THE BOURNE ACADEMY KNOWLEDGE ORGANISER





Ambitious Self Confident Physically Literate Independent Resilient Emotionally Literate

Name:

House:

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Excellence at The Boume Academy: Using your Knowledge Organisers'

'Don't just practise until you get it right practise until you can't get it wrong.' - Daniel Willingham

Routines for Excellence

- You will get out your TBA Knowledge Organiser Booklet at the start of every lesson along with your Knowledge Organiser practise exercise book
- Your teacher will set you sections of the Knowledge Organiser to learn, off by heart, in every lesson.
- Your teacher will set you quizzes to test your knowledge every lesson.
- Your teacher will regularly set you questions that require you to APPLY your knowledge
- Your TBA Knowledge Organisers are saved on Show My Homework and on TBA website

How to revise with your Knowledge Organisers' Self-quizzing

Look/read, cover, write and then green pen check your answers to show you where your 'knowledge gaps' are. Repeat until you have mastered the knowledge...until you can't get the knowledge wrong







Check

Low-stakes testing

Your teachers will always have a **'Do now'** activity on the board at the start of lesson. Do as much as you can from memory. Use your Knowledge Organiser to green-pen check what you have accurately remembered. Then green pen correct. Repeat, each time checking and correcting until you have mastered your knowledge gaps.



HOW DO WE REVISE WITH OUR KNOWLEDGE ORGANISERS?





A. The Colour Wheel



The Colour Wheel is the tool to helping you understand colour theory. Artists use the wheel to see which colours are harmonious and which are complementary.

D. Key Words

a. The Colour Wheel: a simple Colour Wheel is made up of 12 colours, including 3 primary colours, 3 secondary colours and tertiary colours.

- $\ensuremath{\textbf{b.Hue:}}$ another term for colour. The pure colour.
- c. Tint: the pure colour, mixed with white.
- **d. Tone:** the pure colour, mixed with grey.
- e. Shade: the pure colour, mixed with black.

B. Colour Theory

Colour Theory is a set of rules for colour mixing and colour combinations to make an artwork eye catching.

Primary Colours



are a set of three colours that cannot be created by mixing other colours. They are red, blue, and yellow.

Secondary Colours are colours created by mixing two primary colours.



Tertiary Colours

Tertiary Colours are colours resulted by mixing a primary colour with a secondary colour.

C. Mixing Colours

When mixing secondary colours, equal amounts of primary colours should be added together.

When mixing tertiary colours, equal amounts of primary and secondary colours should be added together.

When all three primary colours are mixed, a **neutral** colour is made: a brown-grey colour.

Complementary colours are opposites on the 'Colour Wheel'; each primary colour is opposite a Secondary colour. These colours bring out the intensity in each other. They have high contrast and high impact together.

Harmonious colours sit beside each other on the 'Colour Wheel' and work well together.



3



E. Defi	nitions
a) Line – a mark made using a drawing tool or brush.	h) Media – the material and tools used by an artist to create an
They can be thick or thin, horizontal, vertical, curved, etc.	artwork, e.g. "pen and ink" where the pen is the tool and the ink is the material.
b) Shape – an area that is enclosed by line(s); two-dimensional	
or flat.	 i) Expression – the ability to show emotion or create a mood or feeling within a piece of art.
c) Form – an area that is three-dimensional and includes height,	
width and depth (as in a cube, a sphere, a pyramid, or cylinder).	j) Contrast – refers to the arrangement of opposite elements and effects, e.g. light and dark colours, smooth and rough textures.
d) Texture – how something feels. There are two types of texture:	
actual (tactile) texture and visual texture (that can be created).	k) Proportion – refers to the dimensions of a composition and relationships between height, width and depth. Proportion also
e) Pattern – a design in which lines, shapes, forms or colours are repeated. The part that is repeated is called a motif.	describes how different parts of a piece of art relate to each other.
	I) Perspective – refers to the representation of three-dimensional
f) Tone – refers to the light and dark values used to make an	objects or spaces in two-dimensional artworks. Artists use
object look realistic. Shading is used to create shadows and create 'form'.	perspective techniques to create an impression of depth.
	m) Mark making – describes the different lines, dots, marks,
g) Surface – the surface affects how a colour is reflected or scattered, depending upon its texture.	patterns, and textures we create in an artwork. It can be loose and gestural or controlled and neat.
h) Composition – refers to the arrangement or placement of things within an artwork.	n) Vibrant – refers to the intensity of colour, they are bright and strong.

1. Pop Art:

The booming post-war western economies of the mid-1950s meant prosperity for many, particularly in America. Ordinary people had more money to spend on luxuries and entertainment.

The media and big business promoted a glossy and colourful lifestyle through advertising in cinemas, magazines, TV and comics. New bold visual styles emerged in popular culture.

Andy Warhol (1928 – 1987) was an American artist, film director, and producer who was a leading figure in Pop Art. Warhol created art in many ways, including painting, silk-screen printing, photography, film and sculpture. Warhol's style has been imitated many times such as in this Google banner:



2. Roy Lichtenstein (1923 – 1997) was an American painter, musician and film producer who also served in the Army. His work was not well-received by critics initially. His work defined the premise of Pop Art through parody. He became famous for his distinctive comic book style incorporating benday dots.



3. Benday dots – the benday process named after illustrator and printer Benjamin Henry Day Jr. is a printing and photoengraving technique dating from 1879.

Knowledge Organiser: Year 7 Spring Term - Computing



1. Word Processing

a) Microsoft Word 🕎

Word processing software, such as for creating letters/essays.

b) Headers and footers repeat on every page.



c) Formatting is changing the appearance or the layout of a document.

d) Theme is having consistent formatting throughout a document.

e) Template is a file that has a pre-created layout and style acting as a document's starting point.

f) Mail merging creates lots of personalised documents based on a single template.

g) Hard copy is a physical printed copy of a document, such as a letter handed to someone.

h) Soft copy is a digital version of a document, such as an email attachment.

2. Spreadsheets



Spreadsheet software is used to organise data. We can then run powerful calculations, make graphs and charts, and analyse patterns.

b) Formulas are used to calculate values between different cells, such as:

=A1*B1 (multiply) = A1/B1 (divide)

c) Functions are pre-set formulas that quickly perform a range of complex tasks, such as:

=SUM(A1:A10)	adds up total value
=MAX(A1:A10)	finds the highest value
=AVERAGE(A1:A10)	finds the average

d) Sort organises data, such as alphabetically.

e) Filter is used to find specific data by only showing certain types of data.

f) Row is a line of horizontal cells.

g) Column is a line of vertical cells.

h) Conditional formatting automatically

changes the appearance of cells based on the value.



3. Data

a) Data is raw (unprocessed) numbers, text and symbols. For example:

Fred, Joan, 14, 12, Lucy, 13.

b) Information is data that has been given meaning and structure. For example:
Fred is 12
Joan is 13
Lucy is 14.

c) Data types are the format of the values in the cells, such as: £, %, date, time

Examples of data types include:

Currency = £5.99

Date = 21/03/23

Percent = 46%

Boolean = "True" "False"



Knowledge Organiser: Year 7 Spring Term - Computing



4. Data Analysis

a) Charts and graphs are used to visually represent data to easily compare data and spot trends.





b) Data modelling is looking at data and using it to make future predictions and decisions.

An example of data modelling is predicting the weather based on current and past readings.

c) Data dashboard is a visual summary of information to quickly understand the data.

An example data dashboard is a footballer

performance summary:



5. Software

a) Application software are programs created to do a specific task for the end user. Often called apps for short. Examples include games and office programs, such as Microsoft Word.

b) Word processing is application software a user can use to create text-based documents.

c) Desktop publishing is a type of application used for created documents with both text and images, such as magazines.

d) Presentation software is used for creating slideshows with features such as animations and frame transitions.

e) Database software is used to organise data.This data is kept in tables arranged in fields (columns) and records (rows).

f) Operating system manages the computer's resources, runs application software and provides user accounts. An example would be windows 11.

g) Utility software helps the computer run often working in the background. An example would be anti-virus software.

6. Hardware

a) Input devices are used to enter data into a computer, such as a controller.

b) Output devices are used to receive data from the computer and convert it into a human-perceptible form, such as a speaker.

c) Storage devices are used to store data, such as a USB flash drive.

d) Image capture devices are designed to take photos and videos, such as a drone or head camera.

e) Sensors are a type of input device that automatically take readings of the environment and input this data into a computer. For example: a motion sensor connected to an alarm system.

f) Hard drive is used to store files and programs which retains (keeps) its data when turned off.

g) RAM is used for data currently being used. This data is lost when the computer turns off.

h) Motherboard is a circuit board that acts as a central hub to connect internal components together.

Bourne Scholars Knowledge Organiser: Year 7 Spring Term – Computing



1. Word Processing: Microsoft Word	2. Spreadsheets: Microsoft Excel	3. Data Dashboard
a) Using Templates	a) Recording Data	a) Data dashboard is a visual display of data
Create a CV (one page summary when applying for jobs) using Word templates:	In Student Resources \rightarrow !IT \rightarrow Scholar open "data for spreadsheet extension".	providing information at a glance to track, analyse and gain a deeper understanding.
 i) Open Word, and search for "CV" in the online templates. ii) Start adding your information, such as your skills, what subjects you're good at, and what clubs/activities you do outside of normal lessons. iii) Save your document as "CV" in your computing folder (in your Documents area). b) Headers and footers Create a new word document with 50 blank pages (use Ctrl + Enter to quickly add pages). By inserting headers and footers, add the following on every page: i) Title "Headers and Footers". ii) Today's date (which automatically stays up to date). iii) In the footer, page numbers, which automatically number each page. iv) Save your document as "Headers and Footers" in your computing folder. 	 Now start a new spreadsheet file and create a table to record the information from the word document you just opened. Then: i) Add formulas to add up each team's scores ii) Add a function to find out the average score each team got over the season iii) Add a function to find out the maximum score each team got over the season =SUM(A1:A10) adds up total value =MAX(A1:A10) finds the highest value =AVERAGE(A1:A10) finds the average iv) Create a line graph to compare the results of how each team performed over the season. v) Add formatting to make your table of data stand out so it is clear. Add a title bar at the top and insert some suitable graphics. vi) Save your spreadsheet as: "Sport Results" in your computing folder (in your documents). 	 e.g. b) Create a Data Dashboard i) Ask Mr Orme for the "Weather Dashboard" booklet. ii) Open a new blank spreadsheet file iii) Import the CSV file (location in booklet) into your spreadsheet. iv) Work through the booklet to create an interactive spreadsheet. v) Add formatting to make your table of data stand out so it is clear. Add a title bar at the top and insert some suitable graphics. vi) Save your spreadsheet as "Weather Dashboard" in your computing folder (in your documents).

Knowledge Organiser: Year 7 Spring Term - Dance

1. Basic Dance Actions

- a. Gesture- shoulder roll, arm circle, kick
- b. Jump- straight jump, tuck jump, leap
- c. Turn-turn on one leg, step turn step
- d. Travel- run, walk, leap
- e. Balance- rise, arabesque
- f. Fall- slide onto the floor

2. The Greatest Showman

Celebrates the birth of show business and tells of a visionary who rose from nothing to create a spectacle that became a worldwide sensation.

