



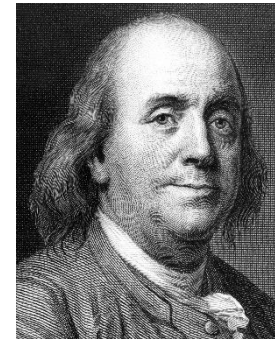
**Name:**

**Class: Dover**

**Teacher: Miss Harper**

## Knowledge Organiser

Term 5



"An investment in knowledge pays the best interest."

Benjamin Franklin

# How to use your Knowledge Organiser

Using in Class	
Quiz your neighbour	Your teacher will give you a topic and you can create questions to test your neighbour's knowledge and understanding
Multiple choice quiz	A quick quiz based on the knowledge organiser
Key words	Tell your teacher if any key words from your knowledge organiser come up in lessons
Spelling Tests	Using the key words, your teacher might give you some spelling tests
Extended Writing	Using this key information, create longer pieces of writing showing your specialist knowledge
Knowledge test	At the end of the unit, your teacher might give you a test based on your knowledge organiser

Using at Home	
Catching up	Use the knowledge organiser to catch up on any lessons you have missed
Quiz yourself	Read through the information, repeat it to yourself, cover and test your knowledge
Create Flashcards	Turn the information in to revision cards
Application	Use this information to add to any homework or classwork, including longer pieces of writing
Revise	Use the information to revise for any assessments or end of topic tests

# Term 5 - KS4 PEARSON EDEXCEL MATHEMATICS

Probability and events; Transformations

## PROBABILITY AND EVENTS

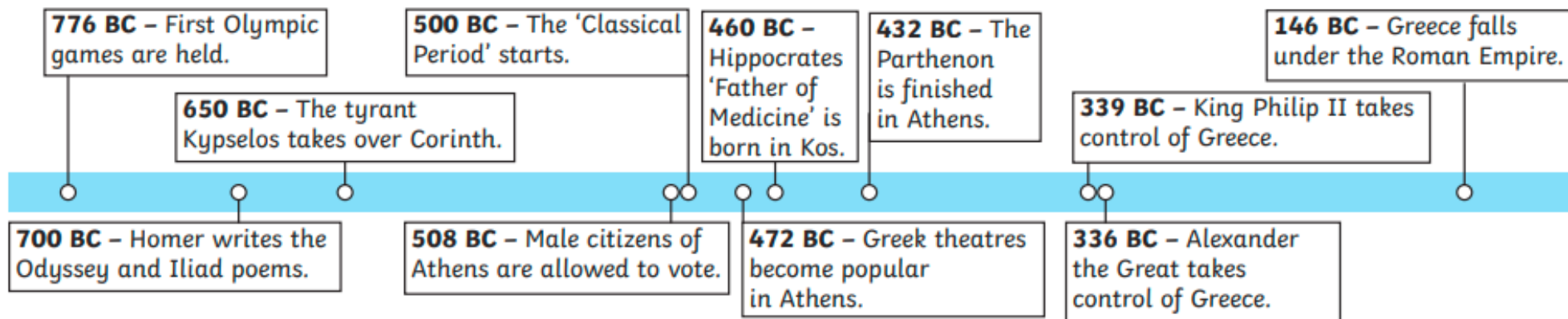
Topic/Skill	Definition/Tips	Example
1. Probability	<p>The <b>likelihood/chance</b> of something happening.</p> <p>Is expressed as a number <b>between 0 (impossible) and 1 (certain)</b>.</p> <p>Can be expressed as a fraction, decimal, percentage or in words (likely, unlikely, even chance etc.)</p>	
2. Probability Notation	<b>P(A)</b> refers to the <b>probability that event A will occur</b> .	P(Red Queen) refers to the probability of picking a Red Queen from a pack of cards.
3. Theoretical Probability	$\frac{\text{Number of Favourable Outcomes}}{\text{Total Number of Possible Outcomes}}$	Probability of rolling a 4 on a fair 6-sided die = $\frac{1}{6}$ .
4. Relative Frequency	$\frac{\text{Number of Successful Trials}}{\text{Total Number of Trials}}$	<p>A coin is flipped 50 times and lands on Tails 29 times.</p> <p>The relative frequency of getting Tails = <math>\frac{29}{50}</math>.</p>
5. Expected Outcomes	To find the number of expected outcomes, <b>multiply the probability by the number of trials</b> .	<p>The probability that a football team wins is 0.2 How many games would you expect them to win out of 40?</p> <p><math>0.2 \times 40 = 8 \text{ games}</math></p>

