



**The Abbey  
School**

# **Knowledge Organiser**

## **Year 7 Term 4**

2023 - 2024

# CONTENTS

- English **P.3-4**
- Literacy **P.5-6**
- Maths **P.7-10**
- Science **P.11-13**
- History **P.14-16**
- Geography **P.17-18**
- Art **P.19-20**
- P.E **P.21-28**
- R.E **P.29**
- Drama **P.30-31**
- Music **P.32-33**
- MFL **P.34-37**
- Food Preparation **P.38-42**

# English

## Prose and Poetry: 'Skellig' and William Blake



### BIG QUESTIONS

- What choices does the writer make with language?
- What makes effective mood and atmosphere?
- What poetic devices are in a poem?
- What is symbolism?
- What is the effect of rhyme?
- What are the key themes?
- What effect does pathetic fallacy have?
- What does it mean to empathise with a character?
- What is a sonnet?

### Context: William Blake

William Blake's poetry focuses on ideas of innocence and experience. There are strong images of nature and a connection with the spiritual world as well as a rejection of traditional schooling. Blake saw traditional schooling as a restriction of creativity.

Blake was born November 28<sup>th</sup>, 1757 in London. He was an English engraver, artist, poet and visionary, many of his works combining these elements as he etched, printed, coloured and stitched these pieces. In the early 21<sup>st</sup> century, Blake was regarded as the earliest and most original of the Romantic poets, but in his lifetime many considered him insane and disregarded his works completely.

Mina, in 'Skellig' is a great fan of William Blake and makes many references to his poetry, both for its nature and rejection of traditional schooling.

William Blake's poetry strongly focuses on an appreciation of nature. Nature is seen as a healing force that brings clarity to the mind.



### Plot

**Chapters 19 - 21:** Michael finds Mina, who is modelling clay. Michael takes her to see the creature. She wants the creature to let them help him. Michael and Mina make a plan to hoot to each other at dawn to carry out the plan.

**Chapters 22 - 27:** Michael and Mina move the creature, who is as 'weak as a baby', to a boarded-up house: her grandfather's (who died). They find growths on his shoulder blades. He says his name is Skellig. When they return to visit, Skellig has moved. He asks for rest so he can 'go home.' The baby's condition deteriorates. Leakey and Coot tease Michael about Mina.

**Chapters 28 - 32:** Coot kicks the ball at the garage - Michael's dad has to write a sign stating: **DANGER**. Michael and Mina have an argument about Leakey and Coot - but soon make up. They visit Skellig, who looks stronger.

**Chapters 33 - 35:** Michael returns to school. His dad calls and tells him to go to Mina's after school as he has to go to the hospital. Mina has seen Skellig alone, who has told her he will leave soon. Michael's sister needs an operation.

**Chapters 36 - 39:** Michael and Mina discuss what Skellig eats, and that he makes pellets like an owl. Michael's dad tells him to 'keep believing.' Mina and Michael go to visit Skellig but he is not there. Michael faints. When he comes around, he says that he can no longer "feel" the baby's heartbeat.

**Chapters 40 - 43:** The baby has the operation. She survives. Mum tells Michael of a dream she had of a strange man who helped the baby. Michael and Mina take him 27 and 53. Michael says that Skellig made his sister strong - Skellig says the baby gave him strength. Michael and Mina know he will now leave.

**Chapters 44 - 46:** The baby gets stronger. Skellig is gone. They see 'Thank you. S' carved on the wood with 3 white feathers. Michael and his parents get to work on the house - the baby then returns home and she is finally given a name.



# Literacy Checklist

**Capital letters:** Used to mark the start of a sentence or for proper nouns (the names of people, places, days of the week, months of the year, titles of books and films and so on), for example, Searching the darkness above, Mina saw the owls.

**Full stop:** Marks the end of a complete sentence or a statement, for example, Michael loves football.

**Comma:** Separates units of meaning in a sentence, in lists or between clauses, or example, When Michael saw Skellig, he was amazed.

**Apostrophe:** Indicates possession or omission, for example, That's Mina's cat or I'm visiting the owls.

**Question mark:** Used at the end of a direct question, for example, What is Skellig?

**Exclamation mark:** Indicates surprise, emphasis, strong emotions and sometimes disbelief, for example, The garage is too dangerous!

**Semi-colon:** Separates two main clauses that are closely related to each other but could stand on their own as sentences, for example, Mina likes poetry; William Blake is her favourite poet.

**Colon:** Comes after a complete sentence to introduce a list, quote or definition, for example, You should bring Skellig: aspirin, food and something to drink.

## Key Quotations

- "I stayed dead silent and concentrated on keeping the baby safe"
- "felt the feathers and delicate bones rising from my own shoulders, and I was lifted from the floor with Skellig"
- "Sometimes we think we should be able to know everything. But we can't."
- "Skellig eats living things and makes pellets like the owls"
- "You made her strong..."it was her that gave strength to me."
- "Thank you. S. carved on the wood and three white feathers"

## Key Vocabulary

**Emotive language:** Language which evokes feeling from the reader.

**Enjambment:** When one line of a poem runs onto the next without any punctuation.

**Juxtaposition:** Contrast

**Repetition:** When a word or phrase is given more than once.

**Rhyme:** The repetition of the same or similar sounds.

**Rhythm:** The rhythm and pace of a poem.

**Semantic Field:** A group of words which link to a topic.

**Stanza:** A group of lines in a poem.

**Structure:** The organisation and layout of a text.

**Syntax:** The arrangement of words and phrases.



## Themes: central ideas in a text.

- Life and death
- Faith
- Change
- Nurturing and care
- Coming of age



## Sentence Structures

- Independent Clause:** A clause that can stand alone as a sentence. E.g. The cat sat on the mat.  
Contains a subject and a verb.
- Subordinate Clause:** A clause that depends on an independent clause to make sense. E.g. Without turning around, the cat sat on the mat.
- Simple Sentence:** Contains just one clause (subject + verb) E.g. Tom went to the shops.
- Compound Sentence:** Independent Clause + Conjunction (FANBOYS) + Independent Clause (For, And, Nor, But, Yet, So) E.g. Tom went to the shops and he bought some bread.
- Complex Sentence:** Contains one main clause and one or more subordinate clause/s. E.g. Although it looked difficult, they still pushed on with the challenge.
- Exclamatory:** A sentence that shows great emotions. E.g. I am appalled by your behaviour!
- Imperative:** A sentence that gives commands. E.g. Get out!
- Interrogative:** A sentence that asks a question (not rhetorical questions). E.g. How much is that?
- Declarative:** A sentence that makes a declaration. E.g. She sells sea-shells.

## Sentence Openers

**A dverbs** Quickly, Carefully, Describe how something is being done. Bravely, Quietly, Slowly, Suddenly, Happily,

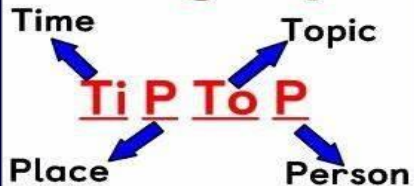
**C onnectives** Instead, Unless, Show a consequence or a sense of time. Soon, Before, Eventually, While, However,

**A djectives** Happy and cheerful, Sweet and kind, Pair two describing words together with 'and' or 'but'. Scared but excited, Tired and weary,

**R elative Pronouns** Words that relate to a noun. Which, That (animals and things), Who (people)



## Paragraphs



**Ti**...you move to a new period of time

**P** ... you move to a different place/location

**To** ... you move from one topic to another

**P** ... you bring a new person into your writing, or change from one person to another - including dialogue (speech)

## Homophones: words that sound the same but have different meanings

- Their** - means it belongs to them. E.g. I ate their sweets.
- They're** - short for they are. E.g. They are going to be cross.
- There** - refers to a place. E.g. I'm going to hide over there.
- Your** - refers to something that belongs to you. E.g. Your bag.
- You're** - contraction of 'you are.' E.g. You're going to win.

**P repositions** Inside, Next to, Above, Hidden in, Tells us where something is. Behind, Under, Past.

**I ng Words** Eating, Crying, Thinking, Laughing, Shouting, Says what the character is doing. Smiling,

**E d Words** Worried, Defeated, Describes how a character is feeling. Scared, Flabbergasted, Shocked,



## Punctuation

- **Full stops:** remember to use a full stop at the end of every sentence.
- **Capital Letters :** make sure every name of something has a capital letter. *E.g. California has a capital letter. Also, make sure every new sentence starts with a capital letter.*
- **Apostrophes:** you can use apostrophes to connect certain words together. *E.g. It is = It's OR to express belonging or property = John's phone*
- **Exclamation marks:** used to end a sentence to show a strong feeling of emotion like surprise, anger, or shock. *E.g. I'm so frightened!*
- **Ellipses:** used to show an omission of words, a pause in thought or to create suspense. *E.g. Suddenly, there it was ... his worst nightmare.*
- **Colons:** used to precede lists or explanations. *E.g. I went to the store and bought a lot of fruit: peaches, apples, oranges and pears. Sarah wrote a story: The Hungry Fish.*
- **Semi Colons:** used to join two related independent clauses. *E.g. We made too many mistakes; we lost the game. Also, use a semi-colon instead of a comma, usually in a list. E.g. You will need many backpacking items: a sleeping bag; torch ; tent ; and pillow.*
- **Hyphens:** you can use hyphens for a number of reasons.
  - To separate sentences with added information e.g. *I enjoy English – as well as Maths.*
  - To indicate periods of time. *E.g. 2000-2006.*
  - To form hyphenated words. *E.g. self-respect.*
  - To create emphasis. *E.g. Mum loves seafood – she absolutely adores seafood.*
- **Brackets:** use brackets to indicate added information. The sentence should still make sense when removed. *E.g. I did my homework, (it took me twenty minutes) and brought it in early.*

## The 7 Main Commas Rules

- 1.) Use a comma before a conjunction, (and, but, nor, yet, or, so), to connect two independent clauses.  
*E.g. I had an English test last night, so I revised.*
- 2.) Use a comma to set off an opening phrase.  
*E.g. As such, I feel there is much I can learn.*
- 3.) Use a comma when using quotes to separate the quote from the rest of the sentence.  
*E.g. Like Bob Johnson said, "It's a great day for hockey".*
- 4.) Use a comma to separate adjectives in a descriptive list.  
*E.g. The pizza was hot, delicious and freshly cooked.*
- 5.) Use a comma to separate three or more things in a series.  
*E.g. Of Charles Dickens' novels, I have read "A Christmas Carol", "Oliver Twist", and "Great Expectations".*
- 6.) Use a comma with phrases that present a contrast.  
*E.g. Learning about Hemingway can be highly advantageous for students, not only in their secondary school studies, but also in their future careers.*
- 7.) Use a comma to set off a parenthetical element (added information that can be taken out without changing the meaning of the sentence).  
*E.g. Now, many years after their time, we as a country are faced at the starting ground where these men once were.*



**Subject: Mathematics**  
**Topic: Recall Knowledge**

**Year: 7 and 8**  
**Term: 1-6**

**Look**

Read the specific part of the Knowledge Organiser (KO) that you need to learn.

**Cover**

Cover the KO.

**Write**

Write out everything you can remember from the specific part of the KO in your book.

**Check**

Check that you have all the content needed and it is correct. For any content that is missing or incorrect, use a different colour pen to add in the correct knowledge.

**Repeat**

|           |                                                                                                                              |           |                                                                                                                               |           |                                                                                                                                |           |                                                                                                                                 |           |                                                                                                                                 |           |                                                                                                                                 |           |                                                                                                                                 |           |                                                                                                                                  |            |                                                                                                                                                  |            |                                                                                                                                                  |            |                                                                                                                                                   |
|-----------|------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2x</b> | 2x0=0<br>2x1=2<br>2x2=4<br>2x3=6<br>2x4=8<br>2x5=10<br>2x6=12<br>2x7=14<br>2x8=16<br>2x9=18<br>2x10=20<br>2x11=22<br>2x12=24 | <b>3x</b> | 3x0=0<br>3x1=3<br>3x2=6<br>3x3=9<br>3x4=12<br>3x5=15<br>3x6=18<br>3x7=21<br>3x8=24<br>3x9=27<br>3x10=30<br>3x11=33<br>3x12=36 | <b>4x</b> | 4x0=0<br>4x1=4<br>4x2=8<br>4x3=12<br>4x4=16<br>4x5=20<br>4x6=24<br>4x7=28<br>4x8=32<br>4x9=36<br>4x10=40<br>4x11=44<br>4x12=48 | <b>5x</b> | 5x0=0<br>5x1=5<br>5x2=10<br>5x3=15<br>5x4=20<br>5x5=25<br>5x6=30<br>5x7=35<br>5x8=40<br>5x9=45<br>5x10=50<br>5x11=55<br>5x12=60 | <b>6x</b> | 6x0=0<br>6x1=6<br>6x2=12<br>6x3=18<br>6x4=24<br>6x5=30<br>6x6=36<br>6x7=42<br>6x8=48<br>6x9=54<br>6x10=60<br>6x11=66<br>6x12=72 | <b>7x</b> | 7x0=0<br>7x1=7<br>7x2=14<br>7x3=21<br>7x4=28<br>7x5=35<br>7x6=42<br>7x7=49<br>7x8=56<br>7x9=63<br>7x10=70<br>7x11=77<br>7x12=84 | <b>8x</b> | 8x0=0<br>8x1=8<br>8x2=16<br>8x3=24<br>8x4=32<br>8x5=40<br>8x6=48<br>8x7=56<br>8x8=64<br>8x9=72<br>8x10=80<br>8x11=88<br>8x12=96 | <b>9x</b> | 9x0=0<br>9x1=9<br>9x2=18<br>9x3=27<br>9x4=36<br>9x5=45<br>9x6=54<br>9x7=63<br>9x8=72<br>9x9=81<br>9x10=90<br>9x11=99<br>9x12=108 | <b>10x</b> | 10x0=0<br>10x1=10<br>10x2=20<br>10x3=30<br>10x4=40<br>10x5=50<br>10x6=60<br>10x7=70<br>10x8=80<br>10x9=90<br>10x10=100<br>10x11=110<br>10x12=120 | <b>11x</b> | 11x0=0<br>11x1=11<br>11x2=22<br>11x3=33<br>11x4=44<br>11x5=55<br>11x6=66<br>11x7=77<br>11x8=88<br>11x9=99<br>11x10=110<br>11x11=121<br>11x12=132 | <b>12x</b> | 12x0=0<br>12x1=12<br>12x2=24<br>12x3=36<br>12x4=48<br>12x5=60<br>12x6=72<br>12x7=84<br>12x8=96<br>12x9=108<br>12x10=120<br>12x11=132<br>12x12=144 |
|-----------|------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------|

