sedimentary, igneous (intrusive and extrusive) and metamorphic rocks. Due to how they were formed they have key characteristics.
- This rock recycling is a process called the rock cycle.

The Water Cycle

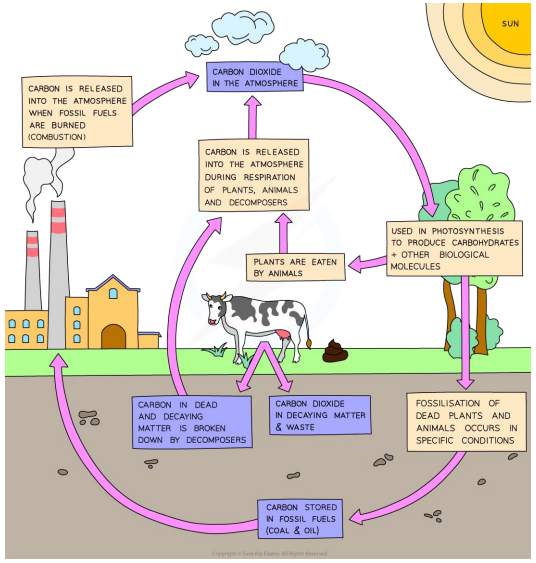


The Carbon Cycle

Carbon is an essential element for life on Earth.

Every living organism has carbon compounds inside each of its cells, such as fats and proteins.

The carbon cycle shows how atoms of carbon can exist within different compounds at different times and be recycled between living organisms and the environment.



Year 7 Earth Cycles

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The aims of the sequence of learning are to ensure that all students:
- **Describe the rock, water and carbon cycle**
- **Explain the effects of pollution and climate change**

Retrieval Practice

Questions	Answers
Name the parts of the Earth.	Crust, Mantle, Outer core and inner core.
How is igneous rock formed?	Formed when magma or lava cools and solidifies.
How is sedimentary rock formed?	Formed from compressed or cemented layers of sediment.
How is metamorphic rock formed?	Formed through heat and pressure
What is the rock cycle?	The continuous process by which rocks form and change.
What is the water cycle?	The continuous process by which water moves from Earth's surface to the atmosphere and back.
Name the 2 main processes that move water into the atmosphere.	Evaporation and transpiration
Name the process that removes water from the atmosphere.	Precipitation.
What is the carbon cycle?	The process by which carbon atoms are continually added and removed from the atmosphere. Carbon is stored in rock, sediment, ocean and living organisms.
What natural processes add carbon to the atmosphere?	Respiration and decomposition.
What process **adds** extra carbon to the atmosphere (in the form of CO2)?	Combustion
What process removes carbon from the atmosphere?	Photosynthesis.
Carbon dioxide is a greenhouse gas. What does this mean?	It is a gas in the atmosphere that traps heat – stops it escaping back into space.

Career Focus - Where could this take you?

I am a climate scientist. I study the influences that humans are having in the Earth's climate . I monitor the parts of the Earth that are changing such as the air, sea temperatures and how fast glaciers are melting. I then predict how these changes might affect the planet in the future.
I can also be involved in designing and building equipment used to gather data or write predictions about the future effects of climate change. Policy makers such as government advisers rely on my advice.
In order to qualify I needed a science degree and to carry out some postgraduate studies.

Challenge Activities

1. Make flash cards for the key words.
2. Create a mind map of the earth cycles topic. Remember to include key words and links between information.
3. Construct a poster about different types of igneous, metamorphic and sedimentary rocks. Name them and describe what they are used for.
4. Research how new technologies are trying to reduce the amount of CO2 in the atmosphere. How expensive are they? Will they be used a lot?
5. Find out about a scientist that changed our understanding of climate change and how their research has changed our everyday lives.

Topic Links

This topic links to:
- Chemical reactions
- Energy
- Climate change

We will also be practising how to
- Use percentages
- Evaluate evidence for climate change

Additional Resources

To further practise and develop your knowledge see:

Educake - https://www.educake.co.uk/
BBC Bitesize - https://www.bbc.co.uk/bitesize/topics/z3fv4wx
YouTube Cognito - https://www.youtube.com/watch?v=urzpnjwazV0

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Humanities

Our students will:

- know and understand the history of these islands as a coherent, chronological narrative, from the earliest times to the present day: how people's lives have shaped this nation and how Britain has influenced and been influenced by the wider world
- understand historical concepts such as continuity and change, cause and consequence, similarity, difference and significance, and use them to make connections, draw contrasts, analyse trends, frame historically-valid questions and create their own structured accounts, including written narratives and analyses
- understand the methods of historical enquiry, including how evidence is used rigorously to make historical claims, and discern how and why contrasting arguments and interpretations of the past have been constructed
- develop contextual knowledge of the location of globally significant places – both terrestrial and marine – including their defining physical and human characteristics and how these provide a geographical context for understanding the actions of processes
- understand the processes that give rise to key physical and human geographical features of the world, how these are interdependent and how they bring about spatial variation and change over time

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Year 7 China

The aims of the sequence of learning are to ensure that all students:

- Describe China's location in the World and what it is like to live there
- Explain how China has undergone change over the past 120 years
- Describe China's physical Geography
- Explain population distribution across China
- Describe the changes which made Shenzhen a megacity

Keyword	Definition
Ageing population	Increase in the % of elderly in a country
Capitalism	People own business with the idea of making profits
Colony	A country under the control of another country
Communist	The state own everything and controls what to make
Economic	Money and business
Emperor	The supreme male monarch of an empire
Megacity	A city with more than 10 million people
Migrant	A person who moves to another country
Monsoon	Heavy rains that fall in summer months
Nationalists	Strongly supports their own country
Plateau	Area of high, flat land
Policy	A law or regulation
Population distribution	How people in a country are spread around
Urbanising	The increase in the % of people in a city or town

Key Concepts

LOCATION OF CHINA

PHYSICAL FEATURES OF CHINA

- There are three main rivers in China – the Yangtze, Huang He and Pearl Rivers
- The Himalayan Mountains are found in the south-west of China and run along China's border with Nepal and India
- China is a large country containing many different climates. The north is cold and dry, and the south is warmer and wetter
- The Gobi Desert is situated in the northern part of China
- The east coast of China borders the Pacific Ocean

HUMAN FEATURES OF CHINA

- Beijing is the capital of China
- One of the most famous landmarks is the Great Wall of China, the longest man-made structure in the world, stretching nearly 7000km long
- Main cities in China include Beijing and Shanghai
- China has a population of 1.3 billion (2007) – the largest population of any country in the world

CHINA'S POPULATION DENSITY

COMMUNISM IN CHINA

- **COMMUNISM** - a theory or system of social organization in which all property is owned by the community and each person contributes and receives according to their ability and needs.
- **DEMOCRACY** - a system of government by the whole population or all the eligible members of a state, typically through elected representatives.
- **CAPITALISM** - an economic and political system in which a country's trade and industry are controlled by private owners for profit, rather than by the state.

PROBLEMS WITH COMMUNISM

Communism may sound like a good idea on paper however there are many problems associated with communist countries:

- Widespread poverty
- Poor human rights records
- Lack of freedom of information (internet), movement and speech

IS CHINA STILL COMMUNIST?

China is governed by the Communist Party of China (CPC), but the government can vote in a democratic way. However the CPC:

- Restrict internet access and protests
- Control what is published in the papers
- Have no real opposition party

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Key Concepts

WORKING IN SHENZHEN

Foxcann is the world's largest electronics factory. Foxcann is owned by a Taiwanese company, it makes iPads, iPhones and iPods for Apple.

WHAT HAPPENED IN SHENZHEN?

- In 6 months 10 people under the age of 25 jumped from the roofs to their death.

- Workers have to repeat their tasks at high speed, under military style supervision every day.
- Some complaints of the factory include not being able to sit, take toilet breaks, not being paid for overtime and poor living conditions

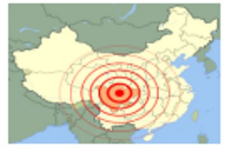
THE FUTURE OF SHENZHEN

- Apple promised to check whether the factory was safe and whether it should continue to make products for them.

- The factory has tried to stop the suicides by hiring 2000 singers, dancers and gym trainers.
- Also it is putting up nets to 'catch' the jumpers.

- It promised to rise wages and move workers closer to their homes.

THE 2008 SICHUAN EARTHQUAKE



Sichuan is one of the major industrial centres of China. In addition to heavy industries such as coal, energy, iron and steel, the province has also established a light industrial sector comprising building materials, wood processing, food and silk processing.