## TRANSFORMATIONS

Topic/Skill	Definition/Tips	Example
1. Translation	<b>Translate</b> means to <b>move a shape</b> . The shape does not change <b>size or orientation</b> .	
2. Column Vector	In a column vector, the <b>top</b> number moves <b>left (-) or right (+)</b> and the <b>bottom</b> number moves <b>up (+) or down (-)</b>	$\begin{pmatrix} 2 \\ 3 \end{pmatrix}$ means '2 right, 3 up' $\begin{pmatrix} -1 \\ -5 \end{pmatrix}$ means '1 left, 5 down'
3. Rotation	The size does not change, but the <b>shape is turned around a point</b> .  Use tracing paper.	<p>Rotate Shape A 90° anti-clockwise about (0,1)</p>
4. Reflection	The size does not change, but the shape is <b>'flipped'</b> like in a <b>mirror</b> .  Line $x = ?$ is a <b>vertical line</b> . Line $y = ?$ is a <b>horizontal line</b> . Line $y = x$ is a <b>diagonal line</b> .	<p>Reflect shape C in the line <math>y = x</math></p>
5. Enlargement	The shape will get <b>bigger or smaller</b> . Multiply each side by the <b>scale factor</b> .	<p>Scale Factor = 3 means '3 times larger = multiply by 3'</p> <p>Scale Factor = <math>\frac{1}{2}</math> means 'half the size = divide by 2'</p>

# Term 5 - Humanities

## Ancient Greece



### Key Vocabulary

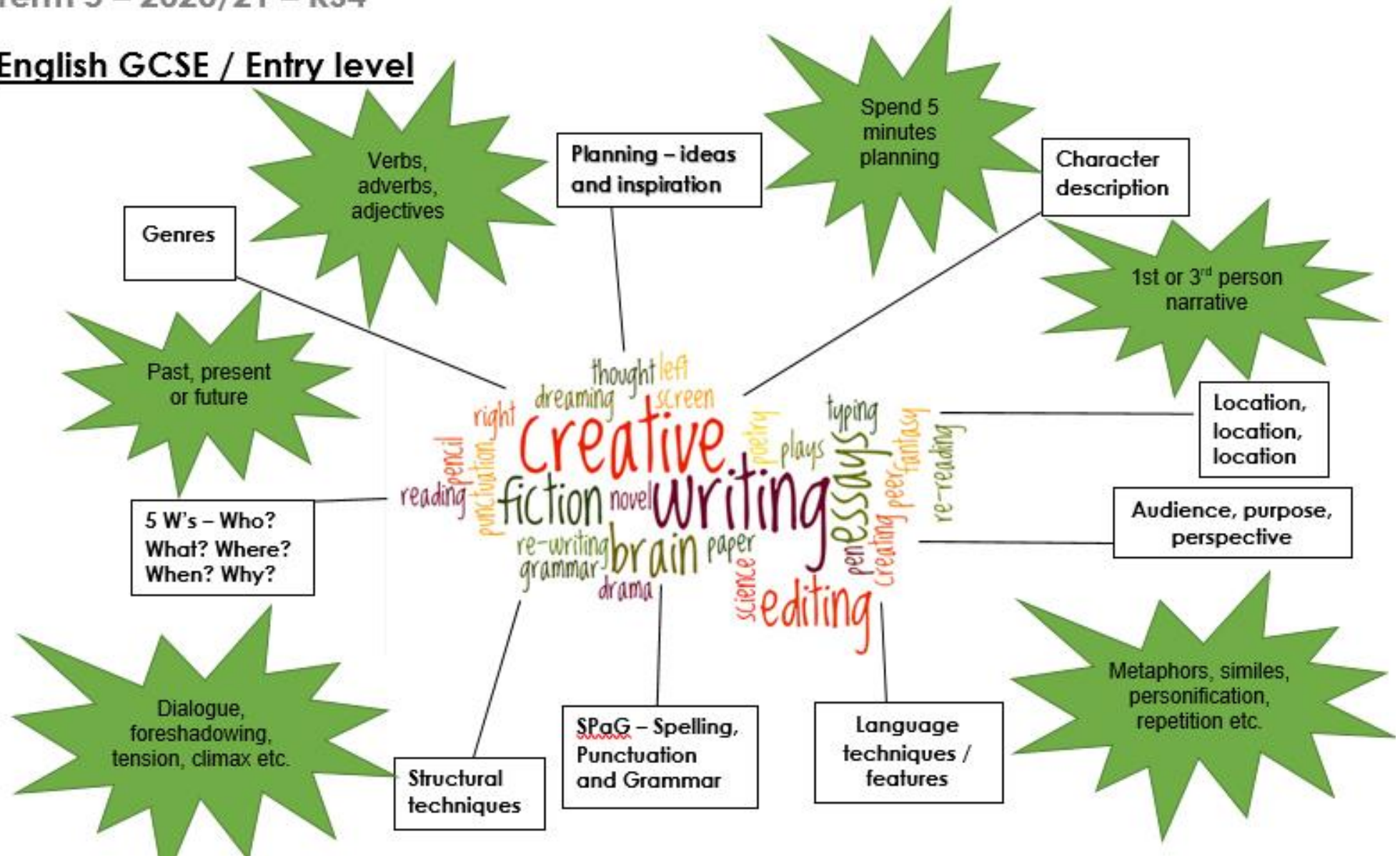
<b>ancient</b>	Something from a very long time ago.
<b>Athenian</b>	People from the Greek city of Athens.
<b>city state</b>	A small area that <b>ancient</b> Greece was divided into which had its own government, laws and army.
<b>civilisation</b>	The people, culture and way of life of a certain area.
<b>democracy</b>	A fair political system where adults vote for an elected government who then make decisions on how to run the country.
<b>empire</b>	A group of countries that is ruled by one ruler or country.
<b>honour</b>	To show respect and admiration for someone or something.
<b>Persian</b>	People from the area of Persia.
<b>philosopher</b>	Someone who studies the idea of right and wrong, the value of things and knowledge.
<b>Spartans</b>	People from the Greek city of Sparta.