The dance scenes in The Greatest Showman are energetic, dynamic and help tell the story of the musical.

The opening number features both modern and classic choreography that sets the tone for the film. The dance is inspired by circus performances with dancers, acrobats and fire breathers combining both circus elements with fast choreography.



3. Roles in the circus

- The Ring Leader
- Contortionist
- Acrobats
- Trapeze performers
- Fire breathers
- Aerial artists
- Tight rope walker





4. Key word	Definition
a. Action	What the dancer does.
b. Dynamic	How the dance is performed; varying in speed, quality and flow.
c. Choreography	The art of creating dance.
d. Freeze Frame	A still position, held for at least 3 seconds.
e. Transition	Movement which links one freeze frame to another.



5. Tango

The Tango originated in the streets of Buenos Aires, Argentina and Montevideo, Uruguay, in the late 1800s. The roots of this dance lie in African candombe, Cuban habanera as well as European waltzes and polkas. It is a social dance usually performed with a partner.

a. Stylistic Features

- Gliding travelling actions
- Embrace hold with a partner
- Lead and follow relationship
- Smooth movements with abrupt stops
- Intense and passionate mood

6. Bollywood

Bollywood dance is the name given for dance used in Indian (Hindi) films. It is a fusion of various dance styles, including traditional Indian dance styles such as Khatak and Bhangra, as well as other dance styles such as jazz and hip hop.

a. Stylistic Features

- Specific hand gestures
- Lots of unison
- Dramatic facial expressions
- Mood and dynamics match the music
- Use of flat or flexed feet



7. Dance Hall

Dancehall is a popular music and dance style from Jamaica and other Caribbean islands. It is sometimes referred to as 'bashment'. It started as a form of freestyle and social dance but has since developed to become more choreographed.

a. Stylistic Features

- Heavily influenced by its. African roots
- Repetition of set movements
- Fluid movement of the torso
- Weight is grounded
- Facial expressions show confidence



Bourne Scholars Knowledge Organiser: Year 7 Spring Term - Dance



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There is a range of dance styles used in the Greatest Showman. This includes:

a. Jazz

The jazz dances are high energy with synchronized movements, classic jazz hands and tap-inspired footwork.

b. Hip Hop

Hip hop is used to add a more modern and edgy feel especially in ensemble numbers to create a lively and inclusive circus atmosphere.

c. Acrobatic and Circus

Reflecting the circus theme there are acrobatic stunts, flips, and aerial work that add to the spectacle and physicality of the performance

d. Contemporary

Contemporary is a more fluid dance style and has expressive movements helping to add emotion to the story.

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b. Dynamics	How the dance is performed; varying in speed, quality and flow.
c. Choreography	The art of creating dance.
d. Freeze Frame	A still position, held for at least 3 seconds.
e. Transition	Movement which links one freeze frame to another.
f. Timing	The use of time or counts when matching movements to sound and/or other dancers.
g. Canon	When the same movements overlap in time.
h. Unison	Two or more dancers doing the same movement at the same time
i. Levels	Distance from the ground: low, medium or high.
j. Focus	Use of the eyes to enhance performance or interpretative qualities.

Knowledge Organiser: Year 7 Spring Term - Dance



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- Facial expressions show confidence



8. Task

Using the information provided along with your own research name 3 similarities and 3 differences between the dance styles Tango, Bollywood and Dance Hall.



1. Key Words	Definition	2. Stage Positioning
A. Script	Written by a playwright, which tells the actors what to say and do.	Upstage Right Upstage Left
B. Playwright	A person who writes the scripts for plays, which then go on to be staged in theatrical productions	Stage Right Center Stage Stage Left
C. Stage Directions	Stage Directions tell the actors how to speak or act their character in a certain way. Stage Directions also explain how the staging may be in the performance	Downstage Downstage Left
D. The stage	The area in which you perform.	AUDIENCE
E. Rehearsal	A practice of the performance. You can have	3. Learning Lines
	dress rehearsals and technical rehearsals.	A. Read and Read the line out loud, then cover the script
F. Naturalistic	Acting as realistically as possible as close to 'real	cover with your hand and try and say the line
	life' as an actor can perform.	without reading it. Repeat until you've learnt it
G. Stanislavski	A Russian theatrical practitioner. He believed in	B. Gesture For each line you need to add a choregraphed
	naturalistic performances that were as realistic	and Action movement or gesture for each line
	as possible.	C. Vocal Skills Experiment with different vocal dynamics.
H. Dramatic Tension	drives the drama and keeps an audience	Change the volume of your voice for each line.
	interested. The tension comes when opposing	The first line you might shout, then whisper
	characters, dramatic action, ideas, attitudes,	the second and say the third at a normal
	values, emotions and desires are in conflict	speaking volume. Add a Liverpool accent
	creating a problem that needs to be resolved	D. Call and A partner reads you one of your lines and you
L Entrances and Evits	How a character comes onto and leaves the	Response repeat it back to them without looking at the
	stage This must be done in character	script until learnt. Then add the next line
		putting them together.



4. Physical Performance Skill	Definition		5. Vocal Performance	Definition Skill
A. Gesture	a movement of part of the a particular feeling, idea or a nod of the head	body to express intention, e.g.	A. Tone	a quality in the voice that expresses the speaker's feelings or thoughts, often towards the person being spoken to
B. Movement	when the actor uses their f expressions, gestures, body	acial / language and	B. Volume	the level of sound produced by an actor
	levels to communicate their the audience	r emotions to	C. Pace	The speed at which an actor speaks
C. Facial Expression	a look on the face that sho someone is feeling; using t to get our points across	ws how ne way you look	D. Pause	a short period where an actor stops speaking before starting again. Used to create meaning or dramatic tension.
D. Posture	the way an actor positions walks to convey a characte	he way an actor positions and stands or alks to convey a character or emotion		When an actors speaks clearly to deliver their lines.
E. Body Language	a way of an actor communicating the feelings of their character using the position of your body, or actions		F. Accent	the manner of speaking or pronunciation; which can communicate information about a character to an audience.
6. Evaluating Performance	Step One Before Performance	Step During Per	Two rformance	Step Three After Performance Be ready to share your evaluation
A. What went well?	Select either a physical or vocal	While you performance	watch the look out for	The way the group used was very successful because it showed the audience that
B. Even Better If.	performance skill to evaluate	 specific examples of how the skill is being used and the impact it has. 		The group could improve further by adding This would have shown the audience that



1. Rehearsal Techniq	ues for Scripted Characters	B. A	ctors asking	he questions
Hot seating - An actor	giving responses to questions in character.	Ask lea	ding questior	ns to move the drama on
Helps to create a more	e developed and complex character. Must work	• Listen t	to what is said	before so that the same question isn't asked
alongside improvisatio	n.	twice		
Hot Seating Rules:		• To use	characterisat	on skills, facial expressions, vocal skills, and
A. Actor in the chair:		body lang	guage	
• Answer questions in	role	C. Move	the Drama o	n:
• To use characterisati	on skills: Facial expressions,	When pe	erforming the	actor moves the drama on by introducing
Vocal skills, and body l	anguage	new info	rmation that	the audience/actors don't know
Use improvisation sk	ills			
• Move the drama on	by providing new information	D. Le	eading quest	ons:
Being fully committe	d to your character throughout	When the	e actor asks c	uestions which subtly prompts the
the whole performance	e	responde	ent to answer	in a particular way. For example, I heard last
		week tha	at you and Ch	arlotte had an argument, is this true?
2. Key Words	Definition	Key Word	ls	Definition
A. Script	Written by a playwright, which tells the actors	F. Natural	listic	Acting as realistically as possible as close to
1	what to say and do			'real life' as an actor can perform

A. Script	Written by a playwright, which tells the actors what to say and do.	F. Naturalistic	Acting as realistically as possible as close to 'real life' as an actor can perform.
B. Playwright	A person who writes the scripts for plays, which then go on to be staged in theatrical productions	G. Stanislavski	A Russian theatrical practitioner. He believed in naturalistic performances that were as realistic as possible.
C. Stage Directions	Stage Directions tell the actors how to speak or act their character in a certain way. Stage Directions also explain how the staging may be in the performance	H. Dramatic Tension	drives the drama and keeps an audience interested. The tension comes when opposing characters, dramatic action, ideas, attitudes, values, emotions and desires are in conflict creating a problem that needs to
D. The stage	The area in which you perform.		be resolved
E. Rehearsal	A practice of the performance. You can have dress rehearsals and technical rehearsals.	I. Entrances and Exits	How a character comes onto and leaves the stage. This must be done in character.



1. Poetic Form	Definition	3. Topic words	Definition	
a) Form	The type of poem eg. free verse, dramatic monologue.	a) Culture	The behaviours, ideas and beliefs of particular people or society.	
b) Stanza	A group of lines in a poem. A poetic paragraph.	b) Non-Fiction	Writing that is informative or factual (e.g. newspaper articles, speeches, editorial opinion pieces, travel writing, memoirs,	
c) Rhythm	The beat of a poem created by stressed and unstressed syllables	c) Argue	When you give reasons and evidence in support of an idea,	
d) Syllable	A beat of spoken language. For example,		others to share your view.	
	water has two syllables- wa/ter	d) Viewpoint	The writer's way of looking at or thinking about something.	
e) Rhyme	Two words with the same sound, typically at the end of lines	e) Intention	The purpose and reason for writing.	
		f) Article	A piece of writing in a newspaper or magazine.	
f) Alternate rhyme	When every other line rhymes.	g) Headline	The title of the article.	
2. Poetic Structure	Definition	4. Discourse markers	Example	
a) Structure	The order of events and punctuation within the poem.	a) Sequencing	Firstly, Secondly, Additionally, etc.	
b) Tone	The mood of the writing. The feeling that the writer has created.	b) Furthering	Furthermore, Consequently, Moreover, etc.	
c) Speaker	The voice of the poem or text. The person from whose point of view the poem or text is written.	arguments c) Concluding arguments	Ultimately, Finally, Overall, etc.	



5. Language Methods	Definition	Example
a) Imagery	When descriptive language is used to create a clear picture.	A host, of <u>golden daffodils</u> ; <u>Beside</u> the <u>lake, beneath</u> the <u>trees, fluttering</u> and <u>dancing</u> in the <u>breeze</u> .
b) Metaphor	Comparing two things by describing one as the other.	Her eyes were diamonds shining in the sun
c) Extended metaphor	A metaphor that is developed or returned to over the course of a sentence, a paragraph, or even an entire text	In 'Not My Business,' the yam is an extended metaphor for human impulse to cling to life.
d) Alliteration	Using the same sound at the start of words near each other.	Peter Piper picked a peck of pickled peppers.
e) Anecdote	A short story about a real incident or person.	"I have a friend who wasn't given a promotion because she was female."
f) Facts	Something that is known or proven to be true. Used as evidence in a news article.	J.K. Rowling wrote seven Harry Potter books and has sold hundreds of millions of copies worldwide.
g) Statistics	Facts which are obtained by from analysing information expressed in numbers.	7 <u>3%</u> of people reported issues with their phone signal in recent months. <u>One in</u> seven young people reported an incident of bullying.
h) Rhetorical question	Questions used to make a point. They do not require an answer.	Why shouldn't they feel upset about this?
i) Triple	Using three words or phrases that act together for maximum impact.	This behaviour is abusive, cruel and illegal.
j) Imperative verb	Verb that is used to give an order or command.	<u>Clean</u> up after yourself.