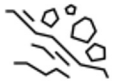
FACTS AND FIGURES

- Time: 14:28 Monday 12th May
- Length of main quake: approx. 2 mins
- The earthquake measured 8.0 on the Richter Scale
- 69,195 confirmed dead
- 18,392 missing presumed dead
- 374,643 injured
- 4.8 million people left homeless according to official figures but the real number could be 11 million

EFFECTS

- Many key transport links were damaged

- Many thousands of children died in schools which collapsed
- The ground shaking caused many landslides which covered roads, railways, housing and industry



RESPONSES

- International Red Cross who came into the area with tents, clean water and food parcels.
- The Government allowed families in Sichuan to have another child without fear of fines and even paid for men reverse their vasectomies

POLLUTION IN CHINA

CAUSES

- Huge numbers of people work in heavy industry in China
- China builds a coal fired power station every week to meet the demand for cheap electricity

- Car ownership is growing faster in China than anywhere else

- China makes most of its money from manufacturing which causes most of the air pollution
- Coal is cheap to mine and China has a lot of it

EFFECTS

- 1.2 million people died early in 2010 in China due to outdoor air pollution
- 26 % of all deaths in urban China are due to respiratory illnesses.
- 16 of the worst 20 cities for air pollution are in China

- Only high blood pressure and smoking cause more deaths in China than air pollution.
- Most people in cities wear face masks when they go outside for long periods of time

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Year 7 China

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Retrieval Practice

Questions	Answers
What is the capital city of China?	Beijing
Name the 3 main rivers in China	Yangtze, Huang and Pearl.
What is Communism?	A system where all property is owned by the community and each person contributes to this.
What is one problem with Communism?	It led to a lack of a freedom of information (the internet) and speech.
Where is the largest electronics factory, what is it called and what do they make?	The factory is Foxconn and is in Shenzhen. They make products for Apple like iPads and iPhones
What are problems in Shenzhen?	Workers have to repeat tasks at high speed and complain about not being able to sit.
What is the future like for Shenzhen?	In factories they have promised to improve wages .
What is a cause of pollution in China?	Car ownership is growing faster in China than anywhere else in the world.
What is an effect of the pollution in China?	26% of all deaths in Urban areas in China are due to respiratory illness.

Career Focus - Corporate responsibility and sustainability practitioner

It is my job to design the company strategy for corporate responsibility and sustainability. We make sure the business works in a way that does not cause harm to communities or the environment. We need to keep up to date with policy and legislation and work with internal and external partners

Challenge Activities

- Cook a meal, which takes inspiration from China photograph the process and give details on its origin and the ingredients
- Create a collage using images, words and photographs to show features and details on the China
- Create an English to Chinese phrase booklet/poster. With translations of key words and terms.

Topic Links

This topic links to:

- Geography - Map work, population and physical features
- History
- Maths

Additional Resources

To further practise and develop your knowledge see:

Introduction to China

How is China Changing

Year 7: Medieval England

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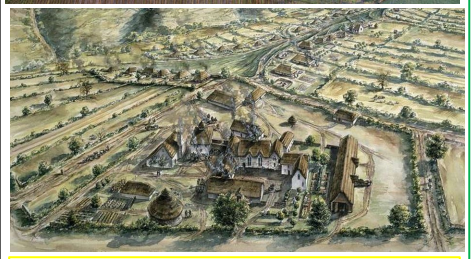
The aims of the sequence of learning are to ensure that all students:

- Explore what Medieval villages looked like.
- Analyse what life was like for people living in Medieval England and compare the life of the rich and poor.
- Explain what crime, punishment and the justice system was like in Medieval England.
- Evaluate all aspects of Medieval England, including: Villages, Life, Religion and The Justice System.

Keyword	Definition
Archaeologist	A person who studies history by discovering and analysing artefacts.
Excavate	Removing earth carefully in order to find artefacts or remains.
Domesday book	A record of the extent, value and ownership of land in England, made in 1086 by order of King William I.
Villein	Someone who is under the control of a lord or master and farms in return for the land they live on.
Freeman	A person who is not a slave.
Jury	A group of ordinary people who hear both sides of a case and decide on a verdict in a court.
The Hue and Cry	A way to alert people in a medieval village that a crime had been committed.
Tithings	A group of ten men over age twelve, who ensured that nobody else in the group broke the law.
Pilgrimage	A long and hard journey to a place of religious importance.
Doom painting	A painting of the moment Jesus judges souls and decides whether they should go to heaven or hell.
Purgatory	Believed to be a place where souls go after death, to be cleansed of their sins before they enter heaven.
Soul	The spiritual part of a human being or animal.
Black death	A disease which spread around England in 1348.
Revolt	Taking violent action against a government or ruler
Protest	Taking action, peacefully or violently against something that you disagree with.

Key Concepts

What did medieval Villages look like?
Nearly everyone in the middle ages lived in the countryside. Historians know what medieval villages looked like through research and archaeology. For example, the pictures below show the medieval village of Wharram Percy in Yorkshire. The first picture shows the remains of the village from above, the second picture shows a reconstruction of the town based on the archaeological excavation that took place at the site.



Villages such as Wharram Percy, that had land around them, were called Manors. They were held and controlled by a lord of the manor.

Life in a medieval village: Men and women worked hard in medieval villages. Work that continued all year round included; collecting firewood, digging drainage ditches, looking after animals and repairing houses. On top of the work they did on their own homes, villeins also had to work for the lord! At busy times of the year, such as the harvest, this could take up all of their time. And remember, they did not get paid for this work, the work for the lord was merely in return for the land they farmed and lived on.

Justice in the Middle Ages: The medieval justice system is different to the justice system that we have today. E.g. the hue and Cry, ensured everyone in the village helped to catch people that broke the law. E.g. if a villager was attacked they could raise the hue and cry, everyone who could hear them would come to help catch the guilty person. Other forms of medieval justice included Tithings and the Manorial court, which helped make sure the Villeins did the work they owed the lord and kept law and order in the village.

Religion in the Middle Ages: Religion played a very important role in peoples lives in the middle ages. Everyone had to go to church on Sundays and on holy days, people believed that god controlled every part of their lives and most importantly God decided whether you went to heaven or hell.

Doom Painting: Most people could not read the bible for themselves so wall paintings (murals) were put on the walls of churches so people could understand the teachings of the church.

This shows the souls of people climbing the ladder to get to heaven. People were terrified of ending up in hell where they would be in agony forever.

The Black Death 1348: People in Medieval England always faced famine and disease, but in 1348 they had to face the Black Death. It spread from Asia to Europe and then to England. At the time doctors did not know about germs and did not know how to treat the illness. As a result one third of the population died. This caused major unrest in the decades after the outbreak.

The Peasants Revolt 1381: Most of the population in the middle ages were powerless. However, in 1381 the peasants rose up against King Richard II. They rose up because they were unhappy with their treatment and angry about high taxes. So in 1381 a large group of peasants from the south east of England set off to London to protest, several houses were set on fire and the Archbishop of Canterbury was killed in the protest.

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Year 7: Medieval England

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- Explore what Medieval villages looked like.
- Analyse what life was like for people living in Medieval England and compare the life of the rich and poor.
- Explain what crime, punishment and the justice system was like in Medieval England.
- Evaluate all aspects of Medieval England, including: Villages, Life, Religion and The Justice System.

Retrieval Practice

Questions	Answers
How do Historians know what medieval villages looked like?	Through research and archaeology, historians can analyse evidence, such as the remains of buildings and artefacts to reconstruct medieval villages.
Name three features of a medieval village.	Barn, Manor house, Church, Villagers houses, field for animals to graze, kitchen garden for the manor house.
What was the busiest time of year for villeins? Why?	The harvest, this would involve gathering all the crops grown on the lord's land. This could mean they would have to work for the lord 7 days a week!
What was trial by ordeal?	This was a feature of the medieval justice system. It was used when the courts could not decide if someone was guilty or not guilty, a trial by ordeal 'let God decide'.
Why was religion so important to people in the middle ages?	People believed that Gid controlled every aspect of their lives and most importantly decided whether or not they would go to heaven of hell when they died.
Describe the medieval view of Hell.	People were terrified of hell as they believed they would burn in agony for all eternity. In the doom paintings that depicted hell, images show people being boiled alive and placed on spikes.
Name two ways you could increase your chances of getting to heaven.	Pilgrimages and buying your way to heaven.
What were the two types of plague that spread in 1348?	Bubonic plague and the Pneumonic plague.
What were the symptoms of the Bubonic Plague?	Fever, buboes (swellings) in the groin and in the armpit. 70% died and it took around 4 to 7 days for them to die.
Why did the peasants revolt in 1381?	They believed that they were not treated very well by their lords and disagreed with the high taxes.

Career Focus - Where could this take you?

I am a Sociologist- My job is to study human behaviour, interaction, and organisation. I observe the activity of social, religious, political, and economic groups, organisations, and institutions. I examine the effect of social influences, including organisations and institutions, on different individuals and groups. I can help people understand why they act and feel certain ways and also help businesses understand what will appeal to their customers.

Challenge Activities

1. Create your own version of a doom painting. Use the doom painting from the key concepts box for inspiration. Also do your own research. Make it as detailed as possible and ensure you include the key features: A ladder, peoples souls, heaven and hell.

2. Create a leaflet instructing people how they can get to heaven. Remember! You are writing the leaflet as though you are living in Medieval England, the leaflet should be persuasive, You should also add pictures to make the leaflet eye catching

3. Make a poster about how life in Medieval England compares to life in England today. One half should detail what life was like in medieval times e.g. Villages, Houses, Farming, Justice, Religion and Illness. The other half should focus on aspects of life in modern England. The best posters will add information about how life now compares to life in the middle ages. For example how has healthcare changed?

