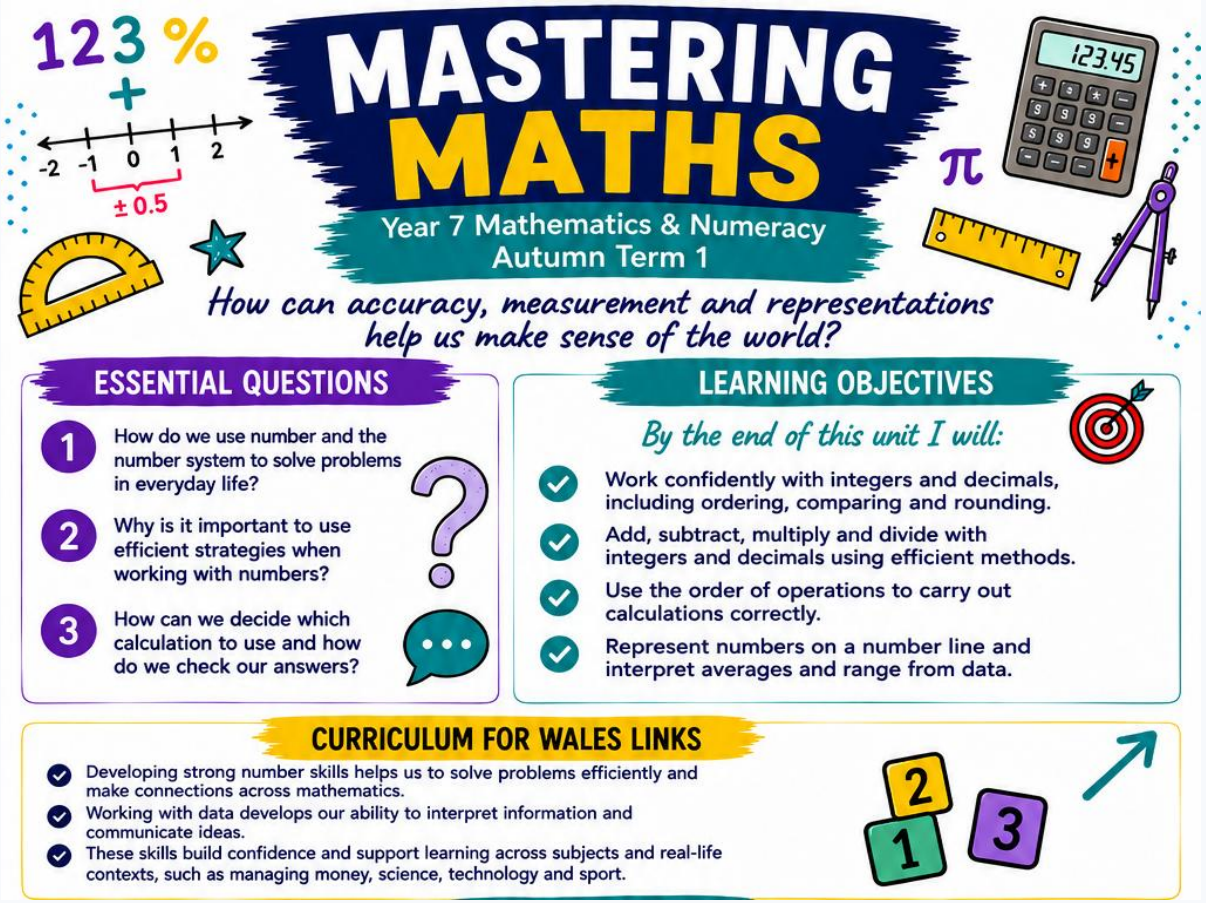
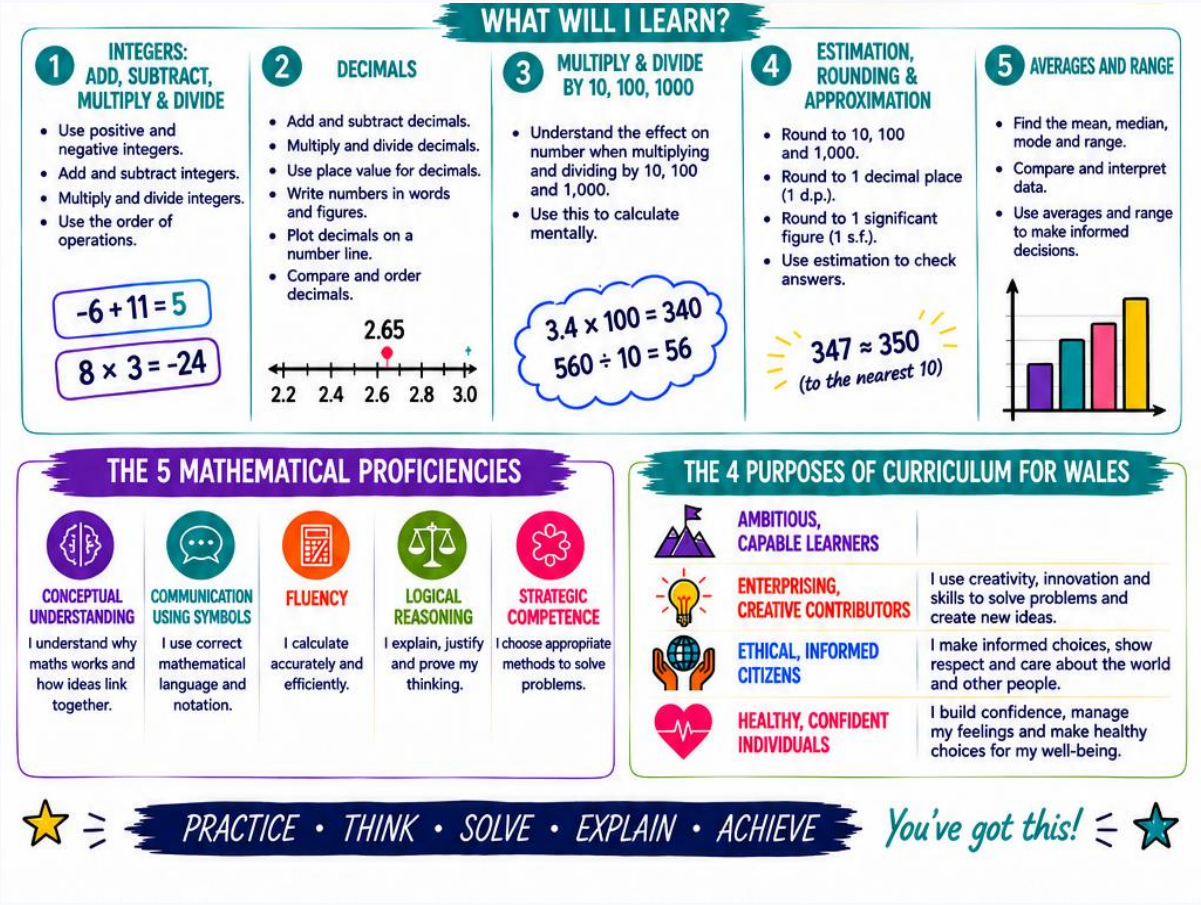
St Richard Gwyn Catholic High