**Formulae to learn**

|                         |   |                                   |
|-------------------------|---|-----------------------------------|
| Area of a rectangle     | = | Base x perpendicular height       |
| Area of a triangle      | = | (Base x perpendicular height) ÷ 2 |
| Area of a parallelogram | = | Base x perpendicular height       |
| Area of a trapezium     | = | $h(a + b) \div 2$                 |
| Area of a circle        | = | $\pi r^2$                         |
| Speed                   | = | Distance ÷ time                   |
| Prism volume            | = | Area of cross section x length    |

| Literacy In Maths    | Command Words                                                  |
|----------------------|----------------------------------------------------------------|
| <b>Evaluate ...</b>  | Work out and write your answer                                 |
| <b>Work out ...</b>  | Working out is required                                        |
| <b>Calculate ...</b> | Working out is required. A calculator may be needed.           |
| <b>Solve ...</b>     | Work out the values                                            |
| <b>Prove ...</b>     | All working must be shown in steps to link reasons and values. |
| <b>Expand...</b>     | Multiply out of the brackets                                   |
| <b>Draw...</b>       | Draw accurately with a pencil and equipment.                   |
| <b>Explain ...</b>   | Use words to give reasons                                      |
| <b>Factorise</b>     | The reverse process of expanding brackets. Remove the HCF.     |
| <b>Estimate</b>      | Work out an approximate answer using rounded values.           |

**Top 10 Key Words**

| Integer     | A whole number                                                                         | Examples                                      |
|-------------|----------------------------------------------------------------------------------------|-----------------------------------------------|
| Factor      | A number that divides into another number exactly, without leaving a remainder         | Factors of 20: 1 & 20, 2 & 10, 4 & 5          |
| Multiple    | The result of multiplying whole numbers. Multiples belong in the number's times table. | Multiples of 5 are 5, 10, 15, 20, 25, ...     |
| Product     | The result you get when you multiply                                                   | The product of 3 and 4 is 12                  |
| Percentage  | Number of parts per 100                                                                | 35% is 35 out of every 100.                   |
| Fraction    | Part of a whole number. A fraction represents a division.                              | $\frac{1}{2}$ , $\frac{3}{4}$ , $\frac{7}{8}$ |
| Numerator   | The top number in a fraction                                                           |                                               |
| Denominator | The bottom number in a fraction                                                        |                                               |
| Negative    | A quantity below zero                                                                  | -4, -1.5, -34                                 |
| Estimate    | Work out an approximate answer                                                         |                                               |

**Number Groups**

|                  |                                 |                                                                        |
|------------------|---------------------------------|------------------------------------------------------------------------|
| Prime numbers    | 2, 3, 5, 7, 11, 13, 17 ...      | Prime numbers have exactly two factors, themselves and 1.              |
| Square numbers   | 1, 4, 9, 16, 25, 36, 49 ...     | Square numbers are the product of two identical numbers.               |
| Cube numbers     | 1, 8, 27, 64, 125, 216, 343 ... | Cube numbers are the product of three identical numbers.               |
| Odd numbers      | 1, 3, 5, 7, 9, 11, 13, 15, ...  | Odd numbers are whole numbers that cannot be divided exactly into two. |
| Even numbers     | 2, 4, 6, 8, 10, 12, 14 ...      | Even numbers are whole numbers that can be divided exactly into two.   |
| Triangle numbers | 1, 3, 6, 10, 15, 21, 28 ...     | Triangle numbers can be represented as a triangle of dots.             |

## BIG QUESTIONS

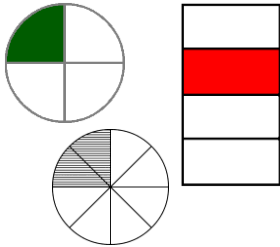
What is a fraction and how are they used?

What is a percentage and how can we compare them to fractions and decimals?

What is probability and how does it involve Maths?

## Fractions

$$\frac{1}{4} = \frac{2}{8} = \frac{3}{12} = \frac{4}{16}$$



$$= 0.25$$

## Key Words

**Fraction:** A fraction is made up of a numerator (top) and a denominator (bottom).

**Equivalence:** Two fractions are equivalent if one is a multiple of the other.

**Simplify:** Cancel a fraction down to give the smallest numbers possible.

Simplify  $\frac{3}{24}$

$$\frac{3}{24} \xrightarrow{\div 3} \frac{1}{8}$$

Write 0.34 as a fraction

|   |   |                |                 |                  |
|---|---|----------------|-----------------|------------------|
| 1 | • | $\frac{1}{10}$ | $\frac{1}{100}$ | $\frac{1}{1000}$ |
| 0 | • | 3              | 4               |                  |

$$= \frac{34}{100} = \frac{17}{50}$$

Write  $\frac{6}{7}$  as a decimal

$$\frac{6}{7} \rightarrow 7 \overline{) 6.00000} \begin{array}{r} 0.85714 \\ 6 \phantom{0} 4 \phantom{0} 5 \phantom{0} 1 \phantom{0} 3 \end{array}$$

What is  $\frac{3}{5}$  of 45

$$45 \div 5 \times 3 = 27$$

## Sparx Maths

M158, M410,  
M958, M264,  
M695, M684  
M601, M931  
M527, M553



$$\frac{3}{5} + \frac{2}{7}$$

Make the denominators the same

$$\frac{3}{5} + \frac{2}{7} \xrightarrow{\begin{array}{l} \times 7 \\ \times 5 \end{array}} \frac{21}{35} + \frac{10}{35} = \frac{31}{35}$$



$$\frac{3}{5} - \frac{2}{7}$$

$$\frac{3}{5} - \frac{2}{7} \xrightarrow{\begin{array}{l} \times 7 \\ \times 5 \end{array}} \frac{21}{35} - \frac{10}{35} = \frac{11}{35}$$



$$\frac{3}{5} \times \frac{2}{7}$$

Just multiply the tops and bottoms

$$= \frac{3 \times 2}{5 \times 7} = \frac{6}{35}$$



$$\frac{3}{5} \div \frac{2}{7}$$

Flip the second fraction and change to a times

$$\frac{3}{5} \times \frac{7}{2} = \frac{21}{10}$$

## Key Concept

### FDP Equivalence

| F               | D    | P   |
|-----------------|------|-----|
| $\frac{1}{100}$ | 0.01 | 1%  |
| $\frac{1}{10}$  | 0.1  | 10% |
| $\frac{1}{5}$   | 0.2  | 20% |
| $\frac{1}{4}$   | 0.25 | 25% |
| $\frac{1}{2}$   | 0.5  | 50% |
| $\frac{3}{4}$   | 0.75 | 75% |

### Percentages

|          |               |
|----------|---------------|
| Find 15% | $\times 0.15$ |
| Find 3%  | $\times 0.03$ |
| Find 99% | $\times 0.99$ |

## Key Words

**Integer:** Whole number.

**Ascending Order:**

Place in order, smallest to largest.

**Descending Order:**

Place in order, largest to smallest.

**Inequality:**

Statement that contains  $<$ ,  $>$ ,  $\leq$ ,  $\geq$ , to show which quantity is greatest/smallest.

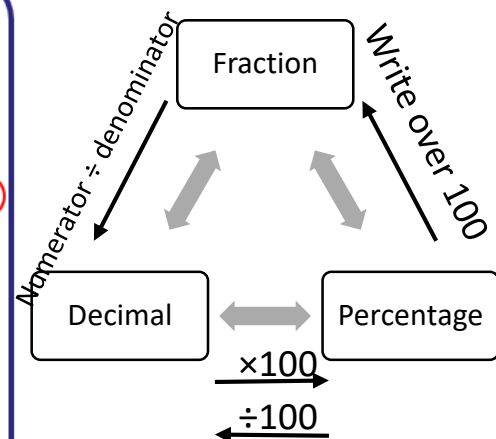
**Percentage:** Is a proportion that shows a number as parts per hundred.

**Fraction:** A fraction is made up of a numerator (top) and a denominator (bottom).

**Multiplier:** A quantity by which a given number is to be multiplied.

- Convert all numbers to the same form, either fractions, decimals or percentages.
- If using a calculator convert them all to decimals.

|                                                           |                   |                   |                   |                   |                   |
|-----------------------------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| To order these fractions, make the denominators the same. | $\frac{3}{4}$     | $\frac{3}{8}$     | $\frac{1}{2}$     | $\frac{7}{8}$     | $\frac{1}{4}$     |
|                                                           | $\downarrow$      | $\downarrow$      | $\downarrow$      | $\downarrow$      | $\downarrow$      |
|                                                           | $\frac{6}{8}$ (4) | $\frac{3}{8}$ (2) | $\frac{4}{8}$ (3) | $\frac{7}{8}$ (5) | $\frac{2}{8}$ (1) |
| To order these, convert them all to decimals.             | $\frac{1}{4}$     | $\frac{3}{8}$     | $\frac{1}{2}$     | $\frac{3}{4}$     | $\frac{7}{8}$     |
|                                                           | $\downarrow$      | $\downarrow$      | $\downarrow$      | $\downarrow$      | $\downarrow$      |
|                                                           | 0.25              | 0.375             | 0.5               | 0.75              | 0.875             |



A **fraction** is a numerical quantity that is not a whole number.

A **decimal** is a number written using a system of counting based on the number 10.

Thousands  
Hundreds  
Tens  
Ones  
.  
Tenths  
Hundredths  
Thousandths

8 7 6 5 . 4 3 2

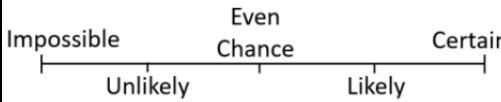
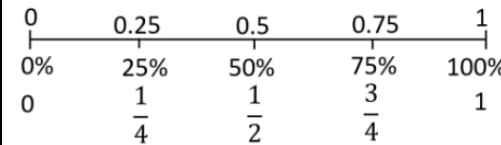
A **percentage** is an amount out of 100.

## Methods of Calculation

$$\frac{3}{4} \text{ of } 32 = 32 \div 4 \times 3 = 24$$

$$\begin{array}{l} 10\% = 24 \\ 16\% \text{ of } 240 \quad 5\% = 12 \\ 1\% = 2.4 \end{array} \left. \begin{array}{l} \\ \\ \end{array} \right\} = 24 + 12 + 2.4 = 38.4$$

$$\text{Find } 32\% \text{ of } 54.60 = 0.32 \times 54.60 = 17.472$$

| Probability scale                                                                                                                                                                                                              |                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Describe</b><br>                                                                                                                            | Probabilities can be written as:<br>- Fractions<br>- Decimals<br>- Percentages                                                                                            |
| <b>Calculate</b><br>                                                                                                                           | You only use words to answer probability questions when asked to <b>describe</b> probabilities. If you are required to <b>calculate</b> probabilities, you use fractions. |
| Definitions                                                                                                                                                                                                                    |                                                                                                                                                                           |
| <b>Probability:</b><br>The chance of something happening as a numerical value.                                                                                                                                                 | <b>Impossible:</b><br>The outcome cannot happen                                                                                                                           |
| <b>Certain:</b><br>The outcome will definitely happen                                                                                                                                                                          | <b>Outcomes:</b><br>Outcomes are all the possible results of an event                                                                                                     |
| <b>Successful outcomes:</b><br><b>Successful outcomes</b> are the outcomes you want                                                                                                                                            | <b>Bias:</b><br>In probability, biased means that the possible outcomes are not equal in probability                                                                      |
| <b>Even chance:</b><br><b>Even chance</b> means that something is as likely to happen as not                                                                                                                                   | <b>Expectations:</b><br>The amount of times you expect an outcome to happen based on probability.                                                                         |
| <b>Experimental probability:</b><br>The <b>experimental probability</b> of an event is an estimate of the theoretical <b>probability</b> , based on performing a number of repeated independent trials of an <b>experiment</b> | <b>Fair:</b><br>A choice is fair if all possible options have an equal probability of being chosen.                                                                       |

| Probability notation                                                                                                                                                                                                                                                             |                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| P(X) means 'the probability of X happening'<br><br>P(green or blue) means the probability of landing on green or blue.                                                                                                                                                           |                                                                                                     |
| <b>Example</b> A normal six sided dice is rolled, calculate:<br><br><b>a) P(3)</b> Answer: $P(3) = \frac{1}{6}$<br><br>This means: What is the probability of rolling a 3?                                                                                                       |                                                                                                     |
| <b>b) P(odd number)</b> Answer: $P(\text{odd}) = \frac{3}{6}$<br><br>This means: What is the probability of rolling an odd number?                                                                                                                                               |                                                                                                     |
| Calculating probability                                                                                                                                                                                                                                                          |                                                                                                     |
| Probability of an event happening =                                                                                                                                                                                                                                              | $\frac{\text{Number of ways it can happen (successful outcomes)}}{\text{Total number of outcomes}}$ |
| <b>Example</b><br><br> The spinner has 8 possible outcomes:<br>Red, yellow, yellow, blue, blue, green, green and green<br><br>We say that probability that the spinner will land on green is: |                                                                                                     |
| $\frac{3}{8}$                                                                                                                                                                                                                                                                    | There are 3 successful outcomes: green, green, green<br><br>There are 8 possible outcomes           |

|                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Homework Links</b><br><br><b>Sparx Maths</b><br><br><b>Corbettmaths.com/contents</b><br><br><b>bbc.co.uk/bitesize/subjects</b>                                                                                                                                       |
| <b>Key Vocabulary</b><br><br><b>Numerator</b><br><br><b>Denominator</b><br><br><b>Fraction</b><br><br><b>Decimal</b><br><br><b>Percentage</b><br><br><b>Equivalent</b><br><br><b>Ascending</b><br><br><b>Descending</b><br><br><b>Probability</b><br><br><b>Outcome</b> |

