ARENA ACADEMY

Knowledge Organiser Booklet

Year 8

2024-25

2nd Half-Term (AUT 2)

Collaboration Opportunity Respect Excellence

DELIVERING A CORE EDUCATION

Subjects

Key Stage 3 (Y7-9):

English
Maths
Science
Geography
History
Religious Education
French
Spanish
Physical Education
Computer Science
Art
Performing Arts
Design Technology
Personal Development

Key Stage 4 (Y10-11):

English
Maths
Art
Business Studies
Religious Education
Food Science
French
Spanish
Geography
Health & Social Care
Combined Science
Triple Science: Biology, Chemistry & Physics
History
Computer Science
Design Technology
Sports Studies
Performing Arts
Psychology
DIT
GCSE PE
Photography
Sociology
Personal Development

What are knowledge organisers?

For students to succeed in a particular area, they must have a foundation of factual knowledge, understand those facts in the context of a conceptual framework and organise knowledge in order to facilitate retrieval and application. We can see knowledge organisers as a way to enable this, in a much more systematic way than traditional revision guides and textbooks.

There are many arguments made for the necessity of the memorisation of important knowledge. Our working memory capacity is limited, so by storing more in our long-term memory, we can free up working memory capacity.

Knowledge organisers are a summary of the key facts and essential knowledge that pupils need about a unit of work or a curriculum subject. Each page contains the essential information broken down into easily digestible chunks. Each single side of A4 is important to focus the minds of the teachers creating them so they only include what's crucial.

Pupils will review, revise and quiz themselves using their knowledge organisers.
Knowledge organisers are a really clear and easy to understand way for parents to be more aware of what their children are learning at school and thus to support them whilst they revise/test themselves at home.

How to use your Knowledge Organiser?

What is a Knowledge Organiser and how will it help me ?
It is an organised collection of knowledge that you need to know and learn for every topic you study in every subject. It will help you to be successful in your tests and exams.
Your teacher will use the knowledge organiser in your lessons. They will ask you to refer to various sections - they might talk this through and/or ask you to make key notes in your books or to highlight certain sections on your knowledge organiser.
Your teacher will set homework, where you will be asked to learn key knowledge from your knowledge organiser - you will then be tested in lessons regularly via short quizzes.

Do I have to bring my Knowledge Organiser every day ?
Yes, you do. It is one of our key expectations that you bring your knowledge organiser to every lesson, every day in your special Knowledge Organiser bag. Your Form Tutor will check this every morning.

Is there anything I could use to support me when using my knowledge organiser ?
Some people find post it's handy to stick onto their knowledge organiser pages - these are useful for extra notes. Small white revision/flash cards are helpful so you can write key facts down. These can then be placed up around the house to help your revision.

How should I use my Knowledge Organiser to help me learn ?
There are lots of ways to use your knowledge organiser - the key to success is to find what works for you. The table below shows you some different ways to use them.

How to use a knowledge organiser – A step by step guide

	Look, Cover, Write, Correct	Definitions to key words	Flash Cards	Self Quizzing	Mind Maps	Paired Retrieval
Step 1	Look at and study a specific area of your knowledge organiser. 	Write down the key words and definitions. 	Use your knowledge organiser to condense and write down key facts and information on your flash cards 	Use your knowledge organiser to create a new quiz. Write down questions using your knowledge organiser. 	Create a mind map with all the information you can remember from your knowledge organiser. 	Ask a partner or family member to have the knowledge organiser or flash cards in their hands 
Step 2	Cover or flip the knowledge organiser over and write down everything you remember. 	Try not to use your knowledge organiser to help you. 	Add pictures to help support. Then self quiz yourself using the flash cards. You can write questions on one side and answers on the other. 	Answer the questions and remember to use full sentences. 	Check your knowledge organiser to see if there were any mistakes with the information you have made. 	They can then test you by asking you questions on different sections of your knowledge organiser 
Step 3	Check what you have written down. Correct any mistakes in green pen and add anything you missed. Repeat. 	Use your green pen to check your work. 	Use a parent/carer or friend to help quiz you on the knowledge. 	You can also use family to help quiz you. Keep self-quizzing until you get all questions correct. 	Try to make connections that links information together. 	Write down your answers. 

What can be found in knowledge organisers?

Some of the core knowledge you can find in your knowledge organiser includes:

- key vocabulary / terminology (tier 3 vocabulary)
- key knowledge that students will require to have memorised for the subject
- key places and people
- useful diagrams (as required for the topic)
- key dates for a subject like history (e.g. when the two World Wars were) would clearly also be included
- key information they should know before starting the topic
- important quotes (that demonstrate those themes)
- important equations
- key academic language (tier 2 vocabulary)

Learn, Cover, Write, Correct

1. LEARN

Choose a small 'chunk' of your the page to learn. Read it over and over again in your head.

2. COVER

Cover up the information you have just learnt.

3. WRITE

When the knowledge is covered up, write down the information you studied.

4. CORRECT

Correct your answer, write any missing or incorrect words in red pen.

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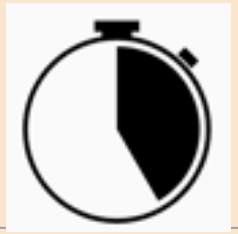
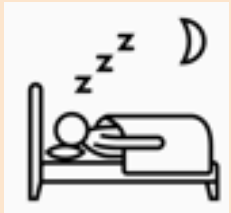
Practice makes Permanent

The Essential Steps for ‘Revising’

Limit distractions 	**Find a nice space to revise in** 	**Create and use a revision timetable. No cramming.** 
Set an alarm and start early 	**Work in intensive blocks of time (25 mins works well)** 	**The more you put in, the more you get out** 
Get plenty of sleep 	**Eat well** 	**Ask your teachers for help** 

Mathematics

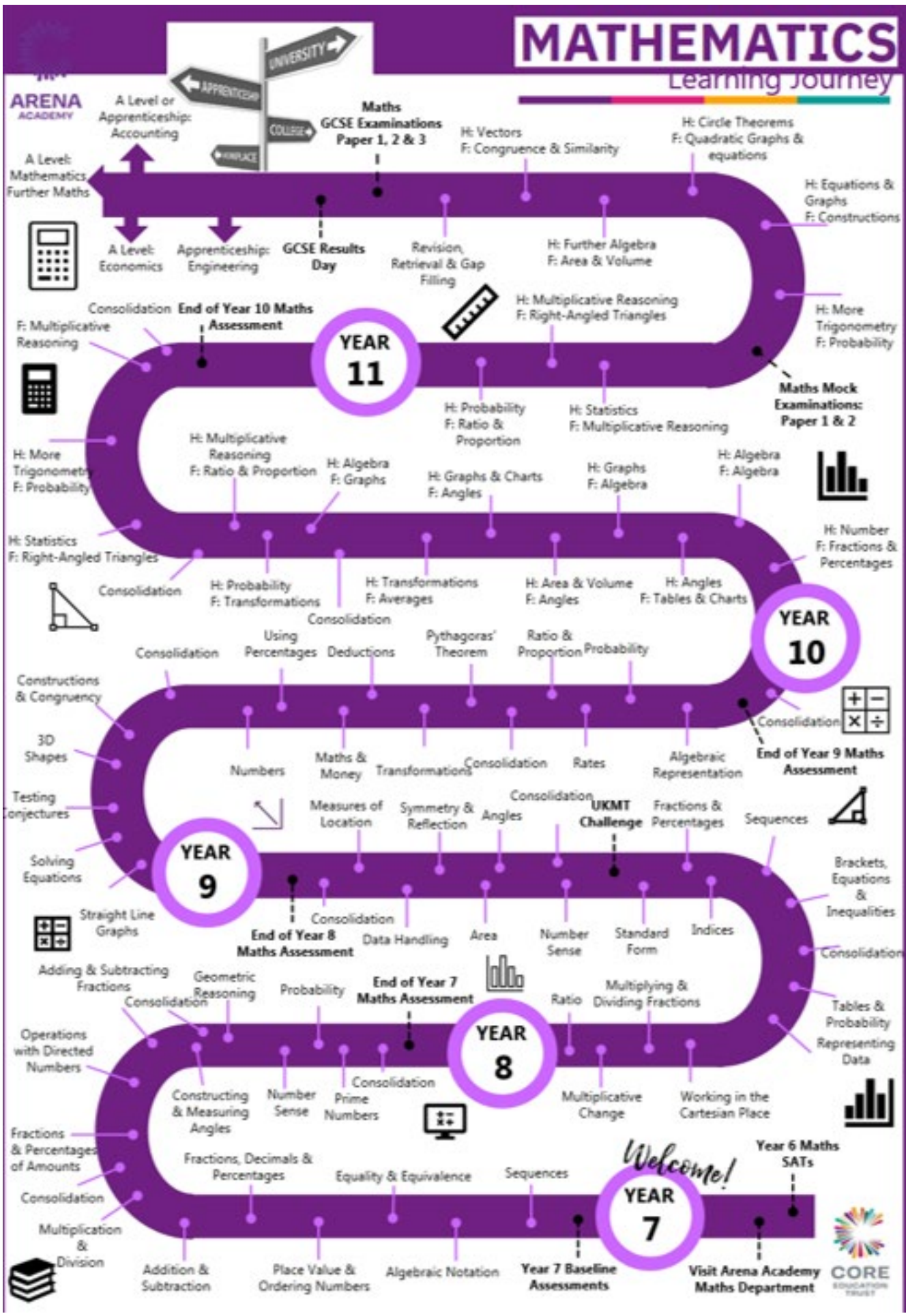
Topics covered from the beginning of the academy year to the end of this half-term.

AUT 1:

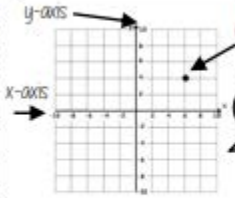
1. Ratio and scale
2 Multiplicative change
3. Multiplying and dividing Fractions

AUT 2:

4. Working in the Cartesian plane
5. Representing Data
6. Tables and probability


MATHEMATICS
Learning Journey
ARENA ACADEMY
UNIVERSITY
APPRENTICESHIP
COLLEGE
WORKPLACE
A Level or Apprenticeship: Accounting
A Level: Mathematics, Further Maths
A Level: Economics
Apprenticeship: Engineering
Maths GCSE Examinations Paper 1, 2 & 3
GCSE Results Day
Revision, Retrieval & Gap Filling
H: Vectors
F: Congruence & Similarity
H: Further Algebra
F: Area & Volume
H: Circle Theorems
F: Quadratic Graphs & equations
H: Equations & Graphs
F: Constructions
H: More Trigonometry
F: Probability
Maths Mock Examinations: Paper 1 & 2
H: Multiplicative Reasoning
F: Right-Angled Triangles
H: Probability
F: Ratio & Proportion
H: Statistics
F: Multiplicative Reasoning
YEAR 11
Consolidation
End of Year 10 Maths Assessment
F: Multiplicative Reasoning
H: More Trigonometry
F: Probability
H: Multiplicative Reasoning
F: Ratio & Proportion
H: Algebra
F: Graphs
H: Graphs & Charts
F: Angles
H: Graphs
F: Algebra
H: Algebra
F: Algebra
H: Number
F: Fractions & Percentages
H: Statistics
F: Right-Angled Triangles
Consolidation
H: Probability
F: Transformations
H: Transformations
F: Averages
Consolidation
H: Area & Volume
F: Angles
H: Angles
F: Tables & Charts
YEAR 10
Consolidation
Using Percentages
Deductions
Pythagoras' Theorem
Ratio & Proportion
Probability
Consolidation
End of Year 9 Maths Assessment
Constructions & Congruency
3D Shapes
Testing Conjectures
Solving Equations
Straight Line Graphs
Numbers
Maths & Money
Transformations
Consolidation
Rates
Algebraic Representation
Measures of Location
Symmetry & Reflection
Angles
Consolidation
UKMT Challenge
Fractions & Percentages
Sequences
Brackets, Equations & Inequalities
YEAR 9
Consolidation
End of Year 8 Maths Assessment
Data Handling
Area
Number Sense
Standard Form
Indices
Consolidation
Adding & Subtracting Fractions
Geometric Reasoning
Probability
End of Year 7 Maths Assessment
Ratio
Multiplying & Dividing Fractions
Tables & Probability
Representing Data
Consolidation
Operations with Directed Numbers
Constructing & Measuring Angles
Number Sense
Prime Numbers
Consolidation
Multiplicative Change
Working in the Cartesian Place
YEAR 8
Fractions & Percentages of Amounts
Consolidation
Multiplication & Division
Addition & Subtraction
Fractions, Decimals & Percentages
Place Value & Ordering Numbers
Equality & Equivalence
Algebraic Notation
Sequences
Year 7 Baseline Assessments
Welcome!
YEAR 7
Year 6 Maths SATs
Visit Arena Academy Maths Department
CORE EDUCATION TRUST

Coordinates in four quadrants



Coordinate (x, y) **(6, 4)**

From the origin this coordinate is 6 places along the positive x axis and 4 places up the positive y axis

(x, y)

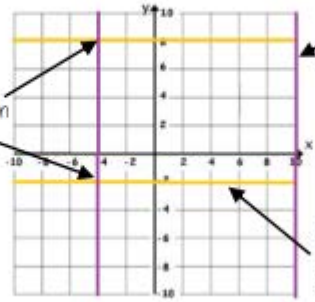
Always the position on the x axis first

Always the position on the y axis second

(0, a) Will be always be a point on the y axis (a can be any number)

(a, 0) Will be always be a point on the x axis (a can be any number)

Lines parallel to the axes



All the points on this line have a x coordinate of 10

'a' can be ONY postive or negative value including 0

Lines parallel to the **y axis** take the form **x = a** and are **vertical**

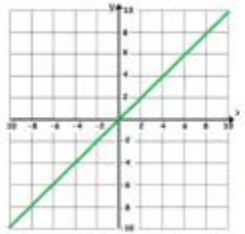
Lines parallel to the **x axis** take the form **y = a** and are **horizontal**

All the points on this line have a y coordinate of -2

e.g (3, -2) (7, -2) (-2, -2) all lay on this line because the y coordinate is -2

Recognise and use the line y=x

This means the x and the y coordinate have the same value

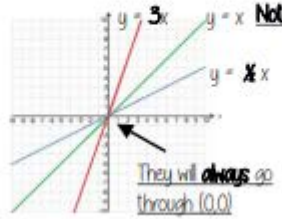


Examples of coordinates on this line: (0, 0) (-3, -3) (8, 8)

The axes **scale is important** – if the scale is the same y = x will be a straight line at 45°

Recognise and use the lines y=kx

The value of **k** changes the steepness of the line



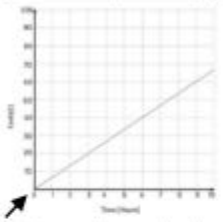
Note: y=x is the same as y=1x

The bigger the value of k the **steeper** the line will be

They will **always** go through (0,0)

The closer to 0 the value of k the closer the line will be to the x axis

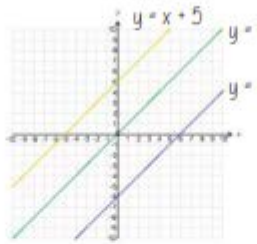
Direct Proportion using y=kx



The line must be straight to be directly proportional – variables increase at the same rate **k**

Direct proportion graphs always start at (0,0) as they are describing relationships between two variables

Lines in the form y = x + a



(0, 0) the axes are **parallel** because the gradients are the same

y = x + a

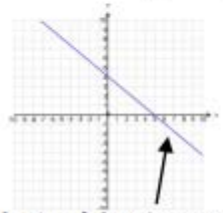
This is the line y=x when the y and x coordinate are the same

This shows the translation of that line

e.g y = x + 5 is the line y=x moved 5 places up the graph

5 has been added to each of the x coordinates

Lines with negative gradients



Any straight-line graph with a negative x value has a negative gradient

E.g y = -2x
y = -x y + x = 12

Direction of all negative gradients

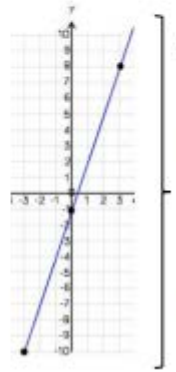
Plotting y = mx + c graphs

$y = 3x - 1$ → 3 x the x coordinate then – 1

x	-3	0	3
y	-10	-1	8

Draw a table to display this information

This represents a coordinate pair (-3, -10)



You only need two points to form a straight line

Plotting more points helps you decide if your calculations are correct (if they do make a straight line)

Remember to join the points to make a line

Keywords

Quadrant: four quarters of the coordinate plane

Coordinate: a set of values that show an exact position

Horizontal: a straight line from left to right (parallel to the x axis)

Vertical: a straight line from top to bottom (parallel to the y axis)

Origin: (0,0) on a graph. The point the two axes cross

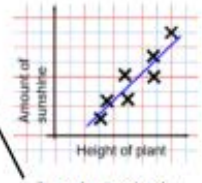
Parallel: Lines that never meet

Gradient: The steepness of a line

Intercept: Where lines cross

The line of best fit

The Line of best fit is used to make estimates about the information in your scatter graph



Things to know

- The line of best fit **DOES NOT** need to go through the origin (The point the axes cross)
- There should be approximately the same number of points above and below the line. It may not go through any points)
- The line extends across the whole graph

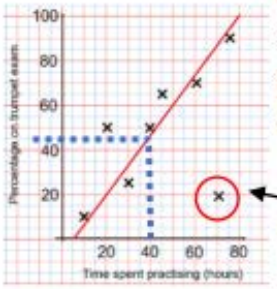
It is only an estimate because the line is designed to be an average representation of the data

It is always a **straight line.**

Using a line of best fit

Interpolation is using the line of best fit to estimate values inside our data point.

e.g. 40 hours revising predicts a percentage of 45



Extrapolation is where we use our line of best fit to predict information outside of our data

This is not always useful – in this example you cannot score more that 100% So revising for longer can not be estimated

This point is an **'outlier'**
It is an outlier because it doesn't fit this model and stands apart from the data

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Ungrouped Data

The number of times an event happened

The table shows the number of siblings students have. The answers were
3, 1, 2, 2, 0, 3, 4, 1, 1, 2, 0, 2

2 people had 0 siblings. This means there are 0 siblings to be counted here

Number of siblings	Frequency	
0	2	0
1	3	3
2	4	2 + 2 + 2 + 2 OR 2 x 4 = 8
3	2	3 + 3 OR 3 x 2 = 6
4	1	4

Best represented by discrete data (Not always a number)

2 people have 3 siblings so there are 6 siblings in total

OVERALL there are 0 + 3 + 8 + 6 + 4 Siblings = 21 siblings

Grouped Data

If we have a large spread of data it is better to group it. This is so it is easier to look for a trend. Form groups of equal size to make comparison more valid and spread the groups out from the smallest to the largest value.