Topic Links

This topic links to:

- The Norman Conquest
- Medicine through time
- Christianity
- Democracy

Additional Resources

To further practise and develop you knowledge see:

- https://www.bbc.co.uk/bitesize/topics/zbn7jsg/articles/zwyh6g8#zw3nhcw6
- https://www.historyhit.com/life-of-medieval-peasants/

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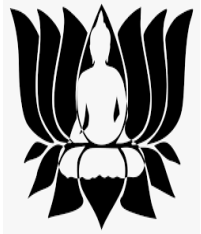
Year 7 BUDDHISM

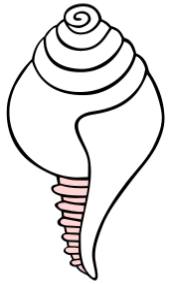
The aims of the sequence of learning are to ensure that all students:

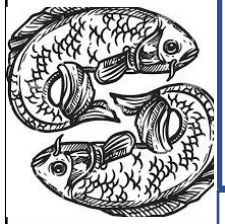
- Identify the religion of Buddhism
- Identify the end goal of Buddhists, Nirvana
- Explain the life of Siddhartha Gautama & the four sights
- Explain the five precepts
- Identify the wheel of life & how the eight-fold path guides the values of a Buddhist
- Understand the concept of Dukka & Annicca

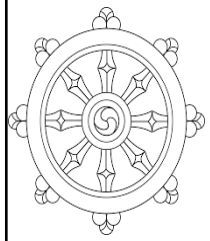
Keyword	Definition
Annica	Nothing is permanent, including people
Buddhism	Belief system founded by Siddhartha Gautama in 5th Century BC
Enlightenment	The ultimate aim. Ultimate wisdom and knowledge
Eightfold Path	The rules set out by Buddha to achieve Nirvana
Mantra	A word or sound repeated to aid concentration in meditation
Meditation	The technique used to focus on something specific.
Middle Way	Living with 'what is needed.'
Nirvana	A place of perfect peace. Without suffering.
Puja	Buddhist act of worship
Siddhartha Gautama	The Buddha. Founder of the belief system (religion) of Buddhism. Born a prince in modern day Nepal.
Shrine	A special place, linked with a holy object.
The Wheel of Life	The Buddhist symbol. What the Buddha taught. Relates to Eightfold Path
The Conch Shell	A symbol of Power
The Lotus Flower	A symbol of Progress
The Golden Fish	A symbol of Happiness

Key Concepts









WORSHIP

Buddhists use meditation to help them focus and forgive. Meditation can be done alone or with a group. Buddhists can worship at home or in a temple. Buddhists worship by sitting down on the floor.

Their feet always face away from any images of the Buddha. Their head and body face the Buddha. This is called Puja. Buddhists chant to show their love for Buddha and make offerings of flowers and incense at shrines.

Buddhists believe you can use meditation to help let go of being self-centered and live peacefully and generously with each other.

Buddhists do not pray to Buddha or ask his forgiveness; instead, they try to forgive themselves and others by following the Eightfold Path view (understanding) 2. Right thought 3. Right Speech 4. Right action 5. Right livelihood 6. Right effort 7. Right mindfulness 8. Right contemplation (concentration)

THE FOUR SIGHTS

As he grew, Siddhartha's curiosity could not be contained. He felt that his life of luxury was empty. At the age of 29, he persuaded his chariot driver, Channa, to take him out of the palace to the city. There he encountered the **Four Sights:**

An old person - Siddhartha had never before seen an old person. He asked his chariot driver, Channa, what he was looking at. Channa explained that when people get older, they physically decline.

A sick person - when Siddhartha saw an ill person by the side of the road, he was upset as he had never before seen anyone who was ill. Channa explained that, during their lives, people get ill.

A dead person - the third sight was a dead person being carried. Channa explained that everyone dies eventually.

A holy man (ascetic), who lived a life of self-denial, was the fourth sight. This person made Siddhartha curious, because the holy man was looking to understand truth

HOLY BOOK

Tipitaka: When the Buddha died, people thought it would be a good idea to write down what the Buddha had said and taught. 500 monks met to check the contents of his teachings. The teachings were then passed down by word of mouth for around 400 years before being written down.

They read the Dhammapada, which contains the teachings of the Buddha. It teaches them that forgiveness and love can overcome any obstacle.

EIGHTFOLD PATH

Buddhists follow these 8 divisions of the path to achieve spiritual enlightenment and cease suffering.

RIGHT UNDERSTANDING – seeing things as they really are and not how you think they are.

RIGHT THOUGHT – kind thoughts and Not cruel ones. RIGHT SPEECH – not lying, being rude or chattering. RIGHT ACTION – saving life not destroying it. RIGHT LIVELIHOOD – earning a living without hurting others. RIGHT EFFORT – understand truth and do what is right. RIGHT MINDFULNESS – being aware of your actions, words and thoughts.

RIGHT CONCENTRATION – learning to meditate without losing concentration

NATURE

The teachings of the Buddha have always emphasised looking after and showing kindness towards animals. Buddhists believe in harmony and balance within the universe; they must act with purpose and be mindful that their actions have consequences to their surroundings. Buddhists today understand their role in the protection of the environment. The Dalai Lama said: "We are the generation with the awareness of a great danger. We are the ones with the responsibility and the ability to take steps of concrete action, before it is too late."

DUKKAH

A very important idea in Buddhism as it is vital that Buddhists understand and accept that suffering exists. Buddhists must also strive to end suffering by understanding why people suffer.

Suffering comes from craving things and from events in a person's life, such as birth, old age and death. People go through various types of suffering.

ANICCA

The concept that nothing stays the same and everything is always changing. This concept is also known as impermanence. Buddhists must accept that nothing can stay how it is – everything must move on or change.

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Everyone Exceptional Everyday

Year 7 BUDDHISM

The aims of the sequence of learning are to ensure that all students:

- Identify the religion of Buddhism
- Identify the end goal of Buddhists, Nirvana
- Explain the life of Siddhartha Gautama & the four sights
- Explain the five precepts
- Identify the wheel of life & how the eight-fold path guides the values of a Buddhist
- Understand the concept of Dukka & Annicca

Retrieval Practice

Questions	Answers
1. Where did Buddhism begin?	Lumbini, Nepal.
2. Who founded the religion/ belief system of Buddhism?	Siddhartha Gautama- also known as The Buddha.
3. What were the four sights?	An old person, a sick person, a dead person and a holy man.
4. What is Nirvana?	A place without suffering. Eternal peace.
5. Name a Buddhist symbol	Conch shell. POWER Wheel of Life. EIGHTFOLD PATH Golden Fish. HAPPINESS Lotus flower. PROGRESS
6. What is Buddhist worship know as?	Puja. It can be performed individually or in groups.
7. What do Buddhist's believe happens when we die?	They believe in reincarnation. We come back as something else, based on our previous Karma/ behaviour.
8. What do Buddhist's believe about the soul?	Buddhists believe the soul does not exist. Nothing of any permanence exists. Everything is ever- changing.
9. Name a Buddhist holy book	Tipitaka OR Tripitaka. This is a collection- Vinaya Pitaka, Sutta Pikata and Abhidhamma Pitaka.
10. What is meditation and how is it used in Buddhism?	A technique of mindfulness (shamatha)- focus on one thing. It is used as a way of focussing and eventually, achieving Enlightenment.

Career Focus - Where could this take you?

I am a Veterinary Surgeon. My job involves examining animals, diagnosing illnesses or injuries, and providing treatment. I may also perform surgeries, prescribe medications, and provide advice to pet owners on how to care for their pets.
This job fits with the Buddhist approach to nature- to treat all animals with loving kindness.

Challenge Activities

KEY CHALLENGE QUESTIONS:

- What makes something a religion? Do you think Buddhism is a religion? Explain
- How might a religion and religious life change over time?
- Should religion and religious life change modernize? Explain what you think this could/ should mean
- What do Buddhists believe about God and why are Buddhist beliefs so often misunderstood?

KEY CHALLENGE TASKS:

- Create a leaflet for someone to explain the key beliefs of Buddhism.
- Research the history of the Buddha and his life story. What interesting things have you found?

Topic Links

This topic links to:

- Ethics
- Animal Rights
- Human Rights

Additional Resources

To further practice and develop your knowledge see:

- BBC Bitesize https://www.bbc.co.uk/bitesize/topics/zs86n39/articles/zmcsmfr
- OAK Academy resources https://classroom.thenational.academy/lessons/a-brief-history-of-india-cth30d

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MFL

Our students will:

- understand and respond to spoken and written language from a variety of authentic sources
- speak with increasing confidence, fluency and spontaneity, finding ways of communicating what they want to say, including through discussion and asking questions, and continually improving the accuracy of their pronunciation and intonation
- can write at varying length, for different purposes and audiences, using the variety of grammatical structures that they have learnt
- discover and develop an appreciation of a range of writing in the language studied.

Year 7 Mon Temps Libre

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The aims of the sequence of learning are to ensure that all students can:
- say what sports people play
- say what activities people do.
- talk about the weather
- ask and answer simple questions.
- use more complex structures with time phrases.