Bourne Scholars Knowledge Organiser: Year 7 Spring Term - English



1. Extended vocabulary	Definition	2. Poets	Additional reading
a) Plosive	"b," "p," "t" and "d" sounds – which can be harsh, aggressive or shocking.	a) Raymond Antrobu	s The Perseverance (2018)
b) Anaphora	A repetition of words, phrases or clauses.	b) Rupi Kaur	Milk and Honey (2015)
c) Oxymoron	A figure of speech in which two	c) Benjamin Zephania	ah Talking Turkeys (1995)
	contradictory things are placed together. For example, "Seriously	d) Amanda Gorman	The Hill We Climb (2021)
	funny."	e) George the Poet	Search Party: A Collection of Poems (2015)
d) Ambiguity	A word or phrase where there are two or more possible meanings and it is unclear which is the correct one.	f) Caleb Femi	Poor (2020)
e) Blank verse	Poetry written in non-rhyming, ten syllable lines.	3. Extended writing	Tasks
f) Elegy	A form of poetry which is about the death of its subject.	a) Research Re	esearch a famous poet and create a fact file about them.
g) Parody	A comic imitation of another writer's work.	b) Research Re	esearch how a poet's culture has impacted on their poetry.
h) Quatrain	A four line stanza.	c) Writing "V als	Ve must not only read literature from other countries, but so written from different perspectives." Write a persuasive
i) Sestet	A six line stanza.	sp st	eech to give to the class explaining your views on this atement.

The Bourne Academy Knowledge Organiser: Year 7 Spring Term - Food



1a. Sustainability

A sustainable product is one that can be produced without harming animals, humans, or the planet.

1b. Greenhouse gasses

The food industry accounts for 26% of global greenhouse emissions.

1c. Water use

70% of our fresh water is used for growing crops.

1d. Waste

1.3 Billion tons of food are wasted every year.

1e. Transportation

Transporting food produces 19 million tonnes of CO2 annually – equivalent to around 5.5 million typical cars.

1f. Caged hens

Each cage holds 80 hens. These cages are not big enough for hens to carry out natural behaviours.

1g. Human rights

Low incomes and wages and result in poor health, hunger and lack of education. Worldwide 152 million children are still in child labour. Of these, <u>70%</u> are working in agriculture.

2a. Food provenance

The origins of our food such as where it has been grown, raised or caught. It provides us with an understanding of how our food has been produced and transported.

2b. Organic produce

Less use of chemical fertilizers or pesticides on crops. No genetically modified ingredients. Animals are not overcrowded and not given drugs to make them grow faster.



2c. Fair trade foods

Farmers receive a liveable wage, are provided with a safe working environment, and have access to education and health care.



2d. RSPCA Assured and MSC labels

These make it easy to recognise products from animals that have had a better life and that they have been sustainably sourced.

3a. Manufacture/distribution

Reduce processing and shipping, use local and seasonal produce, use recycled and biodegradable packaging, no animal testing.

3b. Food miles/ Carbon footprint

The distance the food or ingredients travel from production/growing to where it is consumed or sold. Transporting food long distances creates CO2, which pollutes our atmosphere.



4a. Consumption (use)

Buy organic, free range and fresh ingredients. Buy local and seasonal food. This will reduce the carbon footprint further. Choose foods with minimal or recyclable packaging (try and avoid single use plastics). Do not buy products that have been tested on animals.

4b. Waste Compost leftovers or use them to make new dishes, only buy what you need, do not serve very large portion sizes, use food that goes out of date sooner first. Recycle or reuse packaging.

Bourne Scholars Knowledge Organiser: Year 7 Spring Term - Food



1a. Sustainability

Describe what is meant by the term sustainability. Write a paragraph giving examples of how our food industry has a negative effect on our planet and explain how we can reduce/stop them.

1b. Greenhouse gasses

How are greenhouse gases causing global warming?

1c. Water use What can we do to reduce the amount of water we use?

1d. Waste

How can we reduce the amount of waste that goes to landfill sites?

1e. Transportation

How can we reduce the pollution created from transporting our food around the world?

1f. Caged hens

What can we do as individuals to support animal rights? What products can we buy instead?

1g. Human rights

What can we do as individuals to support Human Rights? What products can we buy instead?

2a. Food provenance

Describe the journey a chicken takes from its source to our plates. What impact does this journey have on animals and the planet? How can these issues be addressed?

2b. Organic produce

What positive impacts do organic produce have on animal rights? What positive impacts do organic produce have on the environment?



2c. Fair trade foods

How does fair trade effect the lives of the farmers and the communities they live in?



2d. RSPCA Assured and MSC labels

Describe how the following foods can be sustainably sourced:

- Chicken
- Fish

3a. Manufacture/distribution

What impact does manufacture and distribution of food have on the environment? How can these be avoided?

3b. Food miles/ Carbon footprint

Write a paragraph explaining what food miles and carbon footprints are. How do they impact the environment? Suggest ways in which food miles and carbon footprints can be reduced.



4a. Consumption (use)

Think about the life cycle of a food you enjoy eating. How much impact on the environment has that food had? How can we reduce the negative impact of the food industry through the foods we choose to eat and buy?

4b. Waste

Describe the negative impact our food waste has on the environment? How can we reduce the amount of food we use and waste?

Knowledge Organiser: Year 7 Spring Term - Geography





The Bourne Academy Knowledge Organiser: Year 7 Spring Term - Geography



	7: Key Terms	8: Flooding in the UK 9: Causes of Drought			
	Key Terms	According to the Government the			
Climate Refugee:	A person who is forced to leave their home because of the impacts of climate change.	number of households at risk of flood			
Impact:	What happens because of climate change.	2020s, up from around 370,000 in			
Fluctuate:	When something changes.	January 2012.			
Enhanced Greenhouse Effect:	The ozone layer thickening because of humar activities.	• The protection against increasing flood risk, because of climate change, requires rising investment.			
Ozone Layer:	The invisible blanket of gases around the Eart	In 2009, the Environment Soil Moisture Deficiency			
Greenhouse Gas:	A gas that thickens the ozone layer.	spending £20m more compared to			
Aid:	When help or assistance is given to somebod need.	in the second seco			
	10: Responses	Reservoir Groundwater Impacts Normal Crop stress			
 Mitigen Adagen Adag Adagen Adagen Adag	gation = avoid/stop it ptation = change to live gside it	11: Arctic & Antarctica Locations			
12: Antarctica climate change		NORTH AMERICA ATLANTIC ATLANTI			
 One of place Oceal 1°C si declir Krill h Glació 	of the most rapidly warming as on Earth. In temperatures increased by ince 1955. uin colony numbers have ned. have declined in numbers. ers and ice shelves retreated	PICIFIC OCEAN ALERICA ALLANTIC OCEAN ALLANTIC AL			



1. Tier 3 Key Words: You must be able to use Geographical terminology in your written work.	2. Geographical Research: Part of being a Geographer is to research examples of Geographical events.	3. Climate Zones: Being able to identify similarities and differences is an important skill in Geography.
Create a glossary for the below key words; Enhanced greenhouse effect, climate change, ozone layer, aid, mitigation, adaptation, glacier, Milankovitch Cycles, greenhouse gases, thermal expansion (water), multiplier effect. Then, use these words in written summaries about the topic theory.	Research each of the following: You need to find out! 1. The biggest snowflake 2. The fastest wind speed 3. The coldest temperature 4. The hottest temperature 5. The loudest thunderstorm 6. The biggest sandstorm	Draw an arrow from the climate zone icon to the correct climate zone name. Think of an example of each one. How do they compare? Polar example: Temperate example: Arid example: Humid
4. Mapping: You need to be able to locate examples of Geographical events.	5. Graphical Skills: It is important to be able to plot and interpret graphs.	6. CATT: To reach the higher levels in Geography, you need to develop all explanations.
 Find a blank world map. Label each example listed below onto the map. Then find out why it happened and explain it. 1. In 2015 the temperature in India got so hot that the roads started to melt? 2. The temperature of lightning can reach 50,000 degrees Fahrenheit. 5 times hotter than the sun! 3. May 2014 in Missouri in the USA a farmer was burning his field. The fire mixed with the strong winds and caused a "firenado" 4. In 1981 it rained frogs in the city of Nafplio in Southern Greece 5. The average Lightning bolt is 6 miles long. 	Climate can be plotted onto a Climate Graph. This shows the average temperature and rainfall across a year. The line shows temperature, and the bars show rainfall (precipitation). Example shown. Use the data below to draw and plot a climate graph. Climate Data for Edinburgh JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DECMax temp 6.2 6.5 8.7 11.1 14.2 17.3 18.8 18.5 16.2 13.2 8.1 6.9(°C)Rainfall 57 42 51 41 51 51 57 65 67 65 63 58	One way of developing your explanations is to think about a multiplier effect. This is where one event/factor leads to another and leads to another. Use the sentence starters below to answer the following question: will the people of the Maldives become the first climate refugees? C – consequently A – as a result T – this means that T – therefore



A. Tudors Summary				
1. Who were the Tudors? The Tudors were a royal family who ruled England from 1485- They first came to power when Henry Tudor won the Battle o Bosworth, ending the War of the Roses. He became King Henry England was then ruled by his son, Henry VIII; then Henry VIII' children - Edward VI, Mary I and Elizabeth I.				
2. The Reformation in Europe	By 1500, the Catholic Church had developed a reputation for corruption and were criticised for being too wealthy and taking advantage of Christians. Protestants believed that each Christian should have a personal relationship with God and should have access to the Bible in their own language (instead of Latin, which only priests could read). Protestants began giving sermons which attacked the Catholic Church and used the newly invented printing press to spread their ideas.			
	B Tudors Key Dates			
1. 1485Henry Tudor (Henry VII) wins the Battle of Bosworth Field becomes King of England. The Tudor dynasty begins.				
2 1517	Martin Luther nails his 95 Theses to the church door in			

becomes King of England. The Tudor dynasty begins.	
2. 1517	Martin Luther nails his 95 Theses to the church door in Wittenberg, starting the Reformation.
3. Jan 1533	Henry VIII marries Anne Boleyn, his second wife, having divorced his first wife, Catherine of Aragon.
5. Nov 1534	Act of Supremacy makes Henry the supreme head on earth of the Church of England severing England from the Catholic Church in Rome.
6. 1536	Dissolution of the Monasteries by Henry VIII.
7. 1553	Mary I burns Protestants in Counter Reformation
8. 1559	Elizabeth introduces her Religious Settlement which tries to unite Catholics and Protestants in England.

C. Tudors Keywords			
1. Dynasty	A succession of powerful people from the same family, e.g. Tudor Family		
2. Tudors	Royal dynasty that ruled England between 1485 and 1603		
3. Reformation	A movement to reform the Catholic Church started by Martin Luther in Germany.		
4. Protestantis m	A form of Christianity that split with the Catholic Church.		
5. Break with Rome	England's decision to leave the Catholic Church in 1534.		
6. Act of Supremacy	A law passed by Parliament which led to the creation of the Church of England by making Henry VIII the head of the church.		
7. Oath of Supremacy	An oath of allegiance to the monarch as Supreme Head of the Church of England.		
8. Dissolution of the Monasteries	The closure of all Catholic monasteries in England by Henry VIII in 1536.		
9. Heir	A son or daughter who will inherit titles and land from their parents.		
10. Counter reformation	Catholic attempt to fight back against the spread of Protestantism in Europe.		
11. Religious Settlement, 1559	Elizabeth's legal compromise returning England to Protestantism while allowing Catholics to worship in secret.		