A Spotlight on Maths and Business Studies

Celebrating good practice across our departments

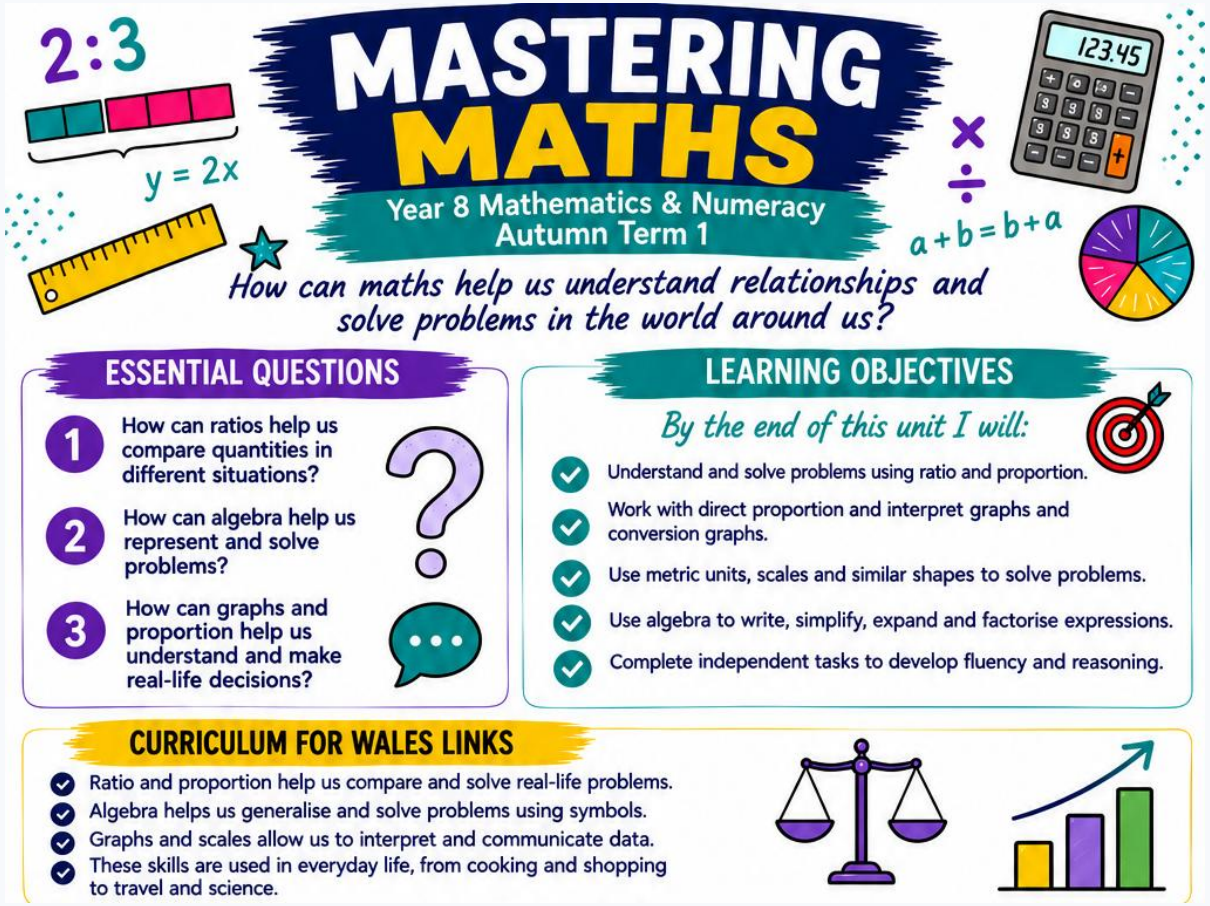
Year 7: A clear purpose for learning

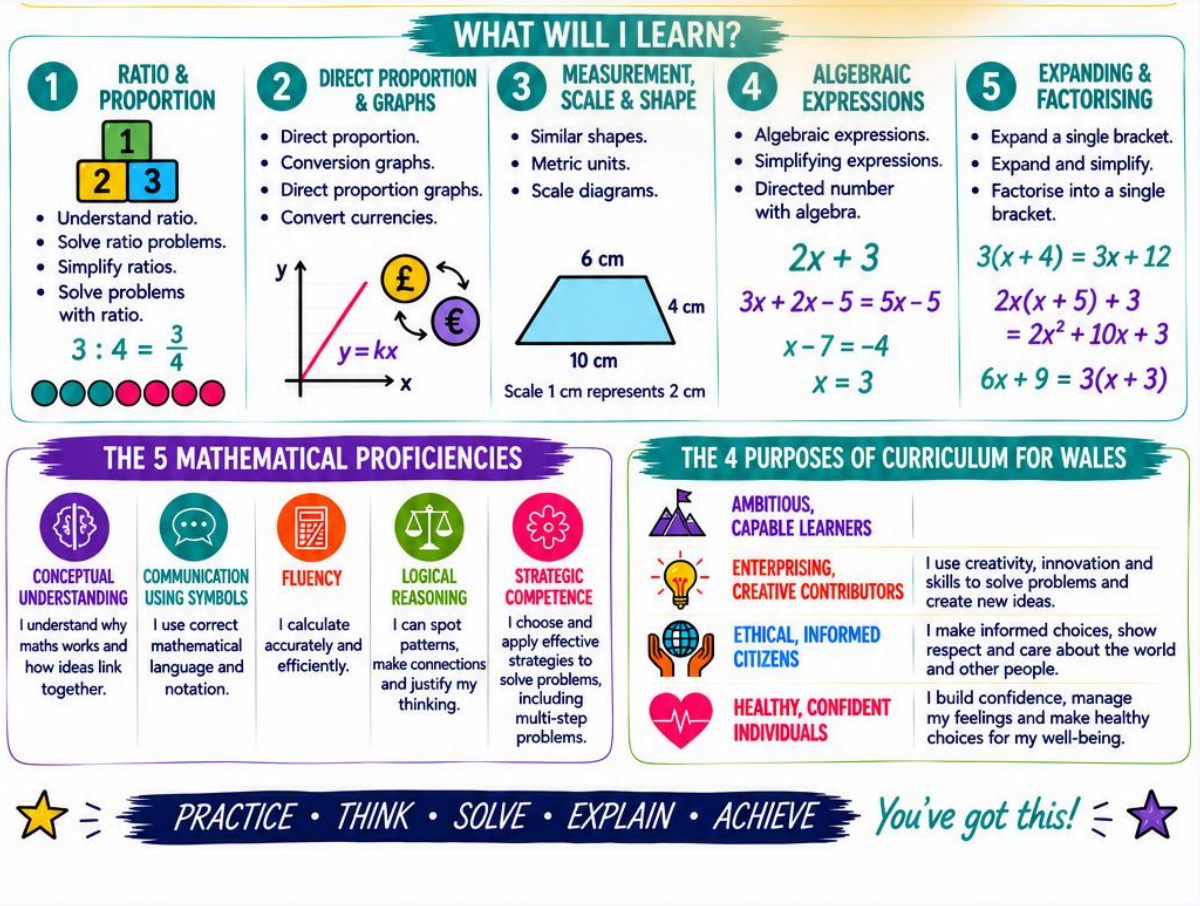




Essential questions connect number skills to everyday life and Curriculum for Wales.