Key concepts

Talking about where you live

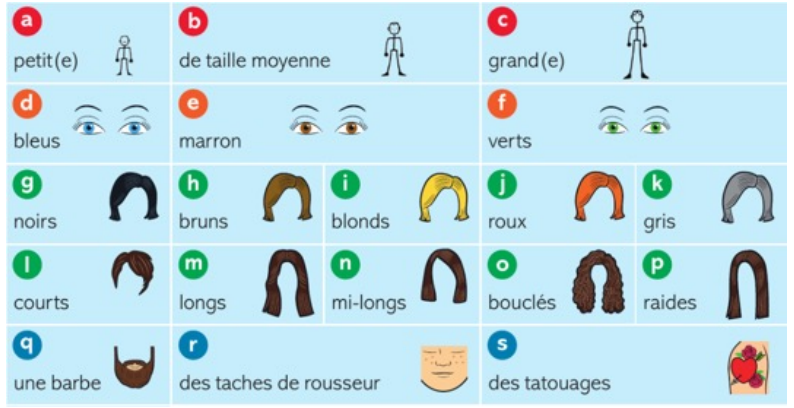
Où habites-tu? *Where do you live?*				
J'habite *I live* Nous habitons *We live*	dans *in*	un appartement *a flat* une maison *a house*	à Huddersfield *in Hudds* à Edimbourg *in Edinburgh* à Belfast *in Belfast* à Wrexham *in Wrexham*	en Angleterre. *in England.* en Écosse. *in Scotland.* en Irlande du Nord. *in Northern Ireland.* au pays de Galles. *in Wales.*
J'aime habiter ici *I like living here* Je n'aime pas habiter ici *I don't like living here* Nous aimons habiter ici *We like living here* Nous n'aimons pas habiter ici *We don't like living here*			parce que c'est *because it's*	confortable. *comfortable.* grand. *big.* tranquille. *peaceful.* trop petit. *too small.*
			parce qu'il n'y a pas de place. *because there's no space/room.*	

Talking about what you eat for breakfast.

je mange *I eat*	un *a*	croissant. *croissant.* fruit. *piece of fruit.*
	du *(some)*	beurre. *butter.* pain *bread.* pain grillé. *toast.* yaourt. *yoghurt.*
	une *a*	tartine. *slice of bread with jam or spread.*
	de la *(some)*	confiture. *jam.*
	des *(some)*	céréales. *cereal.* œufs. *eggs.*
je bois *I drink*	du *(some)*	chocolat chaud. *hot chocolate.* jus de fruits. *fruit juice.* lait. *milk.*
	de l' *(some)*	eau. *water.*
je ne mange rien. *I don't eat anything.* je ne bois rien. *I don't drink anything.*		

Tu est comment? What do you look like?

J'ai	I have	Il a	He has
Tu as	You have	Elle a	She has
Je suis	I am	Il / elle est	He/she is
Les yeux	Eyes	Les cheveux	hair



Décris- moi ta famille – describe your family

Il y a ……..
(There is…)

Dans ma famille il y a ..

(In my family there is……)

mon *my*	père. *father.* beau-père. *step-father.* grand-père. *grandfather.* frère. *brother.* demi-frère. *half-brother/step-brother.*
ma *my*	mère. *mother.* belle-mère. *step-mother.* grand-mère. *grandmother.* sœur. *sister.* demi-sœur. *half-sister/step-sister.*
mes *my*	parents. *parents.* grands-parents. *grandparents.* frères. *brothers.* sœurs. *sisters.*

Il s'appelle…….. He's called…..
Elle s'appelle…….. She is called…..
Ils / elles s'appellent …….. They are called……..

Using higher numbers.

20 vingt	70 soixante-dix (60+10)	82 quatre-vingt-deux (4x20+2)
30 trente	71 soixante-et-onze (60+11)	90 quatre-vingt-dix (4x20+10)
40 quarante	72 soixante-douze (60+12)	91 quatre-vingt-onze (4x20+11)
50 cinquante	80 quatre-vingts (4x20)	92 quatre-vingt-douze (4x20+12)
60 soixante	81 quatre-vingt-un (4x20+1)	100 cent

Key sounds

en/an

grand

parent

in

lapin

vingt

20

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Year 7 Mon Temps Libre

The aims of the sequence of learning are to ensure that all students can:

- say what sports people play
- say what activities people do
- talk about the weather
- ask and answer simple questions.
- use more complex structures with time phrases.

Retrieval Practice

Questions	Answers
Comment t'appelles-tu?	Je m'appelle **Jaques.**
Décris-moi ta famille.	Dans ma famille il y a **ma mère** et **mon frère.**
Elle est comment ta mère?	Elle est **de taille moyenne** et elle a les yeux **bleus.**
Tu es comment?	Je suis **petit(e)**et j'ai les cheveux **longs** et **bruns.**
Quel âge a ton grand-père?	Il a **soixante-huit** ans.
Tu as un animal?	✓Oui j'ai **un serpent** qui s'appelle **Bob**✓ ✗Non je n'ai pas d'animal.✗
Où habites-tu?	J'habite dans une maison à **Huddersfield** en **Angleterre.**
Tu aimes habiter ici?	Oui j'adore habiter ici parce que **c'est confortable.**
Qu'est-ce que tu prends au petit-déjeuner?	Normalement, je mange **un croissant avec du beurre.** Je bois **du café**

Career Focus - Where could this take you?

I am a chef. I am lucky because I can work all over the world. I can travel to different countries and learn about their cuisine. Many chefs train in classical French cuisine so a knowledge of French is helpful.

Challenge Activities

1. Create a wanted poster. Make sure you describe your wanted person in lots of detail. We need to find them!
2. Research what people in France eat for breakfast and other meals. Is it different to what you eat?
3. Complete the Languagenut activities.
4. Design a breakfast poster for what you would like to see at breakfast club.

Topic Links

This topic links to:

- All about me.
- Likes and dislikes
- Healthy Lifestyles.

Additional Resources

To further practise and develop your knowledge see:

- Language nut
- Oak academy

Your teacher can remind you of your login.

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Computing

Our students will:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology

Year 7 - 7.2: Scratch

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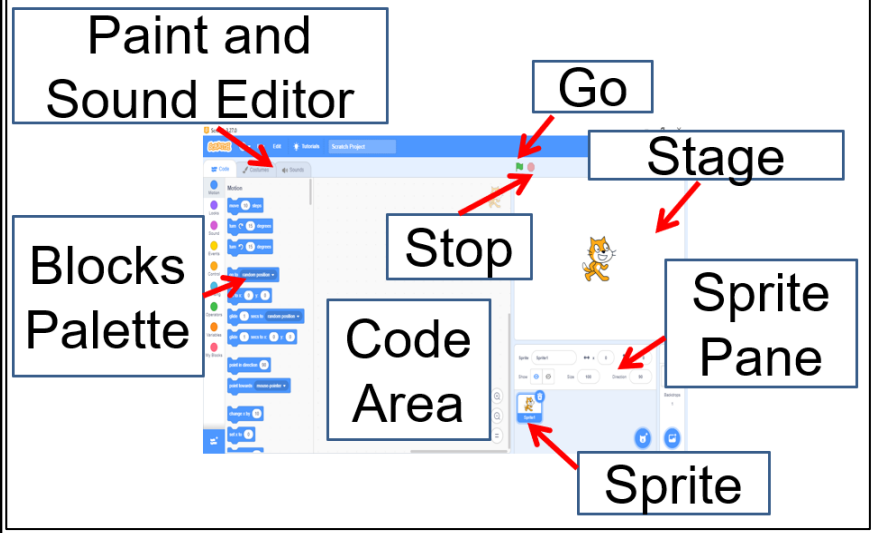
The aims of the sequence of learning are to ensure that all students:

- Describe the Scratch layout
- Describe the appropriate use of a range of blocks and scripts in Scratch
- Evaluate the use of blocks and scripts used to create a range of programs in Scratch
- Describe the definitions of some keywords in Scratch

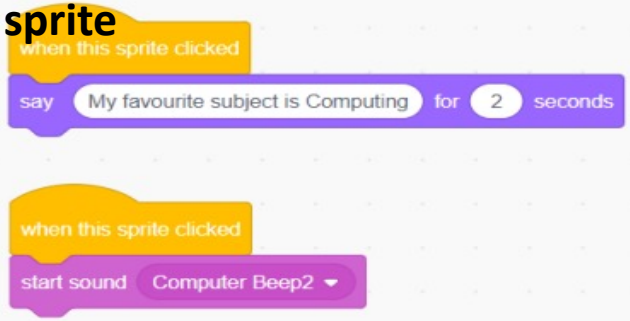
Keyword	Definition
Sprite	The programmable images on a Scratch program screen.
Script	The set of instructions that is used to program in Scratch, usually presented as a collection of blocks that connect with one another.
Costume	The different "frames" or alternate appearances of a sprite. Sprites can change their look to any of its costumes.
Comment	Adjustable yellow coloured textboxes that can be attached to blocks, or left floating, used to add detail to a program.
Sequencing	The specific order in which instructions are performed in a program. If the sequence is incorrect, it may cause errors in a program.
Variable	A variable represents a location in memory. It is used to hold a value which you assign to it e.g. 'Lives' = 3
Broadcasting	Used to communicate between sprites or linked scripts to control when specific scripts are run in a program
Iteration (Loop)	The repetition of a sequence of instructions
Conditional Statement	Evaluates the state of a program to determine whether something is either true or false. If true, the conditional script will be used