Discrete Data The groups do not overlap

Cost of TV (£)	Tally	Frequency
101 - 150	𝍸 ||	7
151 - 200	𝍸 𝍸 |	11
201 - 250	𝍸	5
251 - 300	|||	3

We do not know the exact value of each item in a group – so an estimate would be based to calculate the overall total (Midpoint)

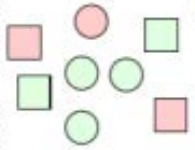
Continuous Data To make sure all values are included inequalities represent the subgroups

x Weight(g)	Frequency
40 < x ≤ 50	1
50 < x ≤ 60	3
60 < x ≤ 70	5

e.g. this group includes every weight bigger that 60 g up to and including 70 g

Representing data in two-way tables

Two-way tables represent discrete information in a visual way that allows you to make conclusions, find probability or find totals of sub groups



There are 2 green squares

There are 5 green shapes

	Squares	Circles	Total
Green	2	3	5
Red	2	1	3
Total	4	4	8

There are 8 items in total

Using your two-way table

To find a fraction
e.g. What fraction of the items are red? **3 red items** but **8 items in total** = $\frac{3}{8}$

Interleaving Use your fraction, decimal percentage equivalence knowledge

Keywords

Variable: a quantity that may change within the context of the problem
Relationship: the link between two variables (items) E.g. Between sunny days and ice cream sales
Correlation: the mathematical definition for the type of relationship
Origin: where two axes meet on a graph
Line of best fit: a straight line on a graph that represents the data on a scatter graph
Outlier: a point that lies outside the trend of graph
Quantitative: numerical data
Qualitative: descriptive information, colours, genders, names, emotions etc
Continuous: quantitative data that has an infinite number of possible values within its range
Discrete: quantitative or qualitative data that only takes certain values
Frequency: the number of times a particular data value occurs

Construct sample space diagrams

Sample space diagrams provide a systematic way to display outcomes from events

The possible outcomes from rolling a dice

The possible outcomes from tossing a coin	1	2	3	4	5	6
H	1H	2H	3H	4H	5H	6H
T	1T	2T	3T	4T	5T	6T

This is the set notation to list the outcomes **S =**

In between the **{ }** are a, the possible outcomes

S = { 1H, 2H, 3H, 4H, 5H, 6H, 1T, 2T, 3T, 4T, 5T, 6T}

Probability from sample space

The possible outcomes from rolling a dice

The possible outcomes from tossing a coin	1	2	3	4	5	6
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What is the probability that an outcome has an even number and a tails?

This is the set notation that represents the question **P**

P (Even number and Tails) = $\frac{3}{12}$

There are three even numbers with tails

There are twelve possible outcomes

Numerator: the event

Denominator: the total number of outcomes

In between the **( )** is the event asked for

Probability from two-way tables

	Car	Bus	Walk	Total
Boys	15	24	14	53
Girls	6	20	(21)	47
Total	21	44	35	(100)

P (Girl walk to school) = $\frac{21}{100}$

The event

The total in the set

The total number of items

Product Rule

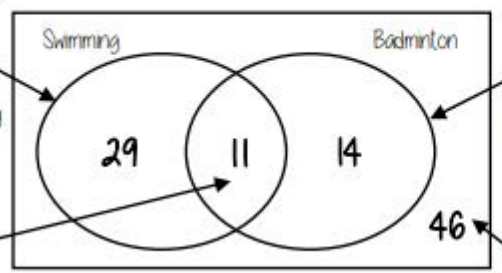
The number of items in event a **x** The number of items in event b

Probability from Venn diagrams

100 students were questioned if they played badminton or went to swimming club
40 went swimming, 25 went to badminton and 11 went to both

This whole curve includes everyone that went swimming
Because 11 did both we calculate **just** swimming by 40 - 11

This whole curve includes everyone that went to badminton
Because 11 did both we calculate **just** badminton by 25 - 11



The intersection represents both Swimming **AND** badminton

The number outside represents those that did **neither** badminton or swimming

100 – 29 – 11 – 14

P (Just swimming) = $\frac{29}{100}$

Keywords

Outcomes: the result of an event that depends on probability
Probability: the chance that something will happen
Set: a collection of objects
Chance: the likelihood of a particular outcome
Event: the outcome of a probability – a set of possible outcomes
Biased: a built in error that makes all values wrong by a certain amount
Union Notation 'U' meaning the set made by comparing the elements of two sets

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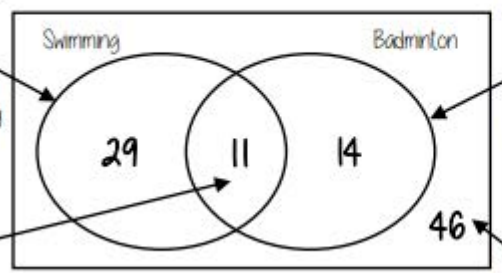

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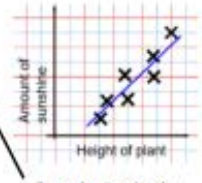


Things to know

- The line of best fit **DOES NOT** need to go through the origin (The point the axes cross)
- There should be approximately the same number of points above and below the line. It may not go through any points)
- The line extends across the whole graph

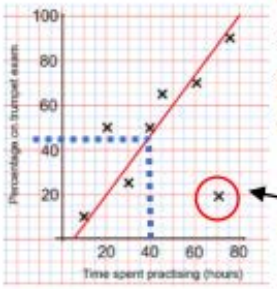
It is only an estimate because the line is designed to be an average representation of the data

It is always a **straight line.**

Using a line of best fit

Interpolation is using the line of best fit to estimate values inside our data point.

e.g. 40 hours revising predicts a percentage of 45



Extrapolation is where we use our line of best fit to predict information outside of our data

This is not always useful – in this example you cannot score more that 100% So revising for longer can not be estimated

This point is an **'outlier'**
It is an outlier because it doesn't fit this model and stands apart from the data

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Ungrouped Data

The number of times an event happened

The table shows the number of siblings students have. The answers were
3, 1, 2, 2, 0, 3, 4, 1, 1, 2, 0, 2

2 people had 0 siblings. This means there are 0 siblings to be counted here

Number of siblings	Frequency	
0	2	0
1	3	3
2	4	2 + 2 + 2 + 2 OR 2 x 4 = **8**
3	2	3 + 3 OR 3 x 2 = **6**
4	1	4

Best represented by discrete data (Not always a number)

2 people have 3 siblings so there are 6 siblings in total

OVERALL there are 0 + 3 + 8 + 6 + 4 Siblings = 21 siblings

Grouped Data

If we have a large spread of data it is better to group it. This is so it is easier to look for a trend. Form groups of equal size to make comparison more valid and spread the groups out, from the smallest to the largest value.

Discrete Data The groups do not overlap

Cost of TV (£)	Tally	Frequency
101 – 150	𝍸 ||	7
151 – 200	𝍸 𝍸 |	11
201 – 250	𝍸	5
251 – 300	|||	3

We do not know the exact value of each item in a group – so an estimate would be based to calculate the overall total (Midpoint)

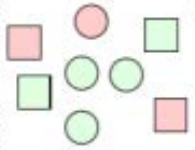
Continuous Data To make sure all values are included inequalities represent the subgroups

x Weight(g)	Frequency
40 < x ≤ 50	1
50 < x ≤ 60	3
60 < x ≤ 70	5

e.g. this group includes every weight bigger than 60kg, up to and including 70kg

Representing data in two-way tables

Two-way tables represent discrete information in a visual way that allows you to make conclusions, find probability or find totals of sub groups



There are 2 green squares

There are 5 green shapes

	Squares	Circles	Total
Green	2	3	5
Red	2	1	3
Total	4	4	**8**

There are 8 items in total

Using your two-way table

To find a fraction
e.g. What fraction of the items are red? **3 red items** but **8 items in total** = $\frac{3}{8}$

Interleaving Use your fraction, decimal percentage equivalence knowledge

Keywords

Variable: a quantity that may change within the context of the problem
Relationship: the link between two variables (items) E.g. Between sunny days and ice cream sales
Correlation: the mathematical definition for the type of relationship.
Origin: where two axes meet on a graph
Line of best fit: a straight line on a graph that represents the data on a scatter graph
Outlier: a point that lies outside the trend of graph
Quantitative: numerical data
Qualitative: descriptive information, colours, genders, names, emotions etc
Continuous: quantitative data that has an infinite number of possible values within its range.
Discrete: quantitative or qualitative data that only takes certain values
Frequency: the number of times a particular data value occurs

Construct sample space diagrams

Sample space diagrams provide a systematic way to display outcomes from events

The possible outcomes from rolling a dice

The possible outcomes from tossing a coin	1	2	3	4	5	6
H	1H	2H	3H	4H	5H	6H
T	1T	2T	3T	4T	5T	6T

This is the set notation to list the outcomes **S** =

In between the { } are a, the possible outcomes

S = { 1H, 2H, 3H, 4H, 5H, 6H, 1T, 2T, 3T, 4T, 5T, 6T}

Probability from sample space

What is the probability that an outcome has an even number and a tails?

The possible outcomes from rolling a dice

The possible outcomes from tossing a coin	1	2	3	4	5	6
H	1H	2H	3H	4H	5H	6H
T	1T	(2T)	3T	(4T)	5T	(6T)

This is the set notation that represents the question **P**

P (Even number and Tails) = $\frac{3}{12}$

There are three even numbers with tails

There are twelve possible outcomes

Numerator: the event

Denominator: the total number of outcomes

In between the ( ) is the event asked for

Probability from two-way tables

	Car	Bus	Walk	Total
Boys	15	24	14	53
Girls	6	20	(21)	47
Total	21	44	35	(100)

P (Girl walk to school) = $\frac{21}{100}$

The event

The total in the set

The total number of items

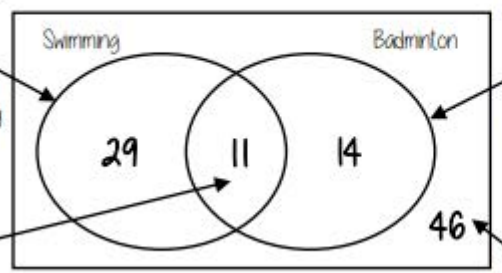
Product Rule

The number of items in event a **x** The number of items in event b

Probability from Venn diagrams

100 students were questioned if they played badminton or went to swimming club
40 went swimming, 25 went to badminton and 11 went to both

This whole curve includes everyone that went swimming Because 11 did both we calculate **just** swimming by 40 - 11



This whole curve includes everyone that went to badminton Because 11 did both we calculate **just** badminton by 25 - 11

The intersection represents both Swimming **AND** badminton

The number outside represents those that did **neither** badminton or swimming 100 – 29 – 11 – 14

P (Just swimming) = $\frac{29}{100}$

Keywords

Outcomes: the result of an event that depends on probability
Probability: the chance that something will happen
Set: a collection of objects
Chance: the likelihood of a particular outcome
Event: the outcome of a probability – a set of possible outcomes
Biased: a built in error that makes all values wrong by a certain amount
Union Notation 'U' meaning the set made by comparing the elements of two sets

English

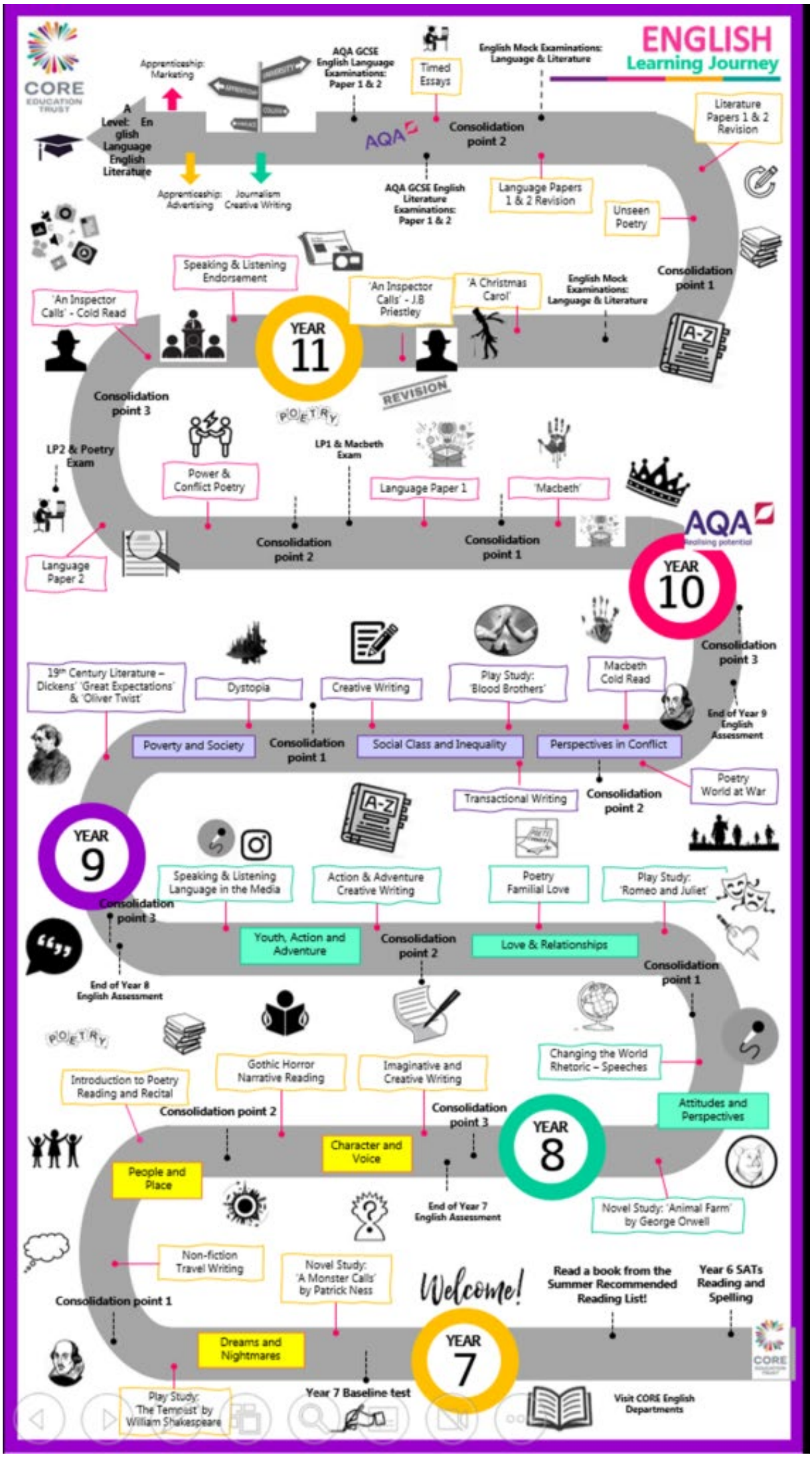
Topics covered from the beginning of the academy year to the end of this half-term.

AUT 1:

1. Animal Farm – George Orwell

AUT 2:

2. Changing the world – rhetoric in speeches


ENGLISH
Learning Journey
CORE EDUCATION TRUST
A Level: English Language English Literature
Apprenticeship: Marketing
Apprenticeship: Advertising
Journalism Creative Writing
AQA GCSE English Language Examinations: Paper 1 & 2
Timed Essays
English Mock Examinations: Language & Literature
Literature Papers 1 & 2 Revision
Consolidation point 2
AQA GCSE English Literature Examinations: Paper 1 & 2
Language Papers 1 & 2 Revision
Unseen Poetry
Consolidation point 1
Speaking & Listening Endorsement
'An Inspector Calls' - Cold Read
'An Inspector Calls' - J.B Priestley
'A Christmas Carol'
English Mock Examinations: Language & Literature
YEAR 11
REVISION
POETRY
Consolidation point 3
LP2 & Poetry Exam
Power & Conflict Poetry
LP1 & Macbeth Exam
Language Paper 1
'Macbeth'
Language Paper 2
Consolidation point 2
Consolidation point 1
AQA
YEAR 10
Consolidation point 3
19th Century Literature – Dickens' 'Great Expectations' & 'Oliver Twist'
Dystopia
Creative Writing
Play Study: 'Blood Brothers'
Macbeth Cold Read
End of Year 9 English Assessment
Poverty and Society
Consolidation point 1
Social Class and Inequality
Perspectives in Conflict
Poetry World at War
Transactional Writing
Consolidation point 2
YEAR 9
Speaking & Listening Language in the Media
Action & Adventure Creative Writing
Poetry Familial Love
Play Study: 'Romeo and Juliet'
Consolidation point 3
Youth, Action and Adventure
Consolidation point 2
Love & Relationships
Consolidation point 1
End of Year 8 English Assessment
POETRY
Gothic Horror Narrative Reading
Imaginative and Creative Writing
Changing the World Rhetoric – Speeches
Introduction to Poetry Reading and Recital
Consolidation point 2
Consolidation point 3
YEAR 8
Attitudes and Perspectives
Character and Voice
People and Place
End of Year 7 English Assessment
Novel Study: 'Animal Farm' by George Orwell
Non-fiction Travel Writing
Novel Study: 'A Monster Calls' by Patrick Ness
Welcome!
Read a book from the Summer Recommended Reading List!
Year 6 SATs Reading and Spelling
Consolidation point 1
Dreams and Nightmares
YEAR 7
Play Study: 'The Tempest' by William Shakespeare
Year 7 Baseline test
Visit CORE English Departments

Knowledge Organiser: The Art of Rhetoric

Examples of Well Written Speeches

[1940] Winston Churchill "We shall fight on the beaches, we shall fight on the landing grounds, we shall fight in the fields and in the streets, we shall fight in the hills; we shall never surrender"

[1913] Emmeline Pankhurst "we will put the enemy in the position where they will have to choose between giving us freedom or giving us death."

[1964] Nelson Mandela "I have cherished the ideal of a democratic and free society in which all persons live together in harmony and with equal opportunities. It is an ideal which I hope to live for and to achieve. But if needs be, it is an ideal for which I am prepared to die."

Artful Sentences

Explain the issue: 'The issue of women's rights is a simple and straightforward matter: it is about equality and freedom.'

Double adjective start: 'Mistreated and ignored, these animals need help.'

The adjectives in a list sentence: 'We must stand together as determined, fearless and courageous women…'

Not only but also: Not only are the Romans a violent force, but they are also a threat to our freedom.

Getting worse/getting better: 'How would you feel if your child was hurt, maimed or even killed by a car? ' 'Steam engines were good, combustion engines were even better, but hydrogen-powered engines are set to change the world.'

Rhetorical Techniques

Direct Address	Talking directly to the reader (*'And so my fellow Americans, ask not what your country can do for you, ask what you can do for your country.'*)
Rhetorical question	A question that makes the audience think ('How will you feel in years to come, if you do not act now?')
Strong Opinions	Clearly state what you believe *('I believe, above all else, that we are equal.')*
Repetition	Repeat important words to make sure the audience know what matters *('I have a dream… I have a dream…')*
Superlatives	Shows the most extreme version of something *('This will be our country's greatest hour.')*
Imperatives	Using command words to order people to do something ('Fight for your freedom!)
Anecdote	Using a personal story to show why you believe something*('I have cherished the idea of a democratic and free society since I witnessed my father…')*
Simile	Making a comparison using 'as' or 'like' *('We will not be treated like slaves!')*

In Literature: Shakespeare's *Julius Caesar* (A3, S2), Spoken by Marc Antony

Friends, Romans, countrymen, lend me your ears;
I come to bury Caesar, not to praise him.
The evil that men do lives after them;
The good is oft interred with their bones;
So let it be with Caesar. The noble Brutus
Hath told you Caesar was ambitious:
If it were so, it was a grievous fault,
And grievously hath Caesar answer'd it.

Advanced Rhetorical Techniques

Anaphora – repeating words or phrases at the start of a sequence of sentences.

Praeteritio – mentioning something by saying you won't talk about it.

Tricolon – three words or clauses linked by an idea, **often in crescendo.**

Hyperbole – Exaggerating something to make it sound much better or worse than it really is.

Epiplexis – multiple rhetorical questions.

Historical Context

Greek thinker, Aristotle, believed there were three features of good persuasive writing.

Science

Topics covered from the beginning of the academy year to the end of this half-term.

AUT 1:

1. Variation
2. Interdependence
3. Energy

AUT 2:

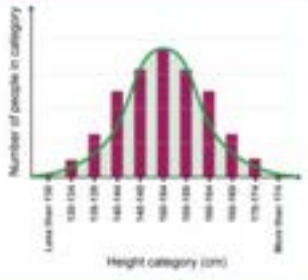
4. Energy Transfer
5. Earth Structure
6. Breathing

Year 8 Variation

Keyword	Definition
Nucleus	Controls what happens inside the cell. Chromosomes are structures found in the nucleus of most cells.
DNA	Deoxyribonucleic Acid. The material inside the nucleus of cells, carrying the genetic information of a living being.
Double Helix	The shape of DNA molecule with two strands twisted together in a spiral.
Base Pair	The pair of nitrogenous bases that connects the complementary strands of DNA.
Bond	The chemical link that holds molecules together.
Gene	The basic unit of genetic material inherited from our parents. A gene is a section of DNA which controls part of a cells chemistry.
Heredity	Genetic information that determines an organisms characteristics, passed on from one generation to another. To do with passing genes to an offspring from its parent or parents.
Variation	Difference between individuals.
Continuous Variation	Variation that shows a wide range of intermediate values between two extremes. They can be measured. E.g. Hand Span
Discontinuous Variation	Differences between individuals in a characteristic that can only be put into different categories E.g. Eye colour
Environmental Variation	Differences between individuals of a species due to factors in their surroundings.