The Bourne Academy Knowledge Organiser: Year 7 Spring Term - History (The Stuarts and the English Civil War)



D. Stuarts Summary		F. Civil War Key Dates			
	The first Stuart king was James I. He had been King of Scotland, but when Elizabeth I died without an heir, he took the throne of England, as he was her closest living Protestant relative. This then united Scotland and England for the first time. During his reign, James faced protest	1. 1629	Charle	s I argued with parliament and dismisses them for 11 years.	
		2. 1633	Willian Cathol	n Laud introduced religious reforms that were too similar to icism, which angered Protestants.	
1. Who were the		3. 1634	Charles expanded the Ship Tax without consulting parliament.		
Stuarts?	from Catholics, and some even tried to blow him up in Parliament - this is also known as the	4. 1637	Charles tried to introduce a new Scottish prayer book - this led to w		
Gunpowder Plot. His son Charles I then took over the throne and the country fell into a Civil		5. 1640	Charles 'Long F	s recalled parliament and dismissed it several times before the Parliament' began.	
	E. Civil War Key Figures	6. 1641	Parlian	nent issued a list of complaints against Charles.	
1. Charles	King of England who helped cause the English Civil War.	7. 1642Charles tried to arrest 5 MPs but was stopped and was forced to London. The English Civil War began.		s tried to arrest 5 MPs but was stopped and was forced to flee n. The English Civil War began.	
2. Henrietta Catholic French princess who was marrie		G. Civil War Keywords			
Maria	to Charles I.	1. Civil War		A war between citizens of the same country.	
3. William	Archbishop of Canterbury during the reign of Charles I.	2. Absolut	tist	A ruler with supreme authority and power.	
	Eather of Charles L Had been the victim of	3. Parliam	ent	Lawmakers in Britain.	
4. King James I	Gunpowder Plot and left behind a legacy of	4. MP		Member of Parliament.	
	difficult relations with Parliament.	5. Puritan		A group of deeply religious Protestants.	
5. John Pyr	MP and a leading critic of Charles I in Parliament.	6. Ship Ta	x	Money usually paid by towns on the coast, for navy defence during a war.	
6. Oliver	Leader of the Parliamentarians during the	7. Republic		A country with no monarch - rulers are elected instead.	
Cromwell	English Civil War.	8. Cavalier		Those who supported the King during the English Civil War.	
7. Lucy Hay	English courtier and conspirator during the English Civil War.	9. Roundh	nead	Those who supported parliament during the English Civil War.	



AO1: Demonstrate knowledge and understanding of the <u>key features</u> of the periods studied.	AO2: Explain and analyse historical ex historical concepts.	vents and periods studied using
 1.1 Chronology Create a Tudor timeline from the Battle of Bosworth Field in 1485 to the death of Elizabeth in 1603. 1.2 Historical Terminology Define the following words: printing press, coronation, hierarchy, Catholic, Protestant, Globe Theatre, reign 	 2.1 Change & Continuity In less than 100 words, explain how a new Protestant Church experience would differ from a Catholic Church experience for the average English person. 2.2 Cause and Consequence Explain at least 3 causes of the Spanish Armada invasion in 1588. 	
 1.3 Key Features (Historical Knowledge) Research Elizabeth's early years and record a brief biography of how she became queen. 	 2.3 Significance Explain why Sir Francis Drake's circun significant moment in English History. 	nnavigation of the globe was a
AO3: Analyse, evaluate and use <u>primary sources</u> to make judgements.	AO4: Analyse, evaluate and make jud	gements about <u>interpretations</u> .
<text></text>	 4.1 Identifying views Explain the views given by the BBC article on Elizabethan rule. 4.2 Analysing interpretations What other evidence could you provide to argue that the Elizabethan age was a "Golden Age". 4.3 Evaluating Interpretations How far do the facts that there were rebellions, famine and population increases under her reign undermine the interpretation of an Elizabethan "Golden Age"? 	Elizabeth I reigned over England for a long time, from 1558 to 1603. During her reign, Elizabeth came to be known as 'Gloriana.' This name suggested that she had brought glory to her kingdom. Elizabeth encouraged this idea, and commissioned portraits, plays and poetry to advance it further. However, by the end of Elizabeth's reign, population increases and poor harvests had led to poverty for lots of ordinary people. Rebellions occurred. Though Elizabeth created the Religious Settlement, she faced opposition from both Catholics and Puritans, who were radical Protestants. BBC Bitesize article "Elizabethan rule"

The Bourne Academy Knowledge Organiser: Year 7 Spring Term - Mathematics (Expressions, Equations, and Inequalities)



1. Keywords		2. Worked Examples	
Keyword	Definition	Example	a) Solve the equation $3y - 7 = 8$
a. Expression	A statement written using numbers and letters. A letter represents a variable . A number in front of the variable is called the coefficient. The number on its own is called the constant.	4x + 8 coefficient variable constant	$\begin{array}{c c} +7 & 3y - 7 = 8 \\ +7 & 3y & = 15 \\ +3 & 4 & = 5 \end{array}$
b. Simplify an expression	To simplify an expression, add or subtract the terms with the same variable.	a+2b+a+3b=2a+5b	J
c. Expand	To expand a bracket, multiply each term in the bracket by the term outside the bracket.	2(3a+5) = 6a + 10	b) Solve the inequality $4x + 3 < 27$
d. Factorise	The opposite of expanding. Place terms back into a bracket by dividing by the highest common factor.	5x + 30 = 5(x + 6)	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$
e. Inverse	The opposite of a calculation or operation.	The inverse of multiplying is dividing	
f. Equation	A statement with an equal sign to show that two expressions are equal.	2y + 5 = 11	c) Here is a function machine input \rightarrow \div 4 \rightarrow -1 \rightarrow output
g. Identity	An equation which is true all the time.	$2x \equiv x + x$	Calculate the output when the input is 12 $12 \div 4 - 1 = 4$
h. Formula	A fact or rule written with mathematical symbols.	Area of a rectangle = length x width or $A = l \times w$	Calculate the output when the input is 31 $(7 + 1) \times 4 = 32$
i. Inequality	Less than <Less than or equal to \leq Greater than >Greater than or equal to \geq	9y + 1 < 19	
Sparx independ M120, M237, N	Jent learning codes: M175, M428, M417, M327, M20 1792, M100, M707, M509, M957, M118	08, M979, M795, M531, M949,	

The Bourne Academy Knowledge Organiser: Year 7 Spring Term - Mathematics (Manipulating Fractions)



1. Keywords			2. Worked Examples
Keyword	Definition	Example	a) Shade $\frac{2}{r}$ of this shape
a. Fraction	A number that represents an equal part of a whole. It contains a numerator (top) and a denominator (bottom). The numerator is <i>divided</i> by the denominator.	$\frac{1}{4}$ means 1 out of 4 equal parts	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
b. Equivalent Fractions	Fractions that have the same value but look different.	$\frac{4}{8} = \frac{2}{4} = \frac{1}{2}$	b) Write $\frac{3}{2}$ as a mixed number: $\frac{3}{2} = \frac{2}{2} + \frac{1}{2}$ $\frac{2}{2} = 1$ $\frac{3}{2} = 1\frac{1}{2}$
c. Improper Fraction	A fraction which has a greater numerator (top) than its denominator (bottom).	$\frac{7}{6}$	c) Write $2\frac{1}{4}$ as a mixed number
d. Mixed Number	A number represented by an integer and a fraction.	$1\frac{3}{4}$	Multiply the whole number by the denominator and add the numerator.
e. Simplify	Finding an equivalent fraction where the numbers are reduced as much as possible.	$\frac{4}{10} \frac{2}{2} = \frac{2}{5}$	$2\frac{1}{4} = \frac{2 \times 4 + 1}{4} = \frac{8 + 1}{4} = \frac{9}{4}$
f. Whole	A fraction with a numerator (top) equal to its denominator (bottom), which is equal to 1.	$\frac{5}{5} = 1$	TTT
Sparx Indepe M158, M939,	ndent Learning Codes: M410, M671, M335, M835, M601		

The Bourne Academy Knowledge Organiser: Year 7 Spring Term - Mathematics (Percentages)



1. Keywords			2. Worked Examples	
Keyword	Definition	Example	a) Convert 20% into a decimal	
a. Percent	An amount expressed as a value out of, or per, 100. Shown using the % symbol.	50% means 50 out of, or per, 100. This can be written as $\frac{50}{100}$	$20\% = \frac{20}{100} = 20 \div 100 = 0.2$	
b. Fraction	A number that represents an equal part of a whole. It contains a numerator (top) and a denominator (bottom). The numerator is <i>divided</i> by the denominator.	$\frac{1}{4}$ means 1 out of 4 equal parts	20% = 0.2 b) Convert 7% into a fraction 7% means 7 out of 100 $7\% = \frac{7}{2}$	
c. Decimal	A non-integer (not a whole number), expressed using a decimal point	Tens Ones Tenths 34.7 Decimal point	c) Calculate 30% of £120 using the decimal multiplier method	
d. Decimal Multiplier	A method used to calculate a percentage of an amount. To use this method, convert (change) the percentage into a decimal by dividing by 100.	To calculate 15% of an amount, multiply the amount of 0.15	 - 30 ÷ 100 = 0.3 0.3 × 120 = 36 30% of £120 = £36 d) Increase 600 kg by 10% using the decimal multiplier method 	
e. Increase	Making greater in amount, size, or value	Increase 50 by 20%	$- 100\% + 10\% = 110\%$ $110 \div 100 = 1.1$	
f. Decrease	Making smaller in amount, size, or value	Decrease 50 by 20%	$1.1 \times 600 = 660 \ ka$	
Sparx Indepe M264, M235,	ndent Learning Codes M695, M684, M437, M905, M476, M533, M52	8		

The Bourne Academy Knowledge Organiser: Year 7 Spring Term - Mathematics Calculating with Fractions