Key Concepts

The Scratch layout

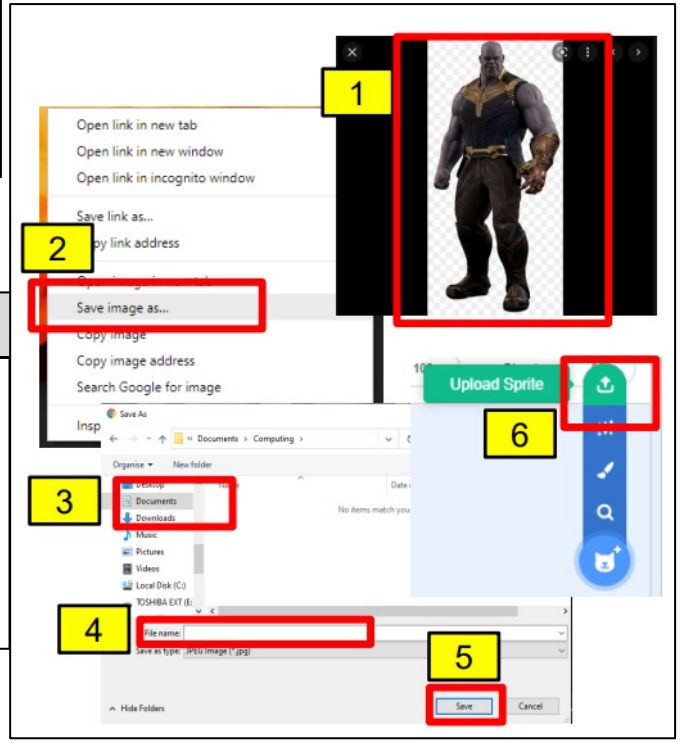


How to code an interactive sprite



How to add custom Sprites

1. Find a high-resolution transparent image
2. Right click > Save image as…
3. This PC > Documents > Computing
4. Rename the file to something appropriate
5. Press Save



Year 7 - 7.2: Scratch

Newsome Academy
Everyone Exceptional Everyday

The aims of the sequence of learning are to ensure that all students:

- Describe the Scratch layout
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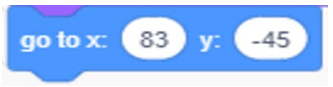
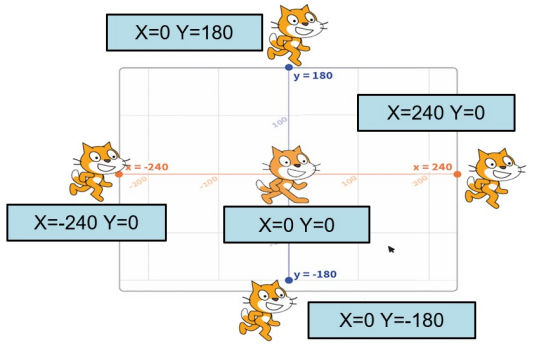
- Evaluate the use of blocks and scripts used to create a range of programs in Scratch
- Describe the definitions of some keywords in Scratch

Retrieval Practice

Questions	Answers
How do you add a new sprite in Scratch?	Go the bottom right hand side of the scratch screen and click on the button called “Choose New Sprite”. The button likes like a cat.
What happens when you click on the ‘Green Flag’ and ‘Red Button’ on Scratch?	Green Flag: Starts the running of scripts Red Button: Stops the scripts from running
How do you change the costume of a sprite used in the program?	Go to the top right hand side of the scratch screen and click on the tab called “Costumes”
When using the ‘point in direction’ block, what will the numbers 0, 180, -90 and 90 do to the sprite? 	This block changes the direction of the sprite: **Number** / **Sprite Direction** 0 – Sprite faces upwards 180 – Sprite faces downwards -90 – Sprite faces towards the left 90 – Sprite faces towards the right
How can you correctly use the ‘go to…’ block to place sprites in set positions on the stage area. For example: 	Use the correct X and Y co-ordinates in the ‘go to’ block. 

Career Focus - Where could this take you?

I am a **3D modelling artist** and create the models for all 3D art assets within the game – characters, weapons, vehicles, furniture, trees, rocks and so on. Often I start with a brief or 2D drawing from a concept artist

Challenge Activities

1. Create a two player game in Scratch that uses all of the blocks, scripts and techniques you have covered in this unit. Also, research the internet and include the use of new blocks and scripts that have not been covered in this unit.
2. Create a poster on MS PowerPoint that includes one or all of the following details: variables, broadcasting and conditional statements.
3. Create a short vlog about the types of careers you could get into within the gaming industry. Explain what each type of job would involve and which opportunities would be of interest to you.

Topic Links

This topic links to:

- Computing Curriculum: Understand how instructions are stored and executed within a computer system and create, re-use, revise and re-purpose digital artefacts for a given audience
- Mathematics: use of logical inference, problem-solving skills and simple algebra

Additional Resources

To further practise and develop your knowledge see:

- https://scratch.mit.edu/
- https://www.youtube.com/c/ScratchTeam

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CAPE

Our students will:

- produce creative work, exploring their ideas and recording their experiences
- become proficient in drawing, painting, sculpture and other art, craft and design techniques
- evaluate and analyse creative works using the language of art, craft and design
- know about great artists, craft makers and designers, and understand the historical and
- cultural development of their art forms.

- develop competence to excel in a broad range of physical activities
  are physically active for sustained periods of time
  engage in competitive sports and activities
- lead healthy, active lives.

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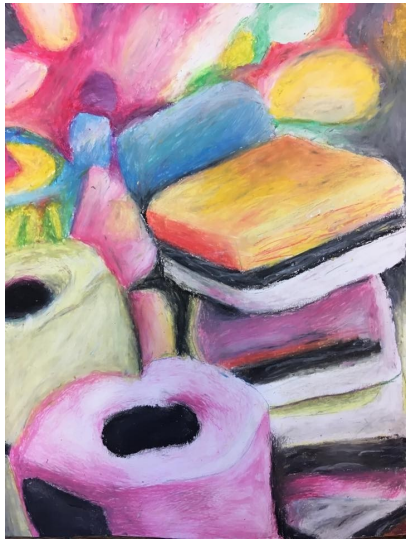
Year 7 Sweet Treats

The aims of the sequence of learning are to ensure that all students:

- Develop knowledge of Contemporary artist Sarah Graham.
- Produce observational studies.
- Experiment with a range of media.
- Produce a personal response showcasing an understanding of this style.

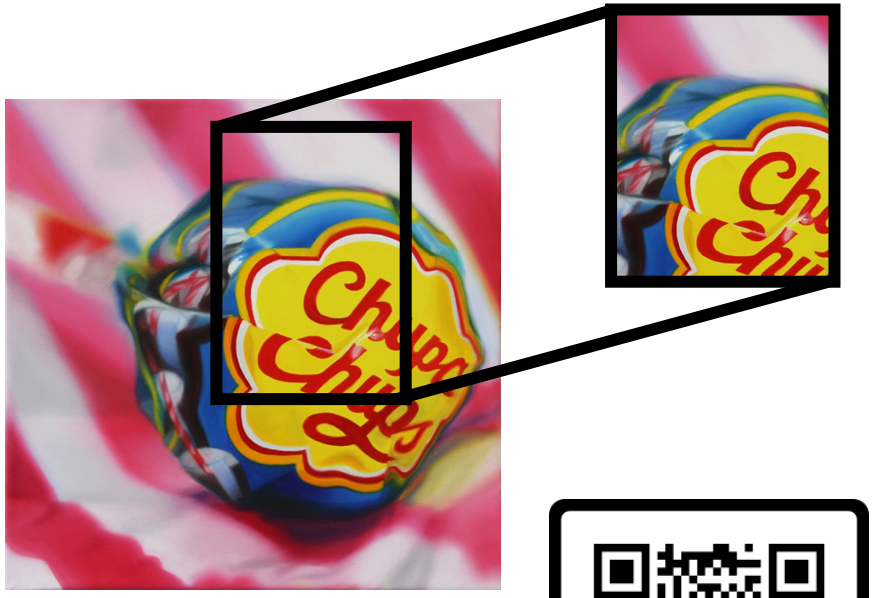
Keyword	Definition
Composition	The arrangement of elements within a work of art.
Realism	Representing a person, location or thing in a way that is accurate and true to life.
Focal Point	The main or principal point of focus.
Contemporary	The term contemporary art is loosely used to refer to art of the present day and of the relatively recent past, of an innovatory or avant-garde nature.
Media	Refers to the materials you use to create your art. Mixed media is artwork in the making of which more than one medium has been employed
View Finder	A viewfinder is a simple square or rectangle cut out of card that you can look through. Using a viewfinder helps you to focus on something and not get distracted by what's around it.

Key Concepts



During this project you will:

- explore the work of contemporary artist Sarah Graham.
- develop observational drawing skills.
- experiment with new media.
- Create your own response to Sarah Graham's work.



SCAN ME

Scan the QR code to watch a timelapse of how Sarah Graham creates her paintings.