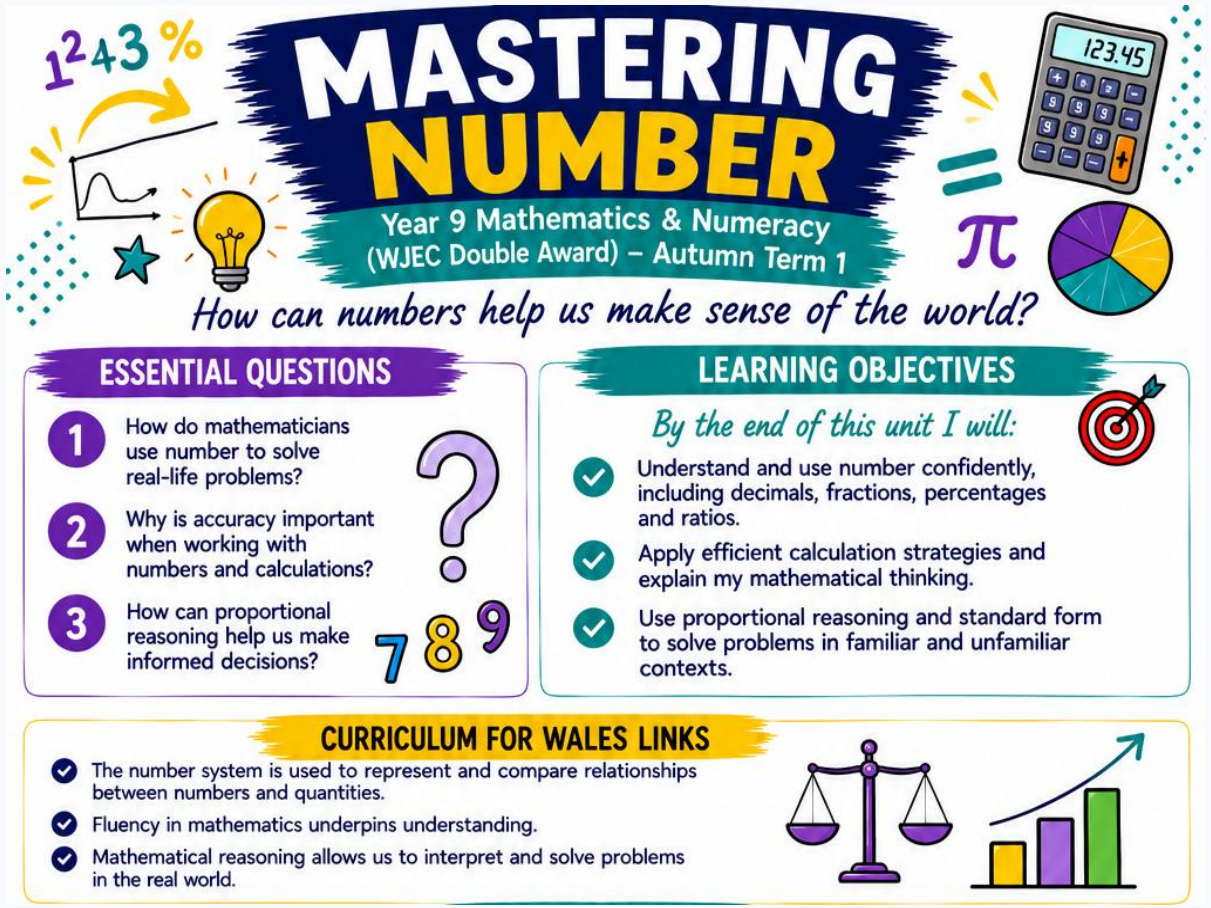
Year 8: Making mathematical connections

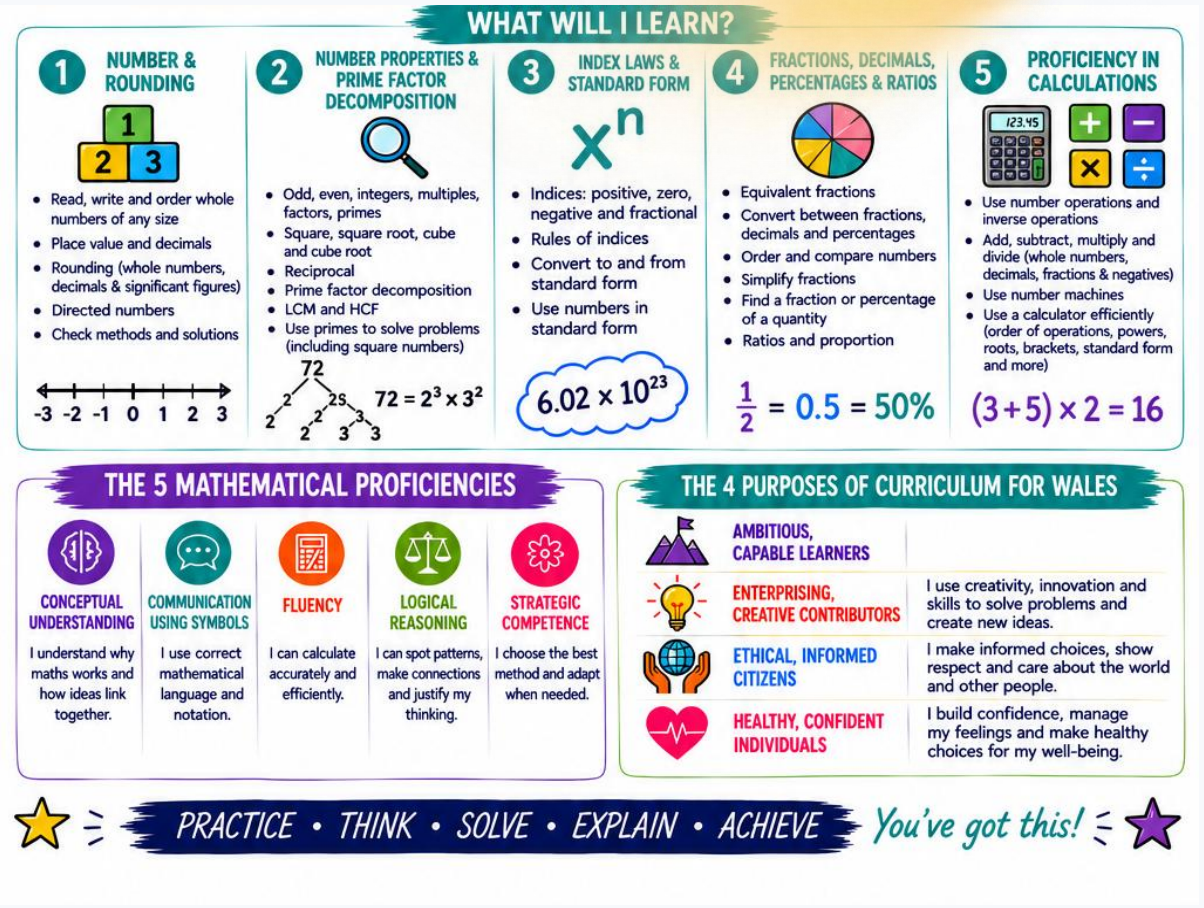




A clear purpose for learning, with real-life links to ratio, graphs and algebra.