## Chemistry: Mixing, Dissolving and Separating Knowledge Organiser

### A) Mixing, dissolving and separating key terms

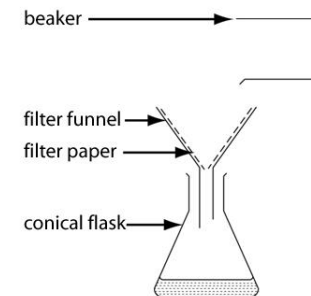
| Key term/question      | Definition/answer                                                   |
|------------------------|---------------------------------------------------------------------|
| 1. Atom                | Smallest particle of an element that can exist                      |
| 2. Element             | Made of <b>one</b> type of <b>atom</b>                              |
| 3. Compound            | <b>Two</b> or more <b>different elements chemically bonded</b>      |
| 4. Mixture             | <b>Two</b> or more elements that are <b>not chemically combined</b> |
| 5. Pure substance      | Only contains one type of atom or compound                          |
| 6. Soluble             | <b>Can</b> dissolve in a liquid                                     |
| 7. Insoluble           | <b>Cannot</b> dissolve in a liquid                                  |
| 8. Solute              | Substances that dissolves in a solvent                              |
| 9. Solvent             | The liquid in which the solute is dissolved into                    |
| 10. Solution           | Solute and solvent combined                                         |
| 11. Saturated solution | When no more solute can dissolve                                    |

### B) Methods for Separating Mixtures

| Key term/question                                        | Definition/answer                                                                                                    |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| 12. Methods used to separate substances in a mixture (5) | <b>1.</b> Chromatography <b>2.</b> Filtration <b>3.</b> Evaporation <b>4.</b> Crystallisation <b>5.</b> Distillation |
| 13. Chromatography                                       | Separates mixtures by how quickly they move through a stationary phase                                               |
| 14. Filtration                                           | Separates an insoluble solid from a liquid                                                                           |
| 15. Evaporation                                          | Separates a soluble solid from a liquid                                                                              |
| 16. Crystallisation                                      | Solid crystals form as water evaporates from a solution                                                              |
| 17. Simple Distillation                                  | Separates a liquid from a mixture when their boiling points are greatly different                                    |

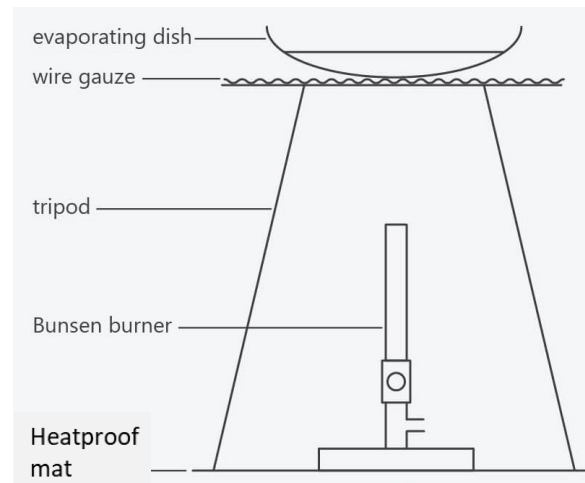
### C) Filtration method

1. Fold a piece of filter paper into a cone.
2. Place the filter paper into a filter funnel.
3. Place the filter funnel into a conical flask.
4. Gently pour the mixture into the filter funnel.



### D) Evaporation and crystallisation method

1. Pour the solution into an evaporating dish.
2. Place the evaporating dish on top of a tripod and gauze.
3. Using the Bunsen burner, slowly heat the solution.
4. Once some of the solvent has evaporated, remove the evaporating dish from the heat and allow it to cool at room temperature.
5. Leave the dish for 24 hours to allow the crystals to form.
6. Filter the crystals out of the solution and pat dry.



## Chemistry: Mixing, Dissolving and Separating Knowledge Organiser

### E) Chromatography key words

| Key term/question                                       | Definition/answer                                                                                         |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 18. Chromatogram                                        | The pattern or spots formed as a result of separating a mixture using chromatography                      |
| 19. What are the two phases of chromatography? (2)      | <u>1.</u> Mobile phase <u>2.</u> Stationary phase                                                         |
| 20. Mobile phase                                        | Where molecules can move (e.g. solvent such as liquid and gas)                                            |
| 21. Stationary phase                                    | Where molecules cannot move (e.g. solid such as paper)                                                    |
| 22. What happens to molecules with a higher solubility? | They will move further up the paper (closer to the solvent line/front)                                    |
| 23. What happens to molecules with a lower solubility?  | They will move less up the paper (stay closer to the baseline/pencil line/ start line)                    |
| 24. How do you know the substance is pure?              | Will only form one spot                                                                                   |
| 25. How do you know the substance is impure?            | More than one spot will form                                                                              |
| 26. $R_f$ value                                         | Ratio between the distance travelled by the dissolved substance and the distance travelled by the solvent |
| 27. $R_f$ value =                                       | Distance travelled by the substance $\div$ distance travelled by the solvent                              |
| 28. The higher the $R_f$ value =                        | The more time a substance spends in the mobile phase                                                      |

### F) Chromatography method

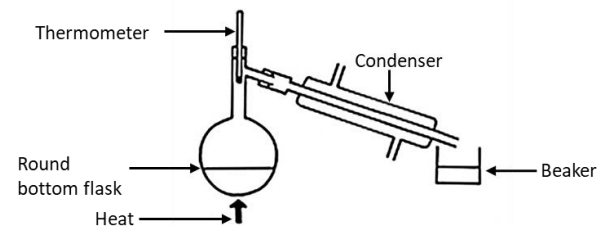
1. Draw a pencil line on a piece of chromatography paper.
2. Spot the mixture to be separated on the pencil and let the spot dry.
3. Pour water into a beaker.
4. Stand the paper in the beaker so that the water is below the pencil line.
5. Leave until the water has almost reached the top of the paper.
6. Remove the paper and hang the chromatogram up to dry. Mark the solvent front.
7. Measure the distance travelled by each spot and distance between base line and solvent front.
8. Calculate the  $R_f$  value and compare the  $R_f$  values for each of the spots of ink.

### G) Simple distillation key terms

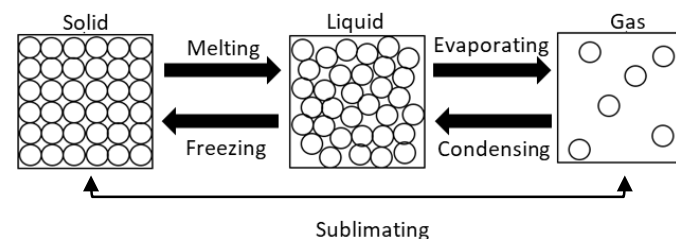
| Key term/question                         | Definition/answer                                                                                      |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------|
| 29. Simple Distillation                   | Separates a liquid from a mixture when their boiling points are greatly different                      |
| 30. What is simple distillation used for? | To remove salt from sea water                                                                          |
| 31 What is pure water                     | Water that has been distilled and only contains $H_2O$ molecules                                       |
| 32. What is the pH of pure water?         | 7 (neutral)                                                                                            |
| 33. How to test for pure water            | Boil the water. Pure water will boil at $100^\circ C$ . Impure water will have a higher boiling point. |

### H) Simple distillation method

1. Solution of salt and water is placed into a round bottom flask.
2. As the solution is heated, the water will evaporate and pass into a condenser.
3. The water vapour will cool and condense in the condenser.
4. The pure distilled water is collected in a beaker.



### I) State changes



### KS3 Physics: Forces and Their Effects Knowledge Organiser

| A) Contact and Non-contact forces               |                                                                                                                                               |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Key term/question                               | Definition/answer                                                                                                                             |
| 1. Force (2)                                    | <u>1.</u> Push or pull that causes a change in speed, direction or shape. <u>2.</u> All forces come in interacting pairs.                     |
| 2. Unit of force                                | Newtons (N)                                                                                                                                   |
| 3. Equipment used to measure force              | Newton meter                                                                                                                                  |
| 4. Contact forces                               | Objects have to be touching for the force to act                                                                                              |
| 5. Contact forces examples (7)                  | Friction, thrust, upthrust, air resistance, water resistance, tension, reaction force                                                         |
| 6. Non-contact force (3)                        | Forces that act without needing to touch                                                                                                      |
| 7. Non-contact forces examples (3)              | Magnetism, electrostatic, weight                                                                                                              |
| 8. Resultant forces (2)                         | <u>1.</u> The force you have if you replaced all the forces on an object with one single force. <u>2.</u> If it is zero, forces are balanced. |
| 9. Equilibrium                                  | When the resultant force on an object equals 0                                                                                                |
| 10. Thrust                                      | Forward push of an object moving on a solid surface                                                                                           |
| 11. Upthrust                                    | Upward push of water on an object                                                                                                             |
| 12. Reaction                                    | Upward push of a solid surface on an object                                                                                                   |
| 13. Friction                                    | A force that opposes movement                                                                                                                 |
| 14. Use of lubricants                           | Reduces friction so that less energy is lost                                                                                                  |
| 15. Air resistance                              | Frictional force which slows objects moving through air                                                                                       |
| 16. Water resistance                            | Frictional forces which slows objects moving through water                                                                                    |
| 17. Term used for both air and water resistance | Drag                                                                                                                                          |

| B) Weight, Mass and Gravity                                        |                                                                                            |
|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Key term/question                                                  | Definition/answer                                                                          |
| 18. Gravity                                                        | A natural phenomenon by which all things with mass or energy are attracted to one another. |
| 19. Gravitational field strength                                   | The force from gravity on 1 kg (N/kg)                                                      |
| 20. Gravitational field strength on Earth                          | 9.8 N/kg (This will be given in exams and may be 10N/kg)                                   |
| 21. Weight                                                         | Is the force acting on an object due to gravity                                            |
| 22. Mass                                                           | The amount of matter (stuff) in an object.                                                 |
| 23. Unit of weight                                                 | Newtons (N)                                                                                |
| 24. Unit of mass                                                   | Kilograms (kg)                                                                             |
| 25. Equation linking weight, mass and gravitational field strength | Weight (N) = mass (kg) x gravitational field strength (N/kg)<br><b><math>W = mg</math></b> |
| 26. Relationship between weight and mass?                          | Directly proportional                                                                      |

| C) Hooke's Law                                                      |                                                                                                        |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Key term/question                                                   | Definition/answer                                                                                      |
| 27. Extension                                                       | Force will cause stretching                                                                            |
| 28. Compression                                                     | Force squashing or pushing together                                                                    |
| 29. Elastic deformation                                             | When a material returns to its original shape and size after the force has been removed                |
| 30. An elastic object                                               | Spring                                                                                                 |
| 31. Elastic limit                                                   | Maximum force that can be applied for a material to remain elastic                                     |
| 32. How does the shape of the spring change when adding masses? (3) | <u>1.</u> Spring is stretched <u>2.</u> Length of coil increases <u>3.</u> Increased gap between coils |
| 33. Hooke's Law                                                     | The extension of an elastic object is directly proportional to the force applied.                      |

| D) Speed and Velocity                         |                                                    |
|-----------------------------------------------|----------------------------------------------------|
| Key term/question                             | Definition/answer                                  |
| 34. Speed                                     | How much distance is covered in how much time      |
| 35. Velocity                                  | How fast you are travelling and in which direction |
| 36. Unit of or speed                          | metres per second (m/s)                            |
| 37. Equation linking distance, speed and time | Distance travelled (m) = speed (m/s) x time (s)    |
| 38. Acceleration                              | How quickly speed increases                        |
| 39. Deceleration                              | How quickly speed decreases                        |
| 40. Terminal velocity                         | Final constant speed that a falling object reaches |

## BIG QUESTIONS

How did the Tudors rise to power?

How did Henry VIII solve the 'King's Great Matter'?

What was the impact of the Reformation?

Was Henry VIII a tyrant or misunderstood?

How did Queen Mary try to make England Catholic again?

Does Queen Mary deserve to be called 'Bloody Mary'?

How successful was Elizabeth's 'Middle Way'?

How significant was the defeat of the Spanish Armada?

**Henry VII** was the first monarch of the House of Tudor. Henry's mother, Margaret Beaufort, was a descendant of the House of Plantagenet and his father was a half-brother of Henry VI of England and descendant placing him in line for the throne. During Henry's early years, his uncle Henry VI was fighting against Edward IV, a member of the Yorkist Plantagenet branch. He attained the throne when his forces, supported by France, Scotland, and Wales, defeated Edward IV's brother Richard III at the Battle of Bosworth Field, the culmination of the Wars of the Roses. He was the last king of England to win his throne on the field of battle. Henry was successful in restoring power and stability to the English monarchy following the civil war.

**Edward VI:** Reigned from 1547 to 1553. He was only 9 years old when he became King of England and died when he was 16 years old. Edward was a Protestant and he was the only legitimate son of Henry VIII. As Edward was so young, Lord Robert Dudley was his Lord Protector

**Mary I:** Mary was a Catholic who tried to restore the Catholic Church in England and stop the Reformation. She was married to Phillip II of Spain who supported her in this. Mary would go on to become known as 'Bloody Mary' due to her burnings of heretics who refused to return to the Catholic Church. Mary would die 5 years after becoming Queen.

**Henry VIII:** Henry was married to Katherine of Aragon. Their marriage had been happy. However in the 1520s Henry had decided he wished to divorce Katherine. He was worried that he had not had a son, and he had been promised by Anne Boleyn that if he married her he would have a son. Henry tried unsuccessfully to obtain a divorce from Katherine. This led to Henry making himself the Head of the Church of England (through the 1534 Act of Supremacy), a Protestant Church which broke away from the Catholic Church in Rome. In 1536, Henry ordered the Dissolution of the Monasteries in England, which led to all of England's monasteries closing down. Through these actions, Henry had started the Reformation in England.

**Elizabeth I:** Elizabeth succeeded Mary. She tried to find a 'Middle Way', in which she tried to provide a balance between Catholics and Protestants, trying to keep both sides happy. Elizabeth herself was a Protestant, but she did not persecute the other side the same way Mary had. However, Elizabeth did have to deal with the threat of her cousin, Mary Queen of Scots – who she imprisoned and executed in 1587. In 1588 Elizabeth faced the Spanish Armada sent by Phillip II of Spain. The English Navy commanded by Sir Francis Drake won, thanks to his skill as a naval leader and a storm which damaged the Spanish fleet. Elizabeth was a very popular Queen, and the last of the Tudor monarchs.

### Key Dates

**1483** The disappearance of the Princes in the Tower

**1485** Henry VII defeats Richard III at the Battle of Bosworth

**1509** Henry VIII becomes King of England

**1534** Henry VIII breaks with Rome and becomes Head of the Church of England, thanks to the Act of Supremacy.

**1536-1541** The Dissolution of the Monasteries. Henry VIII's men dissolve (close) the monasteries in England.

**1547** Henry VIII dies and is succeeded by his 9 year old son Edward VI.

**1553** Mary I becomes Queen after Edward VI dies. She tries to return England to the Catholic Church.

**1558** Elizabeth I succeeds Mary I after Mary's death. Elizabeth tries to follow a 'Middle-Way' between Catholics and Protestants.