1. Keywords			2. Worked Examples
Keyword	Definition	Example	a) Work out $\frac{1}{-} \div \frac{5}{-}$
a. Fraction b. Equivalent Fractions	A number that represents an equal part of a whole. It contains a numerator (top) and a denominator (bottom). The numerator is <i>divided</i> by the denominator. Fractions that have the same value but look different.	$\frac{\frac{1}{4}}{\frac{1}{4}}$ means 1 out of 4 equal parts	Find the reciprocal of the second fraction before multiplying by the first fraction $\frac{1}{2} \times \frac{7}{5} = \frac{7}{10}$ b) Calculate $\frac{4}{6} \div 2$ Find the reciprocal of the whole number and multiply by the fraction and simplify $\frac{4}{6} \times \frac{1}{2} = \frac{4}{12} = \frac{1}{3}$
c. Common Denominator d. Sum	When two or more fractions have the same denominator (bottom number) Add	$\frac{2}{9} + \frac{5}{9} = \frac{7}{9}$ Find the sum of $\frac{5}{6}$ and $\frac{2}{6}$	c) Evaluate $\frac{1}{2} + \frac{1}{3}$ Find a common denominator before adding the fractions together $\frac{1}{2} \times \frac{3}{3} = \frac{3}{6}$ $\frac{1}{3} \times \frac{2}{2} = \frac{2}{6}$ $\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$
e. Product	Multiply	means $\frac{5}{6} + \frac{7}{6}$ Find the product of $\frac{5}{6}$ and $\frac{2}{6}$ means $\frac{5}{6} \times \frac{2}{6}$	d) Work out $\frac{9}{11} - \frac{2}{11} - \frac{5}{11}$ $\frac{9 - 2 - 5}{11} = \frac{2}{11}$
f. Reciprocal Sparx Independen M410, M671, M33	1 divided by a given number, resulting in an inverted (upside-down) fraction t Practice Codes	The reciprocal of 6 is $\frac{1}{6}$ The reciprocal of $\frac{4}{5}$ is $\frac{5}{4}$ M197, M110, M265	



1. Mathematical Vocabulary		2. Mathematician Research	
Define each of the following words.	a. Vinculum	Who are they?	
Describe how each of them is used in	b.Camembert	What are they famous for?	Zhang Heng
maths	c. Abscissa	What contributions have they made to maths?	
3. Watch	BBC Documentary The Story Of Maths 2	The Genius of the East YouTubevia torchbrowser com -	YouTube (50 mins 40 sec)
4. Thinking Mathematically			
 a) Pyramids Here are some algebra pyramids. To find the next term add the two bricks below it. i. Can you find out the top number? ii. What if the bottom right number was changed. How would this affect your answer? iii. Would some terms be impossible to get? iv. What if you included negative or decimal terms? v. Create more pyramids of your own with one, two or three terms or even brackets. Or even more layers. 		 b) Perimeter Expressions Charlie took a sheet of paper and cut it in half. The one of those pieces in half, and repeated until he pieces altogether. He labelled the sides of the smarrectangle, <i>a</i> for the shorter side and <i>b</i> for the long i.Here is a shape that Charlie made by combining largest and smallest rectangles: Check you agree perimeter is 10<i>a</i>+4<i>b</i>. ii.Alison combined the largest and smallest rectang a different way. Her shape had perimeter 8<i>a</i>+6<i>b</i>. you find how she might have done it? iii.Create some other shapes by combining two or mectangles, iv.What's the largest perimeter you can make using v.What different shapes can you make? Explore further shapes can you make? Explore further shapes can you make? 	en he cut had five allest ger side. the the that the gles in Can nore all the pieces?
On the 7 x 7 These crosses can be draw	n on number grids of various sizes.	a. Paul is 32 years old. In ten years' time. Paul's	s age will be the sum of
 i. Add opposite pairs of orange numbe north + south, east + west). ii. Try adding different sized crosses. iii. Experiment with different sized grid iv. What do you notice? v. Can you explain your findings? 	rs (i.e. s, 8x8, 9x 9. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 18 19 20 21 22 2 26 27 28 29 30 32 33 34 35 36 37 38 39 40 41 42	 the ages of his three sons. What do his sons' b. Which of the following numbers could replace of ^x/₅ lies between 3 and 4? 3.2, 14, 19 c. Cheryl finds a bag containing 50 coins. The will the bag only contains two-pence and five-more five-pence coins are there than two-pend. We define a⊕b=ab+a+b. If 3⊕5=2⊕x, what 	ages add up to now? ce x so that the value value of the coins is £1.81. pence coins, how many ence coins? at is the value of x ?



1) Keywords and	d definitions	2) The Ukulele
a. Strum	Brushing your fingers over several strings at the same time to create a sound.	TIMERS -> -> -> -> HEAD
b. Chord	2 or more notes played at the same time.	GUESS WHATFON!
c. Chord Chart	A way of reading music which tells you which chords to play and for how many beats.	
d. Bars	How written music is divided up to make it easier to read. In pop music there is 4 beats in each bar.	KKEIS - NECK LONG, LIKE A GIRAFFE
e. Beats	A measure of time in music. (Example: Count 4 beats then start playing the song).	
f. Tempo	The speed of the music (Example: The tempo of the music was fast).	BODY
g. Frets	The space between the lines on the neck of a ukulele or guitar.	
h. Tablature (TAB)	Another method of reading music for string instruments.	SADDLE DON'T SET ON IT! BRIDGE OVER TROUBLED WATER
3) Scale of C Ma	jor on the Ukulele using TAB $\mathcal{I}_{E} \mathcal{I}_{E} \mathcal{I}_{E}$	-2-3- These numbers represent
These lines rep	resent the $\begin{array}{c} c \\ B \\ G \end{array}$	press down on that string.
closest to your the string close	face while A is st to your feet.	The order you play them in is like reading – left to right. It doesn't matter which line they are on.

Knowledge Organiser: Year 7 Spring Term – Music





Bourne Scholars Knowledge Organiser: Year 7 Spring Term – Music







 Movement Shape Protection Support Production Storage Flat - Cranium, Sternum Irregular - Vertebrae, Pelvis Sesamoid - Patella (Knee cap) [3] Cranium (skull) Clavicle (collarbone) Sternum (breastbone) Ribs Pelvis Carpals (wrist) Phalanges (hand) Tarsals (ankle) • Long - Femur, Humerus • Short - Carpals, Tarsals • Flat - Cranium, Sternum • Irregular - Vertebrae, Pelvis • Sesamoid - Patella (Knee cap) Sternum (breastbone) Ribs Pelvis Carpals (wrist) Phalanges (hand) Tarsals (ankle) • Long - Femur, Humerus • Short - Carpals, Tarsals • Sternum (breastbone) • Sternum (breastbone) • Carpals (wrist) • Phalanges (hand) • Tarsals (ankle) • Charter of the formula of the product		[1] Functions	[2] Types of Bones
[3] Cranium (skull) Scapular (shoulder blades) Clavicle (collarbone) Humerus Sternum (breastbone) Humerus Ribs Vertebral column (spine) Pelvis Radius Carpals (wrist) Ulna Phalanges (hand) Femur (thigh bone) Tarsals (ankle) Tibia (stin beng)		 Movement Protection Production Storage 	 Long – Femur, Humerus Short – Carpals, Tarsals Flat – Cranium, Sternum Irregular – Vertebrae, Pelvis Sesamoid – Patella (Knee cap)
Clavicle (collarbone) Sternum (breastbone) Ribs Pelvis Carpals (wrist) Phalanges (hand) Tarsals (ankle) Clavicle (collarbone) Humerus Vertebral column (spine) Radius Ulna Femur (thigh bone) Fibula	B] C	ranium (skull)	Scapular (shoulder blades)
Sternum (breastbone) Ribs Pelvis Carpals (wrist) Phalanges (hand) Tarsals (ankle) Humerus Vertebral column (spine) Radius Ulna Femur (thigh bone) Fibula	С	lavicle (collarbone)	
Ribs Vertebral column (spine) Pelvis Radius Carpals (wrist) Ulna Phalanges (hand) Femur (thigh bone) Tarsals (ankle) Tibia (shin bone)	S	ternum (breastbone)	Humerus
Pelvis Radius Carpals (wrist) Radius Phalanges (hand) Ulna Femur (thigh bone) Tarsals (ankle) Fibula	R	ibs	Vertebral column (spine)
Carpals (wrist) Phalanges (hand) Tarsals (ankle) Carpals (wrist) Phalanges (hand) Tarsals (ankle) Carpals (wrist) Phalanges (hand) Tarsals (ankle) Carpals (wrist) Phalanges (hand) Carpals (wrist) Phalanges (hand) Carpals (wrist) Phalanges (hand) Carpals (wrist) Phalanges (hand) Carpals (wrist) Phalanges (hand) Carpals (wrist) Phalanges (hand) Carpals (wrist) Carpals (wrist	Р	elvis	
Phalanges (hand) Tarsals (ankle)	С	arpals (wrist)	Radius
Tarsals (ankle)	Р	halanges (hand)	Ulna
Tarsals (ankle)			Femur (thigh bone)
This (chir here)	Ta	arsals (ankle)	Fibula
(snin bone)			Tibia (shin bone)



Gymnastics Fitness				Fitness		
	[4] Key	Vocabulary		[7] Types of Training		
a) Apparats	The equipment performed, e.g.	on which gymnastics . mats, beams, spring	moves are boards etc.	a) Interval	A combination of short but very high-intensity bursts of speed linked with exercise combined with slow,	
b) Balances	Moves that req still whilst perfo	uire the gymnast to h orming an upright or i	old their body nverted balance.		recovery phases, repeated during one exercise session.	
c) Aesthetically Pleasing	A movement, b correctly and is	alance or skill that is good to look at.	performed	b) Circuit	performed one after the other with rest between each exercise.	
d) Sequence	Two or more sk creating a differ	ills which are perforn rent combination skill	ned together I.	c) Fartlek	Involves varying the speed, intensity and tempo of a run to have desired benefits on the body and improve fitness	
		d) Continuous	A form of exercise that is performed at a consistent intensity throughout and does not have any rest periods within the session			
Individual	Paired	Group	Travel	e) Weight	A form of training that looks at developing strength in the body by using a variety of different techniques and equipment.	
Balances	Balances [6] Per	Balances formances		f) Body Weight	A form of training that looks at developing strength in the body by only using body weight as a resistance.	
Gymnastic performances are given final scores based on the difficulty and execution of their routine. Difficulty (D score) – the difficulty of the skills performed. Skills are rated		g) Plyometric	A type of training that involves high pace and force of different muscles to generate power.			
from an A, which Execution (E scor including features	is the easiest, righ r e) – how well the s such as posture,	nt through to H. skills are performed v shape and transitions	within the routine 5.	h) Flexibility	A series of mobility exercises where a joint is stretched or moved to just beyond its point of resistance.	

The Bourne Academy Bourne Scholars Knowledge Organiser: Year 7 Spring Term – Physical Education



Gymnastics			
	Definition		
a) Actions A movement in gymnastics could be roll, jump,		a) Co	
b) Apparatus	Equipment used in gymnastics- benches, mats, and spin boards	a ses	
c) Balance	To remain still in a set position for 3 seconds		
d) Technical devices	Cannon, Unison, Formations, and Musicality	c) Sk	
e) Extension	Straightening limbs and/ or trunk	d) Te	
f) Fluency	Being able to move effortlessly and smooth with ease	e) Sp	
g) Levels	Height at which you are performing e.g., low (close to the ground) high, (on tip toes)	awar	
h) Components of Fitness	Flexibility, Strength, Muscular Endurance, Coordination, Agility	g) De	
i) Matching	Copying the same actions as your partner at the same time.	h) At	
j) Points	Parts of your body in contact with the floor or apparatus		
k) Sequence	Linking together multiple actions that can be repeated	i) Off	
l) Travel	Getting from point A to B using repeated movements.	j) Spo	
m) Aesthetic	The performance or skill is pleasing to look at	k) Fe	
	·		

Multi-Skills				
	Definition			
a) Components of	Warm-up (pulse raiser and stretches), main			
a session plan	activity, Cool down.			
b) Basic Skills	Movement, throwing, catching, passing, and striking			
c) Skills	Ability to choose and perform the right			
	techniques at the right time			
d) Technique	The way you perform a specific skill to			
	improve performance			
e) Spatial	Awareness of space in working area including			
awareness	yourself and others			
f) Tactics	Outwitting an opponent			
g) Defence	Action of preventing an opponent from			
h) Attacking	Action of attacking or engaging an opposing			
	opponent or team with the objective of			
	scoring points or goals.			
i) Officiating	Referees and umpires ensure rules in sport			
	are adhered to for fairness and safety			
j) Sportsmanship means playing within the rules and				
understanding and using sports etiquette				
k) Feedback	Is information the performer/team receives			
	about a skill or performance, includes			
	strengths and areas of improvement.			