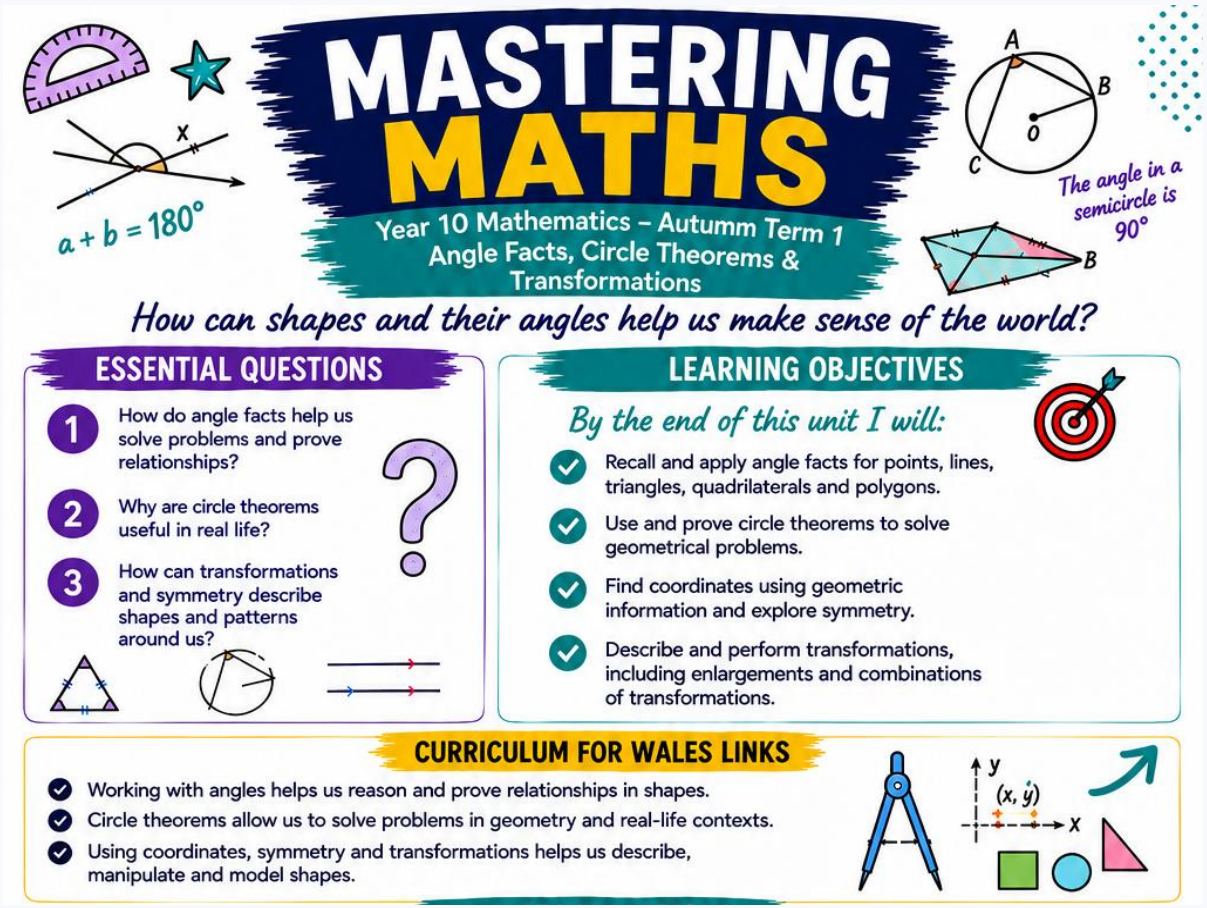
Year 9: Building confidence with number

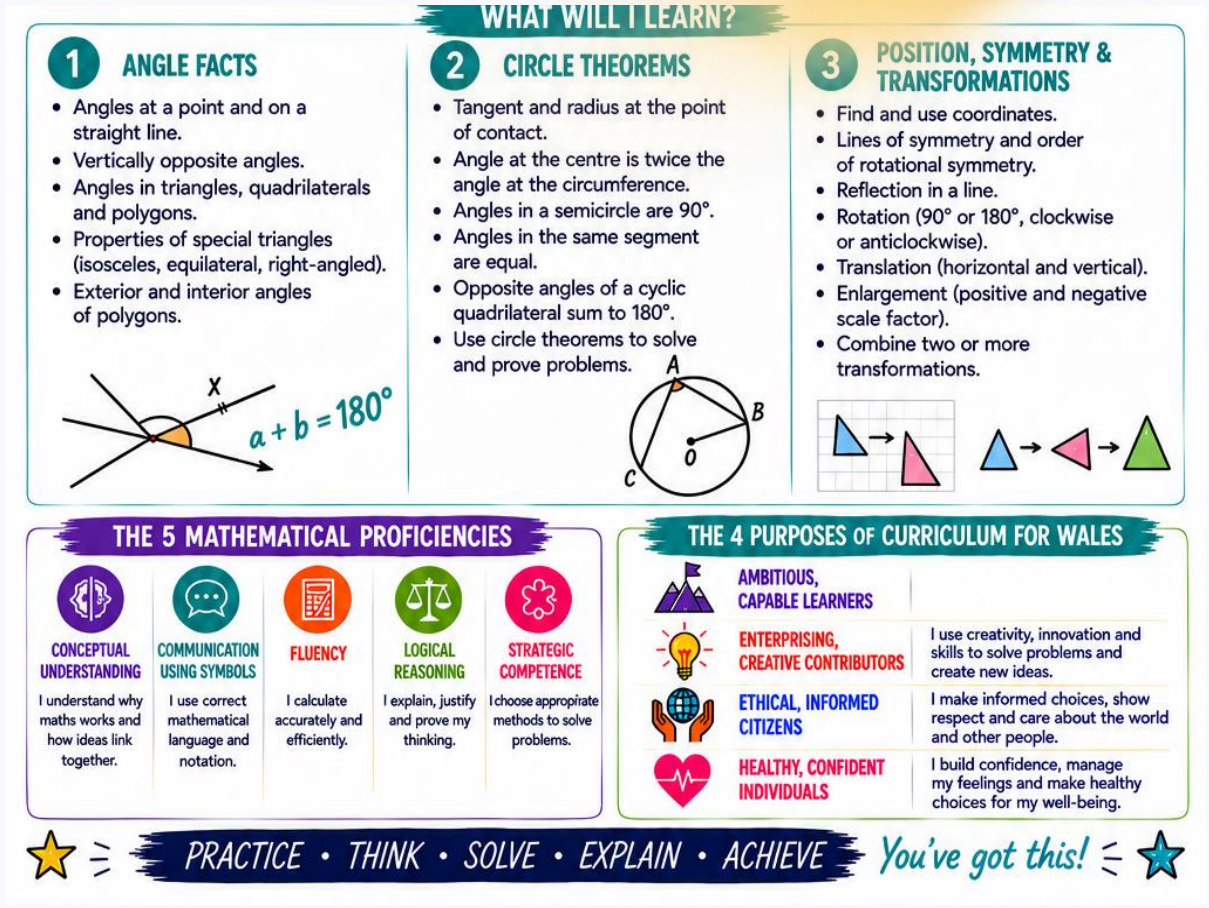




Number fluency supports mathematical reasoning and real-life problem-solving.