**1588** Phillip II sends the Spanish Armada to attack England. It is defeated by Sir Francis Drake and the English Navy.

**Act of Supremacy** – the law Henry VIII passed which created the Protestant Church in England and made Henry VIII head of the Church not the Pope

**Anne Boleyn** – Henry VIII's second wife. Anne was a member of the noble Boleyn family, and had spent much of her young life as a lady-in-waiting in France giving her all the training she needed to be a Queen. She won over Henry with her promises for a son, and as a Protestant was very influential in the English Reformation. Eventually her inability to provide Henry with a son led to accusations that she was unfaithful and she was executed three years after marrying Henry.

**Annulment** – to make a legal decision no longer valid, as if it had never happened. The marriage of Katherine of Aragon to Henry VIII was annulled on the grounds that it was not legal, because Katherine had already been married to Henry's deceased brother Arthur.

**Armada** – fleet of ships sent to attack a country or place (in this case England by Spain in 1588)

**Cardinal Wolsey** – Henry VIII's most powerful minister. But he fell out of favour for not being able to get the Pope to grant Henry's divorce from Catherine of Aragon.

**Catholic** – a member of the Roman Catholic Church

**Dissolution** – from the word **dissolve**: to make something disappear

**Dissolution of the Lesser Monasteries** – the destruction of monasteries in England on the requests of Henry VIII. Thomas Cromwell had identified much poor

**Excommunication** – to be kicked out of the Catholic Church. Henry VIII was excommunicated in 1534 as a result of the Act of Supremacy.

**Heir** – someone to succeed a King (usually a son)

**Heretic** – a person who believes something different to the accepted belief of the Church

**Katherine of Aragon** – Henry VIII's first wife. She had previously been married to Henry's deceased brother Arthur in a marriage arranged by Henry VII to improve relationships with the King of Spain. Henry VIII married her as a way to sustain this relationship, however her only child Mary led to Henry VIII wanting to annul their marriage.

**Martin Luther** – German monk and a Protestant. He wrote The NinetyFive Theses which attacked the corruption of the Roman Catholic Church.

**Martyr** – someone who dies for what they believe in, usually a religious belief

**Mary Queen of Scots** – . A Catholic and a cousin of the Tudors. She lived in exile in England after fleeing Scotland and plotted against Elizabeth I. She was eventually executed after the Babington Plot

**Monastery** – a building or buildings occupied by a community of monks living under religious vows.

**Pilgrimage** – a journey, especially a long one, made to some sacred place as an act of religious devotion

**Protestant** – a member of a Christian Church that separated from the Catholic Church in the 16th Century

**Pope** – the head of the Roman Catholic Church

**Reformation** – a religious movement that tried to change the Catholic Church, leading to the separation into Catholic and Protestant

**Thomas Cramner** – the first Protestant Archbishop of Canterbury, appointed in 1533. He officially divorced Henry VIII and Catherine of Aragon but was eventually burnt at the stake on the orders of Mary I.

**Thomas Cromwell** – Cromwell replaced Wolsey as Henry's chief minister in 1532. He helped the King in breaking from Rome and establishing his own Church in England, with Henry as Supreme Head of the Church. He had a large role in the Dissolution of the Monasteries from 1536 onwards.

However, he fell out of favour following the disastrous Anne of Cleves marriage and was executed in 1540.

**Tyrant** – is a cruel and oppressive (strict) ruler

## Homework Links

1. Learn the meanings of the words on the key vocabulary page, they will be tested in a knowledge test
2. Complete the following table:

| Monarch | Protestant or Catholic? | Examples of what happened during their reign |
|---------|-------------------------|----------------------------------------------|
|         |                         |                                              |
|         |                         |                                              |
|         |                         |                                              |
|         |                         |                                              |

3. What can be inferred from this source about Henry VIII?

“Henry is so greedy that all the money in the world would not make him happy... to make himself rich he has made his people poor. This King.... does not trust a single man... and will always kill people if he does not trust them.”

*Written by a French man in a letter to the French King in 1540. The French and the English were great enemies*

I can infer .....

Details in the source that tell me this ....

I can infer .....

Details in the source that tell me this ...

### Homework Links

<https://www.bbc.co.uk/bitesize/topics/z3yfr82>

(Good clips and resources from BBC Bitesize)

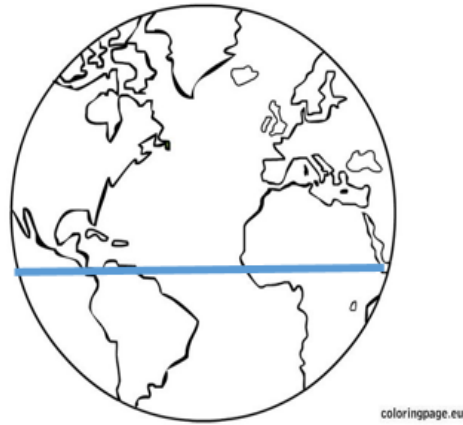
### BIG QUESTIONS

1. Why do we need to know about the weather?
2. What causes the weather?
3. What factors affect climate?
4. How do I draw a climate graph?
5. Why is it always raining?
6. What is the weather like in the UK?
7. How can the weather be so changeable?
8. What effects can we SEE of an extreme weather event?
9. Local Geographical Fieldwork Investigation: How do I conduct a fieldwork investigation?

### Homework

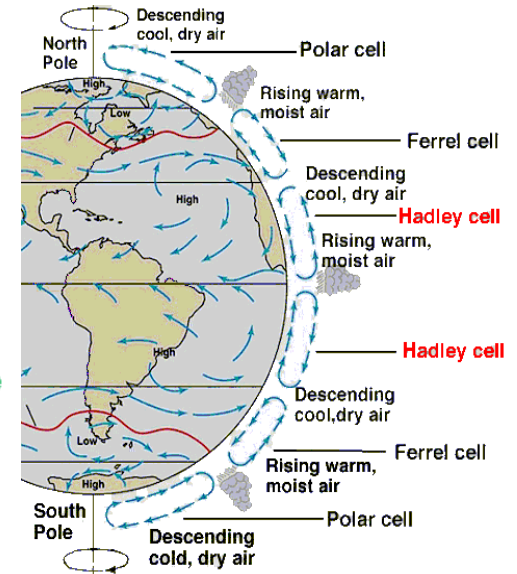
Revision notes and take test...

[Weather - KS3 Geography - BBC Bitesize](#) - BBC Bitesize

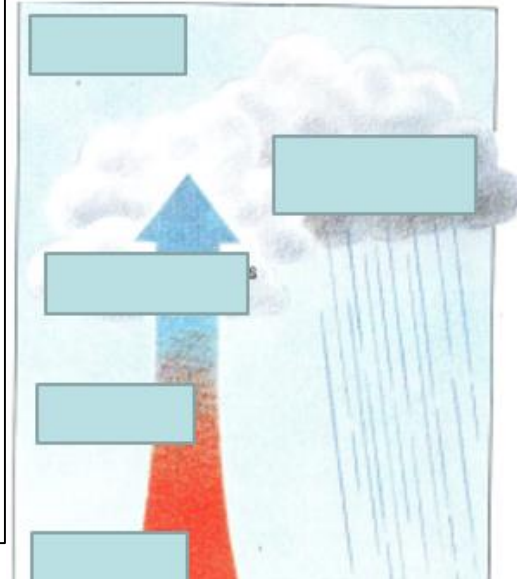


TASK - on your diagram of Earth

1. Draw on the lines of latitude: **Equator**; **Tropic of Cancer** and **Arctic Circle**.
2. Label the continents **Africa**, **North America** and **Europe**.
3. Label the countries **Uk**, **USA**, **Iceland** and **Egypt**.
4. Label the **Arctic Ocean** and the **Atlantic Ocean**.



### How does it rain?



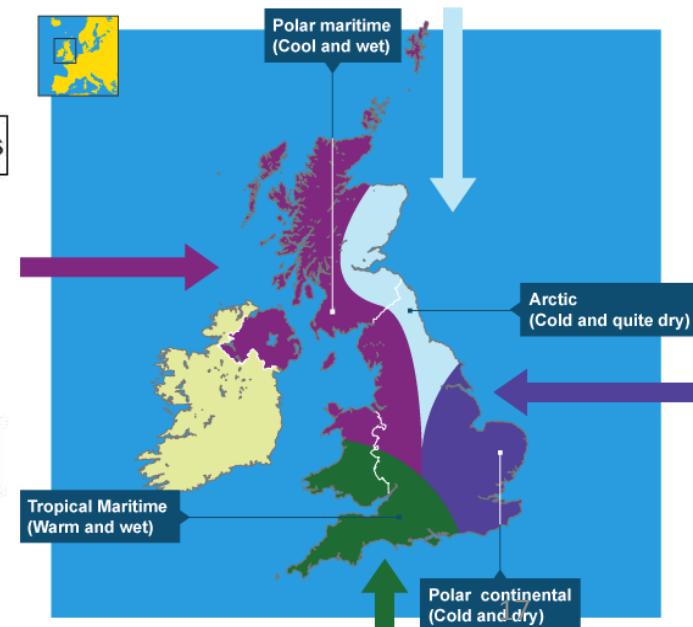
Water vapour condenses

Clouds form

...and cools

Warm air rises

Precipitation occurs  
(usually as rain)



## Key vocabulary

**Weather** – the changing day to day conditions of the atmosphere.

**Climate** – the average weather of an area over 30 years.

**Precipitation** – all forms of moisture that fall from the sky (e.g. rain, snow, sleet and hail).

**Temperature** – how hot or cold it is in degrees.

**Prevailing wind** – the length of time the wind blows.

**Humid** – state of hot and moisture in the air.

**Air mass** – a large body of air.

**Depression (Low Pressure)** – where warm air rises causing condensation and rain.

**Anticyclone (High Pressure)** – where cool air sinks, causing clear skies. Warm in summer but cold in winter.

**Isobars** – lines that join points of equal pressure on a map.

**Warm front** – the front of an advancing mass of warm air.

**Cold front** – the front of an advancing mass of cold air.

**Extreme weather** – where the weather is significantly different from usual weather.

### European Heatwave

| KEY INFORMATION                                                                                                                                                                                 | SOCIAL EFFECTS                                                                                                                                    | ECONOMIC EFFECTS                                                                                                                                                                                                     | ENVIRONMENTAL EFFECTS                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| August 2003<br>One of the hottest summers on record in Europe<br>Affected – UK, France, Portugal<br>UK temperatures peaked at 38.5°C<br>Caused by high pressure<br>40% less rainfall than usual | 1. Over 30,000 died<br>2. Hospitals overwhelmed<br>3. Water supplies were affected<br>4. Hosepipe bans introduced<br>5. Many people were sunburnt | 1. Loss of income for farmers<br>2. Increase in tourism for coastal areas<br>3. Businesses closed for the day<br>4. Transport was disrupted due to buckled railway lines<br>5. Supermarket sales were boosted – BBQs | 1. Decreased the quantity and quality of harvests<br>2. Forests were more vulnerable to diseases<br>3. Forest fires in Portugal<br>4. Air quality problems<br>5. Glaciers melted |

### Beast from the East

| KEY INFORMATION                                                                                                                                                                                                                    | SOCIAL EFFECTS                                                                                                                                                                                        | ECONOMIC EFFECTS                                                                                                                                                             | ENVIRONMENTAL EFFECTS                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Feb/March 2018<br>Extremely cold, dry air moved down from eastern Russia over the UK, most of the rest of Europe and parts of northern Asia<br>UK temperatures as low as -10°C at night and remained below freezing during the day | 1. 4 deaths<br>2. Increase in number of people attending A and E due to slips/falls in icy conditions<br>3. Trains/planes/buses cancelled nationwide<br>4. An estimated 8260 car collisions in 3 days | 1. £10 million car insurance claims from collisions<br>2. Cost the UK an estimated £1 billion a day due to people unable to get to work/school closures/transport disruption | 1. Flood risk as snow began to melt (increased surface run off)<br>2. Up to 7 metre snow drifts in parts of the UK<br>3. Rise in river levels as snow melted |

### Extreme weather homework

Choose an extreme weather event and discuss the impacts that occurred as a result.

### Choose From...

- "Typhoon Haiyan, Philippines (2013)
- Hurricane Katrina, USA (2005)
- Storm Brendan, UK (2020)
- The Great Storm, UK (1987)
- Australian Bushfire (2020)

### Challenge

**Do you feel weather events are becoming more extreme due to climate change? Discuss.**

## BIG QUESTIONS

How do artists use colour?

Define the meaning of Abstract Art?

What is special about the primary colours?

What is a tertiary colour?

How do the complementary colours work?

Why is drawing important in a project?

How does colour link to human emotion?

Can you create an Abstract composition?

### Overarching Big Question

*Through a series of activities, students develop skills in observation, colour mixing and application of paint exploring Formal Elements **COLOUR, SHAPE and COMPOSITION**. They investigate examples of abstract art focusing on composition, message and meaning. Students will use their knowledge of colour theory, painting techniques and composition to create their own abstract art.*

## Key Skills

### RECORD

#### I will learn to record...

- images and information appropriate to a given theme
- using wet and dry colour media
- increasing my knowledge and understanding of how abstract artists use 'Colour' to create meaningful work
- ideas for an abstract picture

### DEVELOP

#### I will learn how to develop...

- my knowledge and understanding of colour theory
- my drawing and painting skills
- my use of images and information to create abstract ideas
- ideas in response to a given theme, linking to artists work
- my higher order thinking skills

### REFINE

#### I will learn how to...

- explore a range of media and techniques e.g. mixing secondary and tertiary colours, exploring colour harmonies, mix complementary colours together in order to create colour tone.
- explore application of paint through techniques; wet into wet, wash, wet onto dry, dry brush etc. use of warm and cool colours to create depth/mood.
- select ideas to adapt and improve using abstract composition
- develop a piece of work using painting techniques and colour in different ways

### EVALUATE

#### I will learn how to...

- reflect on the development of my own work
- make connections between my own and abstract artists' work
- suggest ways I could improve
- evaluate artists using analytical writing skills and forming opinions



### PRESENT OUTCOMES

#### I will learn how to...

produce a finished outcome inspired by Abstract art

## Homework Links

### **Homework Booklet 2 'Homage to Bleriot' by Robert Delaunay**

(artist links to project through use of colour and abstract style)

**Duration-** 30 minutes minimum on each of the 7 tasks (approx. 30 minutes per two-week cycle)



## Key Vocabulary

### **I will learn the meaning of...**

*Primary/Secondary/Tertiary/Complementary colours within the context of Abstract Art.*

### **Big Questions:**

- § Can you attempt/complete a variety of fitness tests?
- § Can you name the relevant components of fitness?
- § Can you perform bodyweight exercises with the correct technique?
- § Can re-test your fitness and compare to your results from Part 1?