Continuous Variation

Human height is an example. It ranges from the smallest person on Earth to the tallest. Continuous variation shows characteristics that change gradually over time.



DNA

DNA is found in the nuclei of cells and organized into chromosomes. This genetic information is passed from one generation to the next. It is called heredity and why we resemble our parents. The genetic information itself is contained in a complex molecule called DNA.

DNA molecules contain two strands. The strands are twisted around each other to form a double helix. These strands are held together by bonds between base pairs.

Chromosomes and Genes

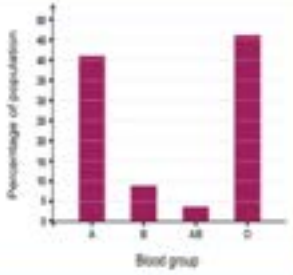
DNA molecules are so long and thin, it is coiled into structures called chromosomes. The chromosomes are found in the nucleus of each cell.

Human body cells each contain 23 pairs of chromosomes, half of which are from each parent. Human gametes (eggs and sperm) each contain 23 chromosomes. When an egg is fertilized by a sperm, it becomes a cell with 23 pairs of chromosomes. This is why children resemble both their parents – half of their chromosomes and DNA come from their mother, and half from their father.

A gene is a section of DNA that is responsible for characteristics such as eye colour. Humans have around 20,000 genes. One copy of all your chromosomes is called your genome.

Discontinuous Variation

A characteristic of any species with only a limited number of possible values. Eye colour and blood group are examples.



Further Reading:
https://www.bbc.co.uk/bitesize/guides/zw9jq6f/revision/1
https://www.bbc.co.uk/bitesize/guides/zp7thyc/revision/1
https://www.bbc.co.uk/bitesize/guides/z9gk87h/revision/1

Inherited Variation

Variation in characteristics that is a result of genetic information from parents.

Examples include:

- Eye colour
- Hair colour
- Lobed or lobeless ears
- Ability to roll your tongue.

Environmental Variation

Characteristics of animal and plant species can be affected by factors such as climate, diet, accidents, culture and lifestyle.
If you eat too much food then you will become heavier.
Variation caused by the surroundings is called environmental variation. Examples include your language and religion.

Evolution

Change in the inherited characteristics of a population over time through a process of natural selection, which may result in the formation of a new species.

The theory of evolution by natural selection states that all species of living things have evolved from simple life forms that first developed more than three billion years ago.

Natural selection of variants that give rise to phenotypes best suited to their environment.

- Variation (mutation)
- Adaptation
- Survival

& Reproduction

Extinction

The permanent loss of all the members of a species

Reasons for extinction:

- Introduction of a NEW disease
- Introduction of a NEW competitor
- Introduction of a NEW predator / overhunting
- Lack of food / prey
- Environmental change (temp., rainfall, loss of habitat etc.)
- Natural disaster

Year 8 Interdependence

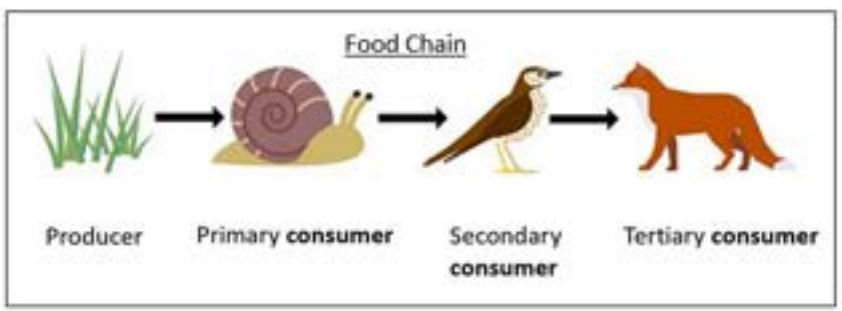
Community	A group of two or more populations of **different** species living in **the same** area.
Population	The total number of all of a particular species living in a specific area.
Ecosystem	An **ecosystem** is the interaction of a community of living organisms (biotic) with the non-living (abiotic) parts of their environment.
Biodiversity	The variety of different species of organisms on Earth or within an ecosystem.
Biotic factor	The **living** factors in an ecosystem.
Abiotic factor	The **non-living** factors in an ecosystem.
Competition	The contest between organisms, of both the same **and** different species, for the resources necessary to survive.
Interdependence	Within a community each species depends on other species for • food, • shelter, • pollination, • seed dispersal. If one species is removed, it can affect the whole community.
Adaptation	Features which enable organisms to survive in the environment in which they normally live.
Extremophile	Organisms that live in environments that are very extreme, such as at **high temperature**, **pressure**, or **salt concentration**. Example – bacteria living in deep sea vents

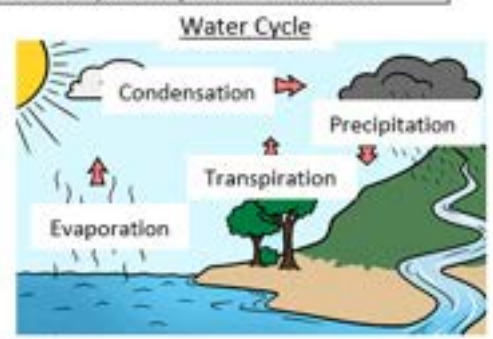
Increased **standard of living** and rapid population growth of humans results in more **pollution** which kills plants and animals.	More resources are used and more waste is produced which can **pollute**: • **land** (landfill/toxic chemicals) • **water** (sewage/toxic chemicals/fertiliser) • **air** (smoke/acidic gases)
Humans reduce the amount of land available for other animals and plants.	• **building** • **quarrying** • **farming** • **dumping waste**.
Destroying peat bogs to produce garden compost or fuel	Destroys the habitat of the plants and animals that live there. The decay or burning of the peat releases carbon dioxide into the atmosphere
Large scale deforestation in tropical areas has destroyed habitats and released carbon dioxide	• provide land for **cattle** and **rice fields** • grow crops for **biofuel**
Levels of **carbon dioxide** and **methane** in the atmosphere are increasing.	Leads to **global warming** which is destroying habitats due to rising sea levels.

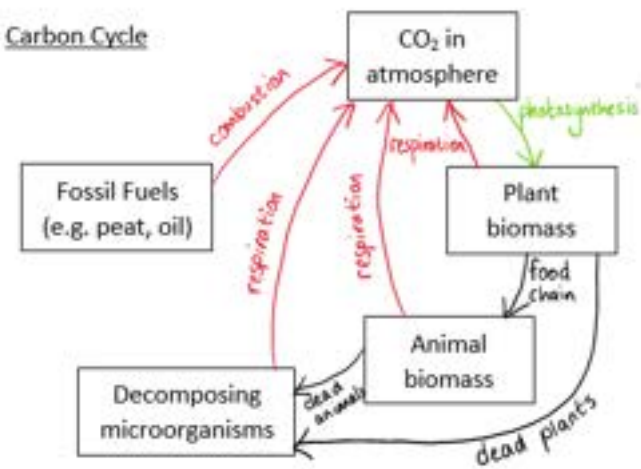
KS3 Interdependence

- breeding programmes for endangered species
- protection and regeneration of rare habitats
- reintroduction of field margins and hedgerows in agricultural areas where farmers grow only one type of crop
- reduction of deforestation and carbon dioxide emissions by some governments
- recycling resources rather than dumping waste in landfill.

Adaptations can be…		Example
Structural	Physical features about the organism	A desert fox has big ears to increase surface area to volume ratio to keep it cool.
Behavioural	Things organisms do	Swallows migrate from the UK to Africa in the winter as it is less cold.
Functional	Things which happen inside the organism	Hedgehogs hibernate in winter by slowing down their metabolism, so they won't need food.





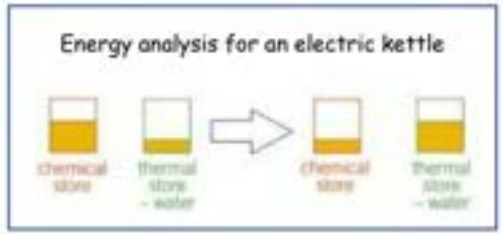


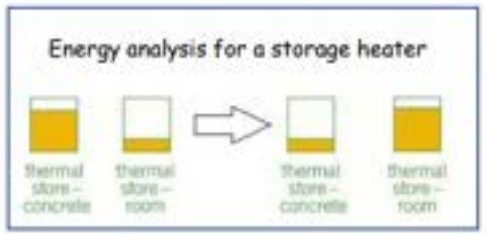
Year 8 Energy Knowledge Organiser

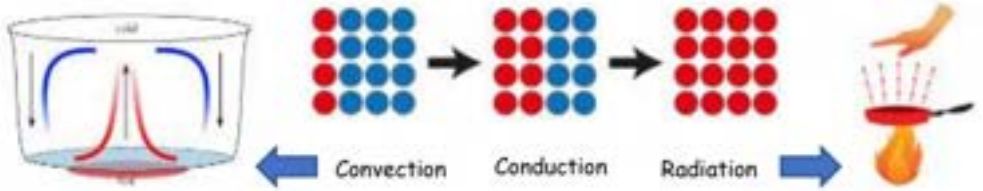
Keywords	Definition
Electrical appliance	A device which transfers energy electrically from chemical stores.
Conduction	Process by which thermal energy is transferred via microscopic collisions of particles.
Convection	Process by which thermal energy is transferred by the actual motion of matter.
Radiation	Process by which thermal energy is transferred by electromagnetic waves.
Dissipation	Process by which energy is transferred to stores that are no longer useful.
Lubrication	Means of reducing energy dissipated due to friction by placing a layer of fluid between two solid surfaces.
Insulation	Means of reducing energy dissipation by placing a material that does not conduct very well between a hot and a cold object.
Thermal Conductivity	A measure of how quickly energy is transferred through a given material.
Efficiency	A measure of how good an appliance is at doing its job, expressed as a ratio or a percentage.
Sankey diagram	Diagram which shows efficiency where the width of the arrow represents the amount of energy transferred.

Electrical appliances	
Function	An electrical appliance transfers energy electrically from chemical stores.
Method	Electrical appliances change electrical transfer to other forms of energy transfer to do a particular job.
Examples	A microwave oven changes energy transferred electrically to energy transferred by heating. A hairdryer changes energy transferred electrically to heating by radiation (infrared) and energy transferred mechanically.

Energy transfer by heating	
Methods	You can increase the energy in a thermal store by heating. This usually means burning a fuel or using a current to transfer energy from a fuel.
Temperature difference	A temperature difference produces a transfer of energy from a hot object to a cold object
Equilibrium	Any temperature difference produces a transfer of energy, which continues until the objects are in equilibrium.

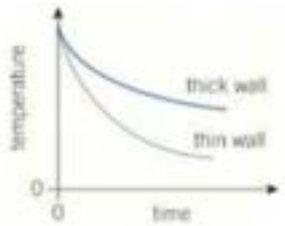




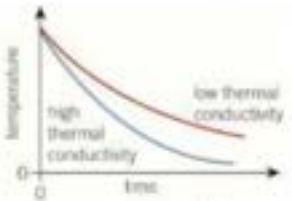


Rate of cooling	
Rate	The rate at which energy is transferred through the walls of your house depends on the thickness of the walls and what they are made of.
Temperature difference	The rate of cooling also depends on the temperature difference between the two sides of the walls.

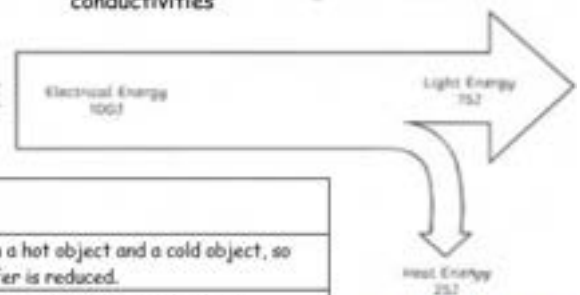
Rate of cooling for two identical houses with walls of different thickness



Rate of cooling for two identical houses with walls of different thermal conductivities



$$\text{efficiency} = \frac{\text{useful output energy transfer}}{\text{input energy transfer}}$$



Ways to increase efficiency	
Insulation	You can use insulation between a hot object and a cold object, so that the rate of energy transfer is reduced.
Devices	Make devices from materials that reduce unwanted energy transfer.
Technology	Use technology to produce devices that are better at their job, for example, LEDs.
Power	Operate devices at a lower power output, so that they use up fuels more slowly.

Keyword	Definition
Energy Transfer	Changes from one form of energy to another form of energy.
Conservation of Energy	Energy cannot be created or destroyed It can be stored, dissipated or transferred from one form into another.
Internal Energy	Energy stored in all materials, including energy due to the motion of particles and the forces between them.
Kinetic Energy	Energy which an object possesses by being in motion.
Elastic Potential Energy	Energy stored in squashed, stretched or twisted materials.
Gravitational Potential Energy	The energy stored by an object lifted up against the force of gravity. Also known as GPE.
Thermal Energy Store	Energy store filled when an object is warmed up.
Work done	Work is done when a force makes an object move a distance, energy is transferred
Power	The rate of work done. Or The energy transferred per second.
Fossil Fuel	Natural, finite fuel formed from the remains of living organisms, e.g. oil, coal and natural gas.
Non-Renewable	A resource that cannot be replaced when it is used up, such as natural gas or cold.
Renewable	An energy resource that will not run out, e.g. solar energy and wind energy

Type of energy	Description	Type of energy	Description
Kinetic 	The energy in moving objects	Thermal (Internal) 	The heat stored in an object
Chemical 	When a substance undergoes a chemical reaction	Gravitational potential 	When an object is raised to a height
Magnetic 	When 2 objects attract or repel	Electrostatic (electrical) 	Allows an electric current to flow
Elastic potential 	When an object is stretched or squashed	Nuclear 	Energy stored in an atom*(not needed till GCSE)*
Light 	*From a bright object (not stored)*	*Sound* 	*From a vibrating object (not stored)*

Year 8 Energy transfer

Calculating Kinetic Energy

$$E_K = \frac{1}{2}mv^2$$

E_k = Kinetic Energy
m = Mass
v = velocity

Calculating GPE

GPE = mass x gravitational field strength x height

- Mass is measured in kilograms (kg).
- Gravitational field strength is measured in newtons per kilogram (N/kg), usually taken as 10N/kg on Earth.
- Height is measured in metres (m).
- GPE is measured in joules (J).

Calculating Power

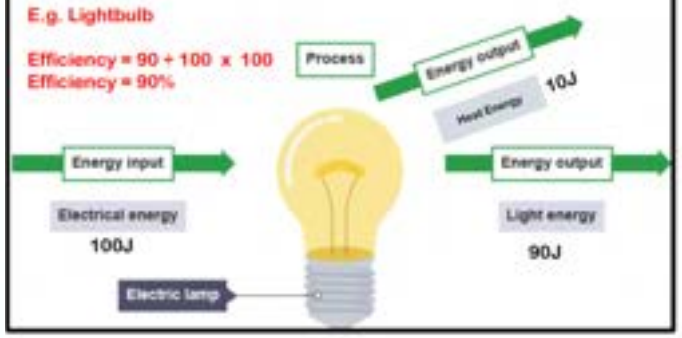
Word Equation	Power	=	Work Done	/ Time Taken
Dimensions	P	=	W	/ t
Units	Watt	=	Joule	/ second

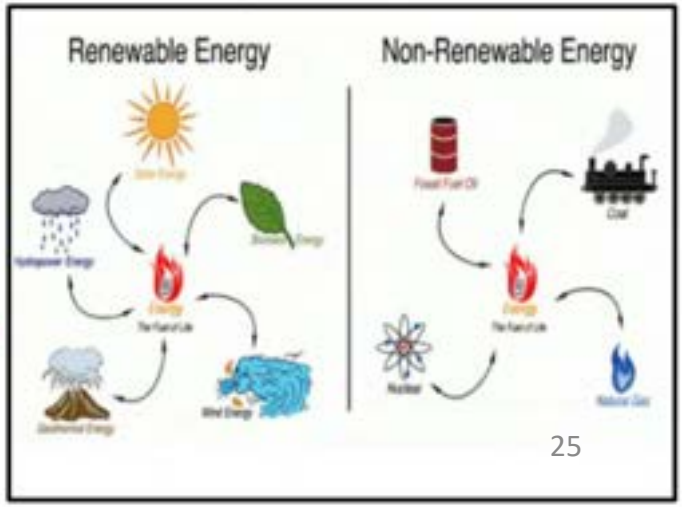
Calculating Efficiency.

Efficiency = useful energy out / total energy in x 100

E.g. Lightbulb

Efficiency = 90 ÷ 100 x 100
Efficiency = 90%

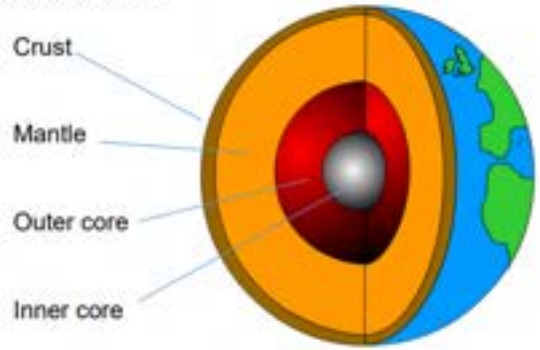




Year 8 Earth Structure

Key Word	Definition
rock cycle	Processes that lead a rock changing from one type to another.
weathering	The wearing down of a rock by physical, chemical or biological processes.
erosion	Weathering of rock and its movement by water, ice and wind.
minerals	Chemicals that a rock is made from.
sedimentary rocks	These rocks are formed from layers of sediment. These rocks can contain fossils.
igneous rocks	These rocks are formed from cooled magma, with the minerals arranged in crystals.
metamorphic rocks	These rocks are made from existing rocks that are heated and withstand high pressure over long periods of time.
strata	Another term for layers. E.g. the strata in a sedimentary rock.
magma	Molten rock

The layers of the Earth:



The layers of the Earth:

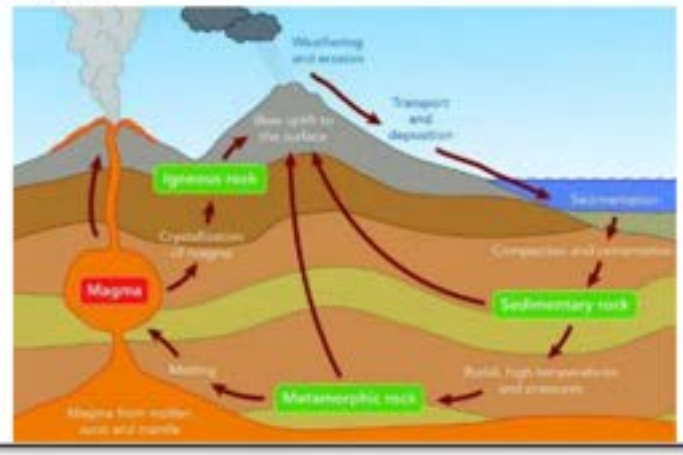
Crust – The outermost layer, it is thin and made out of sections called tectonic plates.

Mantle – A semi liquid, that causes the plates above to move due to convection currents.

Outer core – A liquid layer made out of molten iron and other elements.