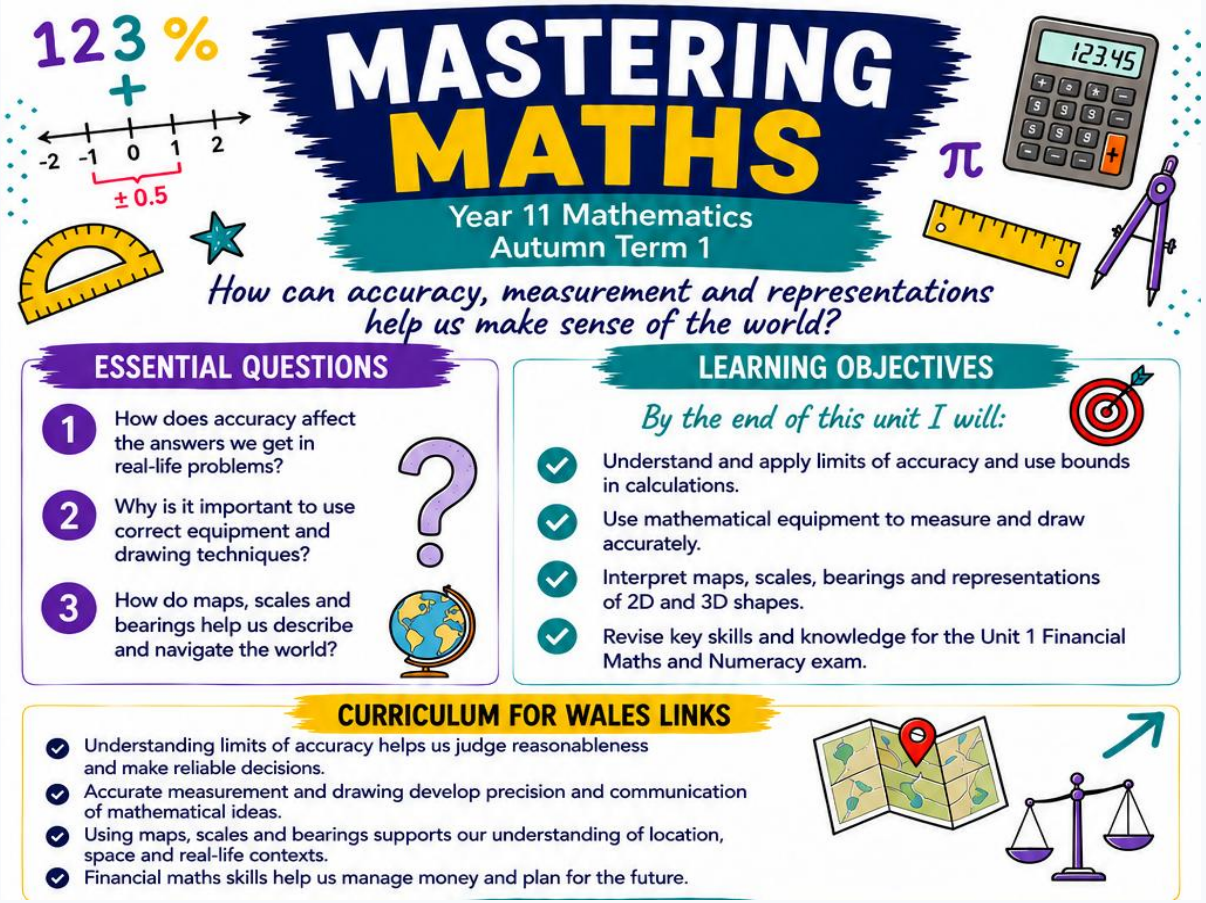
Year 10: Reasoning about shapes and angles

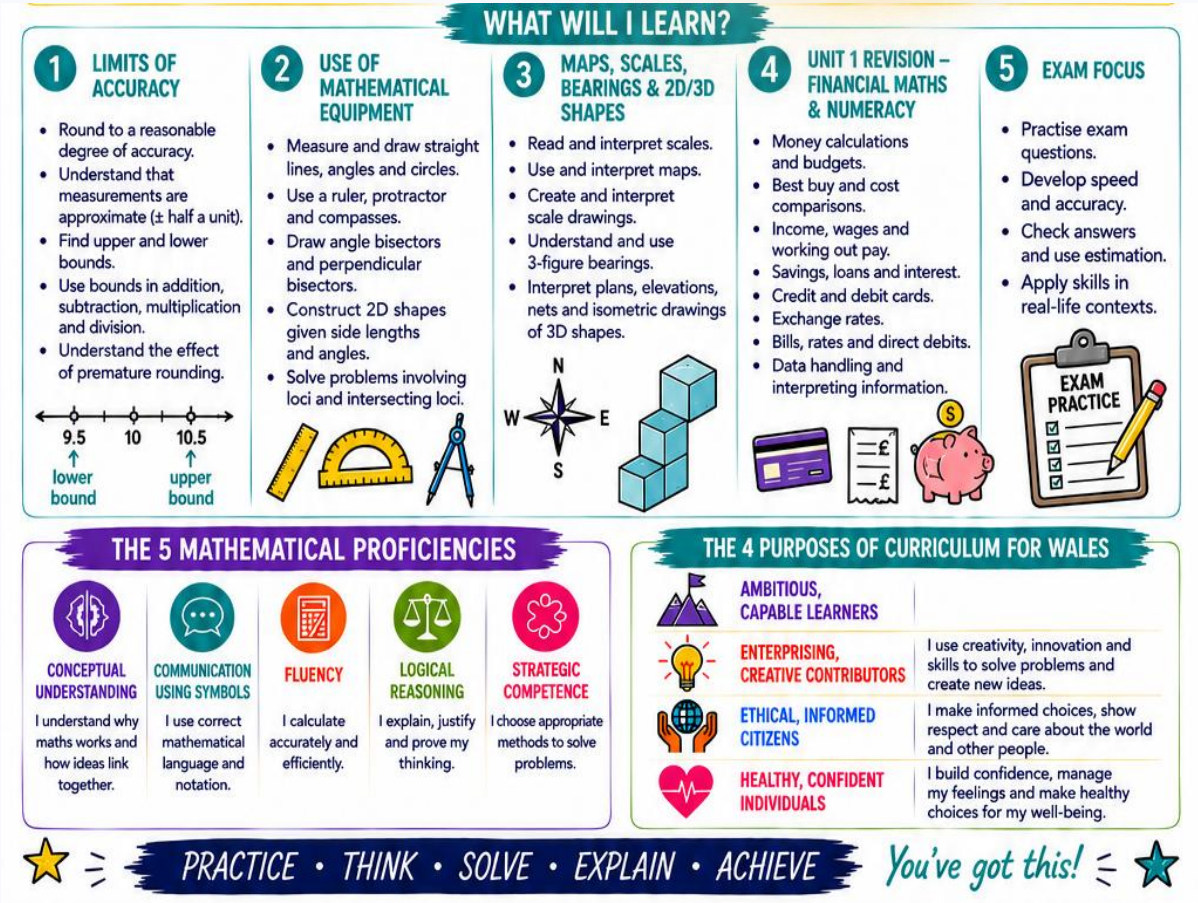




Geometry links angle facts and circle theorems to reasoning about shapes.