SCAN ME

Newsome Academy
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Year 7 Sweet Treats

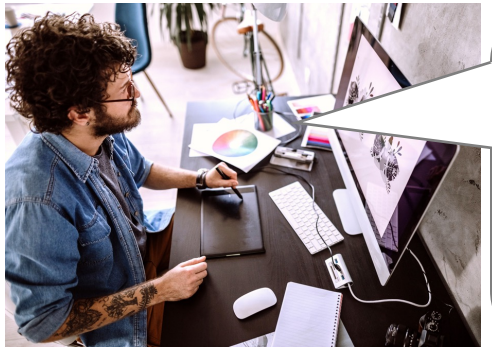
The aims of the sequence of learning are to ensure that all students:

- Develop knowledge of Contemporary artist Sarah Graham.
- Produce observational studies.
- Experiment with a range of media.
- Produce a personal response showcasing an understanding of this style.

Retrieval Practice

Questions	Answers
What is composition?	Composition is the arrangements of elements within a piece of artwork.
What does realism mean in art?	Realism is the Representation of a person, location or thing in a way that is accurate and true to life.
What is a focal point?	A focal point is the main point of focus in an artwork. It is the main part that your eye is drawn to.
What is a contemporary piece of artwork?	The term contemporary art is used to refer to art of the present day and of the relatively recent past.
What is the meant be the term media?	Media refers to the materials you use to create your art. Mixed media is artwork in the making of which more than one medium has been used.
How does using a viewfinder help when creating a piece of artwork?	Using a viewfinder helps you to focus on something and not get distracted by what's around it.

Career Focus - Where could this take you?



I am a **Print Designer** and I create digital patterns for products like fabrics, home goods, packaging and clothing.

Challenge Activities

Look through the examples of Sarah Graham's work and explain what pieces you like/dislike and why you have made these choices. Comment on things like colour, pattern and the style of the work.

SCAN ME

Topic Links

- English - Understanding terminology
- Science – accurate observation skills

Additional Resources

Scan the QR code to watch an interview with Sarah Graham.

SCAN ME

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Year 7 Food Tech

The aims of the sequence of learning are to ensure that all students:

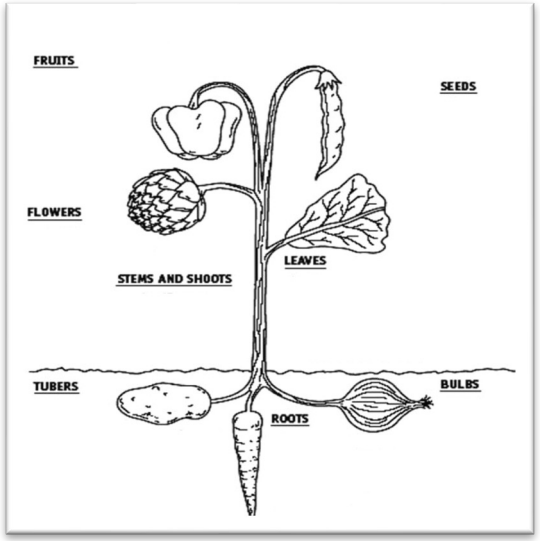
- Learn the basics of health & safety in the kitchen
- Learn how to recognise and categorise fruit and vegetables
- Be able to select and prepare (including chop safely) vegetables
- Learn how to cook pasta, rice and noodles
- Learn the difference between healthy and unhealthy food and the importance of nutrients
- To be able to prepare, cook and present a healthy hot meal

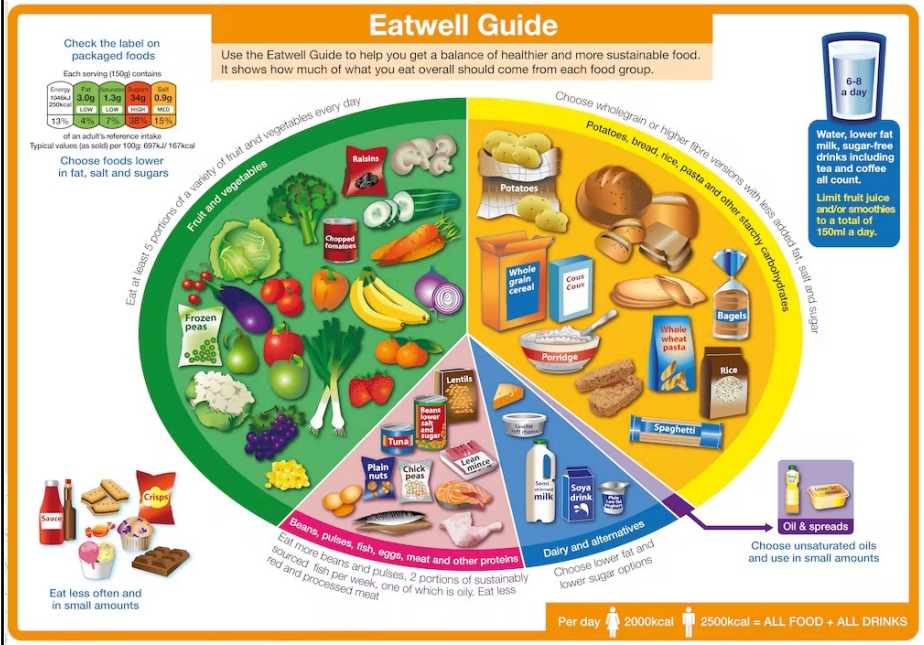
Keyword	Definition
Weighing scales	A tool used to accurately measure the weight/mass of ingredients
Knife	A sharp tool used for cutting food. Different types of knives have different uses, e.g. bread knife, fish knife
Chopping board	Board used for cutting food on to protect work surfaces. Generally made from glass, plastic or wood
Saucepan	A larger pan used for boiling water or making sauces
Frying pan	A frying pan is a flat-bottomed pan used for frying or sautéing food
Grater	A metal tool used for grating food into much smaller pieces
Baking tray	A metal or Pyrex tray used in the oven to cook food on
Cooling rack	A wire rack used to cool food, often baked products
Carbohydrate	Carbohydrates provide energy for the body. The body breaks carbohydrates down into glucose, which is the primary energy source for the brain and muscles.
Protein	Protein is one of the three nutrients found in food that the body needs in large amounts. It is essential for the maintenance and building of body tissues and muscle.
Fibre	Fibre is a type of carbohydrate that the body cannot break down and so it passes through our gut into our large intestine (or colon). It is found naturally in plant foods like wholegrains, beans, nuts, fruit and vegetables and is sometimes added to foods or drinks. Fibre helps to keep our digestive system healthy and helps to prevent constipation.
Fat	The body uses fat as a fuel source. It is the major storage form of energy in the body. Fat also has many other important functions in the body, and a moderate amount is needed in the diet for good health. Too much fat or too much of the wrong type of fat can be unhealthy.
Cross-contamination	Cross-contamination is the physical movement or transfer of harmful bacteria from one person, object or place to another.
Nutrient	A substance that provides nourishment essential for the maintenance of life and for growth, e.g. calcium, iron etc
Healthy	In a good physical or mental condition; in good health.

Key Concepts

The 4Cs Concept

By practicing the four Cs of food hygiene **cross-contamination, cleaning, cooking and chilling** those working with food can avoid food poisoning and other illnesses.





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Year 7 Food Tech

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- Learn how to cook pasta, rice and noodles
- Learn the difference between healthy and unhealthy food and the importance of nutrients
- To be able to prepare, cook and present a healthy hot meal

Retrieval Practice

Questions	Answers
What are 8 tips for healthy eating?	• Base your meals on higher fibre starchy carbohydrates. • Eat lots of fruit and veg. • Eat more fish, including a portion of oily fish. • Cut down on saturated fat and sugar. • Eat less salt: no more than 6g a day for adults. • Get active and be a healthy weight. • Do not get thirsty. • Do not skip breakfast
Why is weighing and measuring important?	Weighing and Measuring for good results in most recipes, accurate weighing and measuring is essential. When you are baking with flour, sugar and liquids, you must measure accurately or your cooking will be spoiled. If you weigh out too much sugar or too little raising agent, your cakes will not rise or you could spoil the taste and/or texture. Food can be weighed in Grams (g). 1000g = 1 Kilogram (kg). Liquid is measured in Millilitres (ml) or litres (l). 1000ml = 1 Litre(l)
What are the most important health and safety and personal hygiene rules?	• Be aware of sharp equipment such as knives, peelers and graters- store them carefully and use the bridge hold and claw grip when chopping. • Take care with hot equipment and food/ liquids- turn pan handles in, always use oven gloves and avoid splashes when stirring or draining foods. • Wipe up spills quickly so you do not slip over • Be aware of others in the kitchen • Report any accidents to the teacher • Tie hair back • Wash your hands

Career Focus - Where could this take you?

My job is a **food technologist** and I study foods and their nutritional content. I use laboratory skills and techniques to identify nutrients and calorie content of foods.
I need a genuine interest in science and how it is applied to food and cookery,
high standards of cleanliness and the ability to adhere to strict hygiene rules.

Challenge Activities

Try some of these recipes at home
Follow the links below:

Energy Bar

Home made burgers

Chapatti recipe

For Further 30 minute recipes

Food skills are acquired, developed and secured over time

.