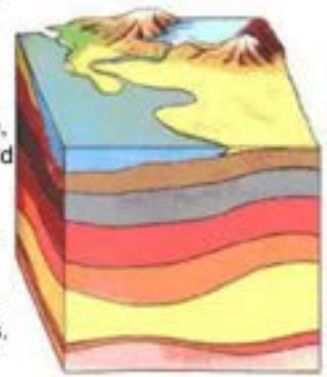
Inner core – The inner most section, it is solid. It is mainly made out of iron and nickel.

The rock cycle:



Sedimentary Rock:

These are formed when **sediment** hardens. Over time, more sediments add to **layer** with their own layers. Over many years, lots of layers are formed. Sedimentary rocks can contain **fossils**.



Examples of sedimentary rock: **Limestone, chalk**, **sandstone**.

Metamorphic Rock:

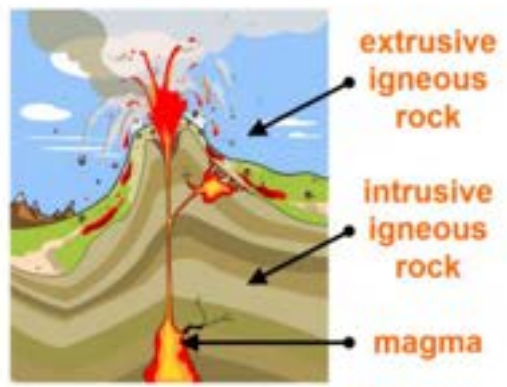
Metamorphic rocks, are rocks that have changed due to changes in **heat** and **pressure**.

When **igneous** or **sedimentary** rocks **are heated** or undergo **high pressures**, their structures change, making **metamorphic** rocks.

Examples of metamorphic rock: **Marble, slate** and **schist**.

Igneous Rock:

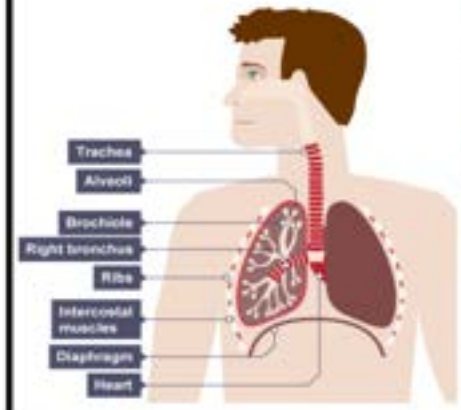
Igneous rocks have varying sizes of **crystals**. When the **magma** has longer to **cool**, this forms rocks with larger crystals. Examples of igneous rock: **Granite, basalt** and **obsidian**.



Year 8 Breathing

Gas exchange

Oxygen from the air needs to diffuse into your bloodstream. Carbon dioxide from your blood needs to be removed. This process is called gas exchange.

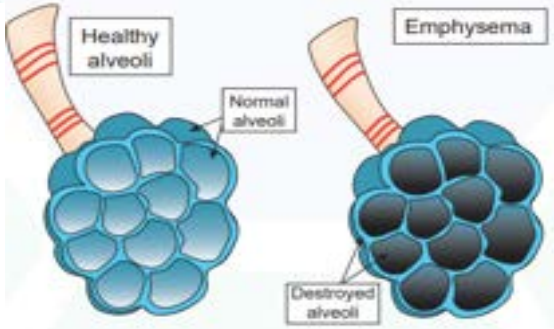


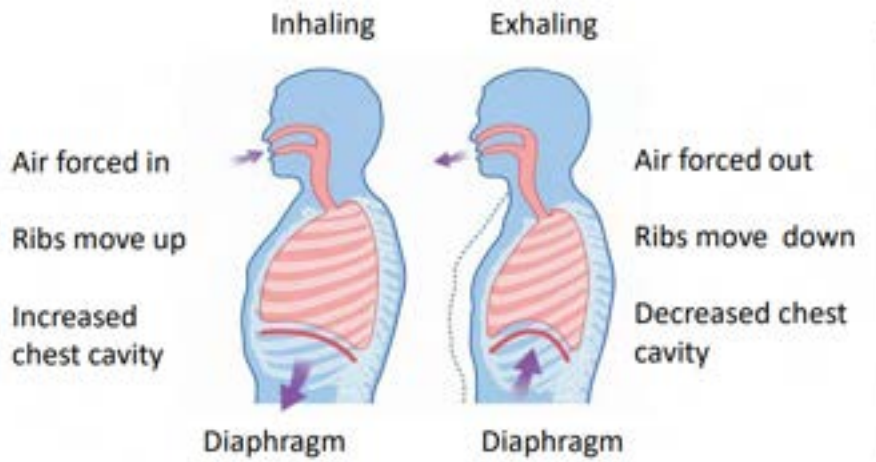
Structure	Function
Ribcage	Protects the lungs.
Diaphragm	Muscle below ribcage. Moves up when it relaxes and down when it contracts.
Trachea	Where air is breathed in.
Bronchi	Trachea divides into 2 bronchi. Each lung has 1 bronchus.
Bronchioles	Bronchi split into smaller tubes called bronchioles.
Alveoli	Small air sacs at the end of each bronchiole. Where gas exchange occurs.

Proportion of gases in air (%)		
Gas	Inspired air	Expired air
Oxygen	21	16
Carbon dioxide	0.04	4
Water	Variable	Saturated
Nitrogen	78	78

Smoking

Chemical in cigarette smoke	Effect on the body
Tar	Contains carcinogens that cause lung cancer
Nicotine	Addictive





Key words:

- Respiration
- Oxygen
- Glucose
- Lungs
- Alveoli
- Surface area
- Gas exchange
- Diffusion
- Carbon dioxide
- Diaphragm
- Inhaling

Inhaling (breathing in):

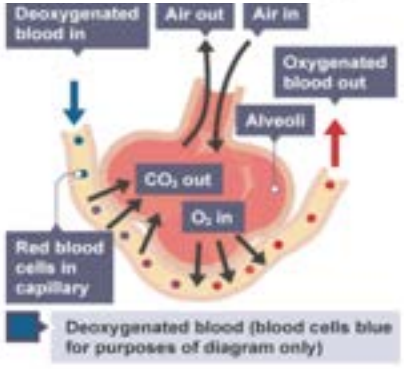
1. Diaphragm moves down and intercostal muscles pull ribs up.
2. This increases the volume of the chest cavity.
3. Pressure inside the chest cavity decreases.
4. Air rushes in to fill up the lungs.

Exhaling (breathing out):

1. Diaphragm moves up and intercostal muscles relax. Ribs move down.
2. This decreases the volume of the chest cavity.
3. Pressure inside the chest cavity increases.
4. Air is forced out of the lungs.

The process of gas exchange in the lungs:

1. Air is inhaled.
2. Some oxygen from the air passes into the bloodstream for respiration.
3. The waste carbon dioxide from respiration passes out of the blood into the lungs and is breathed out.
4. The movement of oxygen into blood and carbon dioxide out of the blood happens by diffusion.



3 ways in which the lungs are **adapted** for gas exchange:

1. They are **moist.**
2. They have a **good blood supply.**
3. The **alveoli** have a **large surface area** for gases to diffuse across.

Geography

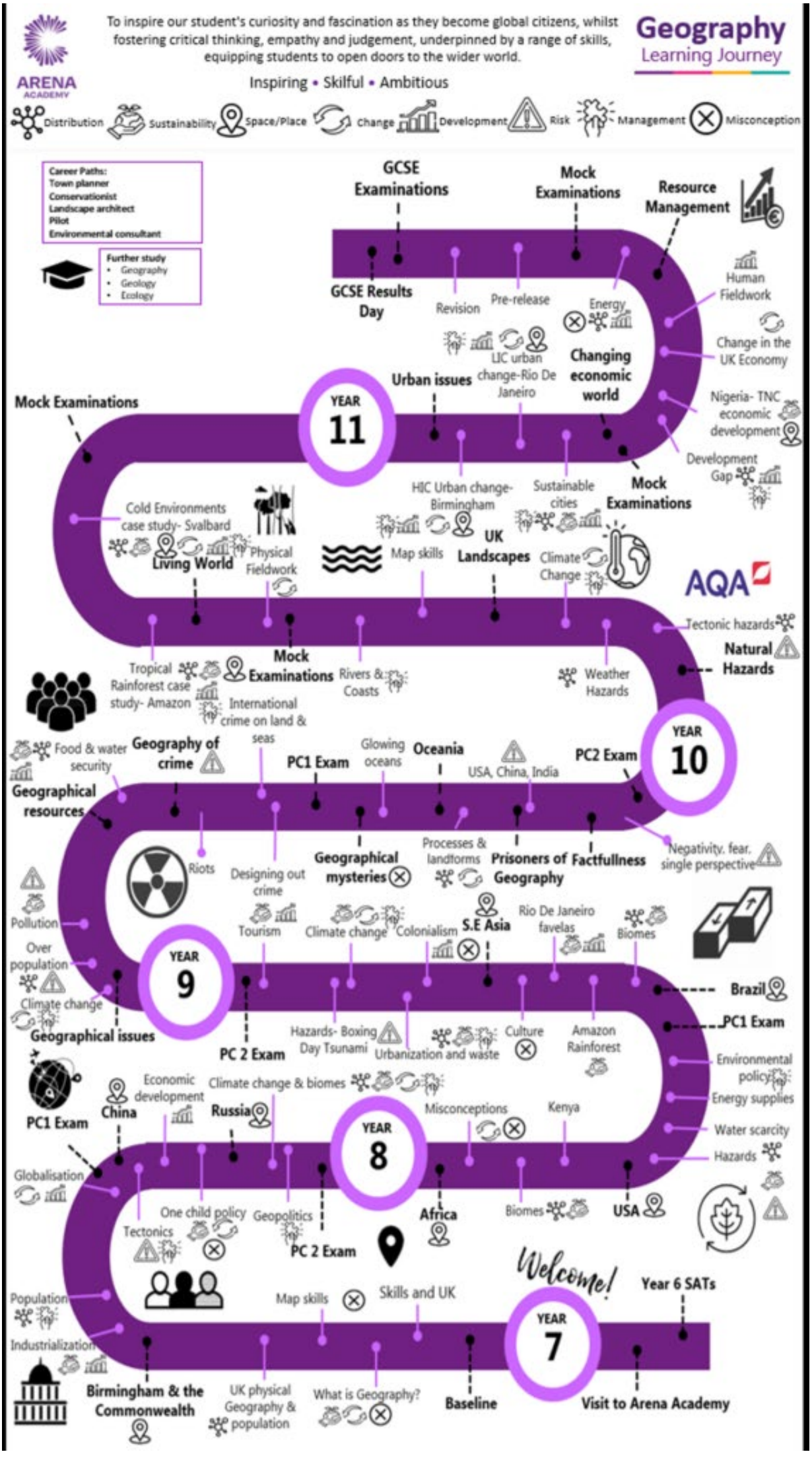
Topics covered from the beginning of the academy year to the end of this half-term.

AUT 1: Africa

1. Misconceptions
2. Biomes & adaptations
3. Population distribution
4. Tribe culture

AUT 2: USA

5. Tectonic hazards
6. weather hazards
7. Biomes and adaptations
7. Geopolitics


ARENA ACADEMY
To inspire our student's curiosity and fascination as they become global citizens, whilst fostering critical thinking, empathy and judgement, underpinned by a range of skills, equipping students to open doors to the wider world.
Inspiring • Skilful • Ambitious
Geography
Learning Journey
Distribution
Sustainability
Space/Place
Change
Development
Risk
Management
Misconception
Career Paths:
Town planner
Conservationist
Landscape architect
Pilot
Environmental consultant
Further study
• Geography
• Geology
• Ecology
YEAR 11
GCSE Examinations
Mock Examinations
Resource Management
GCSE Results Day
Revision
Pre-release
Energy
Human Fieldwork
Change in the UK Economy
Changing economic world
LIC urban change-Rio De Janeiro
Urban issues
Nigeria- TNC economic development
Development Gap
Mock Examinations
Mock Examinations
HIC Urban change-Birmingham
Sustainable cities
Cold Environments case study- Svalbard
Physical Fieldwork
Living World
Map skills
UK Landscapes
Climate Change
AQA
Tectonic hazards
Natural Hazards
Tropical Rainforest case study- Amazon
International crime on land & seas
Mock Examinations
Rivers & Coasts
Weather Hazards
YEAR 10
Food & water security
Geography of crime
PC1 Exam
Glowing oceans
Oceania
USA, China, India
PC2 Exam
Geographical resources
Riots
Designing out crime
Geographical mysteries
Processes & landforms
Prisoners of Geography
Factfullness
Negativity, fear, single perspective
Pollution
Tourism
Climate change
Colonialism
S.E Asia
Rio De Janeiro favelas
Biomes
Over population
YEAR 9
Climate change
Geographical issues
PC 2 Exam
Hazards- Boxing Day Tsunami
Urbanization and waste
Culture
Amazon Rainforest
Brazil
PC1 Exam
Environmental policy
Energy supplies
Water scarcity
Hazards
PC1 Exam
China
Economic development
Russia
Climate change & biomes
Misconceptions
Kenya
YEAR 8
Globalisation
Tectonics
One child policy
Geopolitics
PC 2 Exam
Africa
Biomes
USA
Welcome!
Year 6 SATs
Population
Map skills
Skills and UK
Industrialization
YEAR 7
Birmingham & the Commonwealth
UK physical Geography & population
What is Geography?
Baseline
Visit to Arena Academy

Year 8 Half Term 1

Units covered: Africa

Key concepts:

Distribution	Change	Interconnection
Place	Scale	Sustainability
Development	Space	Environment

Half-term targets:

- Can I address examples of misconceptions about Africa?
- Can I state the different biomes in Africa and describe their key characteristics?
- Can I describe plant and animal adaptations found in African species?
- Can I describe what colonialism is and how it impacted Africa?
- Can I describe how population pyramids are used and how they can indicate development?
- Can I describe the process of hydroelectric power and its opportunities and challenges?
- Can I describe the location of Kenya and its opportunities and challenges associated with urbanisation, tourism and fairtrade?

Key definitions:

- Misconception: A view or opinion that is formed based on false information and understanding
- Biome: A large-scale ecosystem with similar characteristics such as plants, animals and climate.
- Adaptation: A physical or behavioural change that a plant or animal makes to help its survival.
- Colonialism: The forced full or partial control of one nation over another with the intention of exploiting resources.
- Population pyramid: A type of graph that shows the distribution of age and gender across a population.
- Shanty town: A deprived area on the outskirts of a city made of large settlements made from scrap materials.
- Tourism: The act and process of spending time away in a new destination for pleasure, relaxation and recreation.
- Fairtrade: An international partnership that supports farmers and workers in developing countries with their agricultural practices.

Key information:

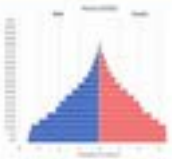
1. Misconceptions about Africa arise from a lack of education and understanding from European nations that dates back to colonialism and discrimination (Africa L2). Examples of misconceptions include that Africa is a country, that it has no food, water or technology or that all Africans live in huts.
2. There are 3 biomes that are found across Africa – the savannah grassland, the desert and the tropical rainforest. All of these have different physical characteristics and species unique to the area.
3. Different plants and animals across Africa have different adaptations that allow them to survive in their biomes. These adaptations can include camouflage, being poisonous, being nocturnal and having a limited diet.
4. The Scramble for Africa happened when 6 different European countries wanted control of Africa's land due to the range of resources available such as diamonds, crops, oil and gold. The impacts were positive and negative such as introducing and education system and the exploitation and slavery of the population.
5. Egypt is an example of a country that is investing in hydroelectric power (power generated from the gravitational potential of flowing water). Hydroelectric power (e.g. the Aswan Dam) has opportunities and challenges such as lengthy construction, high costs, risk assessments, creation of jobs and that it is a renewable energy source.

Example exam questions:

1. Define the term "misconception" and describe one of the common misconceptions about Africa.
2. Define the term "biome" and state an example found in Africa.
3. Explain how plants and animals are adapted to survive in Africa.
4. Explain how colonialism impacted Africa.
5. Describe the opportunities and challenges in a shanty town you have studied.
6. Explain what Fairtrade is and how it supports farmers in developing countries.

Case study summary: Kenya (Lesson 6-11)

6. Kenya is located in both hemispheres in Africa. The capital city is called Nairobi. Kenya has an uneven population distribution due to its environmental conditions but also because of the process of urbanisation. More people want higher skilled and higher paid jobs with better housing and services which are not available in rural areas.
7. Population pyramids show that Kenya has a mostly young population which can indicate facts such as there is a high birth rate, that women are having children young and families are larger than other countries and that healthcare for the elderly is not high quality. There are challenges associated with moving to urban areas such as littering, congestion, lack of housing and pollution which is why shanty towns are constructed.
8. Kibera is a shanty town that is on the outskirts of Kenya's capital Nairobi. Opportunities there include the abundance of childcare available through residents, a strong community spirit and tourist visits to highlight the realities of living in a shanty town. Challenges include unreliable power, poor housing quality, lack of access to services and overcrowding.
9. Maasai Mara is a wildlife reserve in Kenya along the Tanzanian border that is home to a tribe of the same name known for its gender specific roles and traditional cultural aspects such as dress, cuisine and music.
10. Tourism is one of Kenya's most important industries, and has strong linkages with transport, food production, retail and entertainment. Kenya is popular for tourists because there is a diverse range of tourist destinations and products, there is cultural diversity, and the government is supportive of the industry and encourages it to generate as much money as possible to be reinvested into local areas.
11. Fairtrade has helped farmers in Kenya set standards for the production and selling of their crops. Fairtrade has also introduced new farming methods to help farmers with their produce and has ensured that workers have rights and regulations e.g. fair pay, working conditions.



Year 8 Half Term 2

Units covered: USA

Key concepts:

Space	Change
Place	Interconnection
Environment	Distribution

Half-term targets:

- Can I describe the location of the USA?
- Can I define what weather hazards are and describe their impacts?
- Can I define what an earthquake is and give examples of impacts and responses?
- Can I explain the different strategies that can be used to earthquake proof buildings?
- Can I describe the population distribution of the USA?
- Can I describe the causes and impacts of water scarcity?
- Can I explain the process of fracking and create a detailed argument of the pros and cons?
- Can I describe the role of the USA in global politics?
- Can I state examples of the opportunities and challenges in Alaska?
- Can I state the impacts of deindustrialisation in Detroit?

Key definitions:

- Weather hazard – any naturally occurring weather condition that has the potential to cause harm or damage.
- Earthquake – the sudden shaking of the ground caused by plate tectonic movements that create powerful seismic waves.
- Population distribution – how the population of a country is spread out.
- Water scarcity - the lack of freshwater resources to meet the standard water demand.
- Fracking – the process of injecting liquid at high pressure into the ground to extract oil or gas.
- Deindustrialisation – the decline in industry due to offshoring, leaving an urban area with less manufacturing.