### **Key Principles of Circuit Training:**

- A method training which enables you train muscular strength, muscular endurance, power or aerobic endurance.
- Participants rotate around a series of exercises (stations), including a set period of time for work and rest.
- Benefits of circuit training; working all muscle groups and components in alternate system of stations allowing recovery of muscles and capacity to exert maximum effort; facilitates anaerobic energy system.
- Can function as a skills or fitness enhancing method with use of stations.



### **Fitness:**

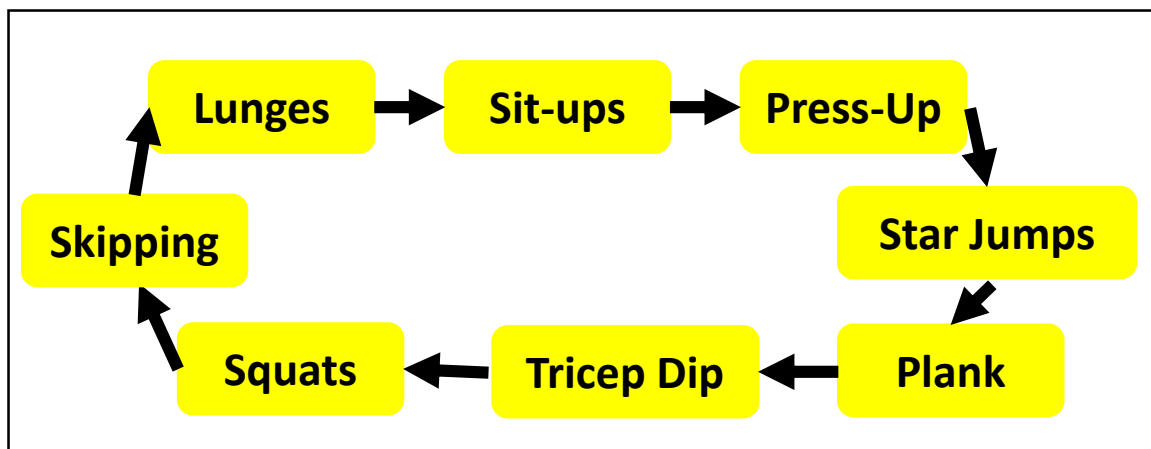
- Shows effort in exercise.
- Can conduct simple fitness tests.
- Know how to record and interpret fitness results against normative data.
- Perform exercises safely.

### **Knowledge:**

- Identify the basic muscles and demonstrate a stretch for each.
- Know the difference between static and dynamic stretches.
- Can identify and describe the key components of fitness and demonstrate suitable exercise to improve each.

### **Leadership and Coaching:**

- Can run a three part warm up.
- Devise and run a small circuit.
- Encourages and motivates others to work effectively.
- Good organisation and communication skills.
- Confident in different roles: Fitness Instructor, measurer, motivator.



### **Big Questions:**

Can you make an accurate pass while running with the ball?

Can you safely and effectively make a tackle?

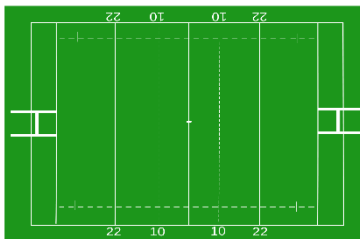
Can you safely and effectively create a ruck?

Can you use tactics to create space to attack?



### **Key Skills:**

- Tackling: Socket to Pocket, Ring of Steel, Hit Low and Hard, Release when player is down.
- Passing: Soft Hands, Hands Up (W), Pass across Chest, Follow through to Target.
- Scrum: Used to restart the game after a knock on. Front Row (Prop-Hooker-Prop) Second Row (4-5), Flankers (Open Side - Number 8 - Blindside)
- Ruck: Contest for the ball after a tackle is made. Must come through the gate, hands out.
- Line Out: Used to restart the game if the ball goes off the field. Hooker throws the ball down the middle of the two teams lines (Forwards).



### **Teamwork and Respect:**

- Sets an example for others to follow.
- Very fair in competition.
- Always gracious in defeat and humble in victory.
- Works well in a team and supports their peers.
- Never argues with the referee.

### **Key Rules in Rugby:**

- High Tackle: All tackles must be below the shoulder and you must attempt to wrap your arms around player, NO shoulder barges.
- Knock On: If you drop the ball it has to bounce backwards. Any knock on will result in a scrum.
- Pass Backwards: All passes have to go backwards. If you make a forward pass, it will result in a scrum.
- Off Side: Defenders need to make sure they are On Side, which is behind the "Gain Line".

### **Leadership and Coaching:**

- Can run a three part warm up.
- Devise and run a small skill practice
- Encourages others
- Good organisation skills
- Good communication skills
- Confident in different roles: Coach, Referee, Scorer.



### **Big Questions:**

- § Can I consistently rally with a partner (overhead clear)?
- § Can I serve accurately (backhand, underarm)?
- § Can I effectively play an attacking shot (drop, smash)?
- § Can apply rules and tactics effectively to score points?



### **Key Skills:**

**Overhead Clear:** Force opponent to rear of court, hit at highest point, follow through and stand side on.

**Smash:** Aim to skim net, hit at highest point in downwards direction and transfer body weight.

**Drop Shot:** Stand side on, skim net and land just beyond, light tap.

**Backhand Shot:** Backhand grip, aim for back of court, strong follow through and stand side on  
**Long Serve:** Drop and swing at same time, aim for back of court, stand side on and start with racket at waist height.

**Short Serve:** Short back swing, aim to skim net, racket in front with backhand grip.

### **Leadership and Coaching:**

- Can compare performance using key terminology and teaching points for a variety of sports and skills
- Can use ICT to compare performance
- Know how to gain others attention



### **Key Rules in Badminton:**

- Singles: Court long and narrow
- Doubles: Court short and wide for serving, whole court thereafter
- You can't touch or cross the net
- Can only hit the shuttle once when returning
- Games are played to 21 points
- Points are scored on every serve



### **Teamwork and Respect:**

- Set examples to others in lessons and competitive games
- Show fair in competition
- Respect officials' decisions
- Be gracious in defeat e.g. shake hands with each other

## **Big Questions:**

### **Year 7:**

Can I "travel" using different techniques?

Can I work with another individual to create a balance?

Can I combine balances, jumps and travelling into a mini routine?

Can I create a routine with a peer?

### **Year 8:**

Can I correctly take off when using the springboards?

Can I confidently take off and land correctly when vaulting?

Can I generate height to land on equipment?

Can I create a routine, which includes a jump, roll and balance?



## **Key Skills:**

- Travelling: Moving around the hall using a variety of different, rolls, steps, slides and jumps.
- Balance: Balancing on different body parts, the amount of body parts and performing partner balances with 2 or 3 peers.
- Flight: Travelling through the air, using springboards as an aid.
- Routine: Combining these skills mentioned above to create a routine



## **Leadership and Coaching:**

- Can run a three part warm up.
- Devise and run a small skill practice
- Encourages others
- Good organisation skills
- Good communication skills
- Confident in different coaching roles.

## **Key Safety Rules:**

- Bare feet only
- Ensure equipment is safe and correctly put out before use
- Only 1 person at any one time on a piece of equipment
- Ensure you are confident and have the right out of support before attempting any jumps, rolls and balances.

## **Teamwork and Respect:**

- Sets an example for others to follow.
- Very fair in competition.
- Always respect others whilst they are demonstrating their routine
- Works well in a team and supports their peers.



### **Big Questions:**

Can you effectively dribble the ball?

Can you use a bounce/ chest or shoulder pass?

Can you effectively perform the set shot /lay-up shot?

Can you use key defensive /attacking tactics effectively?



### **Key Skills**

- **Shooting:** Set shot: Shoot with one hand only. Bend your knees and flick your wrist. BEEF (Balance/Elbow/Eye/Follow-through). Jump shot: Release the ball at the top of your jump. Lay-up: Use the top right/left hand side of the backboard. Drive up off your right or left leg.
- **Passing:** Chest/Bounce/Javelin: Step into your pass. Always have your hands up and ready to receive the ball.
- **Dribbling:** Controlled dribble/Cross-Over/Speed/Spin: Bounce between hip and knee height. Keep the ball under control & look up.
- **Defending:** Stay between your opponent and your own basket. Move your feet. Do not reach in.



### **Teamwork and Respect**

- Honest/Fair
- Compassionate
- Inspires others
- Speaks to peers/teacher with respect
- Demonstrates good sportsmanship

### **Key Rules**

- Double dribble
- Jump ball
- Traveling
- Time violations
- Out of court
- Tip off
- Back court violation
- Contact fouls
- Free throws
- Side and base line ball

### **Coaching and Leadership**

- Knowledge of rules and regulations
- Organisational skills
- Interpersonal communication skills
- Vision
- Creativity
- Humility
- Confidence

Can you research these common rules to find out more specific details?



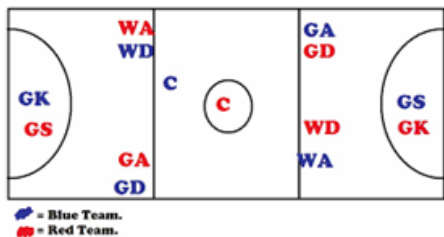
### Big Questions:

Can you perform the correct footwork technique in netball?

Can you accurately pass a netball using different techniques?

Can you demonstrate good shooting technique?

Can you apply different strategies to get free from your opponent and tactic's in a game?



### Key Skills:

- Chest pass: W grip/ Step/Chest to chest/Follow through/ short distance
- Bounce pass: W grip/ Step/Chest to chest/Follow through/ Bounce before player/ short distance
- Shoulder pass: sideways on/elevation/ shoulder to shoulder/ step/ follow through/arch/ long distance
- Footwork: -Landing on alternate feet- first foot to land is the static pivoting foot - Landing on simultaneous feet – either foot can become static pivoting foot -On the move – release ball before third step
- Getting free from their marker e.g. sprint into a space, sprint and feint
- Marking a player and a player with the ball
- Shooting: balance/height/line and aim/ flick and follow/ knee extension.

### Leadership and Coaching:

- To run a three part warm-up
- To show good communication skills
- To take the lead in practices
- To have the opportunity to take on different roles e.g. player, coach, scorer, umpire

### Key Rules in Netball:

- Netball is a 7 a side game.
- Players are given certain positions and areas they are allowed e.g. GA, GD, C, WA, WD, GS, GK.
- The netball is not allowed to go over a third without it being touched.
- To score a goal the GA or GS must be within the semi-circle to shoot.
- You are not allowed to walk with the ball.
- You should be a metre away when defending a player with the ball.
- A centre pass is taken when a goal has been scored, it is alternated between the two teams.

### Teamwork and Respect:

- Follows guidance from others
- Works well in a team
- Does not argue with the netball umpire
- Motivates others
- Fair in competition



### **Big Questions:**

Can you effectively dribble the ball?

Can you successfully make a short, side-footed pass, and a long-lofted pass?

Can you shoot accurately and with power?

Can you use effective attacking and defensive tactics?



### **Key Skills:**

- Passing: Use the side of your foot to give you accuracy and control of the ball.
- Dribbling: Dribble the ball close to your body to keep more control.
- Shooting: Try to keep shots low and aim for the corners. Power and accuracy are key.
- Defending: Nearest person to the ball should apply pressure on the ball by moving into a position within 2-3 yards of their opponent to close them down. Don't jump in.  
Communication is key



### **Leadership and Coaching:**

- Encourage and motivate others
- Be creative
- Display knowledge and understanding of the rules
- Show compassion towards others
- Inspire others to perform better
- Be a good role model

### **Key Rules in Football:**

- Throw-in
- Offside
- Corner kick
- Goal kick
- Kick off
- Foul play
- Free kick
- Penalty
- Handball

Can you research these common rules to find out more specific details?

### **Teamwork and Respect:**

- Sets an example for others to follow.
- Very fair in competition.
- Honest
- Always gracious in defeat and humble in victory.
- Works well in a team and supports their peers.
- Never argues with the referee.



### **Big Questions:**

- Can you solve a problem as a team?
- Can you orientate a map?
- Can you take on the role of leader?
- Can you communicate effectively to help your team solve a problem?
- Can you effectively Plan, Do, and Review to overcome a problem?



### **Key Skills:**

- To take on the principle of 'Plan, do, review' in problem solving activities
- To refine ideas and try different approaches to solving problems
- To orientate a map of the school field
- To use grid references to place markers out and to find codes
- To work as a team member
- Verbal and non-verbal communication skills



### **Leadership and Coaching:**

- To run a warm-up appropriate for OAA
- To show good communication skills
- To consider the safety of self and others in the tasks set
- To take on a variety of roles e.g. leading, organising, managing

### **Key Rules in OAA:**

- To follow the rules of orienteering and problem solving
- To follow the safety aspects of the tasks set



### **Teamwork and Respect:**

- To listen to each others opinion and discuss ideas
- To motivate others to succeed
- To cooperate with others in solving problems
- To be fair in competition



Religion  
Islam

Year: 7  
Term: 4

### Big Questions

- 1 What is it like to be a Jew?
- 2 What symbols do Jewish people use and why are they important?
- 3- How do stories of the Torah link to action?

### What is in a synagogue?

A synagogue is a Jewish house of worship. Synagogues have a place for prayer and may also have rooms for study, a social hall, and offices. Some have a separate room for Torah study, called the beth midrash, or "house of study". The Torah is kept there in the Ark and therefore it is important that Jewish people are respectful in the synagogue. Many synagogues sit men and women separately to avoid distraction but this doesn't happen in all synagogues.

### Quick facts!

Holy book – The Torah (600BCE)  
Age of religion- 4000 years old  
Place of worship – Synagogue  
Name of followers – Jews  
Number in the UK – 410,000

### What is the Torah?

The Torah has many meanings but it is often used to describe the collection of five books of Moses. Torah means law and therefore the book is used to help guide Jewish people through their lives. It is very sacred and is not allowed to be touched as this could damage it. This means that Jewish people used the yad when they read the Torah to respect the book and God.