Bridge hold

Claw grip

Topic Links

This topic links to:

- English - relating explicitly to known vocabulary and understanding it with the help of context
- Mathematics - use standard units of mass, length, time, other measures
- Science: Nutrition and digestion RSE - What constitutes a healthy diet
- Physical health and fitness - The characteristics and mental and physical benefits of an active lifestyle.

Additional Resources

To further practise and develop you knowledge see:

Eat well guide Quiz

Eat well guide

Eat well video resource

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Year 7 Music Technology

The aims of the sequence of learning are to ensure that all students:

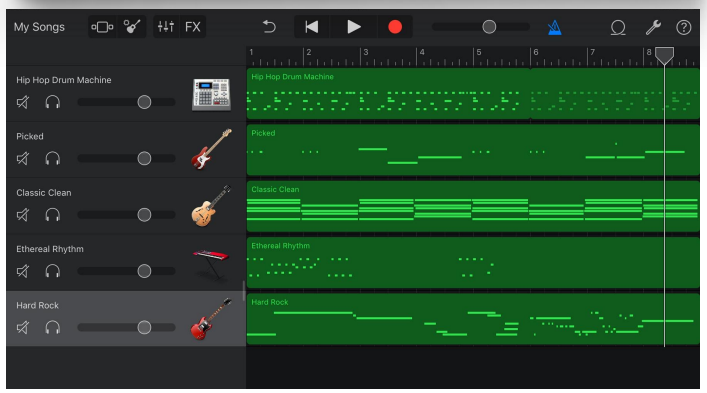
- Learn how to use basic functions in Music software.
- Learn how to record into a Digital Audio Workstation using a midi keyboard.

Keyword	Definition
DAW (Digital Audio Workstation)	Software used for recording, editing and producing audio files.
Loops	Pre-recorded audio files (either audio or MIDI regions) that can shift in pitch or tempo and that are designed to play repeatedly.
Audio	Sound that has been recorded or transferred to an electrical signal.
Track	The horizontal rows in the Tracks area that you use to organise your music
Count-In	Several metronome beats that are sounded prior to the start of a recording (or playback), typically for one bar. Using a count-in can help you get ready to record in time with the project tempo
BPM	Abbreviation for *beats per minute*. Bpm is used to indicate the tempo of a piece of music.
dB (Decibel)	A way to measure the volume or loudness of a sound. On the decibel scale, 1 dB is the smallest change in volume that human ears can detect.
Metronome	A device that marks regular intervals of time, such as musical beats, by making a sound (usually a beep or click).
MIDI (Musical Instrument Digital Interface).	A device (such as a keyboard) that plugs into a computer.
Screen Control	A control you use to change a different aspect of the track's sound. Screen controls are labelled to help you understand which aspect of the sound each one affects.
Texture	How many instruments are playing at the same time. The fewer instruments playing, the thinner the texture, the more instruments are playing, the thicker the texture becomes.

Key Concepts

A MIDI Keyboard
When you press a key on the keyboard it tells the computer to make a sound.

Tracks
The horizontal rows are Tracks. The green lines and dots are the music that has been recorded using a MIDI Keyboard. Each track is for a different instrument.



Screen Control
A control you use to change a different aspect of the track's sound. They usually look like real-life machines.

The rear of the Mac Computer We need to make sure that the midi keyboard is Plugged into one of the USB ports on the back of the computer.

The USB Ports

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Year 7 Music Technology

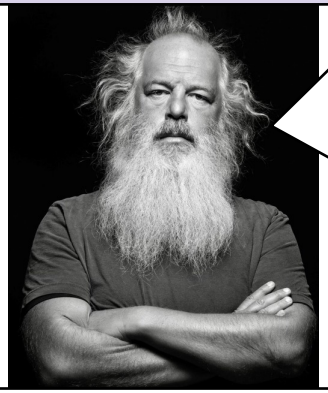
The aims of the sequence of learning are to ensure that all students:

- Learn how to use basic functions in Music software.
- Learn how to record into a Digital Audio Workstation using a midi keyboard.

Retrieval Practice

Questions	Answers
In which ways are DAWs more convenient than traditional, analogue methods of recording?	• Portability - People can create music on the move (can be used on laptops, tablets and smart phones). • Cost – many DAWs are available for free. The ones that do cost money are less expensive than all the recording equipment needed to record a song. • Easy to use – For example, loops are a great way for beginners to get started in expressing themselves creatively, without needing to learn how to use complicated technology. • They have lots of features – More advanced users can apply themselves and make some very complicated, creative and interesting music. • You don't have to be able to play a musical instrument to put a song together in a piece of Software!
Why is it important to develop these skills?	• Computer skills are becoming more and more important when it comes to finding a career. • Having transferable skills will also make you much more likely to get a job in the future. • Creating music digitally is another form of creative outlet • Allows you to be musically creative without learning an instrument
What is automation and why is it useful?	• Automation allows you to control effects on an instrument track. • You can control each effect individually (reverb, echo, panning, volume etc.) • You can gradually increase and decrease the effect, remove it completely or make it suddenly increase.

Career Focus - Where could this take you?



My name is Rick Rubin and I'm a record producer. My job is to coach musicians and help them record their songs to help them make the best music they can. I have produced albums for Metallica, The Red Hot Chilli Peppers, Linkin Park, Shakira, Jay-Z, Eminem and hundreds more. I also help to set up and use the recording equipment, so it is very important that I know how to use music software like GarageBand.

Challenge Activities

- **Add a Drummer to your Garageband Project:**
- https://support.apple.com/en-gb/HT207837

- **Add automation to a Garageband Project:**
- https://producersociety.com/automation-tutorial-ios-garageband/

Topic Links

This topic links to:

- Science – Specifics of sound (such as decibels)
- IT – Use of software and digital interfaces
- Maths – Dividing bars into beats. Measuring songs and sounds using various units.

Additional Resources

To further practise and develop your knowledge see:

- https://support.apple.com/en-gb/guide/garageband/welcome/mac
- https://www.thedomesticmusician.com/how-to-get-your-kids-involved-in-electronic-music-production/

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Year 7 Athletics

The aims of the sequence of learning are to ensure that all students:

Can apply basic safety elements to track and field events.
Can demonstrate the safety elements in practice situations.

Can perform the basic skills to track and field events in a practice situation.
Can record and measure their performance so they can compare themselves to others.

Keyword (Tier 3 subject specific language)	Definition
Power	This is the ability to perform maximum strength and maximum speed of your muscles in order to generate forces to move.
Reaction Time	The time taken for a person to respond and movement to the starter.
Balance	The ability to maintain your centre of mass and control of sports performance when moving.
Speed	The rate at which a person moves as fast as possible to cover a distance over a time period. Speed=distance/time.
Muscular strength	This is the maximum force that can be applied from muscles in order to overcome resistance so that movement can take place.
Flexibility	This is the range of movement that can be performed around a joint by the muscles, ligaments and tendons without any pain or over stretching.

Key Concepts You should already know: - Some components of fitness and be able to apply them to different athletic events.
You will be assessed on: - Understanding - Technique - Application - Leadership

Athletics Key Concepts- How well am performing?

Personal Challenge

- Set your goals
- Learn the skills
- Practise hard to achieve your goal
- Record your progress
- Reward yourself with a badge and certificate
- Move onto the next stage!

- Develop CONFIDENCE and COMPETENCE, learning the skills of different Running, Jumping and Throwing activities.
- Progress to becoming COMPETITIVE with Confidence and Competence.

INCLUSIVITY
Allows teachers to adjust weights, select distances, hurdle heights and spacings to suit the age and level of performers.