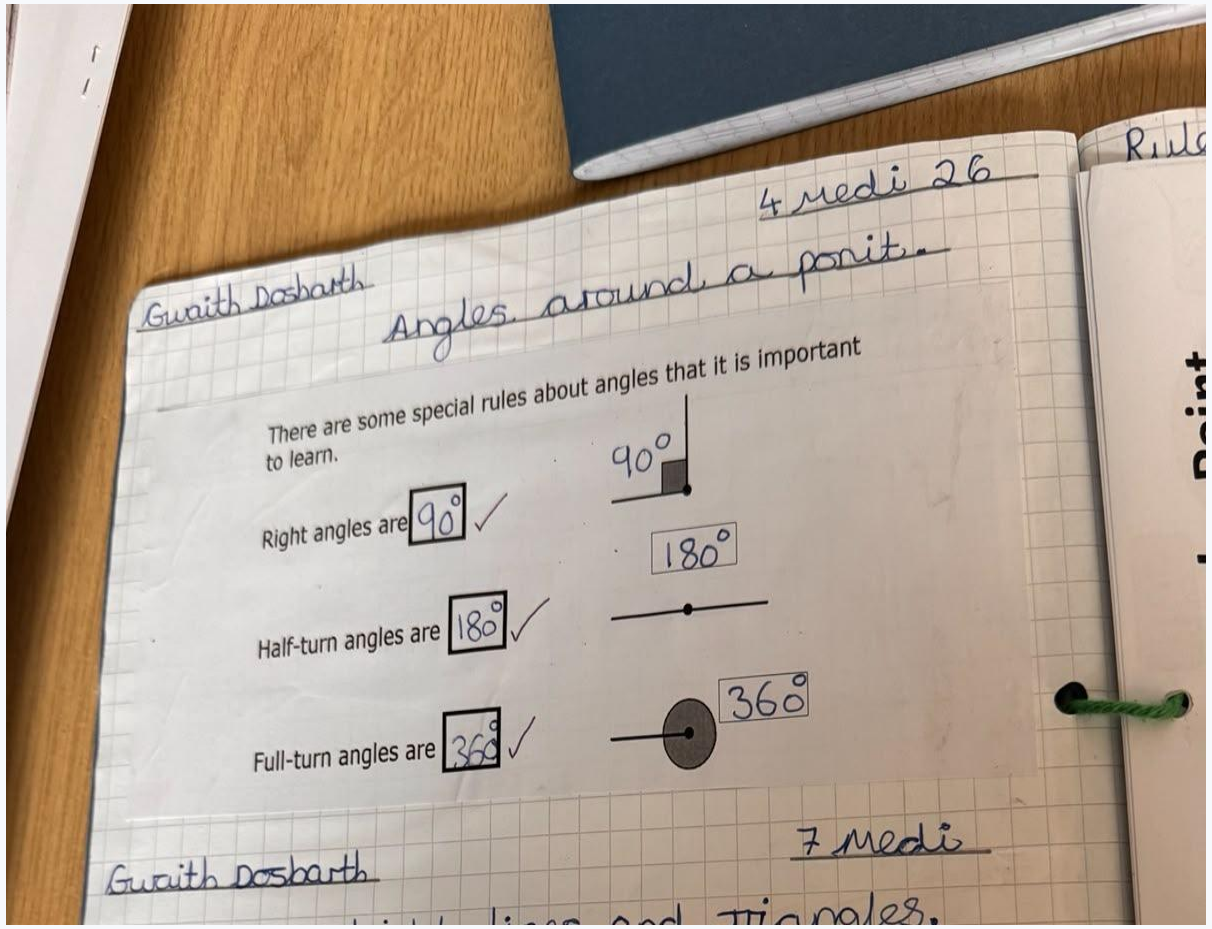
Year 11: Mathematics for life and exams

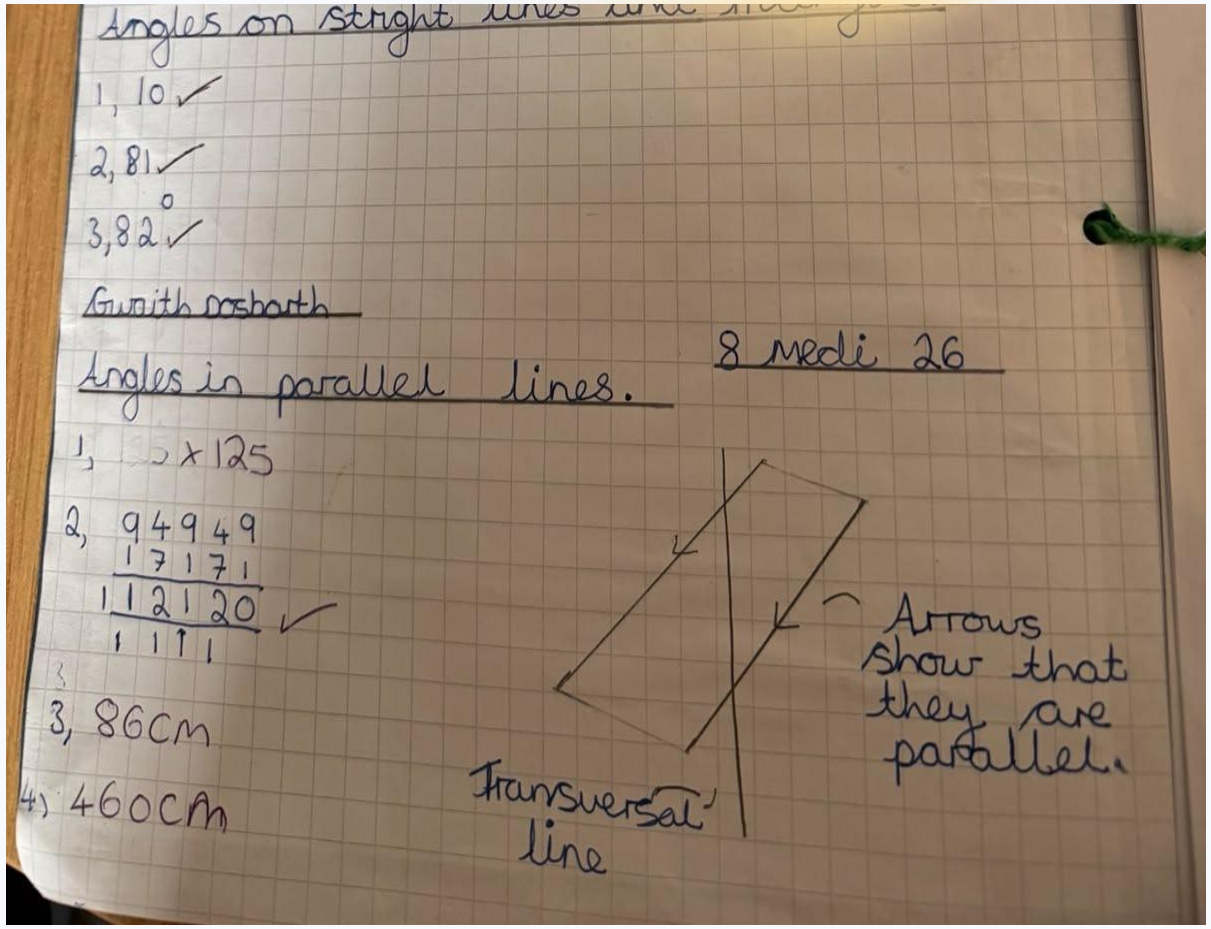




Practical measurement and financial maths support everyday life and exam preparation.

Understanding angle relationships