### Key words:

**Kippah** - Head covering usually worn by men

**Siddur** - Prayer Book

**Synagogue** - Jewish place of worship, means assembly

**Shul** - School

**Shabbat** - Jewish Holy day, starts Friday ends Saturday night

**Tallit** - Prayer shawl

**Tzitzit** - Fringes on the prayer shawl to represent the 613 commandments in the Torah

**Bimah** - Platform where the Torah is read

**Chanukiah** - Candle used during Hanukkah to represent the miracle of the oil

**Ark** - A part of the synagogue where the Torah scrolls are kept

**Torah** - Holy Book

**Rabbi** - Teacher/Leader



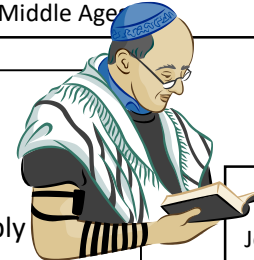
### Symbols and Meanings

#### **The Menorah**

The Menorah is a seven branched candelabrum and is the oldest symbol of the Jewish people. It is said to represent the burning bush as seen by Moses on Mount Sinai. The end of each branch is a lamp lit by olive oil. The Menorah is used in the Temple in Jerusalem and in many Synagogues.

#### **The Star of David**

This Jewish symbol is the standard symbol in synagogues. It is recognised as the symbol of Jewish Community and is named after King David of ancient Israel. Jews started to use the symbol in the Middle Ages.



#### **Praying Clothes**

Jews have to wear special clothes when they go to the Synagogue to worship God.

The wear a Yarmulke which is a cap worn on the head. It is worn by Jewish males to show that they respect God.

A Tallit which is a tasselled shawl which Jewish men wear.

A Tefillin which is ribbons with small boxes attached to it. Jews attach a box sometimes around the arm but often near the head to show they are thinking about God or hanging near the chest to show that they love God.

## BIG QUESTIONS

What is characterisation?

How can physical performance skills and vocal skills be incorporated into a performance?

How can drama techniques be incorporated into a performance?

Why is discipline important in a performance?

What are the differences between the two styles – Naturalism and Abstract Theatre?

What is the difference between devising and a scripted performance?

## Performance Skills

|                           |                                                                                  |
|---------------------------|----------------------------------------------------------------------------------|
| <b>Planned Movement</b>   | Physical actions that are organised prior to the performance and then rehearsed. |
| <b>Positioning</b>        | Arranging an actor in a place/way. Where the actor is facing.                    |
| <b>Posture</b>            | How the body is held.                                                            |
| <b>Body Language</b>      | Movements with the body, that communicate feeling.                               |
| <b>Eye Contact</b>        | Where the actor is looking.                                                      |
| <b>Space</b>              | How the environment is used.                                                     |
| <b>Levels</b>             | How high or low an actor is positioned on stage.                                 |
| <b>Vocal Skills</b>       | How the voice is used to communicate emotion and character.                      |
| <b>Gestures</b>           | Using your hands to further express meaning or emotion.                          |
| <b>Facial Expressions</b> | Showing mood through the movement of your face.                                  |

## 3PBEDSLVGF

Physical performance skills are the ways the use body can be used to communicate character or meaning.

**Always remember to remain disciplined when performing.**

## Vocal Skills

|                   |                                                                                          |
|-------------------|------------------------------------------------------------------------------------------|
| <b>Pitch</b>      | How high or low your voice is.                                                           |
| <b>Pace</b>       | How fast or slow you speak.                                                              |
| <b>Pause</b>      | A moment of silence.                                                                     |
| <b>Projection</b> | How far and clearly you speak enable your voice to travel across the room.               |
| <b>Tone</b>       | Using your voice to show mood.                                                           |
| <b>Emphasis</b>   | Exaggerating particular words or phrases in a sentence.                                  |
| <b>Accent</b>     | A distinctive pronunciation which shows location. This can be linked to country or area. |
| <b>Volume</b>     | How loud or quiet you are speaking.                                                      |

## 4P'STEAV

The way in which the voice is used to communicate. Vocal skills can be used to communicate character. The more the audience can understand about a character, the greater the understanding of the narrative of the performance.<sup>30</sup>

| Drama Techniques   | What would it look like on stage?                              |
|--------------------|----------------------------------------------------------------|
| Thought Track      | Character telling their thoughts to the audience               |
| Monologue          | A speech spoken by one character                               |
| Choral Speaking    | A group of actors speaking at the same time                    |
| Slow motion        | Slowing movement down                                          |
| Flashback          | A scene from the past                                          |
| Cross Cutting      | Mixing up the order of scenes                                  |
| Narration          | A spoken commentary for the audience about the action on stage |
| Organic Sound      | A sound made by the actors (not recorded)                      |
| Synchronisation    | Actors moving at the same time                                 |
| Canon              | Moving one after the other                                     |
| Multi-role         | One actor playing more than one role                           |
| Hot Seating        | Questioning an actor in role                                   |
| Still Image        | A frozen moment in a scene                                     |
| Physical Theatre   | Using your body to create objects                              |
| Mime               | Performing an action with no props                             |
| Mirroring          | 2 actors facing each other moving at the same time             |
| Split Role         | One role that is played by more than one actor                 |
| Flash forward      | A scene from the future                                        |
| Tableau            | A still image that captures the whole scene/story              |
| Repetition         | A sound/movement that is repeated                              |
| Marking the Moment | When a moment in a scene is emphasised                         |

### Style: Naturalism

Naturalism uses realistic acting and in-depth characterisation.

- Subtext
- Relationships
- Personality
- Situation
- Motivation

Movement is planned carefully, making sure every action has a meaning behind it.

Set/costume/props/sound are used as part of a Naturalistic performance however drama techniques are NOT used!

### Style: Abstract Theatre

Theatre that is non-naturalistic.

Drama techniques are included in performances to present a narrative or theme in an alternative or unconventional way.

Drama techniques are used to enhance an abstract performance, making it more engaging for the audience.



## BIG QUESTIONS

What is call and response?

What are the Elements of Music?

What is a melody?

What is harmony?

What is a chord?

What is a musical ensemble?

How is music created?

How can we describe the form and structure and texture of different songs?

In what ways can the Elements of Music be refined or manipulated to create new arrangements of an existing song or piece of music?

## Building Bricks

## Exploring the Elements of Music



| A. Pitch                                                                                                                                                                                                                             | B. Tempo                                                                                                                                                                                                                                                                                       | C. Dynamics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | D. Duration                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| <p>The <b>highness or lowness</b> of a sound.</p>                                                                                                                                                                                    | <p>The <b>speed</b> of a sound or piece of music.</p> <p><b>FAST:</b> <i>Allegro, Vivace, Presto</i><br/><b>SLOW:</b> <i>Andante, Adagio, Lento</i></p> <p><b>GETTING FASTER –</b> <i>Accelerando (accel.)</i><br/><b>GETTING SLOWER –</b> <i>Ritardando (rit.) or Rallentando (rall.)</i></p> | <p>The <b>volume</b> of a sound or piece of music.</p> <p><b>VERY LOUD:</b> <i>Fortissimo (ff)</i><br/><b>LOUD:</b> <i>Forte (f)</i><br/><b>QUITE LOUD:</b> <i>Mezzo Forte (mf)</i><br/><b>QUITE SOFT:</b> <i>Mezzo Piano (mp)</i><br/><b>SOFT:</b> <i>Piano (p)</i><br/><b>VERY SOFT:</b> <i>Pianissimo (pp)</i><br/><b>GETTING LOUDER:</b> <i>Crescendo (cresc.)</i><br/><b>GETTING SOFTER:</b> <i>Diminuendo (dim.)</i></p>                                                                                                                                                                          | <p>The <b>length</b> of a sound.</p>                                                       |
| E. Texture                                                                                                                                                                                                                           | F. Timbre or Sonority                                                                                                                                                                                                                                                                          | G. Articulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | H. Silence                                                                                 |
| <p>How much sound we hear.</p> <p><b>THIN TEXTURE:</b> (<i>sparse/solo</i>) – small amount of instruments or melodies.</p> <p><b>THICK TEXTURE:</b> (<i>dense/layered</i>) – lots of instruments or melodies.</p>                    | <p>Describes the <b>unique sound or tone quality</b> of different instruments voices or sounds.</p> <p><i>Velvety, Screechy, Throaty, Rattling, Mellow, Chirpy, Brassy, Sharp, Heavy, Buzzy, Crisp, Metallic, Wooden etc.</i></p>                                                              | <p>How individual notes or sounds are <b>played/techniques</b>.</p> <p><b>LEGATO</b> – playing notes in a long, smooth way</p> <p>shown by a <b>SLUR</b>.</p> <p><b>STACCATO</b> – playing notes in a short, detached, spiky way shown by a <b>DOT</b>.</p>                                                                                                                                                                                                                                                                                                                                             | <p>The opposite or absence of sound, <b>no sound</b>. In music these are <b>RESTS</b>.</p> |
| I. Notation                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                | J. How Music Works                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                            |
| <p>How music is <b>written</b> down.</p> <p><b>STAFF NOTATION</b> – music written on a <b>STAVE</b> (5 lines and spaces)</p> <p><b>GRAPHIC NOTATION/SCORE</b> – music written down using shapes and symbols to represent sounds.</p> |                                                                                                                                                                                                                                                                                                | <p>Music can create an <b>atmosphere or ambience</b> e.g., <i>supermarkets and restaurants</i>.</p> <p>Music can create an <b>image</b> e.g., <i>in response to art, a story, a poem, a character, a situation</i> – this is called <b>PROGRAMME MUSIC</b>.</p> <p>Music can be <b>calming</b> e.g., <i>end of an evening in clubs and bars</i>.</p> <p>Music can be used for <b>spiritual reasons</b> e.g., <i>worship, meditation, reflection, hymns and chants, yoga, and spiritual reflection</i>.</p> <p>Music can be used for <b>commercial purposes</b> e.g., <i>advertising, TV themes</i>.</p> |                                                                                            |

## A. Popular Song Structure

**SONG STRUCTURE** – How a song is made up of or divided into different sections (see below) and the order in which these sections occur. To work out the structure of a song, it's helpful to analyse the **LYRICS** and listen to a recording for the song (for instrumental sections).

**INTRO** – often shortened to 'intro', the first section of a song which sets the mood of the song and is sometimes, but not always, an instrumental section using the song's chord pattern.

**VERSES** – songs normally have several verses. Verses introduce the song's theme and have the same melody but different lyrics for each verse which helps develop the song's narrative and story. Songs made up entirely of verses are called **STROPHIC**.

**LINK** – a optional short section often used to join different parts of a song together, often instrumental, and sometimes joins verses together or appears at other points within a song.

**PRE-CHORUS** – an optional section of music that occurs before the **CHORUS** which helps the music move forward and "prepare" for what is to come.

**CHORUS** – occurs several times within a song and contains the most memorable **HOOK/RIFF**. The chorus relays the message of the song and is repeated with the same melody and lyrics each time it is heard. In popular songs, the chorus is often repeated several times towards the end of the song.

**MIDDLE 8/BRIDGE** – a section (often 8 bars in length) that provides contrasting musical material often featuring an instrumental or vocal solo using new musical material allowing the performer to display their technical skill on their instrument or voice.

**CODA/OUTRO** – The final section of a popular song which brings it to an end (Coda is Italian for "tail"!).

## B. Key Words

**LYRICS** – The words of a song, usually consisting of **VERSES** and a **CHORUS**.

**HOOK** – A 'musical hook' is usually the 'catchy bit' of the song that you will remember. It is often short and used and repeated in different places throughout the piece. Hooks can be either **MELODIC**, **RHYTHMIC** or **VERBAL/LYRICAL**.

**RIFF** – A repeated musical pattern often used in the introduction and instrumental breaks in a song or piece of music. Riffs can be rhythmic, melodic or lyrical, short and repeated.

**MELODY** – The main tune of the song often sung by the **LEAD SINGER**.

**COUNTER-MELODY** – An 'extra' melody often performed 'on top of' the main melody that 'fits' with it a **DESCANT** or **INSTRUMENTAL SOLO**.

**TEXTURE** – The layers that make up a song e.g., *Melody, Counter-Melody, Hooks/Riffs, Chords, Accompaniment, Bass Line*.

## C. Lead Sheet Notation and Arrangements

A **LEAD SHEET** is a form of musical **NOTATION** that contains only the essential elements of a popular song such as the **MELODY**, **LYRICS**, **RIFFS**, **CHORDS**

(often as guitar chord symbols) and **BASS LINE**; it is not as developed as a **FULL SCORE ARRANGEMENT** and is open to interpretation by

performers who need to use and adapt the given elements to create their own musical **ARRANGEMENT**: their "version" of an existing song.

**COVER (VERSION)** – A new performance, remake or recording by someone other than the original artist or composer of the song.

Ed Sheeran  
"Shape of You"  
Songwriters

Lead Sheet Notation showing Melody, Lyrics, Chords, and Bass Line.

## D. Conjunct and Disjunct Melodic Motion

**CONJUNCT MELODIC MOTION** – Melodies which move mainly by step or use notes which are next to or close to one another.

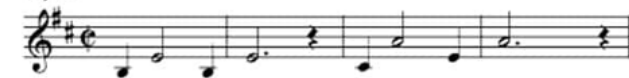
**DISJUNCT MELODIC MOTION** – Melodies which move mainly by leap or use notes which are not next to or close to one another.

**MELODIC RANGE** – The distance between the lowest and highest pitched notes in a melody.

Conjunct



Disjunct



## E. Song Timbre and Sonority (Instruments that are used to Accompany Songs)



Pop Bands often feature a **DRUM KIT** and **PERCUSSION** to provide the rhythm along with **ELECTRIC GUITARS (LEAD GUITAR, RHYTHM GUITAR and BASS GUITAR)** and **KEYBOARDS**. Sometimes **ACOUSTIC INSTRUMENTS** are used such as the **PIANO** or **ACOUSTIC GUITAR**. **ORCHESTRAL INSTRUMENTS** are often found in pop songs such as the **STRINGS**, **SAXOPHONE**, **TROMBONE** and **TRUMPET**.



Singers are essential to a pop song - **LEAD SINGER** – Often the "frontline" member of the band (most famous) who sings most of the melody line to the song. **BACKING SINGERS** support the lead singer providing **HARMONY** or a **COUNTER-MELODY** (a melody that is often higher in pitch and different, but still 'fits with' the main melody) and do not sing all the time but just at certain points within a pop song e.g. in the chorus.