Key information:

1. The USA is in the northern hemisphere and is part of North America. The capital city is Washington D.C. However, USA is split into different states. Weather hazards happen in the USA due to its geographical positioning. Weather hazards are natural and can be monitored but not controlled. An example of one that hit the USA was Hurricane Katrina in August 2005.
2. Earthquakes are caused by tectonic plate movements and there are 3 types of plate boundaries, constructive (plates pulling apart), destructive (one plate subducting under another) and conservative (plates sliding past each other). The friction and pressure created causes seismic waves to be released which creates the earthquake. The Northridge earthquake is an example that has hit the USA.
3. Earthquake proofing is a method of preparation for hazards to reduce the impact. There are earthquake proof buildings across the world including in the USA. Examples of strategies include automatic window shutters, shoch absorbers and sheer walls.
4. Areas can either be sparsely or densely populated. Reasons for the population distribution that is seen in the USA is its physical geography such as climate, landscape and water supplies as well as human geography which includes lifestyle, development and trade.
5. Death Valley is one of the most famous deserts in the world, known for its extreme conditions and its species incredible adaptation strategies for survival. Flooding in Death Valley is incredible rare – a once in 1000-year event. Water scarcity has main causes which are drought/climate change, poor water management coinciding with increasing demand and water pollution. Impacts of this includes food insecurity, water conflict and water trade.
6. Fracking is popular in the USA, with 30 states having reported fracking taken place. Fracking involves drilling deep wells and injecting fracking fluid into the ground to then extract the natural resource. There are advantages and disadvantages of fracking which include it being an alternative to coal, it being a way of meeting energy demands and the air and water pollution affecting the wildlife.
7. The USA is a superpower (a nation with significant influence politically, economically, culturally and in the military). The USA has a significant role in global politics because NATO was formed there in 1949 and the UN was also formed there after WW2, with the headquarters still being in New York City.
8. Alaska is a very important state to the USA due to its opportunities in fishing, mineral extraction and tourism. However, there are also challenges including landslides, building on permafrost and uneven ground.
9. Detroit was once a city that was thriving as a symbol of industrial power, however since manufacturing moved elsewhere, high crime rates is now common in Detroit, and there are now being efforts made to improve infrastructure and invest in tourist opportunities since it was named a UNESCO World Heritage Site.

Example exam questions:

1. Define the term "earthquake."
2. Describe the impacts of the Northridge earthquake.
3. Using the map, describe the population distribution of the USA.
4. Using the map. Describe the distribution of fracking in the USA.
5. Explain the advantages and disadvantages of fracking.
6. State two impacts of water scarcity.

Case study summary: Northridge Earthquake

Northridge earthquake happened in Reseda close by to Los Angeles on January 17th, 1994 – it was magnitude 6.7.
The major shock lasted 10-20 seconds.
Up to 60 people were killed and around 8700 were injured.
Theatres were closed due to structural damage and parking structures collapsed.
Apartment complexes collapsed and Interstate 10 was vastly damaged and collapsed.
There was an outbreak of valley fever, and 11 hospitals suffered structural damage and were damaged or rendered unusable.
While many businesses remained closed in the days following the quake, some infrastructure was not able to be rebuilt for months, even years later.
In response to the quake, the California Earthquake Authority was created to offer some coverage for earthquake damage.

History

Topics covered from the beginning of the academy year to the end of this half-term.

AUT 1:

1. African Kingdoms and the enslavement of African people

AUT 2:

2. The British Empire and its impact on the world

ARENA ACADEMY

To inspire our students' curiosity to discover their own story, to equip our students with the skills to open doors to the wider world and challenge our students to think critically, developing their perspective and judgement.

Inspiring • Skilful • Challenging

HISTORY Learning Journey

Power | Religion | War | Key individuals | Communication | People

Career Paths
- Academic researcher/archivist
- Heritage manager
- Historic building conservator
- Museum education officer
- Secondary school teacher

Further study
- History
- English
- Politics
- Economics
- Sociology

Weimar & Nazi Germany

1918-1939

The Weimar Republic 1918-29

Nazi control & dictatorship 1933-39

Life in Nazi Germany 1933-39

Hitler's rise to power 1919-33

YEAR 11

1941-1991

The end of the Cold War 1970-91

Cold War crises 1958-70

The origins of the Cold War 1941-58

Superpower Relations & the Cold War

Elizabethan society in the Age of Exploration 1558-88

Queen, government & religion 1558-69

1558-1588

Challenges to Elizabeth at home and abroad 1569-88

Early Elizabethan England

'Medicine in modern Britain' c. 1900-Present Day

Medicine in Britain

YEAR 10

1250 to present day

'Medicine in 18th & 19th century Britain' c.1750-1900

'The Medical Renaissance in England' c.1500-1700

'Medicine in medieval England' c.1250-1500

To what extent could ancient doctors heal the sick? 2nd - 5th c. BC

Has society learned lessons from the Holocaust? 20th c.

What were the consequences of the Great War for Europe and the World?

YEAR 9

20th c. Why did the 'lights go out across Europe' in 1914?

20th c. To what extent do the causes of WWII resemble those of WWI?

20th c. What were the consequences of WWII for Europe and the World?

To what extent have women achieved equality since 1918? 20th c.

20th c. What does the Titanic tell us about society in the early 20th century?

18th – 19th c. What role did the Industrial Revolution have on the health of the people?

YEAR 8

Why did 'brother fight against brother' in the 17th century? 17th c.

16th – 19th c. What was the impact of the trans-Atlantic slave trade on those enslaved?

18th – 19th c. To what extent was Britain changed by the Industrial Revolution??

16th – 20th c. To what extent did Britain's imperialism shape the world?

16th c. To what extent was everyday life different in Tudor England compared to medieval?

16th c. Why was there religious turmoil in Tudor England?

Why was the Norman invasion of 1066 a success? 11th c.

11th – 15th c. To what extent did life change in the medieval period?

YEAR 7

Welcome!

5th c. Why did the Roman Empire collapse?

6th c. BC

ARENA ACADEMY

Arena Academy Year 8 History Knowledge Organiser: The British Empire

Key words:	
Empire	A group of countries, people or land controlled and ruled by one single powerful country.
Colony	A country that is part of an Empire.
Penal Colony	An area of land or country used to house prisoners
Aborigines	A person that has been in a country or region from earliest times.
Commonwealth	A group of nations with a shared loyalty or government

What is an Empire?

An Empire is a group of countries, people or land that is controlled and ruled by one powerful country.
The British Empire, at its largest, covered 13 million miles or 22% of the world!
It controlled over 450 million people or 1/5 of the world's population.
It began in the 16th Century, with British forces establishing trading posts oversees and grew all the way through to the 20th Century.

Some of the main countries in the British Empire were:

Australia
South Africa
Canada
Ireland
New Zealand
Barbados
Ireland
Sri Lanka
India
Jamaica
Tanzania
Malaysia

Countries of the British Empire

Australia - Australia was used as a location for criminals. Criminals would be shipped to Australia, where they would be used as a workforce. The built roads, buildings, houses, shops etc. It also gave people an opportunity to escape poverty and gain wealth in Australia. It was also an important naval base, helping Britain control the seas.

The Caribbean – Because of the warm climate, the Caribbean grew important crops that Britain could not. Therefore sugar, cocoa and coffee were all grown in the Caribbean and taken to Britain. In the middle of the 1800's however, a combination of bad weather and the growth of sugar in America, led to less money being made from the area.

Africa – Britain used the people of Africa as slaves and made a lot of money selling them at auctions. The Gold Coast was important because it held lots of gold, ivory and silver, which were traded for fortunes.

India – India was an important produced of spices and of materials that were traded for money across the Empire.

How did the British Control its Empire?

Due to huge size of the Empire, Britain had to develop a variety of methods in order to keep control of the variety of colonies under her Empire.
Military Force – Britain's weaponry developed throughout this period, inventing weapons such as the Maxim gun – one of the first machine guns invented. They also stopped guns coming into the hands of those in the Empire. The Africans had poor quality weaponry, they made their own bullets which broke their guns sometimes.
Use of Locals – The British went on a charm offensive, making the local rich people feel wanted and gave them more money and power. Local people ran the police, law courts and prisons, making them feel in charge of their country and less likely to break laws.
Communication – The British could easily communicate between the countries of their empire using methods such as telegraphs, radios and ships.
Gradual Change – The British didn't try to change everything at once, they gradually changed and developed areas of countries.
Dealing with Resistance – The British were efficient in stopping anyone who opposed the Empire. Protestors were immediately jailed and broke up local armies.

Wars of the Empire

The British didn't easily create their Empire and they often faced opposition from those within the colonies, who wanted rid of the British from their country:

- **India** - Britain started to occupy India in the 18th Century. As Britain gained control over India there were revolts against the British rule. At the Battle of Plassey in 1757, 3000 British soldiers defeated a 40,000 strong Indian and French Army. Small rebellions broke out and 1000's were killed. Eventually Britain managed to stop the revolt and executed many Indians.
- **Australia** – Britain claimed Australia in 1770, the aborigines who already lived there were not happy about their land being taken. The British killed them all. On the island of Tasmania, in 1802 there were 20,000 aborigines, 80 years later there were none. The same thing happened in New Zealand, where the Maori people were reduced from 100,000 to 35,000.
- **South Africa:** In 1879 Britain wanted to control more of Africa and started a war against Zululand. Britain sent 16,000 soldiers and an easy victory was expected against the Zulus who were armed with shields and spears. At the Battle of Isandlwana British soldiers were defeated by 20,000 Zulu warriors. Over 1200 British soldiers were killed and although Britain eventually managed to conquer Zululand this was one of the worst defeats Britain had ever faced.
- **Afghanistan:** In 1838 Britain sent an army of 16,000 men to Afghanistan. Although British troops managed to capture the capital Kabul the Afghans kept attacking British troops. Afghans managed to kill Britain's top general, Sir William McNaghten and paraded his chopped up body in the streets. Of the 16,000 people who had set out on the retreat from Kabul only one man Dr. William Brydon, a British Army surgeon, made it back alive
- **America:** By 1750 Britain controlled 13 different colonies on the Eastern side of America. In 1773 a protest started in Boston against the tax on tea. It quickly escalated and became a major revolt against British rule. On 4th July 1776 the Americans declared their independence from Britain. Britain quickly sent almost 60,000 soldiers to recapture America but after five years of fighting Britain was defeated.

Empire: a Force for Good or Evil?

Good	Bad
Many of the foods we enjoy today came originally from the countries of the British Empire such as tea, cocoa, chocolate, coffee, rice, curry	Rebellion: Many people in the colonies were killed when they rebelled against British rule for example the Mau Mau rebellion in Kenya in 1956
Clean water and sanitation: Britain improved these important services in the Colonies which meant people were generally healthier.	Economies in the Colonies were wrecked because of Britain's hold over transport and raw materials. Britain became rich and powerful at the expense of its colonies
The colonies benefitted from the introduction of a British education system	Many colonial soldiers died fighting for Britain in its wars
Raw Materials: Britain benefitted from a plentiful supply of cheap raw materials that could be made into manufactured goods such as rubber, cloth, and woollen goods. This made Britain wealthy.	People in the colonies had no resistance to the diseases the British brought with them so many died
Britain left its system of law in the countries it colonised a legacy of good even today.	Christianity was often forced on the local people.
Many former Colonies continue to use the democratic system of Parliament introduced by Britain. This is a force for good in the world.	Native people such as the Aborigines of Australia had their land taken by The British. 80% of the Aboriginal population were wiped out in 150 years.
The colonies provided soldiers to fight for Britain examples being World War 1 and World War 2	Many people who lived in the colonies remained very poor. There were very limited job opportunities for them

Fall of the Empire

- **Actions by people in the colonies** – There were demonstrations against British rule in the 1920's for failing to honour promises to Egypt and Iraq. Britain allowed Ireland partition (splitting into Northern Ireland and Ireland), it sent out a message to others in the Empire that they could leave. In 1948 there was violence in Palestine aimed at the British. There were strikes in India, Egypt and Kenya against British Rule.
- **Actions by people in Britain** – In the 1960's people in Britain were more interested in freedom, rather than using force to keep people under control.
- **World Events** – In 1931, Canada, Australia and New Zealand formed a new Commonwealth. The domination of the USA and Russia after WW2 showed that you didn't need to have an empire to be a world leader. The loss of countries such as Singapore and Burma during WW2, changed people's attitudes on whether Britain could maintain an empire. Britain was heavily in debt to the USA after WW1.
- **Trade and Economics** - India became less important to the British Empire. The cost of keeping a large number of soldiers to defend the empire was too much. It also became clearer that the Empire could no longer provide Great Britain with the military and economic security she needed. Exports focused from Western Europe and the USA, rather than the Empire.

Religious Education

Topics covered from the beginning of the academy year to the end of this half-term.

AUT 1:

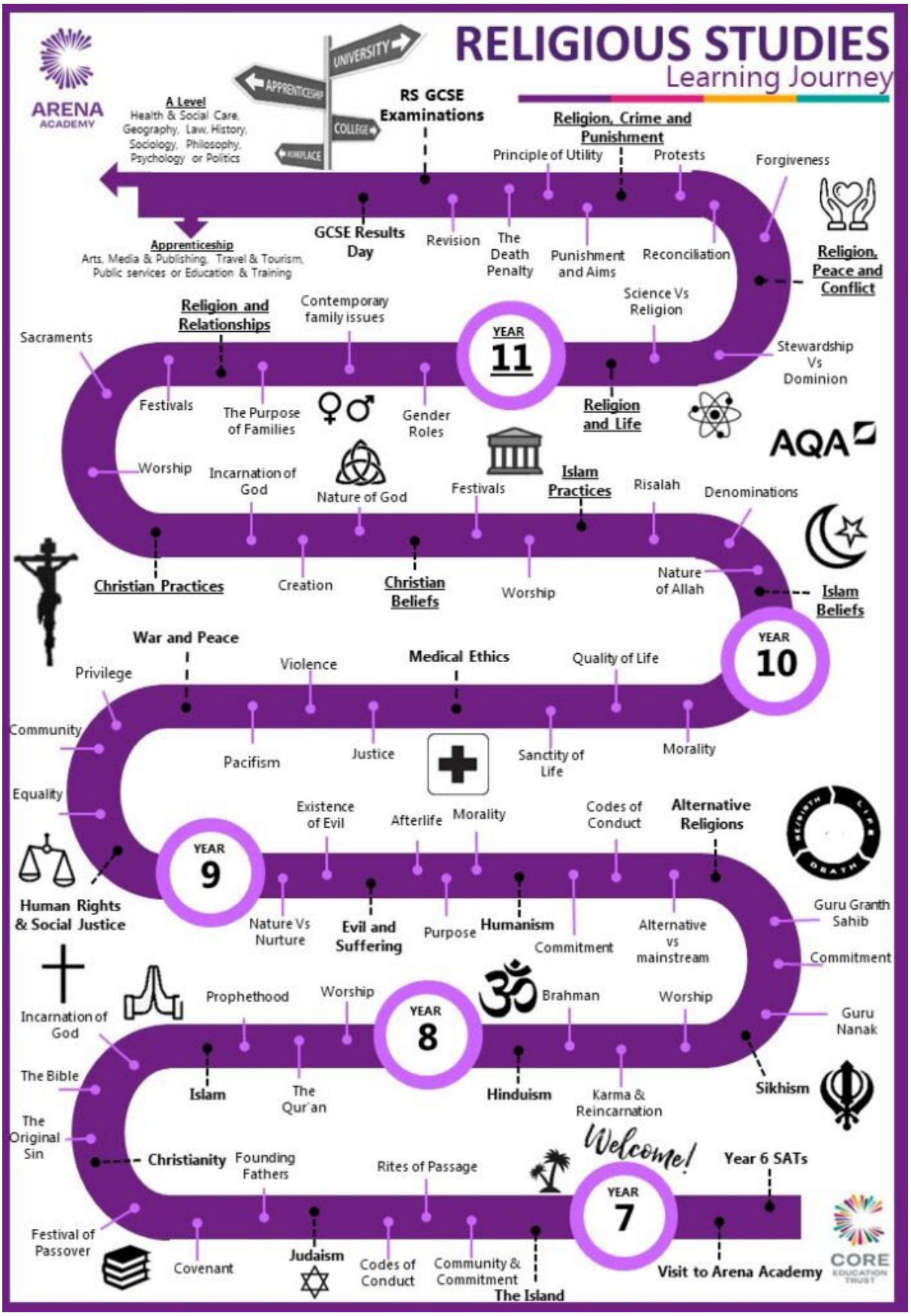
1. Hinduism

AUT 2:

2. Sikhism

Later on in the year:

3. Humanism
4. Evil and Suffering


RELIGIOUS STUDIES
Learning Journey
ARENA ACADEMY
A Level
Health & Social Care, Geography, Law, History, Sociology, Philosophy, Psychology or Politics
UNIVERSITY
APPRENTICESHIP
COLLEGE
WORKPLACE
Apprenticeship
Arts, Media & Publishing, Travel & Tourism, Public services or Education & Training
RS GCSE Examinations
GCSE Results Day
Revision
The Death Penalty
Principle of Utility
Religion, Crime and Punishment
Punishment and Aims
Protests
Reconciliation
Forgiveness
Religion, Peace and Conflict
Science Vs Religion
Stewardship Vs Dominion
Religion and Life
AQA
YEAR 11
Religion and Relationships
Contemporary family issues
Sacraments
Festivals
The Purpose of Families
Gender Roles
Worship
Incarnation of God
Nature of God
Christian Practices
Creation
Christian Beliefs
Festivals
Islam Practices
Risalah
Denominations
Worship
Nature of Allah
Islam Beliefs
YEAR 10
War and Peace
Privilege
Violence
Medical Ethics
Quality of Life
Community
Pacifism
Justice
Sanctity of Life
Morality
Equality
Human Rights & Social Justice
YEAR 9
Existence of Evil
Afterlife
Morality
Codes of Conduct
Alternative Religions
Nature Vs Nurture
Evil and Suffering
Purpose
Humanism
Commitment
Alternative vs mainstream
Guru Granth Sahib
Commitment
Incarnation of God
Prophethood
Worship
YEAR 8
Brahman
Worship
Guru Nanak
The Bible
Islam
The Qur'an
Hinduism
Karma & Reincarnation
Sikhism
The Original Sin
Christianity
Founding Fathers
Rites of Passage
Welcome!
Year 6 SATs
YEAR 7
Festival of Passover
Covenant
Judaism
Codes of Conduct
Community & Commitment
The Island
Visit to Arena Academy
CORE EDUCATION TRUST

HINDUISM KNOWLEDGE ORGANISER

Overview

Hinduism is one of the world's major religions. It is the **world's 3rd largest religion**, with about 1.1 billion followers. It is around 5,000 years old.

Hindus are the people who follow Hinduism. It is a very complex religion that is followed by different people in different ways.

Many gods are worshipped in Hinduism. All of these different Gods are believed to be a part of the supreme God named **'Brahman.'**

Hindus believe in **karma** and **reincarnation** – that when you die you are reborn as something else.

Hinduism does not have one holy book, but several sacred texts. **Mandirs** are Hindu worship buildings.

Image of Holi festival, celebrating the start of spring. People smear each other with colours.

Hindu Beliefs

Brahman and the Gods

-Hindus believe in one supreme God called Brahman. He can be found in everyone and everything, including the other Gods.

-Some of the important other Gods include 'Brahma' (the creator), 'Shiva', (the destroyer) and 'Vishnu' (the protector). These three together form the 'Trimurti' (trinity).
-Other gods include Ganesh (remover of obstacles), Hanuman (the monkey God), Lakshmi (the Goddess of wealth and good fortune, and Vishnu (the God who preserves life and stands up to evil).

Karma and Reincarnation

-Hindus believe that people are born again after they die, as another living thing (reincarnation).

-In each life the person is rewarded or punished for the things that they have said and done in their last life – this is called karma.

-Hindus believe that if they live a perfect life, they will be freed from birth and death to join the Gods (Moksha).

Festivals

- Hindus enjoy many festivals as a part of their religion. Holi festival marks the beginning of spring.

-Diwali, or the Festival of Lights, is held in the Hindu month of Ashwin (September of October in the western calendar). This event marks the Hindu New Year. Oil lamps are lit and floated down rivers to welcome the Goddess of Wealth. Fireworks are set off in order to ward off evil spirits.

-Hindu people also go on pilgrimages, for example to the River Ganges, which is sacred to Hindus.