The Bourne Academy Knowledge Organiser: Year 7 Spring Term - Religious Studies



1. A. Key Words	1. A. Key Words B. Baptism		C. Ch	ristian Festivals
 Nativity: The story of Jesus' birth Miracle: An event that defies in the second story with a special meaning Disciples: Jesus' followers 	B. BaptismWelcomes someone into the Christian church.1. Advent: SMany believe it washes away sin.prepared ChInfant and Adult Baptism.2. ChristmasJesus' Baptism:4. Lent: 40 cJesus was baptised by John the Baptist.5. Easter: Ce		 Advent: Starts four Sundays before Christmas which prepared Christians for Jesus' arrival. Christmas: The birth of Christ Epiphany: Baptism of Jesus Lent: 40 days and nights. Where people give things up and try to become better people. Easter: Celebration of Jesus' resurrection and new life. 	
5. Messiah: A King to save the Je	Afterwards the heavens opened, and the spirit came down in the form of a dove.	holy	6. Pentecost : Beginning of descendent upon the disci	the Church when the Holy Spirit ples.
D. Good	l Samaritan	E. '	The Three Temptations	F. Zacchaeus
Jesus taught his followers to: 'Love your neighbour as yourself'. Matthew 22:39 Jesus was asked to confirm what he meant by the word 'neighbour'. This is when he told the Parable of the Good Samaritan to explain that people should love everyone, including their enemies The first person to pass the injured man was a priest, who crossed the road and continued walking. The second person to pass the injured man was a Levite, a priest's assistant. He also crossed the road and continued walking without helping the man. The third person to come by was a Samaritan, a		He spo nights was te occasi 1) Sto 2) If h could in the 3) If yo throw	ent forty days and forty in the desert where he empted on three ons by the Devil. ne into bread e worshipped the devil he have all of the kingdoms world ou are the Son of God	He was a rich chief tax collector, who Jesus asked to stay with but people started grumbling because Jesus was going to the home of a sinner. However, Zacchaeus promised to give half his belongings to the poor and pay back four times as much to anyone he had cheated. Jesus concluded by saying "The Son of Man came to seek and to
Samaritan saw the man, he took pity of his wounds. He then put him on the b innkeeper, whom he paid to look afte	on him. He bandaged him and cleaned ack of his donkey and took him to an r him.	point angels	of the temple as the s will catch you.	save the lost."

The Bourne Academy Knowledge Organiser: Year 7 Spring Term - Religious Studies (Holy Week)



A. Names for Jesus	C. Jesus cleanses the temple	D. Judas agrees to betray Jesus	E. Jesus and Pilate
1. Son of God: Jesus had links to God's power, e.g., when performing	When Jesus and his disciples arrive in Jerusalem they go to the temple.	and his disciples usalem they go to Judas went to the chief priests to betray Jesus. They promised Judas some money.	Pilate tried to find a solution. He offered the crowd to either release Jesus or Barabbas, a convicted murderer.
 2. Son of Man: Jesus was human, he had emotions and suffered just like everyone else. 3. Messiah: The anointed 	It was customary for animals to be sacrificed. However, some of the traders were selling these animals for sacrifice at ten or 15 times their usual	Jesus and his disciples were celebrating the Passover meal together. He said that he would be betrayed by one of his disciples. "the one who	However, Pilate's plan did not work because the Sanhedrin persuaded the crowd to ask for Barabbas to be released, instead of Jesus. Pilate did not want to damage his relationship
one. In many cultures it	price	dips his bread in the dish with me".	with the Jewish leaders, so he gave in to the crowd and sent Jesus for crucifixion
was seen to be the one saving the Jews from evil.	The temple had its own currency, money had to be changed into the correct	The disciples were shocked and anxious and said, "Surely not me?"	G. Crucifixion and Jesus was crucified at Golgotha between two
 B. Miracles 1. Power of nature The calming of the storm The Feeding of the 5,000 2. Power of Healing The perchange 	changed into the correct currency and the money changers charged an large fee. Jesus was furious that people coming to worship God were taken advantage of. He reacted violently as he overturned the tables of the money changers	F. Jesus before the Jewish Council The Sanhedrin was the supreme council of Jews which controlled civil and religious law Jesus was brought before the Sanhedrin accused of blasphemy Many people gave false testimony	bandits with 'Jesus of Nazareth, King of the Jews' on top of his cross. As Jesus died the curtain of the temple was torn in two from top to bottom and the earth shook. Jesus' body was wrapped in cloth and taken to a tomb cut out of rock and a guard stood outside it.
 The paralysed man Blind Bartimaeus 3. Power over death Jairus daughter Lazarus Resurrection 	and those selling doves. He said that his Father's house was to be a place of prayer, but that it had been made into a den of robbers.	against Jesus. The high priest stood up and questioned Jesus directly, which was against the rules of the court. He asked if he was the Messiah he replied "I am."	After the sabbath Jesus' tomb was visited and found empty. A young man dressed in white was there. He told them that Jesus had risen and to tell the disciples, including Peter, that he would meet them in Galilee.

Bourne Scholars Knowledge Organiser: Year 7 Spring Term - Religious Studies



1. A. Challenge Tasks

- 1. Create 10 true or false statements on today's topic
- 2. Transform your learning into a series of images using up to 5 words

3. Plan an alternative lesson about what we have learnt today

4. Construct a timeline showing your learning through today's lesson

5. Produce a summary of today's lesson – then reduce the number of words used to a single sentence or three bullet points

6. Select 5 key terms that you have used today and create a summary using all the terms

7. Create 5 questions your teacher might ask about today's learning

8. Use a thesaurus to add more ambitious vocabulary into your work

9. If today's lesson were an album or a newspaper heading, what would it be called? What songs would be on it?

10. Add a justified conclusion to your evaluative writing

B. Research Challenge

Christianity

- Research Christian festivals in greater detail
- 2. 2. Research holy week in more detail
- Research the different gospel accounts of Jesus' resurrection
- 4. Research the different Christian festivals in more detail.

Tricky Key Terms

- 5. 1. What does 'incarnation' mean?
- 6. 2. What does 'atonement' mean?
- 7. 3. What does 'blasphemy' mean?
- 8. 4. What does 'crucifixion' mean?
- 9. 5. What does 'resurrection' mean?
- 10. 6. What does 'ascension' mean?

C. Evaluation Challenge

- 1. 'The story of Jesus is true'. Why would someone agree and why would someone disagree?
- 2. 'Jesus choose to enter Jerusalem at a time when he could create the greatest reaction'.
- 3. Why would someone agree? Why would someone disagree?
- 4. 'Judas is not fully responsible for Jesus' death'. Why would someone agree? Why would someone disagree?
- 5. 'The different gospel stories of the resurrection undermine Christian belief in resurrection'. Why would some agree or disagree?



(1) Key Word	Definition	(2) The Ske
a) Antagonistic	A pair of muscles that act on a joint. As one	
muscle	contracts, the other relaxes.	
b) Bone	Hard, rigid (stiff) tissue that makes up the	
	skeleton.	Ŕ
c) Contract	To become shorter.	ribs
d) Joint	The connection between two bones in a	ulna
	skeleton.	radius—
e) Ligament	Tough tissue that joins two bones together.	A C
f) Skeleton	The support structure for an organism.	- -
g) Tendon	Tough tissue that connects a muscle to a	patella
	bone.	
h) Tissue	A group of similar cells that carry out the	fibula
	same function.	
(3) Antagonistic	Muscles	[

(J) Antagomstic Mid



Muscles can only **pull**, not push. They work in pairs to make joints move. We call them 'antagonistic pairs'

To lift your arm, the biceps muscle contracts, and the triceps muscle relaxes. To lower your arm, the biceps relaxes and the triceps contracts.



The skeleton is made of many bones, held together by joints. The skeleton has four functions:

- movement bones are attached to each other by flexible joints.
- protection of internal organs the skull protects the brain and the rib cage protects the heart and lungs.
- support without a spine we could not stay upright.
- produces blood cells the bones in the skeleton produce red and white blood cells. These are made within the bone marrow (soft tissue inside the bones).

(4) Joints and Movement

The bones of the skeleton are held together by joints. There are three types of joint:

- immovable joints skull
- ball and socket joints shoulder
- hinge joints knees and elbow

Muscles move joints in antagonistic pairs. Tendons connect muscles to bones. Ligaments connect the bones in joints.



(1) Key Word	Definition	(2) Solids, Liquids and G	ases	
a) Atom	The smallest particle of an element that can exist.	808888		•
b) Chromatography	A method of separating dissolved substances in a liquid.	85555		
c) Compound	A substance made of two different	Solid	Liquid	(
	elements that have been chemically joined.	Particles are closely packed and held in a	Particles are loosely packed and can slide	Particles apart and
d) Compressed	Another word for squashed.	fixed position.	over each other.	move aro
e) Condense	The change of state from a gas to a liquid	Cannot be compressed.	Cannot be compressed.	Can be co
f) Element	A substance that is made from only one type of atom	Have a definite shape and cannot flow.	Fill the shape of the container.	Fill the sh container
g) Evaporate	The change of state from a liquid to a gas.	Least energy and	More energy and can	Most ene
h) Matter	Matter is another word for substance, or 'stuff'.	vibrate in a fixed position.	flow.	move qui
i) Mixture	Two or more substances that are not chemically joined.	(4) Elements Compound	ds and Mixtures	
j) Particle	A very small bit of matter (it can be a solid, liquid, or gas)			
k) State	The word we use to describe whether			

(3) Changes of State

A change of state is a **physical** change for example, a solid to a liquid. A physical change can be reversed and the particles remain unchanged.

something is a solid, liquid, or gas.





Element

An element is a substance that is made up of only one type of atom. All the atoms are the same.



Compound

A compound is made of two or more atoms that have been chemically joined. The atoms in a compound cannot be separated without a chemical reaction.



Mixture

A mixture is made up of two or more atoms, or compounds that are not chemically joined. A mixture can be separated into different parts.

Gas Particles are far apart and are free to move around. Can be compressed. Fill the shape of the container. Most energy and move quickly.