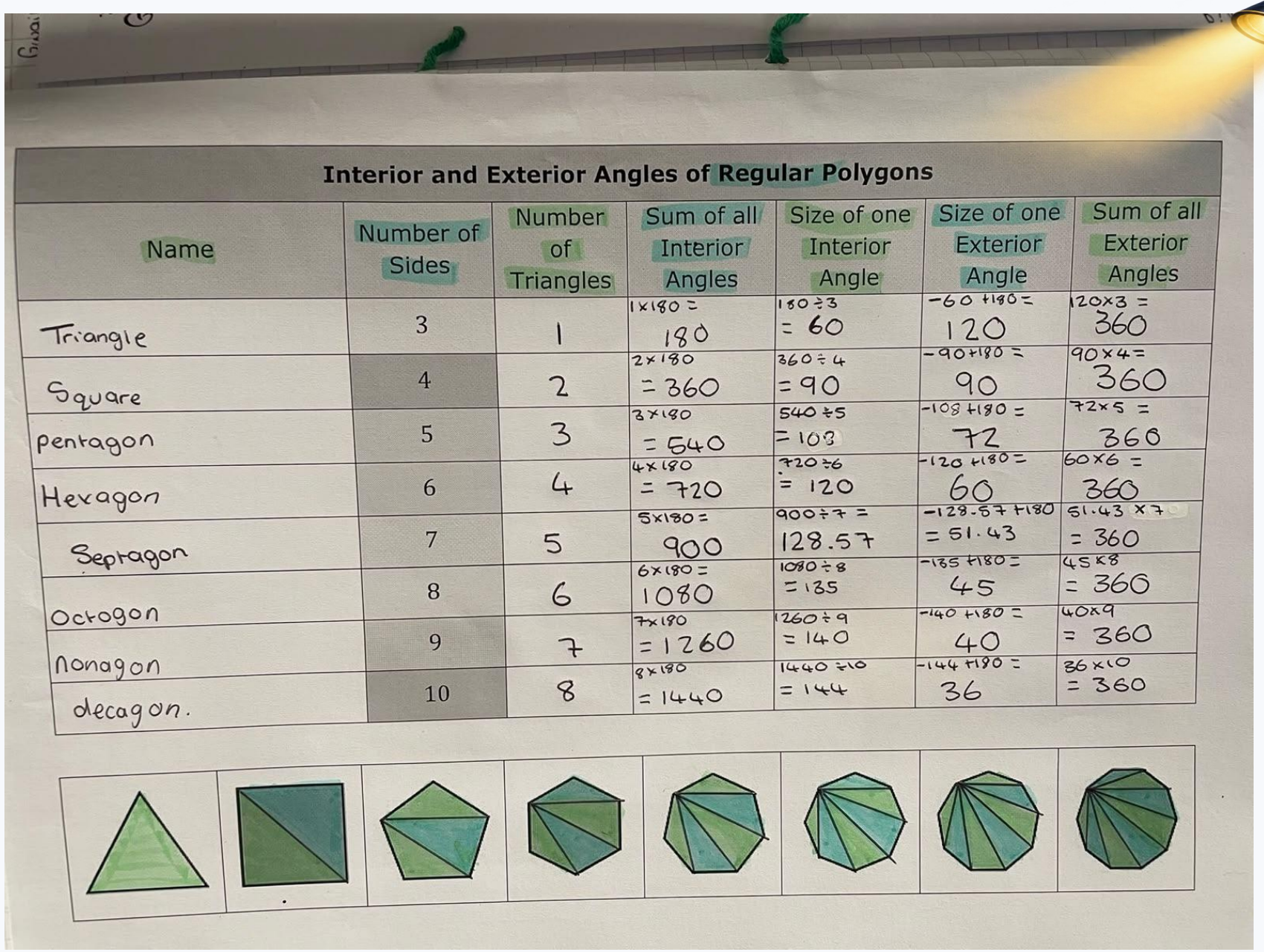




Students use annotated diagrams to explore angles around a point, on straight lines and in parallel lines.

Spotting patterns in polygons

Students compare interior and exterior angles using organised calculations and visual representations.

