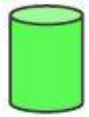
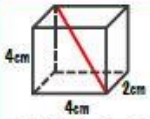
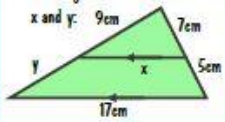
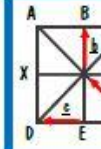
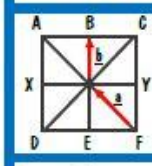
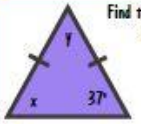
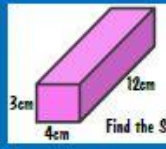
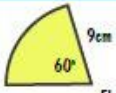
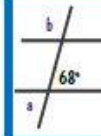
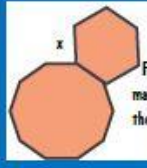
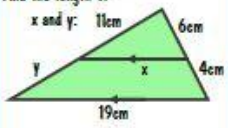
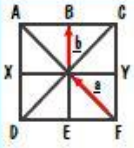
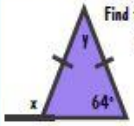
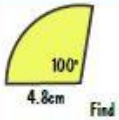
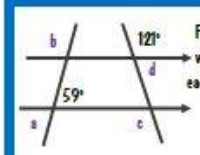
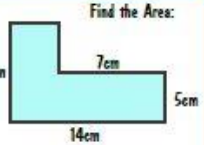
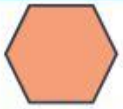
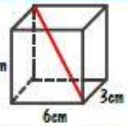
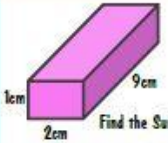
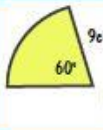
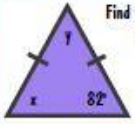
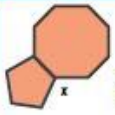
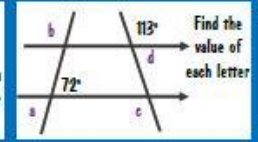
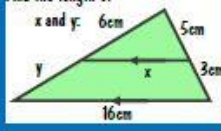
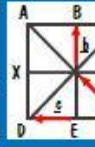
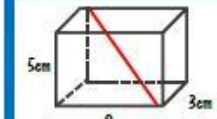
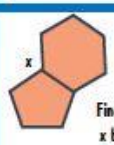
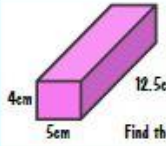
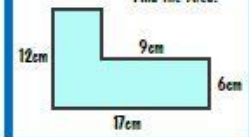
Learning Grid – Shape Revision Mat (Roll two dice to find your question)

ACCESS MATHS

	1	2	3	4	5	6
6	 Height = 12cm, Radius = 3cm. Find the Surface Area:	 Find the length of the red line:	Find the size of the exterior angle:	Find the length of x and y: 	Radius = 5cm. Find the Area:	 Find the vector $\overrightarrow{CO}$ in terms of $\underline{a}$, $\underline{b}$ and $\underline{c}$
5	 Find the vector $\overrightarrow{EF}$ in terms of $\underline{a}$ and $\underline{b}$	 Find the size of x and y:	 Find the Surface Area:	 Find the Perimeter of the circle segment:	Height = 8cm, Diameter = 2cm. Find the Volume:	 Find the value of each letter
4	Radius = 5cm. Find the Perimeter:	 Find the angle marked x between these two regular polygons.	Find the length of x and y: 	 Find the vector $\overrightarrow{FB}$ in terms of $\underline{a}$ and $\underline{b}$	 Find the size of x and y:	 Find the Area of the circle segment:
3	 Find the value of each letter	Find the Area: 	Height = 8.5cm, Radius = 4cm. Find the Surface Area:	 Find the size of the interior angle:	 Find the length of the red line:	 Find the Surface Area:
2	 Find the Area of the circle segment:	 Find the size of x and y:	 Find the angle marked x between these two regular polygons.	 Find the value of each letter	Find the length of x and y: 	 Find the vector $\overrightarrow{FD}$ in terms of $\underline{a}$, $\underline{b}$ and $\underline{c}$
1	 Find the length of the red line:	 Find the angle marked x between these two regular polygons.	Find the Perimeter of the semi-circle:	 Find the Volume:	Height = 12cm, Volume = 942.5cm². Find the radius to 1.sig.fig.	Find the Area: 

2.5 Proteins – Functions and uses

Give four functions of proteins in living organisms

Describe the structure of a protein.

What type of organism do we use to produce enzymes for industry and why?

What is an enzyme and what is its function?

What is meant by enzyme specificity and why are enzymes specific?

Add labels to the following diagram of an enzyme-substrate complex.

Give two factors that affect the rate of an enzyme controlled reaction.

What is the name of the enzyme used to convert glucose to fructose?

Explain what happens when a enzyme becomes denatured

What is the name given to the part of the enzyme that enables it to recognize a substrate?

Which enzymes are contained in washing powders?

Why are biological washing powders more 'environmentally friendly'?