## BIG QUESTIONS

- 1) ¿Dónde vives?  
Where do you live?
- 2) ¿Cómo es tu casa?  
What's your house like?
- 3) ¿Quiénes hay en tu familia?  
Who is in your family?
- 4) ¿Cuántos años tienen?  
How old are they?
- 5) ¿De qué color tienes los ojos?  
What colour are your eyes?
- 6) ¿Cómo es tu pelo?  
What is your hair like?
- 7) ¿Cómo eres físicamente?  
What are you like physically?
- 8) ¿Cómo eres?  
What are you like?

### Saying who is in my family and how old they are

|                                      |                   |                                 |                                      |                             |                               |                                     |                           |                     |
|--------------------------------------|-------------------|---------------------------------|--------------------------------------|-----------------------------|-------------------------------|-------------------------------------|---------------------------|---------------------|
| En mi familia<br>(In my family)      | hay<br>(there is) | mi madre,<br>(my mum,)          | mi hermana,<br>(my sister,)          | mi abuela,<br>(my grandma,) | mi padre<br>(my dad)          | mi hermano<br>(my brother)          | mi abuelo<br>(my grandad) | y yo.<br>(and me.)  |
|                                      |                   | mi madrastra,<br>(my step-mum,) | mi hermanastra,<br>(my step-sister,) | mi tía<br>(my aunt)         | mi padrastro<br>(my step-dad) | mi hermanastro<br>(my step-brother) | mi tío<br>(my uncle)      |                     |
| Mi madre,<br>(My mum,)               |                   | Mi abuela,<br>(My grandma,)     | Mi hermano<br>(My brother)           |                             |                               |                                     |                           |                     |
| Mi madrastra,<br>(My step-mum,)      |                   | Mi tía<br>(My aunt)             | Mi hermanastro<br>(My step-brother)  |                             |                               |                                     |                           |                     |
| Mi hermana,<br>(My sister,)          |                   | Mi padre<br>(My dad)            | Mi abuelo<br>(My grandad)            |                             |                               |                                     |                           |                     |
| Mi hermanastra,<br>(My step-sister,) |                   | Mi padrastro<br>(My step-dad)   | Mi tío<br>(My uncle)                 |                             |                               |                                     |                           |                     |
|                                      | tiene<br>(has)    |                                 |                                      | treinta<br>(thirty)         |                               |                                     |                           |                     |
|                                      |                   |                                 |                                      | cuarenta<br>(forty)         |                               |                                     |                           |                     |
|                                      |                   |                                 |                                      | cincuenta<br>(fifty)        |                               |                                     |                           |                     |
|                                      |                   |                                 |                                      | sesenta<br>(sixty)          |                               |                                     |                           |                     |
|                                      |                   |                                 |                                      |                             | setenta<br>(seventy)          |                                     |                           |                     |
|                                      |                   |                                 |                                      |                             | ochenta<br>(eighty)           |                                     |                           |                     |
|                                      |                   |                                 |                                      |                             | noventa<br>(ninety)           |                                     |                           |                     |
|                                      |                   |                                 |                                      |                             |                               | y uno<br>(one)                      |                           |                     |
|                                      |                   |                                 |                                      |                             |                               | y dos<br>(two)                      | y seis<br>(six)           |                     |
|                                      |                   |                                 |                                      |                             |                               | y tres<br>(three)                   | y siete<br>(seven)        |                     |
|                                      |                   |                                 |                                      |                             |                               | y cuatro<br>(four)                  | y ocho<br>(eight)         |                     |
|                                      |                   |                                 |                                      |                             |                               | y cinco<br>(five)                   | y nueve<br>(nine)         |                     |
|                                      |                   |                                 |                                      |                             |                               |                                     |                           | años<br>(years old) |

### Describing what people look like

|                                                                  |                 |                                                                                        |                                                                                            |                                        |
|------------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------|
| Tengo (I have)                                                   | los ojos (eyes) | verdes (green)<br>marrones (brown)<br>negros (black)<br>grises (grey)<br>azules (blue) | y llevo gafas (and I wear glasses)<br>y no llevo gafas (and I don't wear glasses)          | y tengo pecas (and I have freckles)    |
| Mi madre tiene (My mum has)<br>Mi hermana tiene (My sister has)  | el pelo (hair)  | rubio (blonde)<br>negro (black)<br>castaño (brown)<br>pelirrojo (ginger)               | y corto (and short)<br>y largo (and long)<br>y liso (and straight)<br>y rizado (and curly) | y tiene pecas (and she has freckles)   |
| Mi padre tiene (My dad has)<br>Mi hermano tiene (My brother has) |                 |                                                                                        |                                                                                            | y tiene una barba (and he has a beard) |

#### Ser = To be

|             |      |             |       |
|-------------|------|-------------|-------|
| I am        | Soy  | We are      | Somos |
| You are     | Eres | You all are | Sois  |
| He / she is | Es   | They are    | Son   |

#### Tener = To have

|              |        |              |           |
|--------------|--------|--------------|-----------|
| I have       | Tengo  | We have      | Tenemos   |
| You have     | Tienes | You all have | Teneis    |
| He / she has | Tiene  | They have    | 34 Tienen |

## Describing what my family are like

|                                                    |            |                       |                            |                            |            |                   |                        |                        |                 |
|----------------------------------------------------|------------|-----------------------|----------------------------|----------------------------|------------|-------------------|------------------------|------------------------|-----------------|
| Mi madre<br>(My mum)                               | es<br>(is) | un poco<br>(a little) | alta (tall)                | guapa (attractive)         | y<br>(and) | delgada<br>(slim) |                        |                        |                 |
| Mi hermana<br>(My sister)                          |            | bastante<br>(quite)   | baja (short)               | fea (ugly)                 |            | gorda<br>(fat)    |                        |                        |                 |
| Mi padre<br>(My dad)                               |            | muy<br>(very)         | alto (tall)                | guapo (attractive)         |            | delgado<br>(slim) |                        |                        |                 |
| Mi hermano<br>(My brother)                         |            |                       | bajo (short)               | feo (ugly)                 |            | gordo<br>(fat)    |                        |                        |                 |
|                                                    |            |                       |                            |                            |            |                   |                        |                        |                 |
| Me llevo bien con<br>(I get on well with)          |            | mi madre<br>(my mum)  | mi hermana<br>(my sister)  | porque es (because she is) |            | graciosa (funny)  | optimista (optimistic) | fiel (loyal)           |                 |
| No me llevo bien con<br>(I don't get on well with) |            |                       |                            |                            |            |                   | severa (strict)        | irritante (annoying)   | perezosa (lazy) |
|                                                    |            | mi padre<br>(my dad)  | mi hermano<br>(my brother) | porque es (because he is)  |            |                   | gracioso (funny)       | optimista (optimistic) | fiel (loyal)    |
|                                                    |            |                       |                            |                            |            |                   | severo (strict)        | irritante (annoying)   | perezoso (lazy) |

## Talking about where I live

|                            |                               |                               |                  |                                               |
|----------------------------|-------------------------------|-------------------------------|------------------|-----------------------------------------------|
| Vivo en<br>(I live in)     | un piso<br>(a flat)           | antiguo (old)                 | moderno (modern) | en Inglaterra<br>(in England)                 |
| Vivimos en<br>(We live in) | una casa<br>(a house)         | bonito (pretty)               | pequeño (small)  | en Escocia<br>(in Scotland)                   |
|                            |                               | cómodo (comfortable)          | grande (big)     | en Gales<br>(In Wales)                        |
|                            |                               | antigua (old)                 | moderna (modern) | en Irlanda del Norte<br>(in Northern Ireland) |
|                            |                               | bonita (pretty)               | pequeña (small)  |                                               |
|                            |                               | cómoda (comfortable)          | grande (big)     |                                               |
| Está in<br>(It is in)      | el campo<br>(the countryside) | el desierto<br>(the desert)   | en<br>(in)       | el norte<br>(the north)                       |
|                            | la costa<br>(the coast)       | la montaña<br>(the mountains) |                  | el este<br>(the east)                         |
|                            | una ciudad<br>(a city)        | un pueblo<br>(a village)      |                  | el centro<br>(the centre)                     |
|                            |                               |                               |                  | el sur<br>(the south)                         |
|                            |                               |                               |                  | el oeste<br>(the west)                        |

## HOMEWORK

Every week you will be set an assignment on sentence builders.

The website is:

[www.sentencebuilders.com](http://www.sentencebuilders.com)

You should have your log-in details stuck in your planner. If you forget these, you must email your teacher or ask in lesson time for these details.

Your knowledge organiser has every answer that you will need to complete your homework. Have it open when you do your homework!

Aim for 65% correct. Remember, if you're unhappy with your score you can re-do each section as you go!



SentenceBuilders

## Mid-Term Assessment Prep – I can...

- ☐ say where you live
- ☐ say what your house is like
- ☐ say who you live with
- ☐ say who is in your extended family



## BIG QUESTIONS

- 1) **Qui est dans ta famille?**  
**Who is in your family?**
- 2) **Quel âge ont-ils?**  
**How old are they?**
- 3) **Tu es comment physiquement?**  
**What are you like physically?**
- 4) **C'est comment, ta personnalité?**  
**What's your personality like?**
- 5) **Où habites-tu?**  
**Where do you live?**
- 6) **Tu aimes ta maison?**  
**Do you like your home?**
- 7) **Ta maison est comment?**  
**What is your house like?**

### Describing my family

|                                                  |                                     |                                |                                   |                           |                                     |                               |                                  |                                 |                                 |
|--------------------------------------------------|-------------------------------------|--------------------------------|-----------------------------------|---------------------------|-------------------------------------|-------------------------------|----------------------------------|---------------------------------|---------------------------------|
| Dans ma famille, il y a (In my family, there is) |                                     |                                |                                   | ma mère,<br>(my mum,)     | ma belle-mère,<br>(my step-mum,)    | mon père (my dad)             | mon beau-père (my step-dad)      | et moi. (and me.)               |                                 |
|                                                  |                                     |                                |                                   | ma soeur,<br>(my sister,) | ma demi-soeur,<br>(my step-sister,) | mon frère (my brother)        | mon demi-frère (my step-brother) |                                 |                                 |
| Mon père<br>(My dad)                             | Mon frère<br>(My brother)           | Ma mère<br>(My mum)            | Ma soeur<br>(My sister)           |                           |                                     | vingt ans<br>(20 years)       | trente-deux ans<br>(32 years)    | cinquante ans<br>(50 years)     | soixante ans<br>(60 years)      |
| Mon beau-père<br>(My step-dad)                   | Mon demi-frère<br>(My step-brother) | Ma belle-mère<br>(My step-mum) | Ma demi-soeur<br>(My step-sister) | a<br>(has)                |                                     | vingt-et-un ans<br>(21 years) | quarante ans<br>(40 years)       | cinquante-six ans<br>(56 years) | soixante-huit ans<br>(68 years) |
|                                                  |                                     |                                |                                   |                           |                                     | trente ans<br>(30 years)      | quarante-cinq ans<br>(45 years)  |                                 |                                 |

|                                |                                     |             |                   |  |  |                                      |  |  |                  |  |  |
|--------------------------------|-------------------------------------|-------------|-------------------|--|--|--------------------------------------|--|--|------------------|--|--|
| Il<br>(He)                     |                                     | est<br>(is) | petit<br>(small)  |  |  | de taille moyenne<br>(medium height) |  |  | grand<br>(tall)  |  |  |
| Mon père<br>(My dad)           | Mon frère<br>(My brother)           |             |                   |  |  |                                      |  |  |                  |  |  |
| Mon beau-père<br>(My step-dad) | Mon demi-frère<br>(My step-brother) |             |                   |  |  |                                      |  |  |                  |  |  |
| Elle<br>(She)                  |                                     |             | petite<br>(small) |  |  | de taille moyenne<br>(medium height) |  |  | grande<br>(tall) |  |  |
| Ma mère<br>(My mum)            | Ma soeur<br>(My sister)             |             |                   |  |  |                                      |  |  |                  |  |  |
| Ma belle-mère<br>(My step-mum) | Ma belle-soeur<br>(My step-sister)  |             |                   |  |  |                                      |  |  |                  |  |  |

|            |  |         |                    |                                                                                   |                                                                                                                                       |                                                                                  |
|------------|--|---------|--------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Elle (She) |  | a (has) | les yeux (eyes)    | bleus (blue)<br>bruns (brown)<br>verts (green)                                    |                                                                                                                                       | et des taches de rousseur<br>(and freckles)<br>et des tatouages<br>(and tattoos) |
|            |  |         |                    |                                                                                   |                                                                                                                                       |                                                                                  |
| Il (He)    |  | a (has) | les cheveux (hair) | noirs (black)<br>bruns (brown)<br>blonds (blonde)<br>roux (ginger)<br>gris (grey) | et courts (and short)<br>et longs (and long)<br>et mi-longs (and medium length)<br>et bouclés (and curly)<br>et raides (and straight) |                                                                                  |
|            |  |         |                    |                                                                                   |                                                                                                                                       |                                                                                  |

### Mid-Term Assessment Prep – I can...

- |                                                              |                                                          |
|--------------------------------------------------------------|----------------------------------------------------------|
| <input type="checkbox"/> say who is in your family           | <input type="checkbox"/> say who you get on with and why |
| <input type="checkbox"/> say what they are like (physically) | <input type="checkbox"/> say who you argue with and why  |



Describing who you get on with

|                                                |                                |                                     |                                  |                      |                      |
|------------------------------------------------|--------------------------------|-------------------------------------|----------------------------------|----------------------|----------------------|
| Je m'entends bien avec<br>(I get on well with) | mon père<br>(my dad)           | mon frère<br>(my brother)           | car il est<br>(because he is)    | très<br>(very)       | marrant (funny)      |
|                                                | mon beau-père<br>(my step-dad) | mon demi-frère<br>(my step-brother) |                                  | vraiment<br>(really) | charmant (charming)  |
|                                                |                                |                                     |                                  |                      | sympa (nice)         |
| Je me dispute avec<br>(I argue with)           | ma mère<br>(my mum)            | ma soeur<br>(my sister)             | car elle est<br>(because she is) | assez<br>(quite)     | arrogant (arrogant)  |
|                                                | ma belle-mère<br>(my step-mum) | ma demi-soeur<br>(my step-sister)   |                                  | un peu<br>(a little) | sévère (strict)      |
|                                                |                                |                                     |                                  |                      | méchant (mean)       |
|                                                |                                |                                     |                                  |                      | marrante (funny)     |
|                                                |                                |                                     |                                  |                      | charmante (charming) |
|                                                |                                |                                     |                                  |                      | sympa (nice)         |
|                                                |                                |                                     |                                  |                      | arrogante (arrogant) |
|                                                |                                |                                     |                                  |                      | sévère (strict)      |
|                                                |                                |                                     |                                  |                      | méchante (mean)      |