Answers to Important Questions and Key Vocabulary

Where and how do Hindus worship? Why?	 	-Many Hindus worship at home in their own shrine – this could be anything from a room, an altar, or simply pictures or statues. -The Hindu building for communal worship is called a Mandir (Hindu temple). The temples are dedicated to different gods and are the focus of religious life. -At Mandirs, Hindu people often recite the names of Gods and Goddesses. They also offer water, fruit and flowers to the Gods.
What are the Hindu holy books?		-There are many different types of holy texts in Hinduism. Perhaps the most sacred are called the Vedas. The Vedas guide people in their daily lives. They are written into the Sanskrit language.
Where do most Hindus live in the world?		-About 15% of the world's population are Hindus. -India has the most Hindus by far – about 1 billion Indians are Hindus – this is around 80% of all Indians. -However, Nepal has the highest proportion of Hindus – about 63% of its population are Hindus. There are also lots of Hindus in Bangladesh, Indonesia, Malaysia, Pakistan and Sri Lanka. -Most of the populous countries in the world contain a population of Hindu people.
How many different types of Hindus are there?		-There are many, many different forms of Hinduism, as different types have developed over the thousands of years since it was founded. -There are four main forms – Vaishnavism, Shaivism, Shaktism and Smartism. These four types can be broken down many more times! -Although they have small differences, each of the different forms follows the same rough principles.

Key Vocabulary

Hindu
Brahman
Karma
Reincarnation
Brahma
Shiva
Vishnu
Holi
Dewali
Dhoti
Sari
River Ganges

Top 10 Facts!

1. Hindus believe that all living things have souls.
2. Because of this, very committed Hindus are vegetarians.
3. Cows are considered to be particularly sacred, as they give milk to the people.
4. People clean their houses, and then decorate them, to celebrate Diwali.
5. Traditional Hindi clothes include a robe (dhoti) and shawl (chaddar) for men.
6. Hindu women wear a long piece of clothing called a sari.
7. Singing and dancing is an important part of Hindu worship, as is chanting.
8. Big Hindu ceremonies include marriage (vivaha) and cremation (antyesthti)
9. Hindu wedding celebrations last for many days. The bride and groom wear red and gold.
10. After death, Hindus are cremated, and their remains are scattered in a nearby river.

Hindu Timeline

- 2500BCE: Evidence of Indus Valley Hindus.
- 1500 BCE: The oldest Hindu scriptures were created.
- 1300 BCE: The oldest Hindu hymns were composed.
- 800 BCE: The sacred text of the Mahabharata begins to be composed.
- 100 BCE: The Ramayana is written.
- 600CE: Hinduism begins to grow and flourish – prayers and songs written.
- 950-1050CE: A 'City of Temples' is built in India at Khajuraho – 80 still stand.
- c. 1600 CE: The Hindu Renaissance begins. Many modern versions of sacred texts are found, translated and used.

SIKHISM KNOWLEDGE ORGANISER

Overview

Sikhism is one of the world's major religions. It is the **world's 5th largest religion**, with about 28 million followers. It began over 500 years ago.

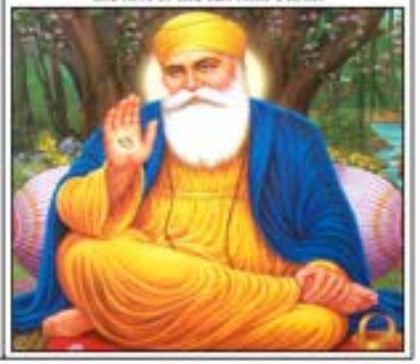
Sikhs are the people who follow Sikhism. Sikhs believe in one God who guides and protects them. Sikhs see everybody as being equal in God's eyes.

Sikhism was founded by a man called **Guru Nanak.** It is based on what he taught people. They believe that he received messages from God telling them how to live.

Leading a good life and **making the right choices** are important in Sikhism.

Granth Sahib is the holy book of **Sikhism.** Sikhs worship at home and in Sikh temples called **Gurdwaras.**

Image of Guru Nanak, the founder of Sikhism and the first of the ten Sikh Gurus.



Sikh Beliefs

Guru Nanak

-Sikhs believe that Guru Nanak was born in a small village called Punjab in India. He was born into a Hindu family, but grew up around Hindus and Muslims.

-Sikhs believe that Guru Nanak was spoken to by God, who told him to follow a simple faith, in which everybody was equal. In other religions, some people were thought of as better than others.

-His message was simple: pray to God, be honest, work hard, care for your family and your community. These ideas formed the basis of Sikhism.

Vaisakhi

-Vaisakhi marks the Sikh New Year. At this time, Sikhs remember when Khalsa was created.

-Khalsa was the purified Sikh community created by Guru Gobind Singh, in which all were equal.

-This event takes place in April, and also marks the start of the Harvest.

The Five Ks

- Sikhs often display their commitment to their religion by adhering to the 5 Ks, which are the 'Sikh Articles of Faith.'

1. Kesh – Uncut Hair
2. Kangha – Comb
3. Kara – Steel Bracelet
4. Kirpan – Sword
5. Kaccha – Soldier's shorts

The Five Ks are symbols for different Sikh ideals – each item links to a different belief.

Answers to Important Questions and Key Vocabulary

Where and how do Sikhs worship? Why?

-Sikh temples are called gurdwaras. They are built with a large central dome.
-Gurdwaras have four doors, to show that they are open to all people, as a part of the Sikh belief that everyone is equal.
Before Sikhs worship in a gurdwara, they should take a bath as a mark of respect and cleanliness.
Shoes are taken off, and heads are covered.

What is the Sikh holy book?

-The Sikh holy text is the Guru Granth Sahib. It is exactly 1430 pages long in its printed form, and all of the hymns in it are in the same order. This helps Sikhs from everywhere to read it the same way.

Where do most Sikhs live in the world?

-Sikh people are mainly found in the Punjab region of north India, in Asia. In total, there are nearly 23 million Sikhs in India.
-However, there are also populations of Sikhs on every inhabited continent.
-The largest populations of Sikhs in countries outside of India are in the United States, Canada, the United Kingdom, and Malaysia. There are very few Sikhs in parts of Africa and Central America.

What are some other Sikh traditions?

-When a Sikh baby is born, the whole community turns out to celebrate! Fathers traditionally tell the news to friends and family, and the baby name is revealed in a ceremony at the gurdwara.
-Sikh names are easily distinguishable. Boys and men are given an extra Sikh name – Singh – meaning 'lion.' Girls and women have Kaur – 'princess.'

Key Vocabulary

- Sikh
- Guru Nanak
- India
- Punjab
- Granth Sahib
- Ek Onkar
- Gurdwara
- Gobind Singh
- Nishan Sahib
- Golden Temple
- Vaisakhi
- The Five Ks

Top 10 Facts!

1. Sikhs take their name from 'sikha', meaning disciples.
2. Ek Onkar ('God is one') is the most powerful teaching in the Sikh religion.
3. Sikhs often sit on the floor together whilst eating, to show that everyone is equal.
4. Most of the hymns sung in gurdwaras today were written by the Sikh Gurus.
5. To keep their long hair tidy, many men wrap their hair in a turban – a piece of material.
6. Not all Sikh men and women join the Khalsa. It is a choice and involves an initiation ceremony.
7. The most holy place for Sikhs is the Golden Temple of Amritsar, in Punjab, India.
8. The last Guru, Gobind Singh, decided that there should be no more Gurus.
9. The symbol of Sikhism is known as the Khanda.
10. Sikhs have their own flag. It is known as the Nishan Sahib and is found outside gurdwaras.

Sikhism Timeline

- 1469 CE: Birth of Guru Nanak.
- 1481 CE: Guru Nanak refuses to wear the 'golden thread.'
- 1500 CE: Nanak travels, spreading the message of equality.
- 1539 CE: Guru Nanak dies.
- 1606 CE: Guru Arjan, the 5th Guru, is tortured to death for being a Sikh.
- 1699 CE: The tenth Guru, Gobind Singh, founds the community of the Khalsa.
- 1708 CE: Gobind Singh dies. He is the last of the human Sikh Gurus.
- 1716 CE: The first of the Sikh military leaders – Banda Singh Bahadur. He leads many military campaigns.

Problem of Evil

1) Different approaches to POE

Most people experience suffering at some time in their life. Religions attempt to explain suffering, help people to cope with it and learn from it. For some religious people, the fact that people suffer can raise difficult questions about why God allows this to happen.
Evil and suffering can also make people question their religious beliefs and sometimes reject the existence of God completely.

3)How does Islam explain Suffering?

For Muslims everything that happens is the will/plan of God. This includes suffering and evil. They are part of Allah's great plan.
Allah is testing people with suffering, to see if they will still believe in Him or if they will follow evil (devil)
Sometimes you have to suffer in order for some good to take place.
Muslims are expected to be patient and trust in Allah

Keywords

Omniscient	All-knowing
Omnipotent	All-powerful
Benevolent	All-Loving
Theodicy	an attempt to explain how God can be omnipotent, omniscient, love us and yet still allow us to suffer
Natural Evil	This kind of suffering is that which is caused by the world we live in
Moral Evil	This kind of suffering is that which is brought out about by the cruel actions of people
Genocide	The deliberate and systematic destruction of a religious, racial, national, or cultural group.
Anti Semitism	Hostility to or prejudice against Jews.
Persecution	hostility and ill-treatment, especially because of race or political or religious beliefs; oppression

2) Christian Response to Problem of evil.

Christians believe Evil is the fault of humans misusing their free will. It is not God's fault and that We cannot possibly understand the mind of God and so cannot explain why he chooses to let evil exist

4) Jewish responses to the POE

Most Jews believe that everything God does is for good. From a human perspective, some actions might seem evil, but they trust that whatever happens on Earth is ultimately according to God's plan, which is good. Jews believe suffering can bring people closer to God. In times of trouble many people turn to religion for comfort and support.
Some Jews believe suffering helps people to **empathise** with others and to assist them when necessary.

Questions raised by the existence of evil and suffering in the world

- What does the presence of evil and suffering say about God's love, power and purpose?
- Is there a purpose to suffering?
- Is suffering the price humans pay for ?
- How do different religions respond to evil and suffering?
- How do individuals respond to evil and suffering?

Computer Science

Topics covered from the beginning of the academy year to the end of this half-term.

AUT 1:

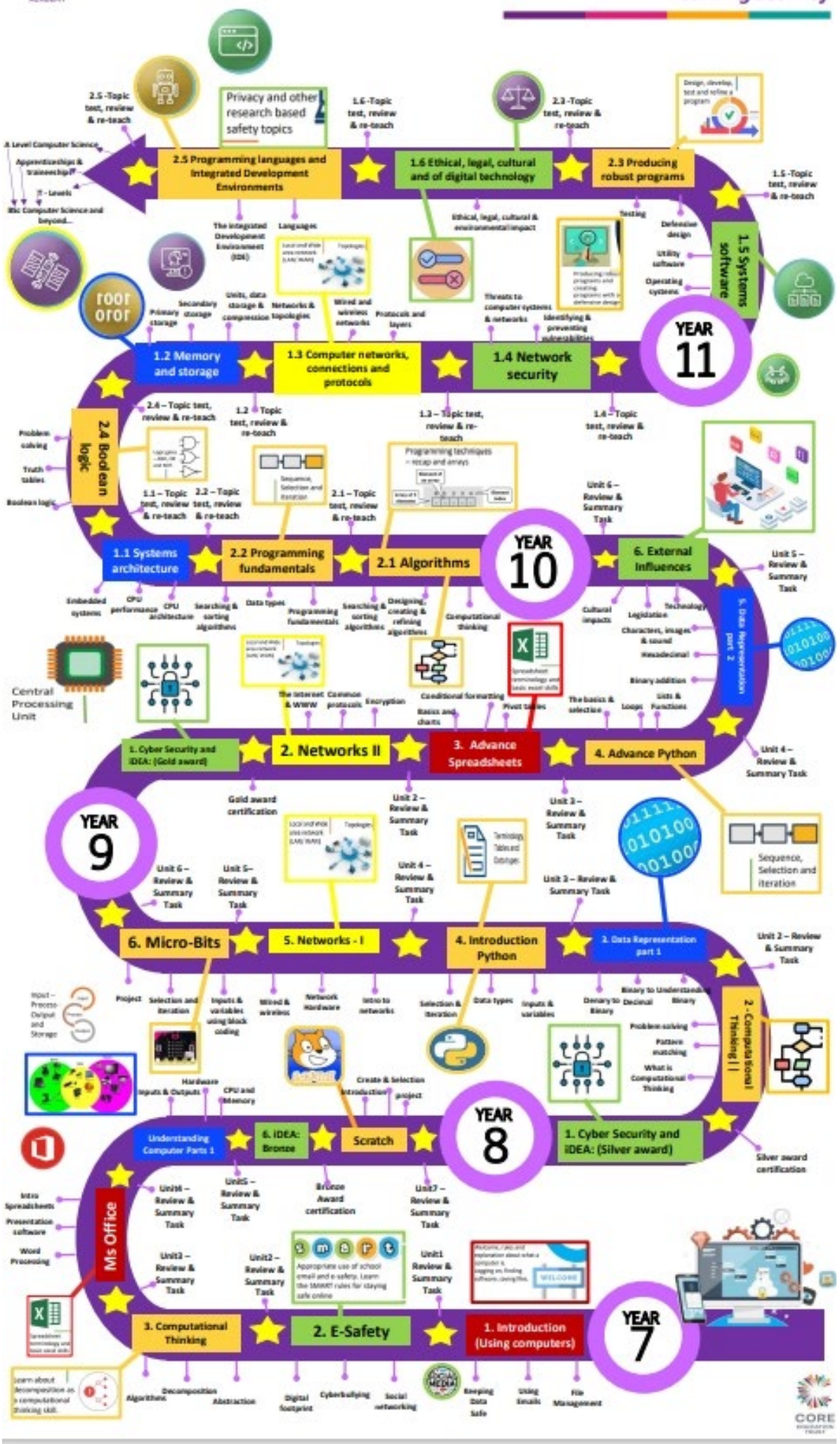
1. IDEA (bronze/silver award)

AUT 2:

2. Computational thinking

Computer Science/IT

Learning Journey



Knowledge Organiser: Designing an Algorithm

Designed an Algorithm

Before designing an algorithm it is important to first understand what the problem is. Algorithms can be designed using pseudocode or a flowchart, and the standard notations of each should be known.

An algorithm is a plan, a logical step-by-step process for solving a problem. Algorithms are normally written as a flowchart or in pseudocode.

The key to any problem-solving task is to guide your thought process. The most useful thing to do is keep asking 'What if we did it this way?' Exploring different ways of solving a problem can help to find the best way to solve it.

Understanding the problem

Before an algorithm can be designed, it is important to check that the problem is completely understood. There are a number of basic things to know in order to really understand the problem:

What are the **inputs** into the problem?

What will be the **outputs** of the problem?

In what order do **instructions** need to be carried out?

What decisions need to be made in the problem?

Are any areas of the problem repeated?

Pseudocode

Most programs are developed using programming languages. These languages have specific syntax that must be used so that the program will run properly. Pseudocode is not a programming language, it is a simple way of describing a set of instructions that does not have to use specific syntax.

Flowcharts

A flowchart is a diagram that represents a set of instructions. Flowcharts normally use standard symbols to represent the different types of instructions. These symbols are used to construct the flowchart and show the step-by-step solution to the problem.

Name	Symbol	Usage
Start or Stop		The beginning and end points in the sequence
Process		An instruction or a command
Decision		A decision, either yes or no
Input or Output		An input is data received by a computer. An output is a signal or data sent from a computer
Connector		A jump from one point in the sequence to another
Direction of flow		Connects the symbols. The arrow shows the direction of flow of instructions

Key Vocabulary

Algorithm	A sequence of logical instructions for carrying out a task. In computing, algorithms are needed to design computer programs.
Condidtion	In computing, this is a statement or sum that is either true or false. A computation depends on whether a condition equates to true or false.
Flowchart	A diagram that shows a process, made up of boxes representing steps, decision, inputs and outputs.
Input	Data which is inserted into a system for processing and/or storage.
Instruction	A single action that can be performed by a computer processor.
Iteration	In computer programming, this is a single pass through a set of instructions.
Loop	A method used in programming to repeat a set of instructions.
Notation	A system of written symbols or graphics used to represent something in order to aid communication and understanding.
Output	Data which is sent out of a system.
Program	Sequences of instructions for a computer.
Programming language	A language used by a programmer to write a piece of software.
Pseudocode	Also written as pseudo-code. A method of writing up a set of instructions for a computer program using plain English. This is a good way of planning a program before coding.
Selection	A decision within a computer program when the program decides to move on based on the results of an event.
Syntax	Rules governing how to write statements in a programming language.

Knowledge Organiser: Algorithms—Sequencing

Sequencing

When designing algorithms, it is important to make sure that all the steps are presented in the correct order. This is known as sequencing, and can be displayed in pseudocode or flowcharts.

Sequencing is the specific order in which instructions are performed in an algorithm.
Each step is an instruction to be performed. Sequencing is the order in which the steps are carried out.

It is crucial that the steps in an algorithm are performed in the right order - otherwise the algorithm will not work

Why is Sequencing Important?

Complex algorithms may have hundreds, if not thousands, of steps. It is critical to make sure all steps in the algorithm are in the correct sequence before programming begins. Once programmed, trying to find an instruction in the wrong sequence can be extremely difficult.

Representing Sequencing — Pseudocode

Writing in pseudocode is rather like writing in a **programming language**. Each step of the algorithm is written on a line of its own, in sequence. In pseudocode, an algorithm would look like this:

```
OUTPUT 'How old is your dog?'
INPUT user inputs their dog's age in human years
STORE the user's input in the human_years variable
dog_years = human_years * 7
OUTPUT 'In dog years, your dog is aged' + dog_years
```

Representing Sequencing — Flowcharts

A Flowchart Algorithm will look like this:

Key Vocabulary

Algorithm	A sequence of logical instructions for carrying out a task. In computing, algorithms are needed to design computer programs.
Flowchart	A diagram that shows a process, made up of boxes representing steps, decision, inputs and outputs.
Programming	The process of writing computer software.
Programming language	A language used by a programmer to write a piece of software.
Pseudocode	Also written as pseudo-code. A method of writing up a set of instructions for a computer program using plain English. This is a good way of planning a program before coding.
Sequence	In computer programming, this is a set of instructions that follow on from one another.

Performing Arts: Music and Drama

Topics covered from the beginning of the academy year to the end of this half-term.

AUT 1:

Drama

1. Communication
2. Confidence
3. Collaboration

Music

1. Confidence
2. Pitch
3. Collaboration

AUT 2:

Drama

4. The Terrible fate of Humpty Dumpty
5. Basic Acting Skills

Music

4. Melody/Harmony
5. Voice/Projection

PERFORMING ARTS -DRAMA
Learning Journey

ARENA ACADEMY

A Level or Apprenticeship: Theatre Performance

A Level: Musical theatre

A Level: Drama

Apprenticeship: Theatre performance

End of Year 11 PA

Revision, Retrieval & Gap Filling

GCSE Results Day

Evaluating

Unit 3

Theatre responsibilities

Production disciplines

Unit 2

Physical Theatre

Exploring the brief

YEAR 11

Theatrical techniques

Unit 2 Mock

End of Year 10 PA

Rehearsal techniques

Evaluating

Unit 1

Intentions

Structure

Staging

Character Building

Practitioners

Styles

Genre/Styles

Rehearsal Plans

Target Audience

YEAR 10

End of Year 9 Drama Exam

Exploring stimuli

Character depth

Naturalism

Epic Theatre

Stimulus Workshops

Performance meaning

Physical Theatre

Theatre of Cruelty

YEAR 9

End of Year 8 PA Exam

Commedia Del'Arte

Roles in the industry

Physicality

Monologues

Stage Types

Status

Drama techniques (advanced)

Team Building

Atmosphere & Tension

Scornbury Manor

Staying in character

Improvisation

Characterisation

Blocking

YEAR 8

Projection/tone

Soundscapes

End of Year 7 PA Exam

Year 6 SATs

Acting skills (Basic)

Collaboration

Communication

Welcome!