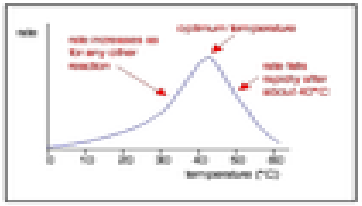
Why is fructose used instead of glucose in slimming foods?

Look at the graph on the left which shows how temperature affects an enzyme-controlled reaction.

a. Describe the effect of temperature on the rate of reaction

b) Explain the shape of the graph.

What are carbohydrases used for in industry?



Give 2 disadvantages of using enzymes in industry.

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Source Analysis Learning Mat

Types of Sources

Primary – ORIGINAL materials (contemporary); produced at the time e.g. newspaper.
Secondary – Produced at a LATER date; second hand information.

Provenance – where the source comes from (author, publication and date).

WHEN WHO WHY

NOP

- NATURE (what type of source is it – written? Illustration?)
- ORIGIN – when and where is it from?
- PURPOSE – why was it created?

Analyse

DESCRIBE the source. Include your OWN knowledge and evidence (jot down from your own knowledge information which supports the source and information which does not support the source).

- What can you see?
- Why is it like that?
- What message does it give?
- Are there historical details not mentioned?

Evaluate

- Is the source subjective (opinions) or objective (facts)?
- How far do you agree / disagree with what the source is portraying?
- How useful is the source?
- In what way is it limited? Are there things not mentioned?

ORIGIN MOTIVE PERSPECTIVE
CONTENT AUDIENCE RELIABILITY USEFULNESS

Reliability – How USEFUL is the source? (**Utility**)

Reliable – trustworthy / correct
Unreliable – bias (viewpoint of the author/exaggerated) but can reveal what people thought at the time.

All sources are useful in some way so always think carefully about both the advantages and disadvantages (limitations) of the source.

Use Tentative Language

- Maybe . . .
- This might suggest . . .
- It appears to . . .
- This could mean . .
- It seems to indicate . . .

Source:	***where*** it comes from? (date/provenance/author etc.)?
Objective:	***why*** was it written (a diary/newspaper)?
Usefulness:	***how*** useful for what you want/need?
Reliability:	***how*** reliable for what you need?
Context:	***how*** does what you know fit in?
Example:	***always*** use examples to back up what you say.

Literacy Mat

Checking the basics

- ❑ Every sentence must start with a capital letter.
- ❑ Every sentence must finish with some form of punctuation: .?! _
- ❑ Proper nouns need capital letters e.g. Manchester, February and Mr Jones.
- ❑ When writing titles of works such as books, films or plays:
  - Capitalise the first word. Capitalise any main/important words. Don't capitalise minor words such as 'and', 'of' or 'the' e.g. *The Wizard of Oz, Harry Potter and the Goblet of Fire*

Punctuation

Full stop	.	indicates that a sentence has finished
Comma	,	indicates a slight pause in a sentence, separates clauses in a complex sentence and items in a list
Question mark	?	goes at the end of a question
Exclamation mark	!	goes at the end of a dramatic sentence to show surprise or shock
Apostrophe	'	shows that letter(s) have been left out or indicates possession
Speech marks	" "	indicate direct speech, the exact words spoken or being quoted
Colon	:	introduces a list, a statement or a quote in a sentence
Semicolon	;	separates two sentences that are related and of equal importance
Dash / hyphen	-	separates extra information from the main clause by holding words apart
Brackets	( )	can be used like dashes, they separate off extra information from the main clause
Ellipsis	...	to show a passage of time, to hook the reader in and create suspense

Apostrophe for Possession

(To show that something belongs to another)

If a single thing/person owns anything, add an apostrophe + 's'.

- The dog's bone
- The boy's homework

However, if it is plural (more than one), an apostrophe comes after the 's'.

- The boys' homework
- Many websites' content is educational

Apostrophes: Common contractions

Aren't	How'd	She'd	Weren't
Can't	How's	She'll	What'd
Couldn't	I'd	She's	What's
Didn't	I'll	Shouldn't	Where'd
Doesn't	I'm	They'd	Where'll
Don't	Isn't	They'll	Where's
Hadn't	It'd	They're	Who'd
Hasn't	It'll	Wasn't	Who'll
Haven't	It's	We'd	Who's
He'd	Mightn't	We'll	Won't
He'll	Mustn't	When's	Wouldn't
He's	Shan't	We're	You'll
			You're

There/ their/ they're

Note: special care must be taken over the use of **there**, **their** and **they're** as they sound the same but are used quite differently:

- **There** shows position *Your seat is over there*
- **Their** shows that 'they' own something *Their blazers are navy blue*
- **They're** is short for **they are** as in *They're revising every day*

Its / It's

Note: **its**, which shows that something owns something (like our, his etc), does not take an apostrophe: *the dog ate its bone and we ate our dinner.*

Your / you're

Note: special care must be taken over the use of **your** and **you're** as they sound the same but are used quite differently:

- **Your** is possessive as in *this is your pen*
- **You're** is short for you are as in *you're coming over to my house*

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