The Bourne Academy Knowledge Organiser: Year 7 Spring Term - Science (C2b Atoms and Mixtures)



(1) Key Word	Definition	(2) Filtration	Filtration is a process to separate		
a) Boiling point (b.p.)	The temperature at which a liquid turns into a gas.	filter paper	an insoluble substance from a solution. The filter paper has tiny		
b) Chromatogram	The chromatography paper with the ink spots.	filtrate	holes called pores, which allow small particles through, but stop		
c) Chromatography	A method of separating a mixture of dissolved solids		larger particles.		
d) Distillation	A method of separating two or more liquids by their boiling point.	(3) Evaporation	Evaporation is a process		
e) Filter/Filtration	A method for separating an insoluble solid from a liquid (for example, sand from water)	solution evaporating dish	to separate a dissolved solid from a solution by heating. As you heat the		
f) Insoluble	A substance that will not dissolve	burner	solution, the solvent will evaporate and leave behind the dissolved solid, gonorally a solt		
g) Pure	A substance that contains only one type of atom or compound.				
h) Residue	The solid left after filtering.		sond, generally a sait.		
i) Saturated	A solution that cannot dissolve any more solid.	(4) Chromatography			
j) Solubility	A measure of how easily a substance can dissolve.	Chromatography is a method of separating substances dissolved in	chromatography paper solvent front		
k) Soluble	A substance that can be dissolved.	liquids, for example the dyes in ink	S.		
l) Solution	A Solvent with a solid dissolved into it.	Different dyes will move through th paper at different rates and	ne		
m) Solvent	The liquid the solid is dissolved into.	separate out.	X A B C D X A B C D		
The melting/freezing point of water is 0 ° C and the boiling point of water is 100 ° C .		Some dyes are insoluble and will no move through the solvent.	ot solvent pencil line		



(1) Key Word	Definition	(2) Series Circuit In a series circuit, all the components are on the
a) Ammeter	Ammeters measure the current flowing through a circuit.	component breaks, the whole circuit has broken.
b) Battery	A battery is made of two or more cells joined together in series.	ammeter will read the same wherever it is.
d) Component	Another word for 'part' – components are the different parts of a circuit.	the circuit. A voltmeter will give different readings.
e) Current	Current is the flow of electrons around a circuit. It is measured in amps (A).	(3) Parallel Circuit In a parallel circuit, the components are on different loops. If one component breaks, the current can flow
f) Parallel circuit	The components on a parallel circuit are on different loops.	through the other loops of the circuit. Current is split between the components of the
g) Potential	The amount of energy that moves	circuit. The ammeter will give different readings.
(p.d.)	that flow around the circuit. Potential difference is sometimes called voltage. It is measured in volts (V).	Voltage is the same all through the circuit. The voltmeter will read the same wherever it is
h) Resistance	Resistance is a measure of how easy it is for current to flow around a circuit. It is measured in ohms (Ω)	(4) Resistance is a measure of how easily current can flow around a circuit. The more components in a circuit, the higher the resistance.
i) Series circuit	The components on a series circuit are	We use this equation to calculate the resistance in a circuit.
i) Valtmatar	on the same loop.	R = V ÷ I
jj voltmeter	difference (voltage) in a circuit.	resistance = voltage ÷ current



(1) Key Word	Match the Definitions to Key words	(2) The Skeleton	
a) Antagonistic muscle b) Bone	Hard, rigid (stiff) tissue that makes up the skeleton. Tough tissue that connects a muscle to a	skull	 a) State the function of the skeleton. b) What are bones primarily made from? c) Why is it important for children to have a dairy rich diet?
c) Contract	The connection between two bones in a skeleton.	ribs humerus	d) Give an example of a bone that protects vital organs and state which organ(s) is
d) Joint	A group of similar cells that carry out the same function.	radius pelvis	protects. e) What is found in the middle of bones? f) What does the substance found in bones.
e) Ligament	To become shorter.	femur	do?
f) Skeleton	A pair of muscles that act on a joint. As one contracts, the other relaxes.	patella	g) What is attached to bones to allow free
g) Tendon	Tough tissue that joins two bones together.	fibulatibia	movement and now are they attached to
h) Tissue	The support structure for an organism.		bones?
		«RAGO CRAA	

(3) Antagonistic Muscles



a) Explain, in detail, what is meant by the term antagonistic muscles.

b) Give an example of antagonistic muscles and explain how they work together to carry out a particular function.

(4) Joints and Movement

a) Name the different types of joint and give examples of where they are found.

b) What is the function of cartilage in the joint?

c) What is a tendon? Why is it an important part of a joint?

d) Explain why arthritis in joint causes pain.

e) Why is there fluid between the cartilage of 2 bones in a joint?

f) What is the function of a ligament? Why is it an important part of a joint?

condense

freeze



(1) Key Word	Match the Definitions to Key Words	(2) Solids Liquids and (Sacar	
a) Atom	The word we use to describe whether			
b) Chromatography	A very small bit of matter (it can be a solid, liquid, or gas)			
c) Compound	Matter is another word for substance, or 'stuff'.	Solid	Liquid	Gas
d) Compressed	The change of state from a gas to a liquid	a) Describe the	d) Describe the	g) Describe the
e) Condense	The change of state from a liquid to a gas.	arrangement of	arrangement of particle	s arrangement of
f) Element	Two or more substances that are not chemically joined.	b) Describe the motion	e) Describe the motion	particles in a gas. h) Describe the
g) Evaporate	Another word for squashed.	c) Are solids	f) Are liquids	in a gas
h) Matter	The smallest particle of an element that can exist.	compressible? Explain	compressible? Explain	i) Are gasses
i) Mixture	A method of separating dissolved substances in a liquid.			Explain your answer.
j) Particle	A substance that is made from only one type of atom	(4) Elements, Compoun	ds and Mixtures	
k) State	A substance made of two different elements that have been chemically joined.		88	
(3) Changes of State	e	Element	Compound	Mixture
a) Describe the char go from a solid, to li	nges in the arrangements of particles as they iquid, to gas. ^{elt} e ^{vaporate}	 a) Give the definition of element. b) Some elements, like oxygen, exist as 2 atoms bonded together (e.g. 	 c) State the definition of compound. d) What holds the atoms together in a compound? 	 e) State the definition of mixture. f) You have been given a mixture of sand and salt water. Write a
Solid	Liquid Gas	O_2). Why does this		method of how you

happen?

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could separate the

of the mixture.



(1) Key Word	Match the Definitions to Key Words.	(2) Filtration	a) Describe in detail, the process of
a) Boiling point (b.p.)	A method for separating an insoluble solid from a liquid (for example, sand from water)	funnel filter paper residue	filtration. b) Give an industrial use of filtration.
b) Chromatogram	The solid left after filtering.	filtrate	c) State a household use of filtration.
c) Chromatography	The liquid the solid is dissolved into.		
d) Distillation	A measure of how easily a substance can dissolve.	(3) Evaporation	a) Describe in detail, the
e) Filter/Filtration	A substance that contains only one type of atom or compound.	solution evaporating dish	b) Give an industrial use
f) Insoluble	The temperature at which a liquid turns into a gas.	Bunsen burner	c) When evaporation of
g) Pure	A Solvent with a solid dissolved into it.		solvent turns from a
h) Residue	A substance that can be dissolved.		liquid to a gas. Describe
i) Saturated	A method of separating two or more liquids by their boiling point.		arrangement.
j) Solubility	The chromatography paper with the ink spots.	(4) Chromatography a) Describe, in detail, the process of	of
k) Soluble	A solution that cannot dissolve any more solid.	chromatography.	chromatography paper solvent front
l) Solution	A method of separating a mixture of dissolved solids	chromatography.	
m) Solvent	A substance that will not dissolve	paper at different rates.	ne
a) Draw a graph to s	how the heating curve of water through	d) How can chromatography be us	ed
the changes of state	melting and heating.	to determine what is in a mixture?	solvent pencil line



(1) Key Word	Match the definitions to the key words	(2) Series Circuit a) State what would happen to the bulbs if a battery with a lower potential difference was used		
a) Ammeter	A battery is made of two or more cells joined together in series.	b) What will happen to the bulbs if you use 2		
b) Battery	Resistance is a measure of how easy it is for current to flow around a circuit. It is measured in ohms (Ω)	of the bulbs from its holder?		
d) Component	The amount of energy that moves from the batteries to the electrons that flow around the circuit. Potential	d) What causes the coulombs to flow in the circuit?		
	difference is sometimes called voltage. It is measured in volts (V).	(3) Parallel Circuit a) What is the rule for current in a parallel circuit?		
e) Current	The components on a series circuit are on the same loop.	b) In the circuit to the right, the bulb on the first loop of the circuit breaks. What happens to the rest of the bulbs in the circuit? Why does this happen?		
f) Parallel circuit	Ammeters measure the current flowing through a circuit.	c) The current next to the battery is measured as 8 amps. All pf the bulbs are identical. What would you		
g) Potential difference (p.d.)	Voltmeters measure the potential difference (voltage) in a circuit.	expect the current to be down each branch of the circuit? Explain your answer.		
h) Resistance	Current is the flow of electrons around a circuit. It is measured in amps (A).	(4) Resistancea) A component has a potential difference of 9 V across it and a current of 3 A		
i) Series circuit	The components on a parallel circuit are on different loops.	b) What would happen to the resistance of the circuit if you used longer wires?		
j) Voltmeter	Another word for 'part' – components are the different parts of a circuit.	Plan an investigation to test this. Include the dependent and independent variables.		



	Unit 6: Talking about my family members, and myself and age			seis	six
1a	¿Cuántas personas hay en tu familia?	How many people are there in your family?	1ac	siete	seven
1b	¿Con quién te llevas bien en tu familia?	Who do you get on well with in your family?	1ad	ocho	eight
1c	¿Te llevas mal con alguién?	Do you get on badly with anyone?	1ae	nueve	nine
1d	¿Por qué te llevas bien/mal con tu padre?	Why do you get on well/badly with your dad?	1af	diez	ten
1e	Hay cuatro personas en mi familia	There are four people in my family	1ag	once	eleven
1f	En mi familia somos cinco	In my family we are five people	1ah	doce	twelve
1g	Me llevo bien con	I get on well with	1ai	trece	thirteen
1h	Me llevo mal con	I get on badly with	1aj	catorce	fourteen
1i	mi abuelo	my grandad	1ak	quince	fifteen
1j	mi padre	my dad	1al	dieciséis	sixteen
1k	mi tío	my uncle	1am	diecisiete	seventeen
11	mi hermano mayor	my older brother	1an	dieciocho	eighteen
1m	mi hermano menor	my younger brother	1ao	diecinueve	nineteen
1n	mi primo	my cousin (m)	1ap	veinte	twenty
10	mi abuela	my grandma	1aq	veintiuno	twenty one
1р	mi madre	my mum	1ar	veintidós	twenty two
1q	mi tía	my aunt	1as	treinta	thirty
1r	mi hermana mayor	my older sister	1at	treinta y uno	thirty one
1 s	mi hermana menor	my younger sister	1au	treinta y dos	thirty two
1t	mi prima	my cousin (f)	1av	cuarenta	fourty
1u	él tiene tres años	he has three years (he is 3 years old)	1aw	cincuenta	fifty
1v	ella tiene catorce años	she has fourteen years (she is 14 years old)	1ax	sesenta	sixty
1w	un año	one year	1ay	setenta	seventy
1x	dos	two	1az	ochenta	eighty
1y	tres	three	1ba	noventa	ninety
1z	cuatro	four	1bb	cien	one hundred
1aa	cinco	five	1bc	años	years