Theatrical techniques (Basic)

YEAR 7

The Terrible Fate of Humpty Dumpty

Confidence

Introduction to Performing Arts

Visit Arena Academy PA Department

CORE EDUCATION TRUST

ARENA ACADEMY

ARENA ACADEMY

Subject: **PERFORMING ARTS – DRAMA** YEAR 8 MANOR Topic: SCORNBURY

1. Acting Skills – Physical

Body Language	How an actor uses their body to communicate meaning. For example, crossing your arms could mean you are fed up.
Facial Expressions	A form of non-verbal communication that expresses the way you are feeling, using your face.
Gestures	A movement of part of the body, especially a hand or the head, to express an emotion or meaning.
Posture	The position .an actor holds their body when sitting or standing. For example, an upright posture
Gait	The way an actor walks.
Stance	The way you position yourself when standing to communicate your role. An elderly person would have a different stance to a child.

2. Acting Skills – Voice

Projection	Ensuring your voice is loud and clear for the audience to hear.
Volume	How loudly or quietly you say something (Shouting/Whispering)
Tone	The way you say something in order to communicate emotions (Eg, Angry, worried, shocked)
Pace	The speed of what you say.
Pitch	How high or low your voice is.
Pause	Moments of pause can create tension or show that you are thinking.
Accent	Use of an accent tells the audience where the character is from.
Emphasis	Changing the way a word or part of a sentence is said, to emphasise it/make it stand out. Example – "How could YOU do that?" Or "How could you do THAT?"

3. Performance Techniques –

1. **Tableaux –** When you highlight something significant in a scene through acting skills.
2. **Thought-Track –** When you speak your characters thoughts/feelings out loud to an audience.
3. **Soundscape** – A series of sounds created by actors that create a setting or suggest a scene.
4. **Choral Speech –** A group of performers say lines at the same time.
5. **Flashback –** scenes that show the past - **seconds, minutes, days or years before a dramatic moment.**
6. **Flashforward – scenes where the action jumps ahead to the future of the narrative.**
7. **Proxemics –** The space between characters on stage that shows their relationship.

4. Production Disciplines –

Costume Design

Marketing

Set Design

5. Overview of Topic

You will develop an understanding of the horror genre. You will be able to explore your creativity, inventiveness and imagination using performance techniques and creating characters exploring a haunted house.

6. Key characters –

Mr/Master Scornbury
Miss Henson
Miss Green
Witch


PERFORMING ARTS - Music
Learning Journey
ARENA ACADEMY
Music Apprenticeship: in music performance and production, event management and games art.
UNIVERSITY
APPRENTICESHIP
COLLEGE
WORKPLACE
A Level: Music
BTEC Music Diploma
Rehearsal logs
GCSE results day
Presentational skills
Unit 1 and 2 retrieval and gap filling
Unit 3
YEAR 11
Unit 2 mock
Responding to a brief
End of Year 10 Assessment
Unit 2
Intention
Tonality
Evaluation
Responding to a brief
Create and refine original work
Feedback
Unit 1
Solo Performance
Stage Presence
Styles/Genres
Vocal projection
Learning Unit 1 Content
Practitioners
Performance Techniques
Target Audience
Ensemble
Rehearsal techniques
Song structure
YEAR 10
Responding to a stimulus/brief
Compositional Techniques
Planning using storyboards
Battle of the Bands
Careers in music
Independent Music Research Project
Soundtracks
Sound effects/Mickey Mousing
Ensemble performance
Remix
Practitioners
End of Year 9 Assessment
YEAR 9
Leitmotif
End of Year 8 Assessment
Riffs
Lyrics
Hooks and riffs
Composition techniques
Introduction to logic (DAW)
Film Music
Bassline
Chords
Song structure
Songwriting
DAW techniques
Musical Manipulation
YEAR 8
Audience and stage presence
Rhythm and Pulse
Polyrhythms
World Music
Identifying musical features
Listening, appraisal and music analysis
Singing and ensemble vocal work
Singing in unison and harmony
Ensemble skills
End of year 7 assessment
Reggae
Blues
Latin/Samba
Indian
Themes and Variations
Keyboard skills
Playing techniques
Melody/Harmony
Pitch
Introduction and building bricks of music
Welcome!
Year 6 SATs
YEAR 7
Sonority City (all about the orchestra)
Voice/Projection
Communication
Confidence
Baseline Assessment
Visit Arena Academy PA Department
CORE EDUCATION TRUST

Offbeat

Exploring Reggae and Syncopation

A. How did Reggae develop?

REGGAE is one of the traditional musical styles from **JAMAICA**. It developed from :

REGGAE

MENTO	SKA	ROCK STEADY
A form of Jamaican **FOLK MUSIC** like **CALYPSO** popular in the 1950's.	Fast dance music that emerged in the 1950's fusing American R&B with **MENTO** rhythms and featuring **ELECTRIC GUITARS, JAZZY HORN SECTIONS** and characteristic **OFFBEAT RHYTHMS.**	A more vocal style of dance music which used **RIFFS**, **SIMPLE HARMONIES, OFFBEAT RHYTHMS** and a strong **BASS LINE**.

Reggae was first heard in the UK in the 1950's when immigrants began to settle. During the 1960's, people began importing singles from Jamaica to sell in UK shops. Now, Reggae is known as the national music of Jamaica.

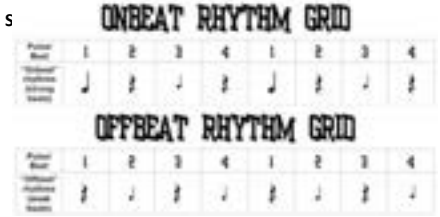
B. Where is Jamaica?

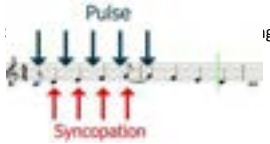
C. What are Reggae Songs About?

Reggae is closely associated with **RASTAFARIANISM** (a religious movement worshipping Haile Selassie as the Messiah and that black people are the chosen people and will eventually return to their African homeland). The **LYRICS** of Reggae songs are strongly influenced by Rastafarianism and are often political including themes such as **LOVE, BROTHERHOOD, PEACE, POVERTY, ANTI-RACISM, OPTIMISM** and **FREEDOM**.

D. Offbeat Rhythms & Syncopation

OFFBEAT RHYTHMS – Rhythms that emphasise or stress the **WEAK BEATS OF A BAR**. In music that is in 4/4 time, the first beat of the bar is the strongest, the third the next strongest and the second and fourth are weaker. Emphasising the second and fourth beats of the bar gives a "missing beat feel" to the rhythm and makes the music sound **OFFBEAT,** often emphasised by the **BASS DRUM** or a **RIM SHOT** (hitting the edge of a **S**



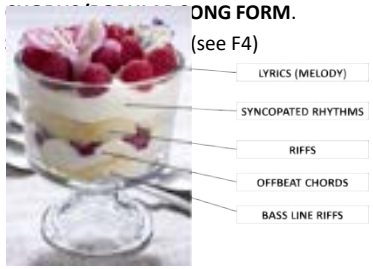


ıg a rhythm by making some notes a bit early, often so they cross over the main beat of the music giving the music a further **OFFBEAT** feel – another common feature of Reggae music.

E. Musical Features of Reggae

OFFBEAT RHYTHMS AND CHORDS (see D)
SYNCOPATED RHYTHMS AND MELODIES (see D)
SUNG LYRICS (see C)
LEAD SINGER often with **BACKING SINGERS** sometimes singing in **CALL AND RESPONSE** (see F3) accompanied by a Reggae band which often features: **BRASS INSTRUMENTS** and **SAXOPHONES, ELECTRIC GUITARS, BASS GUITAR, KEYBOARDS, DRUMS AND PERCUSSION INSTRUMENTS. VOCAL AND INSTRUMENTAL IMPROVISATIONS** (see F2)
MELODIC RIFFS (see F5)
SLOW, RELAXED ('chilled!') **TEMPO 4/4 METRE/TIME SIGNATURE**

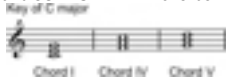
Most Reggae songs are structured in **VERSE AND ONG FORM**. (see F4)



THICK TEXTURAL LAYERS (see F9) "The Reggae Trifle" is an example of how many Reggae songs are 'layered'.

F. Reggae Key Words

1. **MELODY** – The main 'tune' of a piece of music, often sung by the **LEAD SINGER**.
2. **IMPROVISATION** – Previously unprepared performance.
3. **CALL AND RESPONSE** – Similar to a "Question and Answer" often the call sung by the lead singer and answered by the backing singers or instruments (the response) – musical dialogue.
4. **SIMPLE HARMONIES** – using a limited number of **CHORDS,** mainly **PRIMARY TRIADS** such as the **TONIC, DOMINANT** and **SUBDOMINANT** chords.



5. **RIFF** – A repeated musical pattern. Often the **BASS GUITAR** played repeated **MELODIC BASS RIFFS** in Reggae songs.
6. **BASS/BASS LINE** – The lowest pitched part of a piece of music often played by the **BASS GUITAR** in Reggae which plays an important role.
7. **CHORD** – 2 or more notes played together in **HARMONY**.
8. **RHYTHM** – A series of long and short sounds.
9. **TEXTURE** – Layers of sound combined to make music.

G. Who was Bob Marley?

BOB MARLEY was a famous reggae singe **SONGWRITER**, and musician who first became famous in his band The Wailers, and later as a **SOLO ARTIST**. He was born Nesta Robert Marley on February 6th, 1945 in Nine Mile, Saint Ann, Jamaica. Although he grew up in poverty, he surrounded himself with music and met some of the future members of The Wailers. Bob Marley became involved in the Rastafarian movement and this influenced his music style greatly. Bob Marley and The Wailers worked with several famous musicians before becoming famous on their own. His career flourished and he became a e was the first uperstar to have been in a Third- World

All That Jazz

Exploring Jazz and The Blues

African Music

European Music

Work-songs & Spirituals

Combined African **SYNCOPATIONS** and **POLYRHYTHMS** with hymn tunes from the white settlers from Europe.
Based on African **CALL AND RESPONSE** pattern with leader (**UNISON**) singing the "call" answered by a chorus (**HARMONY**) singing the "response" (answer).

The Blues

Simple, personal, and strongly felt lyrics in **A-A-B** form.
Built on a chord progression called the **TWELVE BAR BLUES** (using **CHORDS I, IV & V**) and some **SEVENTH CHORDS**.
Uses the **BLUES SCALE** for vocal and instrumental **IMPROVISATIONS**. Melodies are often **SYNCOPATED** with instrumental **BREAKS** at the end of each vocal line.
Famous Blues singers include *Bessie Smith, Sarah Vaughan, Ella Fitzgerald, Billie Holiday.*

Ragtime

Performed on a solo piano with a leaping **VAMP** accompaniment in the left hand against **SYNCOPATED** offbeat and **CHROMATIC** melodies in the right hand.
Longer pieces of ragtime often broken down into different sections for variety. *Scott Joplin* was the most famous ragtime composer whose works include: *"The Entertainer", "Maple Leaf Rag" and "Ragtime Dance".*

Dixieland/Trad/New Orleans Jazz

Small ensembles of 5-6 players on instruments such as drums, banjo, cornet, trombone, string bass, clarinet etc. Based on a traditional "song" but "played around" with by solo performers adding **IMPROVISATIONS** and **COUNTER MELODIES**
Soloists accompanied and "backed" by a "**RHYTHM SECTION**". *Famous Dixieland Jazz artists include Duke Ellington, Bix Beiderbecke, Louis Armstrong.*

Swing

Larger ensembles of 10+ with a "leader" who wrote down and arranged the music for players. Sections included rhythm (piano and drums/ bass), reeds trumpets and trombones. **CHROMATIC SCALE** often used in Swing. Uses **SOLOISTS** who **IMPROVISE** against the **ENSEMBLE** in **COLLECTIVE IMPROVISATION**. Often characterised by a **SWING** rhythm which is easy to **DANCE** to. Often based on a **WALKING BASS LINE**. *Glenn Miller is probably the most famous swing band leader (and Trombonist) and his well-known piece "In the Mood".*

Bebop

Bebop developed in 1940's as swing declined in popularity. Characterised by fast tempo, tricky chord changes and emphasis placed on **VIRTUOSIC IMPROVISATION** with improvisation contests.
Bands returned to 5 or 6 members and Bebop was listened to rather than danced to.
Famous Bebop musicians include *Charlie Parker and Dizzy Gillespie.*

Free/Modal Jazz

Slower Tempo than Swing and Bebop.
More laid-back feel and relaxed mood.
Continued the jazz tradition of a **SOLOIST(S)** backed by **RHYTHM SECTION**. **IMPROVISATION** still a key feature but more emphasis on **TIMBRE** and **SONORITY**. Based on a set of chords (often 12-bar blues or 32 bars) and based on **MODES** (a type of **SCALE**) *e.g., Dorian Mode, Lydian Mode etc.* Famous Modal Jazz artists include *Miles Davis, John Coltrane.*

A. Jazz and Blues Key Words

RIFF/OSTINATO – Short, repeated musical patterns often used in **SOLOS**.
IMPROVISATION – music created 'on the spot' (previously unprepared performance)
SEVENTH CHORD – a **TRIAD** (root, third and fifth) with a fourth note added which is seven notes about the root/tonic. **C7** = C , E, G (triad) + **B flat**.
SWING/SWUNG RHYTHM – performing a regular 'straight' rhythm with a 'lilt' in a "**ONE** and **A**, **TWO** and **A**" style (using **TRIPLETS**) common in swing music.

B. The Twelve Bar Blues

Some or all of these chords can be **SEVENTH CHORDS (7)**

CHORD I	CHORD I	CHORD I	CHORD I
CHORD IV	CHORD IV	CHORD I	CHORD I
CHORD V	CHORD IV	CHORD I	CHORD I

C. The Blues Scale

BLUES SCALE – a series of notes often used within improvisations in blues music *(the Blues Scale on C is shown to the right).*

BLUE NOTES – additional or extra sharpened or flattened notes in a melody.

Physical Education

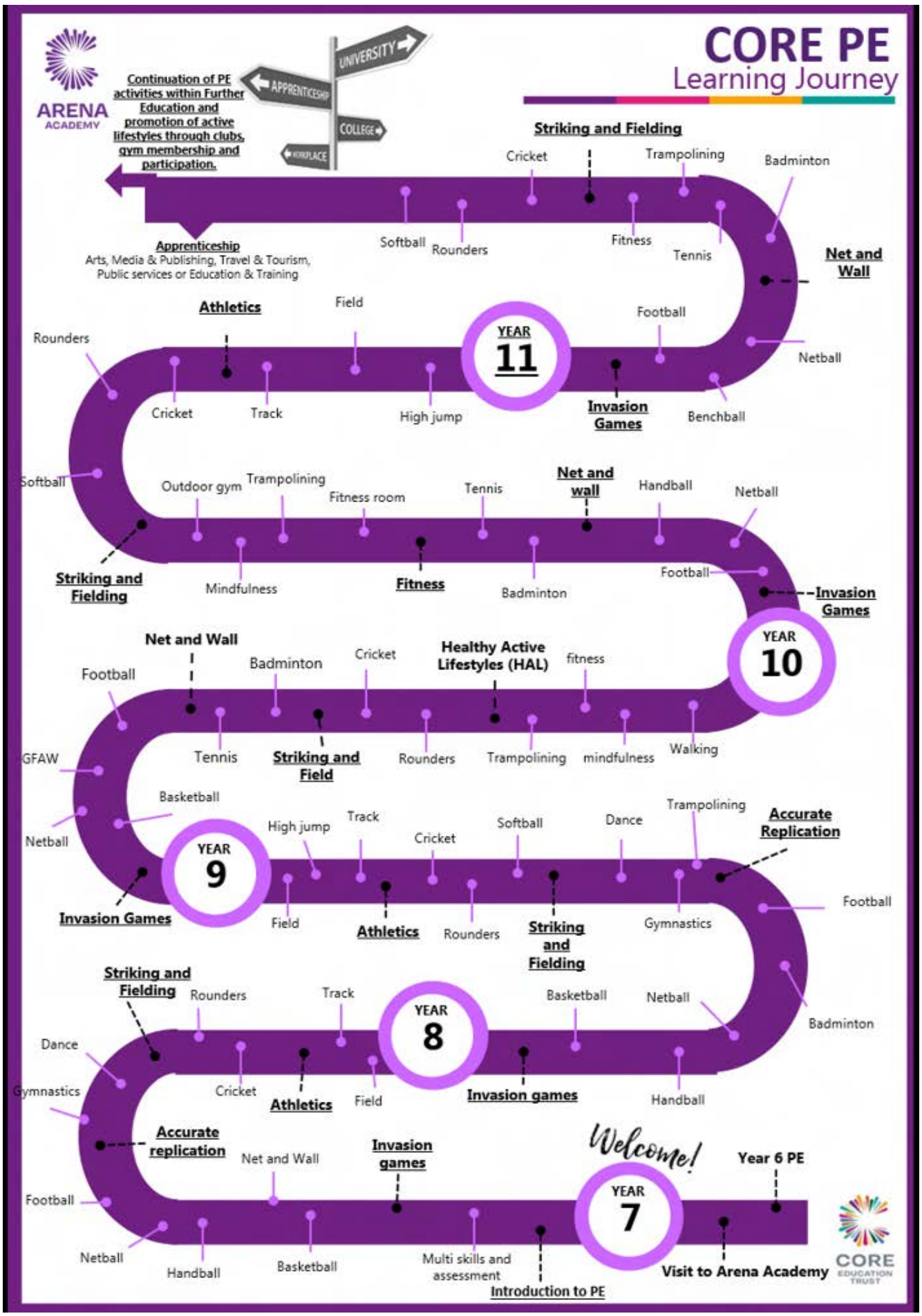
Topics covered from the beginning of the academy year to the end of this half-term.

AUT 1:

1. Multi skills and assessment
2. Invasion games
3. Basketball

AUT 2:

4. Net and Wall
5. Handball


CORE PE
Learning Journey
ARENA ACADEMY
Continuation of PE activities within Further Education and promotion of active lifestyles through clubs, gym membership and participation.
UNIVERSITY
APPRENTICESHIP
COLLEGE
WORKPLACE
Apprenticeship
Arts, Media & Publishing, Travel & Tourism, Public services or Education & Training
Striking and Fielding
Cricket
Trampolining
Badminton
Softball
Rounders
Fitness
Tennis
Net and Wall
Athletics
Field
Rounders
Football
YEAR 11
Netball
Cricket
Track
High jump
Invasion Games
Benchball
Softball
Outdoor gym
Trampolining
Fitness room
Tennis
Net and wall
Handball
Netball
Striking and Fielding
Mindfulness
Fitness
Badminton
Football
Invasion Games
Net and Wall
Football
Badminton
Cricket
Healthy Active Lifestyles (HAL)
fitness
YEAR 10
Tennis
Striking and Field
Rounders
Trampolining
mindfulness
Walking
GFAW
Basketball
Netball
High jump
Track
Cricket
Softball
Dance
Trampolining
Accurate Replication
YEAR 9
Invasion Games
Field
Athletics
Rounders
Striking and Fielding
Gymnastics
Football
Striking and Fielding
Rounders
Track
Basketball
Netball
Badminton
Dance
YEAR 8
Gymnastics
Cricket
Athletics
Field
Invasion games
Handball
Accurate replication
Net and Wall
Invasion games
Welcome!
Year 6 PE
Football
YEAR 7
Netball
Handball
Basketball
Multi skills and assessment
Visit to Arena Academy
Introduction to PE
CORE EDUCATION TRUST

PE: Basketball

Key Skills

Dribbling: Touch the ball with your fingertips, not your palm. When you dribble, you want your hands to make contact with the ball so that you have good control over the ball and you don't have to use much arm strength to keep the ball bouncing. Don't slap the ball with your palm. Handle the ball with the tips of your fingers. Spread your fingers out across the surface of the ball for a wider, more balanced contact area

Chest pass: The ball should be held close to your chest. Your fingers should be spread comfortably around it, shielding the ball. Take a step forward as you release the ball and extend your arms sharply as you push the ball towards your team-mate. As your arms straighten, finish the pass with the wrists snapping inward. Aim to keep your thumbs together and pointing downwards. Your fingers should be pointing towards your target.