### The Olympic Games

- Began in 776 BC in Olympia.
- Believed to be a religious event to **honour** Zeus, the King of the Gods.
- Events included boxing, wrestling, long-distance running and chariot racing.
- Some of the evidence about the games comes from paintings discovered on vases.



English GCSE / Entry level



# Term 5 - Mental Health and Wellbeing...

## #SELFCARE

### Self-Care Monthly Calendar

1

Have an early night and wake up feeling refreshed!



2

Make yourself a luxury hot chocolate and relax!

3

Go for a walk and enjoy the beauty of nature.

4

Call a friend that you haven't spoken to for a while.

5

Sit back, relax and read your favourite book.

6

Put on some fluffy PJs and watch your favourite film.

7

Fill a bird feeder and place it near a window.



8

Relax in a hot bath filled with your favourite products.

9

Do some exercise – even if it is just running up and down the stairs!

10

Invite some good friends around to play your favourite board game.

11

Spend an hour doing something creative like painting, sewing or craft.

12

Buy a gift for yourself.

13

Book yourself a weekend away for next year – something to look forward to!

14

Write down three things that make you happy and stick them on the wall.

15

Light a scented candle or an essential oil burner.

16

Watch your favourite comedian – someone that makes you laugh out loud!

17

Arrange to meet up with an old friend next month.

18

Write down your greatest achievement from the past month. Stick it on the wall.

19

Cook a delicious meal from scratch using your favourite ingredients.

20

Declutter your bedroom. It should be a place to relax and unwind!

21

Turn off your phone, computer and any other electronic gadgets for an hour or so.

22

Hide all your work in a cupboard and forget about it for a while.

23

Dance around the room listening to your favourite song.

24

Spend quality time with your loved ones.

25

Read some of your book.

26

Watch the sunset or sunrise.

27

Spend some time gardening either outside or by planting indoor plants.

28

Drink a glass of water when you wake up.