The Bourne Academy Knowledge Organiser: Year 7 Spring Term - Spanish



Unit 7: Describing my hair and eyes			
2a	¿Cómo tienes el pelo?	How do you have your hair?	
2b	¿De qué color tienes los ojos?	What colour are your eyes?	
2c	¿Cómo tiene el pelo?	How does he/she have his/her hair?	
2e	¿De qué color tiene los ojos?	What colour are his/her eyes?	
2f	¿Cómo te llamas?	What is your name?	
2g	¿Cómo se llama?	What is his/her name?	
2h	¿Cuántos años tienes?	How old are you?	
2i	¿Cuántos años tiene?	How old is he/she?	
2j	Me llamo	I am called	
2k	Mi hermano se llama	My brother is called	
21	Mi hermana se llama	My sister is called	
2m	tengo el pelo	I have hair	
2n	tiene el pelo	He/she hashair	
20	blanco	white	
2р	castaño	brown	
2q	gris	grey	
2r	moreno	dark hair	
2s	negro	black	
2t	rubio	blond	
2u	a media melena	mid length	
2v	corto	short	
2w	en punta	spiky	
2x	largo	long	
2y	liso	straight	
2z	rapado	very shot/crew cut	

2aa	ondulado	wavy
2ab	rizado	curly
2ac	soy moreno/a	I'm a brunette
2ad	soy pelirrojo/a	I'm a redhead
2ae	soy rubio/a	I'm blond
2af	tengo los ojos	I haveeyes
2ag	tiene los ojos	He/she haseyes
2ah	azules	blue
2ai	grises	grey
2aj	marrones	brown
2ak	negros	black
2al	verdes	green
2am	llevo	l wear
2an	lleva	He/she wears
2ao	gafas	glasses
2ap	bigote	a moustache
2aq	barba	a beard

Unit 7 : Gramática

Tener – To have

	Singular	Plural
1 st	Yo tengo	Nosotros/as tenemos
Person	l have	We have
2 nd	Tú tienes	Vosotros/as tenéis
Person	you have	You (all) have
3 rd	Él/ella tiene	Ellos/ellas tienen
Person	he/she has	They have

	Unit 8: Describing myself and another family members			
3a	¿Te llevas bien con tu hermano/a?	<i>Do you get on well with your brother/sister?</i>		
3b	¿Cómo es tu padre/madre?	What is your dad/mum like?		
3c	En mi familia hay cuatro personas	In my family there are four people		
3d	Hay cinco personas en mi familia	There are five people in my family		
3e	Me gusta	I like		
3f	No me gusta	I don't like		
3g	Me llevo bien con mi hermano	I get on well with my brother		
3h	Me llevo mal con mi padre	I get on badly with my dad		
3i	Mi perro/gato	My dog/cat		
3j	Mi tortuga	My turtle		
3k	porque	because		
31	es	he/she is		
3m	es bastante	he/she is quite		
3n	es muy	he/she is very		
30	es un poco	he/she is a little		
3р	alto/a	tall		
3q	amable	kind		
3r	bajo/a	short		
3s	delgado/a	slim		
3t	fuerte	strong		
3u	gordo/a	fat		



3v	bueno/a	good
3w	guapo/a	good looking
3x	antipático/a	unkind
3у	divertido/a	fun
3z	generoso/a	generous
3aa	inteligente	intelligent
3ab	simpático/a	nice
3ac	terco/a	stubborn
3ad	tranquilo/a	calm

Unit 8 : Gramática

Ser – To be

	Singular	Plural
1 st	Yo soy	Nosotros/as somos
Person	l am	We are
2 nd	Tú eres	Vosotros/as sois
Person	you are	You (all) are
3 rd	Él/ella es	Ellos/ellas son
Person	he/she is	They have



1. Grammatical vocabulary		2. Spanish Cultural Research					
i. Define the term conjugation.		i.	Who is he?				
ii. What changes in a regular verb when we conjugate them in		ii.	What is he fam	ious for?		Francisco Franco	
the present tense.		iii.	Where did he c	come from?			
3. Dictionary skills Find out the following information abo	kills Find out the following information about a bilingual Spanish dictionary.						
Look up the word " bat " in the dictiona	Look up the word "bat" in the dictionary. You will see that there are several options, depending on how it is used. Please fill in the						
appropriate versions below.	appropriate versions below.						
bat (animal)to	bat (animal) to bat something away cricket bat						
4. Key Verbs Look up the following verbs in the pres	Look up the following verbs in the present tense – fill in the blanks						
Personal pronoun jugar – to play	onoun jugar – to play		ir – to go		hacer – to do		
Yo (I) juego	<u>I play</u>	_					
Tú (you sing)			vas	you go			
él/ella (he/she)					hace	<u>he/she/it does</u>	
nosotros (we)							
vosotros (vou pl)							
ellos (ellos (they)							
5. Translations Translate the following into Spanish.							
a. In my family there are seven people.							
b. I get on well with my Grandmother.							
c My brothers have grey eyes, and they don't wear glasses							
d. My sister has brown and short hair.							

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1. Pewter Casting	2. Metals	4. Product Analysis			
Casting is a manufacturing process used for making 3D shapes out of metal	There are three main groups of metals: ss used for making 3D Ferrous metals contain iron. They are magnetic and will rust		A product analysis looks at current products and assesses whether they are		
Metal is placed into a ladle	(corrode). Types of ferrous metals include mild steel.	Successful or require improving.			
and heated to its melting point using a gas torch.	Non-ferrous metals do not contain iron. They are non- magnetic and will not rust (corrode). Types of non-ferrous metals include aluminium.	analysis you always ask yourself the following questions in relation to the			
When the metal reaches its melting point it becomes a	Alloys are a mix of metal. This means alloys have improved	product yo	u are looking at		
into a mould : it goes	Types of alloys include pewter , which is used in casting.		designed for? How do		
through the sprue and into the cavity .	3. Electronics	Medium	 How has the designer made the product easy 		
When the metal has cooled	Different components have different functions:		to use? 3. What features does the		
the shape is released.	action. It allows the first signal to be sent.		product have which makes it a good		
LADLE MOLIEN PEWIER	Output components : The output is what the circuit results in and ultimately does.		product?		
MOLD CONTAINER	Batteries $\stackrel{\cdot}{\rightarrow}$ $ \stackrel{!}{\vdash}$ Store and release electrical energy.	Hot	product have which could make it hard to		
SAND By VRWM 4	Resistors — — — Reduced the flow of electrical current.		use? 5. What materials have		
HOTEST PART	Switches — Makes or breaks a electrical circuit.		been used and why? 6. How would you improve		
FIRE BRICKS	LED Emits light when an electrical current in run up its Anode and down its Cathode.		the product?		

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5. Timbers

Hardwoods are durable and often used in expensive furniture. Hardwoods tend to have a close grain so look aesthetically better. They grow slowly. Example= Oak, Mahogany, Teak and Beech.

Softwoods are cheaper than hardwoods. They grow guickly. IKEA use softwood from sustainable forests, meaning that for every tree cut down they plant one in its place, a softwood tree takes 2–30 years to grow. This is better for the environment. They have very visible grain. Examples= Pine and Spruce.

Manufactured boards are timber sheets which are produced by bonding wood layers or wood fibres together. They are manmade. Examples are Plywood and MDF.

6. Sustainability

- **R** educe Using less materials and energy. Reducing the amount of packaging in products.
- R Designing reusable products that do not euse need to be thrown away straight after use. Recycling products into new materials to ecycle be used again. Choosing recyclable materials.

Sustainability is about designers and manufacturers working together to minimise the impact products have on the environment. It is about being environmentally friendly.

7. New and Digital Technologies

CAD stands for Computer Aided Design. CAD software allows designers and engineers to design and model their products on computers. Designs are more easily to edited.

CAM stands for Computer Aided Manufacture. CAM processes include Laser Cutting, 3D Printing and Robotics. It is quicker, more accurate and creates intricate items.

8. Quality Control is when engineers and designs make regular checks to ensure what they are doing is correct.

Quality control checking reduces mistakes, waste materials and wasted time.

9. Working safely

PPE stands for **Personal Protective** Equipment.

PPE you will wear:

- An apron
- Safety goggles
- Leather Gloves

10. Design Communication

It is important all ideas are communicated clearly through drawings and annotation.

Annotation is the labelling of your work to fully explain it.

Types of drawing include:

Isometric 3D drawing:



30 Degrees







12. Material Properties Material properties are the characteristics of materials and the way they perform. Durable: Withstands wear and tear over time. Hard: Withstands scratching. Tough: Withstands sudden impact. Strength to Weight ratio: Strong but still lightweight. Ductile: Can be stretched. Conductor: Allows passage of heat or electricity. Insulator: Does not conduct heat or electricity. Corrosion resistance: Resistance to rust and UV light. Malleable: Can be shaped, pressed and moulded.

13. Engineering Sectors

Sectors are different job areas within engineering. This includes:

Electrical, Mechanical, Automotive, Aeronautical, Architectural and Design Engineering.

Each sector carries out different engineering tasks.

14. Joining Materials

Comb joints are used in furniture construction, especially when making drawers. They provide extra strength to the corner of wooden products. Comb Joints interlock to fit components together.



(RAAL)

PVA adhesive is used to join timbers. The glue takes 24 hours to fully dry before joints are secured.

Soldered or welded joints are used for metal components. They heat two metal components and join them with a filler metal that hardens and holds them together.

15. Materials

Timbers: MDF, Pine, Ply, Oak

Polymers: Acrylic, Rubber, HIPS

Metals: Aluminium, Mild Steel, Pewter.



1. Higher Order Thinking: Putting knowledge into 2. Challenge Tasks: Research, Report, Create. context. 1) Design a solution to help a football coach carry 12 drinks bottles easily. Pick an everyday object or product. Now keeping 2) Research smart materials and suggest ways smart materials can improve everyday products in that object or product in mind, pick one of the your home. questions below to discuss it in more depth. Each question is worth 6 marks. 3) Design a top tips/ health and safety poster for your current TED project. Workshop tools and processes: 4) How can Coca Cole become a more sustainable company? Write to them highlighting ways they can be more environmentally friendly. Research using the internet or think back to workshop skills you have learnt. Can you discuss 5) Research and discuss the life cycle of a plastic bottle. Create a poster. any ways the product could be manufactured? 6) How can everyday products be made easier to use for people with mobility problems. Redesign What tools and processes could be used? items in your home to make them more ergonomic and easier to use. Material properties: 7) Research different Engineering jobs. Create a skills list for at least 5 job sectors. Identify which properties are required for this product to function at its best? Evaluate why these **4.** Analyse and Develop 1. Who is the product 3. Visit, Watch, Do. properties are important in helping the product designed for? How do you perform well? Visit this link to a sketch-aknow this? day YouTube channel. Pick a 2. How has the designer made Sustainability and Renewable Energy: video tutorial and develop the product easy to use? Discuss how could you make the product more 3. What features does the your drawing skills by environmentally friendly? Explain what you could product have which makes following the instructions it a good product? change? and demos. What features does the Aesthetics: https://www.youtube.com/c product have which could hannel/UCBtSgEZk914z5InEs make it hard to use? Is the product visually appealing? Will it appeal to 5. How would you improve U2J3w its user? Discuss how could you develop the the product? Why would product to be aesthetically pleasing and suitable you make that change? for its target user group? 57