Describing where you live

|                                    |                              |                              |                                                |                                        |                                             |                  |
|------------------------------------|------------------------------|------------------------------|------------------------------------------------|----------------------------------------|---------------------------------------------|------------------|
| J'habite dans<br>(I live in)       | un appartement<br>(a flat)   | en Écosse. (in Scotland.)    | J'habite ici depuis<br>(I have lived here for) | deux<br>(two)                          | quatre<br>(four)                            | mois<br>(months) |
| Nous habitons dans<br>(We live in) | une maison<br>(a house)      | en Angleterre. (in England.) |                                                | trois<br>(three)                       | cinq<br>(five)                              | ans<br>(years)   |
| J'aime (I like)                    |                              |                              | c'est tranquille<br>(it's quiet)               | c'est grand<br>(it's big)              | c'est confortable<br>(it's comfortable)     |                  |
| J'adore (I love)                   |                              |                              |                                                |                                        |                                             |                  |
| Je n'aime pas<br>(I don't like)    | habiter ici<br>(living here) | car<br>(because)             | c'est trop petit<br>(it's too small)           | c'est trop bruyant<br>(it's too noisy) | il n'y a pas de place<br>(there's no space) |                  |
| Je déteste<br>(I hate)             |                              |                              |                                                |                                        |                                             |                  |

|                      |                                       |                        |                             |                 |                 |                                                                        |
|----------------------|---------------------------------------|------------------------|-----------------------------|-----------------|-----------------|------------------------------------------------------------------------|
| Dans<br>(In)         | ma maison<br>(my house)               | il y a<br>(there are)  | quatre<br>(four)            | six<br>(six)    | huit<br>(eight) | pièces.<br>(rooms.)                                                    |
|                      | mon appartement<br>(my flat)          |                        | cinq<br>(five)              | sept<br>(seven) | neuf<br>(nine)  |                                                                        |
| Il y a<br>(There is) | une salle de bains<br>(a bathroom)    | et aussi<br>(and also) | un salon<br>(a living room) |                 |                 | où je regarde la télé (where I watch TV)                               |
|                      | une chambre<br>(a bedroom)            |                        | une cuisine (a kitchen)     |                 |                 | où je me détend (where I relax)                                        |
|                      | une salle à manger<br>(a dining room) |                        |                             |                 |                 | où je prépare le dîner (where I prepare dinner)                        |
|                      |                                       |                        |                             |                 |                 | où je mange (where I eat)                                              |
|                      |                                       |                        | le jardin (the garden)      |                 |                 | où je joue au foot (where I play football)                             |
|                      |                                       |                        |                             |                 |                 | où je joue avec mon frère cadet (where I play with my younger brother) |

HOMEWORK

Every week you will be set an assignment on sentence builders.

The website is:

[www.sentencebuilders.com](http://www.sentencebuilders.com)

You should have your log-in details stuck in your planner. If you forget these, you must email your teacher or ask in lesson time for these details.

Your knowledge organiser has every answer that you will need to complete your homework. Have it open when you do your homework!

Aim for 65% correct. Remember, if you're unhappy with your score you can re-do each section as you go!





**BIG**  
**QUESTIONS**

- What are micronutrients?
- What are the nutrient functions?
- What are the food sources of these nutrients?
- What is baking?

Food Preparation and Nutrition

Year 7 - Term 4

Micronutrients.

Practical - basic baking

*Students will learn about micronutrients and the part they play in our growth and development. People's nutritional needs, and the effects of food excess or deficiency will be observed.*

*Confidence will be boosted in the learning and developing of basic skills to progress through to more complex activities. Food science will be introduced into their learning.*

*There will be an introduction into baking through practical work.*

**Micronutrients** are needed in the body in tiny amounts. They do not provide energy, but are required for a number of important processes in the body.

There are two main groups of micronutrients: vitamins; minerals and trace elements.

Micronutrients are measured in milligrams (mg) and micrograms (µg) with 1mg = 0.001g and 1µg = 0.001mg.

| Nutrient   | Function                                                                           | Sources                                                                                                 |
|------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Calcium    | Helps to build and maintain strong bones and teeth.                                | Dairy, calcium-fortified dairy-alternatives, canned fish (where soft bones are eaten) and bread.        |
| Iron       | Helps to make red blood cells, which carry oxygen around the body.                 | Offal, red meat, beans, pulses, nuts and seeds, fish, quinoa, wholemeal bread and dried fruit.          |
| Phosphorus | Helps to build strong bones and teeth and helps to release energy from food.       | Red meat, poultry, fish, milk, cheese, yogurt, eggs, bread and wholegrains.                             |
| Sodium     | Helps regulate the water content in the body.                                      | Very small amounts found in foods. Often added as salt.                                                 |
| Fluoride   | Helps with the formation of strong teeth and reduce the risk of tooth decay.       | Tap water, tea (and toothpaste).                                                                        |
| Potassium  | Helps regulate the water content in the body and maintain a normal blood pressure. | Some fruit and vegetables, dried fruit, poultry, red meat, fish, milk and wholegrain breakfast cereals. |
| Iodine     | Helps to make thyroid hormones. It also helps the brain to function normally.      | Milk, yogurt, cheese, fish, shellfish and eggs.                                                         |

| Nutrient   | Function                                                                                        | Sources                                                                                     |
|------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Vitamin A  | Helps the immune system to work as it should and with vision.                                   | Liver, cheese, eggs, dark green leafy vegetables and orange-coloured fruits and vegetables. |
| B vitamins | Thiamin, riboflavin, niacin, folate, and vitamin B12 have a range of functions within the body. | Different for each B Vitamin.                                                               |
| Vitamin C  | Helps to protect cells from damage and with the formation of collagen.                          | Fruit (especially citrus fruits), green vegetables, peppers and tomatoes.                   |
| Vitamin D  | Helps the body to absorb calcium & helps to keep bones strong.                                  | Oily fish, eggs, fortified breakfast cereals and fat spreads.                               |
| Vitamin E  | Helps to protect the cells in our bodies against damage.                                        | Vegetable and seed oils, nuts and seeds, avocados and olives.                               |
| Vitamin K  | Needed for the normal clotting of blood and is required for normal bone structure.              | Green vegetables and some oils (rapeseed, olive and soya oil).                              |

## Micronutrients

### Key terms

**Micronutrients:** Nutrients needed in the diet in very small amounts.

**Lower Reference Nutrient Intake (LRNI):** Is the amount of a nutrient that is enough for only the small number of people who have low requirements (2.5%). The majority of people need more.

**Reference Nutrient Intake (RNI):** The amount of a nutrient that is enough to ensure that the needs of nearly all the group (97.5%) are being met. The RNI is used for recommendations on protein, vitamins and minerals.

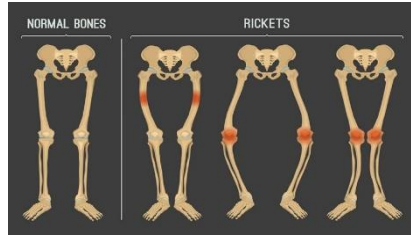
## Vitamins

Vitamins are nutrients required by the body in small amounts, for a variety of essential processes.

Most vitamins cannot be made by the body, so need to be provided in the diet.

Vitamins are grouped into:

- fat-soluble vitamins (vitamins A, D, E and K);
- water-soluble vitamins (B vitamins and vitamin C).



## Vitamin D

Vitamin D is a pro-hormone in the body. It can be obtained in two forms: ergocalciferol (vitamin D<sub>2</sub>); cholecalciferol (vitamin D<sub>3</sub>).

Vitamin D<sub>3</sub> is also formed by the action of sunlight. Different to most vitamins, the main source of vitamin D is synthesis in the skin following exposure to sunlight. The wavelength of UVB during the winter months in the UK does not support vitamin D synthesis.



## Minerals

Minerals are inorganic substances required by the body in small amounts for a variety of different functions.

The body requires different amounts for each mineral.

Some minerals are required in larger amounts, while others are needed in very small amounts and are called 'trace elements'.



## Homework Links

Food a Fact of Life

BBC Bitesize

GCSE Ebook digital resource

## Key Vocabulary

Vitamin

Mineral

Nutrient

Kneading

Bake blind

shortening

## Year 7 Knowledge organiser- Pastry

### Ingredients in pastry

Ingredients have different functions depending on the type of pastry that is made. The ratio of each ingredient determines the end result in terms of texture, taste and finish. The three ingredients in all pastries are:

**Flour-** Flour forms the structure of the pastry.

Soft plain flour (low gluten content) used in shortcrust to crumb.



Strong plain flour (high gluten content) used in flaky/rough puff pastry to give the pastry its elasticity.

**Fat**—In shortcrust pastry the fat coats the flour granules resulting in a crumbly texture.

Fat traps air between the layers in flaky/rough puff pastry. Adds colour and flavour.



**Water-** Binds the dry ingredients together.

### Baking blind

**When making tarts, quiches and flans you often bake the pastry 'blind'. This is when you line the raw pastry with greaseproof paper and baking beans to prevent the pastry from rising. After 15 minutes you remove the paper and beans and cook the pastry case for 5 – 10 minutes more until it is golden brown.**

### Top tips when making shortcrust pastry

Use the rubbing in method—make sure the butter is cold, your hands are cold, and water is cold.

Add the cold water slowly so the dough is not too wet

When rolling the pastry out dust the surface and rolling pin with flour

Do not over work the dough.

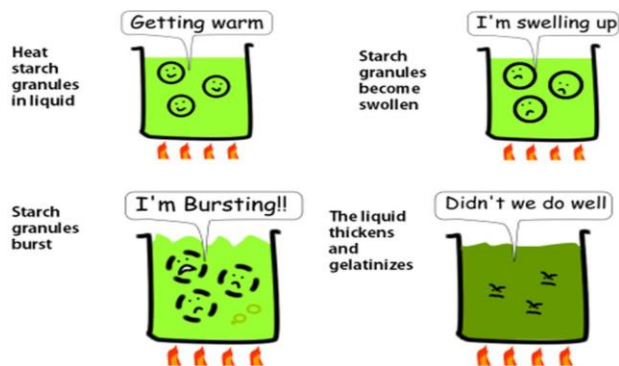
| Type of pastry    | Examples of products                      | Characteristics of the pastry                                                                            |
|-------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Shortcrust pastry | Bakewell tart, Lemon meringue pie, quiche | Crumbly texture, pale in colour<br>Ratio -fat to flour 1:2                                               |
| Choux pastry      | Profiteroles, eclairs, choux buns         | Darker in colour, liquid turns steam when baked, light and airy. Can be filled. Ratio— fat to flour 2:3. |
| Filo pastry       | Spring rolls, apple strudel, Filo parcel  | Very thin, crispy, delicate                                                                              |
| Rough puff pastry | Sausage rolls, savoury tarts, pies,       | Flaky pastry, high quantity of fat ratio fat::flour—3:4.                                                 |
| Hot water crust   | Pork pie.                                 | Dark in colour, made using boiled fat and water mixed with flour.                                        |

| Fault                                  | Cause                                                                                                                                     |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Shortcrust Pastry                      |                                                                                                                                           |
| Pastry is hard and has a tough texture | Over kneading and heavy handling<br>Incorrect proportions of ingredients (too much water/not enough fat) Incorrect oven temp – too cool   |
| Pastry is blistered                    | Oven too hot. Uneven addition of water<br>Fats not mixed with flour properly                                                              |
| Pastry is fragile and crumbly          | Too much fat / Not enough water<br>Over mixing the fat into the flour                                                                     |
| Pastry has shrunk during cooking       | Pastry over worked during kneading and rolling                                                                                            |
| Flaky/puff                             |                                                                                                                                           |
| Pastry has not flaked well             | Oven too cool. Not enough liquid added, pastry folded and rolled unevenly. Not rested enough in a cool place.<br>Pastry folded too thinly |

## Functions of ingredients

**Gelatinisation:** Gelatinisation occurs when starch (flour, cornflour or arrow- root) granules swell and absorb a hot liquid.

- At around 60°C the starch granules begin to absorb liquid.
- At around 85°C the granules will absorb around 5 times their volume of liquid.
- Eventually so much liquid is absorbed that the granules swell, burst
- The granules remain dispersed throughout the liquid- this is gelatinisation



- **Wheat flour (plain flour)** Makes a thick white sauce e.g. macaroni cheese
- **Arrowroot** Clear transparent glaze e.g. on fruit flans
- **Cornflour** Makes an opaque gel used for sweet and savoury sauces e.g. custard,

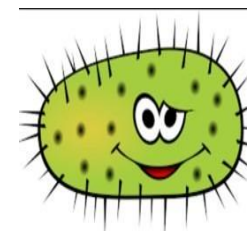
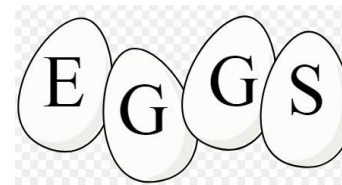
## Functional Properties of eggs:

**Binding:** hold ingredients together so they keep their shape when cooked

**Coating:** Beaten eggs are used to coat products and enable dry ingredients to be attached e.g. breadcrumbs

**Foaming:** Beaten eggs form a structure which enables a mixture to hold air (e.g. meringues)

**Setting:** Heating eggs can set a mixture. e.g quiche



Raw and partially cooked eggs can contain **Salmonella bacteria**.

Therefore it is advised that eggs should be fully cooked if they are to be eaten by babies, the elderly, pregnant women or frail people.

Manufacturers often use dried or pasteurised egg to be on the safe side, like for mayonnaise.

## Sensory Properties off eggs:

**1.Garnish-** eggs can be cooked and used as a garnish to products (e.g. sliced hard boiled egg)

**2.Glazing-** beaten whole egg or yolk can be used to create a shiny glaze on pastry. Egg white and sugar creates a crystallised glaze

## Nutritional Properties of eggs:

Eggs are a valuable source of high biological value protein, B group vitamins, calcium and phosphorous.

| Key word           | Definition                                                                                                                                                                                                              |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Coagulation</b> | <p>The change in the structure of protein brought about by heat, mechanical action or acids</p> <p>Used in:</p> <ul style="list-style-type: none"> <li>• Lemon tart</li> <li>• Quiche</li> <li>• Egg custard</li> </ul> |