Bounce pass: The trick is to fake a move which draws the defender one way, then pass the ball underneath their outstretched arms. Bend your knees and extend your arm to the side of your body to give you the space and angle to make the pass. Use your fingers to push the ball downwards to your team-mate. The ball will slow after bouncing, so aim to hit the floor about two-thirds of the way to the receiver. This reduces the risk of your opponent intercepting the ball.

Pivoting: After stopping with the ball, pivoting allows you to change direction and look for a pass or shot. Remember not to move the foot you stopped on - that's against the rules. If you stopped on both feet at the same time you can choose which foot on which to pivot. Moving off one foot means the other one is your pivot foot. To begin the pivot, lift the heel of your turning foot and transfer your weight over it. Lift your non-pivot foot up and use it to turn your body by making short little steps to steady your balance. You can move quite a lot as long as the ball of the pivot foot remains in contact with the court and does not move.

Rules

The game consists of two teams with 5 players on court for each team at one time. The aim is to score as many hoops, shooting through the hoop as you can in the time allocated.

Players cannot travel with the ball. They can move with the ball by dribbling but once they stop and hold the ball with two hands they must pass the ball. If they do not pass the ball and start dribbling again they will be pulled up for 'double dribble'.

Players cannot hold the ball for longer than 5 seconds.

If the ball goes out of play then a side line ball is taken from the opposite team.

Once the offense (attacking team) has brought the ball across the mid-court line, they cannot go back across the line during possession.

Fouls are given for hitting, holding or pushing an opponent. If a player fouls the shooter, then 1-3 free throws can be awarded (each worth 1 point).

Scoring system

3 points are awarded if the ball is successfully shot through the hoop from behind the 3 point line

2 points are awarded if the ball is successfully shot through.

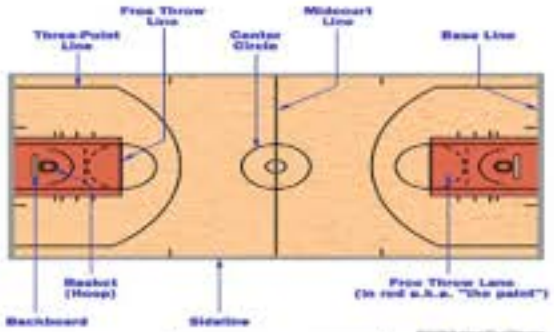
1 point If a foul is committed they have a free attempt to shoot their ball through the hoop. A player is given a point for every successful foul shot.

Positions

Glossary

Offense Defense Double dribble
Foul Travelling Triple threat
position Lay up Free throw
backboard dribble Screening Zone
Bounce pass Pivot Hoops Rebound
Assist Attack Key Guard Shooting

Pictures



PE: Badminton

Physical Education Department – Knowledge organiser – BADMINTON year 7, 8 and 9

Skills and Techniques

Forehand- A forehand shot is where the racket is away from the body, for example if you are right handed the racket will be towards the right side of your body.

Backhand- A backhand shot is where the racket is across the body and towards the opposite side to your strong hand. For example if you are right handed it will be across your body and hitting from the left side.

Serving- There are 4 types of serve: Low, High, Flick and Drive. The low is gently placed over the net to land at the front of the court. The high is opposite, a powerful serve which lands at the back of the court. The flick serve is similar to the high but lands more mid court. The drive serve is a flat, low and powerful serve which is aimed towards the back of the court.

Grip- The grip of the racket is very similar to a hand shake. To test you have the correct grip hold the racket head in your hand, then carefully slide your hand down the racket. Then, wrap your fingers around the handle. You will slightly change your grip when you play a backhand shot as your wrist will turn towards the net.

Footwork- Side stepping will be the majority of the footwork you do, it allows you to move around the court efficiently while still maintaining proper hitting form. Your legs should be square with your body and move side-to-side. Regardless of the direction you are moving, your head should always be facing the net.

Skills and Techniques

Drop shot – A drop shot is a front of court shot, similar to a net shot but from mid court. It travels a long distance but aims to drop to the floor as soon as it goes over the net. The shuttle needs to be hit with a high elbow at the highest point possible to ensure it reaches the opponents court side.

Smash shot – This is a powerful shot which most of the time will win you the point. It is a mid-court shot which moves in a downwards motion very powerfully so it is almost impossible for your opponent to return the shuttle. This is in a downwards motion and power is needed from your shoulder and arm.

Net shot – This is where the shuttle glides just over the net, almost in touching distance. This is a hard shot to return as it is very low to the floor when it goes over the net so the player must be quick to get low and return this. You must lean over the net ensuring you do not touch it and hit the shuttle gently in a downwards motion.

Clear shot – This is a long shot which aims to land in the back tram line of the court. This is helpful if your opposition tends to play close t the net as they will not have much time to get to the back of the court to return the shuttle. To ensure this is successful you must ensure your elbow is high and you make contact with the racket and shuttle at its highest point with a lot of power.

Singles court – short and wide

Doubles court – Long and narrow

Glossary

Shot **Serve** **Net** **Rally** **Smash** **Drop** **Drive**

Forehand **Backhand** **Grip** **Footwork** **Underarm**

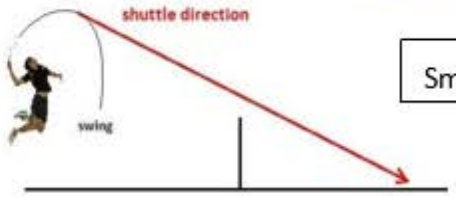
Shuttlecock **Racket** **Overarm** **Tramline** **Flick**

Singles **doubles** **High** **Low** **Short** **Long**

Pictures

Forehand

Backhand



Smash shot

PE: Handball

Skills and Techniques

Dribbling: Players may dribble the ball as in basketball but are allowed 3 steps before and after the dribble. You need to keep the ball close to your body to help protect the ball from defence, also keep your head up so you can weave in and out of the opposition without the ball being intercepted.

Overhead pass: This is a double handed throw, similar to a football throw in.

Chest pass: This is a short and powerful pass, you have your hands in a W shape and push to extend your arms, you also step forward to give more power.

Shoulder pass: This is a long and powerful shot, you start with the ball in your strong hand next to your shoulder, you extend your arm and follow through with your body.

Bounce pass: This is a pass which is low to the ground, you use the same position as a chest pass but aim in ¾ of the way between you and the person you are bouncing too.

Blocking/Marking: This is similar to marking and intercepting the ball in netball, both hands are over the ball and when the ball is released you must jump to try and gain possession. Handball is a sport where a certain amount of **contact** is permitted. To tackle properly, you contact the opponent's shooting arm at the upper arm or the shoulder to take away the opponent's shooting power. The other hand is placed on the opponent's body at hip height in order to control the opponent's movement.

Rules

Pushing, holding, tripping and hitting are violations. You cannot push a player out of the way – it is a non- contact sport. You cannot trip a player over accidently or deliberately. Free throws will be given from where ever the violation took place.

Players are not allowed to play the ball with their legs below the knee or to dive on the floor to play a ball, this will also result in a free throw.

Players are not allowed to take more than 3 steps with the ball. If a handball player takes more than three steps without dribbling (bouncing the ball) or holds the ball for more than 3 seconds without bouncing it, shooting or passing, then that is deemed 'walking' and possession is lost.

To score a goal you must throw the ball into the goal when you are outside the goal area.

Defensive players are allowed to use their body, arms and hands to obstruct an opponent. The game is quite fast and includes quite a lot of contact as the defenders try to bodily stop the attackers from approaching the goal. Only frontal contact by the defenders is allowed; when a defender stops an attacker with their arms from the side, the play is stopped and a free throw is given.

Glossary

Dribble
Overhead Pass
Chest pass
Bounce Pass
Shooting
Goalkeeper
Defence
Attack
Score
Shot
Team Work
3 step
Contact
Free throw

Pictures

5-1 defensive formation

6-0 defensive formation

Design Technology

Year 7 Food Knowledge Organiser: Principals of Nutrition

What is the Eatwell Guide?
The Eatwell Guide is a guide that shows you the different types of food and nutrients we need in our diets to stay healthy.

Why is the Eatwell Guide important?
The Eatwell Guide shows you how much (proportions) of food you need for a healthy balanced diet.

What are the consequences of a poor diet?
A poor diet can lead to diseases and can't stop us from fighting off infections.

What are the sections on the Eatwell Guide?
1. Fruit and vegetables
2. Potatoes, bread, rice, pasta and other starchy food
3. Dairy and alternatives
4. Beans, pulses, fish, egg, meat and other proteins
5. Oils and spreads

Eat 5 portions of Fruit and Vegetables a day. One portion is 80g .

Macronutrients
Needed in **large amounts** to help the body to function properly

Fat

Function:
Energy
Warmth
Protection of organs

Sources

Saturated Fat (Bad Fats)	Unsaturated Fat (Good Fats)
Meat	Avocado
Processed Foods	Nuts
Lard	Olive oil

Saturated Fats - solid at room temperature and are from animal sources. Unsaturated fats are liquid at room temperature and are vegetable sources..

Too much	Too little
• Obesity • Type 2 diabetes • Heart Disease	• Fat soluble vitamin deficiencies

Protein

Function:
Growth and Repair
Energy

Sources:

Plant	Animal
Nuts	Eggs
Quorn	Fish
Beans	Meat
Lentils	

Too much	Too little
• Turns to fat if not turned into energy	• Anaemia • Slow growth in children

Carbohydrates


Function:
Energy

Sources:
Bread
Pasta
Rice
Wheat
Potatoes
Cereals

Sugars:
Cakes
Sweets
Fizzy drinks

We should consume no more than 30g of sugar per day

Too much	Too Much
• Obesity • Type 2 diabetes • Heart Disease	• Tooth decay • Type two diabetes • Obesity

Water
Keeps us hydrated.

Source
Drinks, fruit and vegetables, soup.

Function	Too little
• Controls body temperature. • Gets rid of waste in the body.	• Dehydration leads to headaches, irritability and loss of concentration.

Fibre
Function:
It helps with digestion
It helps to get rid of waste

Source:
Wholegrain, Whole wheat, Wholemeal cereals, Peas and beans

Too Little
- Constipation
- Bowel Cancer

Heat Transfer and Cooking methods

Heat Transfer
The way in which heat energy is passed into food

Conduction - Transferring heat through a solid object into food
e.g. Frying bacon in a pan, using a pan on the hob, a metal spoon in water

Convection - Transferring heat through a liquid or air into food
e.g. Baking a cake, boiling water, cooking in an oven

Radiation - Transferring heat by infra-red waves that heat up what they come into contact with
e.g. grilling sausages or bacon, making toast

Cooking methods		
Dry Heat	**Moist Heat**	**Frying**
Baking	Steaming	Deep fat frying
Grilling	Boiling	Shallow frying
Roasting	Poaching	Stir frying
Barbequing	Stewing	Sautéing
Basting	Simmering	

Useful web links:
http://www.foodafactoflife.org.uk

Micronutrients
Needed in **small amounts** to help the body to function properly

Watch the video to learn more
https://www.youtube.com/watch?v=l5ZLTJHSIYg

Mineral	Sources	Function
Iron	Red meat, spinach, beans and lentils	Helps our red blood cells carry oxygen so that we are not anaemic.
Calcium	Milk, cheese and some cereals	Help us to have strong bones and teeth.
Sodium	Processed foods	Controls the body's water content and helps our nerves

Vitamin	Sources	Function
Vitamin A (fat soluble)	Fish, eggs, oranges	Helps us to see well
Vitamin D (fat soluble)	Eggs, the sun	Helps our bones to grow
Vitamin C (Water soluble)	Oranges, tomatoes, vegetables	Helps to heal cuts, helps the immune system.
B Vitamins (Water soluble)	Cereals, meat, fish	Helps to keep us healthy

Why Food is cooked
Different cooking methods change our food in different ways
Appearance, Texture, Flavour, Smell and Nutritional value

To improve shelf life
To improve appearance
To make safe to eat
To develop flavour
To improve texture
To give variety in diet

Year 7 Food Knowledge Organiser: Food and kitchen hygiene

Bacteria

A micro organism that multiply in certain conditions.

Where can bacteria be found?
Everywhere!

Are all bacteria bad?
No- some are good and essential for normal bodily function.

How can you reduce the risk of bacteria?
- Storing food separately
- Storing and cooking foods at the correct temperatures

The 4 C's

Cleaning – wash your hands properly

Cooking – make sure you cook food properly or you could make someone very ill

Chilling – keep it chilly silly

Cross contamination – keep raw meat and cooked food apart

Key Terms	
Hygiene	Keeping the workplace and food workers clean which ensures food is safe to eat
Hygiene procedure	The steps you would go through to ensure that a product is produced in a safe and hygienic way
Contamination	Presence in food of harmful substances or bacteria. To spoil or dirty something
Physical contamination	The presence of a foreign body in a food product for example a plaster that has fallen off the food workers hand
Chemical contamination	The presence of unwanted or unsafe chemicals in food
Biological contamination	The presence of harmful microorganisms in food
Danger zone	A temperature of between 5°C and 63°C when bacteria will grow most rapidly
Cross contamination	Safe food being contaminated by unsafe food.
Food poisoning	Chilled foods should be stored at between 1°C and 5°C to slow the growth of bacteria Illness caused by food being contaminated by microorganisms. Food poisoning occurs if harmful microorganisms contaminate food and are then allowed to grow.
Symptoms	The physical signs that are shown when someone is unwell

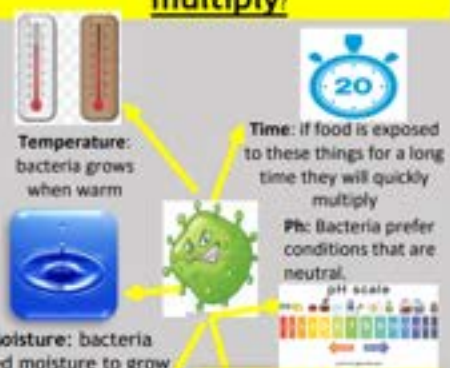
Storing Food

Temperature is really important to keep food safe. The following temperatures should be used:

Refrigeration	Fridges should run at **4°C** or below.
Freezing	Freezing of food at **-18°C** or below will stop bacteria multiplying.
Cooking	Temperatures of **75 °C** or above kills almost all types of bacteria.
Danger Zone	The temperature range where bacteria is most likely to reproduce: **5°C-63°C**

High risk foods - ready-to-eat food that will support the growth of pathogenic bacteria easily and does not require any further heat treatment or cooking". Such foods are usually high in protein and moisture require strict temperature control and protection from contamination and include: cooked meats , cooked shellfish.

What do bacteria need to multiply?



Temperature: bacteria grows when warm

Time: if food is exposed to these things for a long time they will quickly multiply

Ph: Bacteria prefer conditions that are neutral.

Moisture: bacteria need moisture to grow

Food: provides the energy for bacteria to grow, multiply and produce toxins

Aerobic vs Anaerobic Bacteria

Aerobic	Anaerobic
Must have oxygen to survive	Cannot live in the presence of oxygen

Common Food poisoning Pathogens

Pathogen	Sources	Symptoms
E coli	Raw meat, untreated milk and water.	Vomiting, blood in diarrhoea, kidney damage or failure
Listeria	Soft cheese, pate, unpasteurised milk, under cooked meat	Mild flu, meningitis and pneumonia
Campylobacter	Meat (chicken) shellfish, untreated water.	Diarrhoea, headache, fever, abdominal pain.
Salmonella	Raw meat , eggs, seafood, dairy products	Diarrhoea, vomiting and fever.
Bacillus cereus	Cooked rice, pasta, and cereal foods	Nausea, vomiting, diarrhoea
Staphylococcus Aureus	Anything touched by hand, Dairy product	Nausea, vomiting, diarrhoea

Watch video to confirm knowledge
https://www.youtube.com/watch?v=flxmB8NKMzE

Storage

To prevent cross contamination (the spreading of bacteria), foods must be stored separately. Follow the rules of food storage within a fridge:

Most bacteria grow rapidly at body temperature (37°C), but can grow between 5°C and 63°C. This is known as the danger zone. The more time food spends in the danger zone the greater the risks of harmful bacteria growing. Therefore it is vitally important that we try to keep food out of the danger zone during the production processes.

ARENA ACADEMY

Personal Development

1	**Why do you need to Know British Values?** Understanding British values is an important way to enable you to embrace the key values that you need to be equipped for life in modern British society. There are 5 fundamental British Values. **Through understanding the British values of Democracy, the Rule of Law, Individual Liberty, Mutual Respect, and Acceptance for those with different faiths and beliefs**, you will develop self-knowledge, be better able to make the right choices and make contributions to the school and the wider community.		
Democracy			
2	**Democracy**	8	Examples of Political Parties: Liberal Democrats, Labour, Green Party, Conservatives
3	In the United Kingdom we vote (age 18 +) for the people we want to run our councils and Government.		
4	We vote for Members of Parliament (MP's). Elections take place at least once every 5 years.		
5	In our democracy there are political parties. At the time of writing the political party who has the majority of MP's in Parliament is the Conservative Party. Labour are currently the opposition Party.	9	When elections take place for Members of Parliament, the public go to vote. Traditionally this happens on a Thursday, and people vote in a secret ballot. People only know who you vote for if you decide to tell them – it is rude to ask!
6	The Leader of the Conservatives and our current Prime Minister is Theresa May. The Leader of the Opposition is Jeremy Corbyn.	10	Where can I see British Values at School? Democracy – School Council / Form Representatives / Student Executive. We hold mock elections and in PSHE you will learn more about politics. We participate in the MAT debating competition, held in the council chamber at the Town Hall.
7	MP's debate in the Palace of Westminster, in the House of Commons. On the opposite side of the Building is the House of Lords. The House of Lords (unelected members) ratify law and policies put forward by parliament.		
The rule of law			
11	In the UK, we have laws which determine what is legal and illegal. You are expected to know the difference between right and wrong.	14	There are consequences for making the wrong choice or taking illegal actions. We all take responsibility for our actions.
12	The rule of law is a principle that individuals and institutions are subject and accountable to, which is fairly applied and enforced.	15	Where can I see British Values at School? Rule of Law – Our Behaviour Systems and Behaviour Policy. We have agreed rules and expectations so that our school is a safe and happy place where all differences are reconciled peacefully. We have a PCSO that comes into school to educate you in the law.
13	Those who commit crimes will ultimately be brought to justice through the legal system including Police officers, courts and lawyers. The rule of law acts as a deterrent, to deter people from criminal acts.		
Individual liberty			
16	In the UK you are free to have an opinion (unless it is extremist) and believe in what you want without discrimination.	18	Where can I see British Values at School? Mutual Respect – Our academy ethos, antibullying and assemblies. Boundaries are used to ensure you are safe.
17	You have the freedom to make choices and decisions without being judged.		
Mutual **respect** for and **tolerance** of those with different faiths and beliefs and for those without faith.			
19	Mutual Respect and Tolerance are the proper regard for an individuals' dignity, which is reciprocated, and a fair, respectful and polite attitude is shown to those who may be different to ourselves.	21	We should all actively challenge students, staff or parents expressing opinions contrary to the values we hold in society and as a school and those that underpin the fabric of a democratic Britain. This is crucial to us to protect one another and to tackle 'extremist' views and prevent people from being radicalised.
20	Differences in terms of faith, ethnicity, gender, sexuality, age, young carers and disability, are differences that should be respected, tolerated and celebrated.	22	Where can I see British Values at School? Acceptance of Faith – RE Lessons and Assemblies. We give you messages of tolerance and respect for others no matter what their ethnicity, beliefs, sexuality, gender or disability.

Democracy	Rule of Law	Individual Liberty	Mutual Respect	Tolerance