Boys' Award Standards

STAGE PROGRESSIONS	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7	Stage 8	Stage 9
SPRINTS	1 Star	2 Star	3 Star	Bronze	Silver	Gold	Platinum	Elite	Podium
50m Standards	14.8s	12.0s	10.3s	9.6s	8.9s	8.3s	7.8s	7.4s	7.0s
75m Standards	21.0s	17.0s	15.0s	13.5s	12.5s	11.5s	10.7s	10.0s	9.5s
100m Standards	23.0s	18.7s	16.7s	14.6s	14.2s	13.8s	13.4s	13.0s	12.7s
200m Standards	-	-	-	30.3s	29.3s	28.8s	27.6s	27.0s	26.0s
300m Standards	-	-	-	56.5s	54.0s	51.5s	48.5s	45.0s	42.5s
HURDLES	1 Star	2 Star	3 Star	Bronze	Silver	Gold	Platinum	Elite	Podium
60m Standards	25.0s	19.0s	15.5s	13.5s	12.0s	11.0s	10.5s	10.1s	9.7s
70m Standards	24.0s	20.4s	17.3s	15.8s	14.5s	13.6s	13.0s	12.5s	12.2s
75m Standards	23.0s	21.0s	18.0s	16.5s	15.3s	14.5s	13.8s	13.5s	13.2s
80m Standards	-	-	-	-	-	15.2s	14.4s	14.0s	13.4s
ENDURANCE	1 Star	2 Star	3 Star	Bronze	Silver	Gold	Platinum	Elite	Podium
400m Standards	3m 20s	2m 30s	2m 05s	1m 45s	1m 35s	1m 20s	1m 10s	1m 05s	1m 00s
600m Standards	6m 00s	4m 30s	3m 20s	2m 50s	2m 30s	2m 15s	2m 05s	2m 00s	1m 50s
800m Standards	4m 00s	3m 40s	3m 20s	3m 00s	2m 50s	2m 41s	2m 33s	2m 27s	2m 20s
1500m Standards	6m 20s	6m 05s	5m 50s	5m 38s	5m 28s	5m 19s	5m 10s	4m 59s	4m 46s
JUMPS	1 Star	2 Star	3 Star	Bronze	Silver	Gold	Platinum	Elite	Podium
Standing Long Jump	0.35m	0.90m	1.40m	1.60m	1.80m	2.00m	2.30m	2.60m	2.80m
Long Jump	1.00m	1.80m	2.40m	3.00m	3.50m	4.00m	4.40m	4.70m	5.05m
Standing Triple Jump	1.00m	2.40m	4.00m	4.60m	5.10m	5.60m	-	-	-
Triple Jump	-	-	-	-	-	6.40m	8.50m	9.70m	10.60m
High Jump	0.20m	0.50m	0.80m	1.00m	1.10m	1.20m	1.30m	1.40m	1.50m
THROWS	1 Star	2 Star	3 Star	Bronze	Silver	Gold	Platinum	Elite	Podium
Shot Put	1.00m	2.00m	3.25m	4.80m	5.80m	6.80m	8.00m	9.40m	10.15m
Javelin	1.00m	5.00m	10.00m	12.00m	15.00m	19.00m	26.00m	30.00m	33.50m
Discus	1.00m	5.00m	8.00m	10.00m	12.00m	17.00m	22.00m	24.00m	26.00m

Girls' Award Standards

STAGE PROGRESSIONS	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7	Stage 8	Stage 9
SPRINTS	1 Star	2 Star	3 Star	Bronze	Silver	Gold	Platinum	Elite	Podium
50m Standards	14.8s	12.2s	10.6s	9.9s	9.2s	8.6s	8.1s	7.7s	7.3s
75m Standards	21.0s	17.3s	15.3s	13.8s	12.8s	12.1s	11.5s	11.0s	10.5s
100m Standards	23.0s	19.0s	17.0s	15.5s	15.0s	14.6s	14.2s	13.9s	13.7s
200m Standards	-	-	-	31.7s	30.8s	30.5s	29.7s	29.2s	28.5s
300m Standards	-	-	-	55.0s	53.5s	52.0s	50.0s	48.5s	46.0s
HURDLES	1 Star	2 Star	3 Star	Bronze	Silver	Gold	Platinum	Elite	Podium
60m Standards	25.0s	19.3s	16.0s	14.0s	12.5s	11.5s	11.0s	10.5s	10.1s
70m Standards	24.0s	21.0s	18.9s	17.3s	15.9s	14.6s	13.7s	13.1s	12.7s
75m Standards	23.0s	21.0s	18.5s	17.0s	16.0s	15.0s	14.0s	13.7s	13.4s
80m Standards	-	-	-	-	-	15.0s	14.2s	13.9s	13.6s
ENDURANCE	1 Star	2 Star	3 Star	Bronze	Silver	Gold	Platinum	Elite	Podium
400m Standards	3m 20s	2m 30s	2m 10s	1m 55s	1m 40s	1m 25s	1m 15s	1m 10s	1m 05s
600m Standards	6m 00s	4m 30s	3m 30s	3m 00s	2m 40s	2m 30s	2m 20s	2m 10s	2m 00s
800m Standards	5m 00s	4m 45s	4m 30s	4m 10s	3m 45s	3m 20s	2m 55s	2m 45s	2m 35s
1500m Standards	7m 20s	7m 00s	6m 44s	6m 30s	6m 17s	6m 06s	5m 55s	5m 42s	5m 24s
JUMPS	1 Star	2 Star	3 Star	Bronze	Silver	Gold	Platinum	Elite	Podium
Standing Long Jump	0.35m	0.90m	1.35m	1.55m	1.70m	1.90m	2.20m	2.40m	2.60m
Long Jump	1.00m	1.80m	2.30m	2.80m	3.10m	3.40m	3.70m	4.00m	4.30m
Standing Triple Jump	1.00m	2.40m	3.60m	4.40m	4.80m	5.20m	-	-	-
High Jump	0.20m	0.50m	0.75m	0.90m	1.00m	1.10m	1.20m	1.28m	1.36m
THROWS	1 Star	2 Star	3 Star	Bronze	Silver	Gold	Platinum	Elite	Podium
Shot Put	1.00m	2.00m	3.00m	4.25m	5.25m	6.00m	6.50m	7.00m	8.00m
Javelin	1.00m	5.00m	7.00m	9.00m	12.00m	15.00m	18.00m	21.00m	24.00m
Discus	1.00m	3.00m	5.00m	7.00m	9.00m	13.00m	17.00m	19.00m	21.00m

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Year 7 Athletics

The aims of the sequence of learning are to ensure that all students:

Can apply basic safety elements to track and field events.
Can demonstrate the safety elements in practice situations.
Can perform the basic skills to track and field events in a practice situation.
Can record and measure their performance so they can compare themselves to others.

Retrieval Practice:
Memory recall the world records set by professional athletes:-

Use the data bellow so you have an understanding on the world records currently set. Compare how you have performed to the professional athletes.

	Women				
	Time	Date	Age (yrs)	In days	Last 4 yrs vs WR
100	10.49	16-Jul-88	25.47	9303	1.43%
Short Hurdles	12.21	20-Aug-88	25.37	9268	0.57%
200	21.34	29-Sep-88	25.26	9228	1.87%
400	47.6	06-Oct-85	28.25	10317	2.58%
400H	52.34	08-Aug-03	10.41	3802	0.15%
800	1:53.28	26-Jul-83	30.44	11120	0.64%
1,500	3:50.46	11-Sep-93	20.31	7420	2.64%
5,000	14:11.15	06-Jun-08	5.58	2038	0.00%
10,000	29:31.78	08-Sep-93	20.32	7423	1.24%
Marathon	2:15.25	13-Apr-03	10.73	3919	3.21%
Shot put	22.63	07-Jun-87	26.58	9708	6.89%
Discus	76.8	09-Jul-88	25.49	9310	11.60%
Long jump	7.52	11-Jun-88	25.57	9338	5.19%
High jump	2.09	30-Aug-87	26.35	9624	0.48%

	Men				
	Time	Date	Age (yrs)	In days	Last 4 yrs vs WR
100	9.58	16-Aug-09	4.39	1602	0%
Short Hurdles	12.8	07-Sep-12	1.33	484	0%
200	19.19	20-Aug-09	4.38	1598	0%
400	43.18	26-Aug-99	14.36	5245	1.32%
400H	46.78	06-Aug-92	21.41	7821	1.00%
800	01:40.9	09-Aug-12	1.40	513	0%
1,500	03:26.0	14-Jul-98	15.48	5653	1.59%
5,000	12:37.35	31-May-04	9.60	3505	1.69%
10,000	26:17.53	26-Aug-05	8.36	3053	0.54%
Marathon	2:03:23	29-Sep-13	0.27	97	0%
Shot put	23.12	20-May-90	23.63	8630	3.07%
Discus	74.08	06-Jun-86	27.58	10074	2.97%
Long jump	8.95	30-Aug-91	22.35	8163	2.35%
High jump	2.45	27-Jul-93	20.44	7466	2.86%

Career Focus - Where could this take you?

My career in athletics is a performance analysis coach. My job involves using video evidence to identify strengths and weaknesses in an athletes performance. I then set goals for the performer to improve from this and as a result their performance improves and they become faster and stronger.

Challenge Activities

Design a world record standards table :-
Can you create a table that shows between three to five world records and research and include a picture of the people that have set them. This can be then placed onto the PE notice board and compared to data set by students in the school.

Create an Olympics Poster :-
Use the additional resources section hyperlink at the bottom of the page. Can you link the CORE values to The schools RITA values.

Topic Links

This topic links to:
- RSHE – Understanding how physical activity can reduce stress and anxiety and promote physical, mental and social wellbeing
- English –understanding and defining key terminology
- Mathematics –problem solving, recording figures and analysing performance. Time keeping and scoring against data.
- Voice 21 –Discussing techniques, acting as race officials.

Additional Resources

To further practise and develop your knowledge see:

https://howard.staffs.sch.uk/news/2021-06-11-english-schools-athletic-association

https://www.britannica.com/story/what-do-the-olympic-rings-and-flame-represent

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Usernames and Passwords

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RESPECT | INTEGRITY | TEAMWORK | ASPIRATION

FAIL EARLY - FAIL FORWARD - FAIL OFTEN | SEIZE EVERY MINUTE | BE BRAVE - BE PRESENT - BE YOU

NON NEGOTIABLE EQUIPMENT

BLACK PEN

PURPLE PEN

PENCIL

BONUS ITEMS

HIGHLIGHTER | RUBBER | GLUE STICK | CALCULATOR

RULER

PLACE YOUR EQUIPMENT ON THE PLACEMAT TO SHOW YOUR TEACHER YOU ARE PREPARED AND READY FOR LEARNING