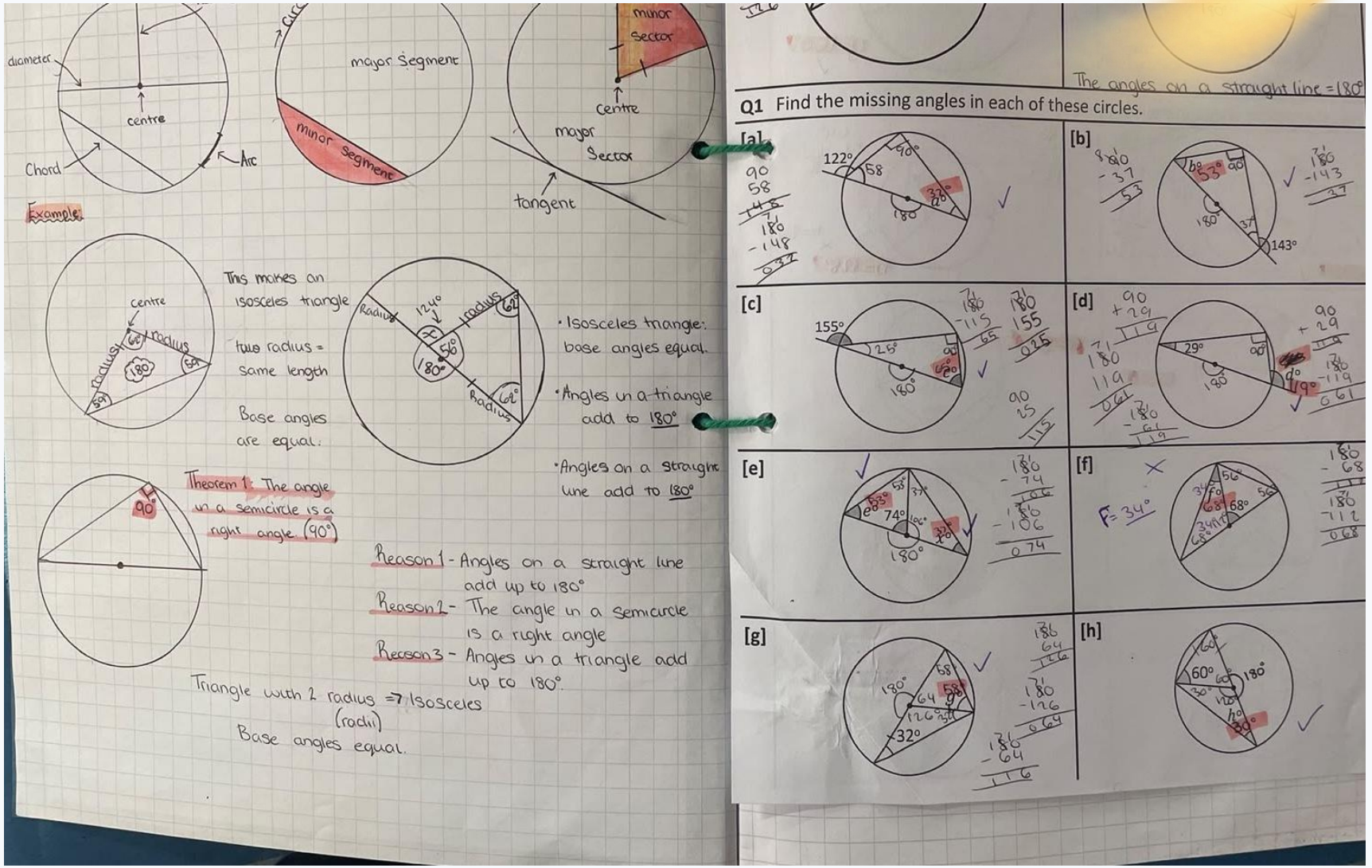


Interior and Exterior Angles of Regular Polygons

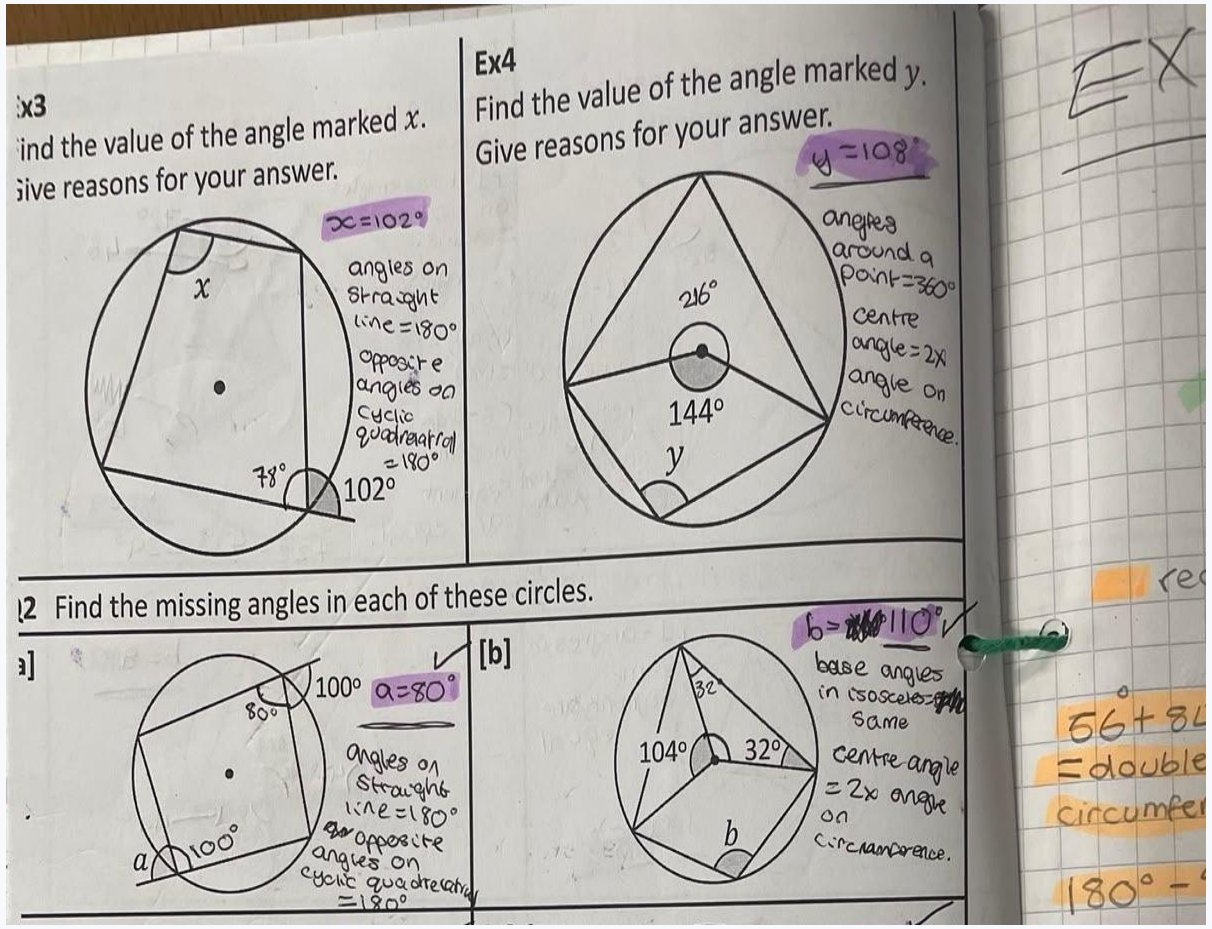
Name	Number of Sides	Number of Triangles	Sum of all Interior Angles	Size of one Interior Angle	Size of one Exterior Angle	Sum of all Exterior Angles
Triangle	3	1	1×180 = 180	180÷3 = 60	−60 +180 = 120	120×3 = 360
Square	4	2	2×180 = 360	360÷4 = 90	−90+180 = 90	90×4= 360
pentagon	5	3	3×180 = 540	540÷5 = 103	−108 +180 = 72	72×5 = 360
Hexagon	6	4	4×180 = 720	720÷6 = 120	−120 +180 = 60	60×6 = 360
Septagon	7	5	5×180 = 900	900÷7 = 128.57	−128.57 +180 = 51.43	51.43 ×7 = 360
Octogon	8	6	6×180 = 1080	1080÷8 = 135	−135 +180 = 45	45×8 = 360
Nonagon	9	7	7×180 = 1260	1260÷9 = 140	−140 +180 = 40	40×9 = 360
decagon.	10	8	8×180 = 1440	1440÷10 = 144	−144 +180 = 36	36×10 = 360

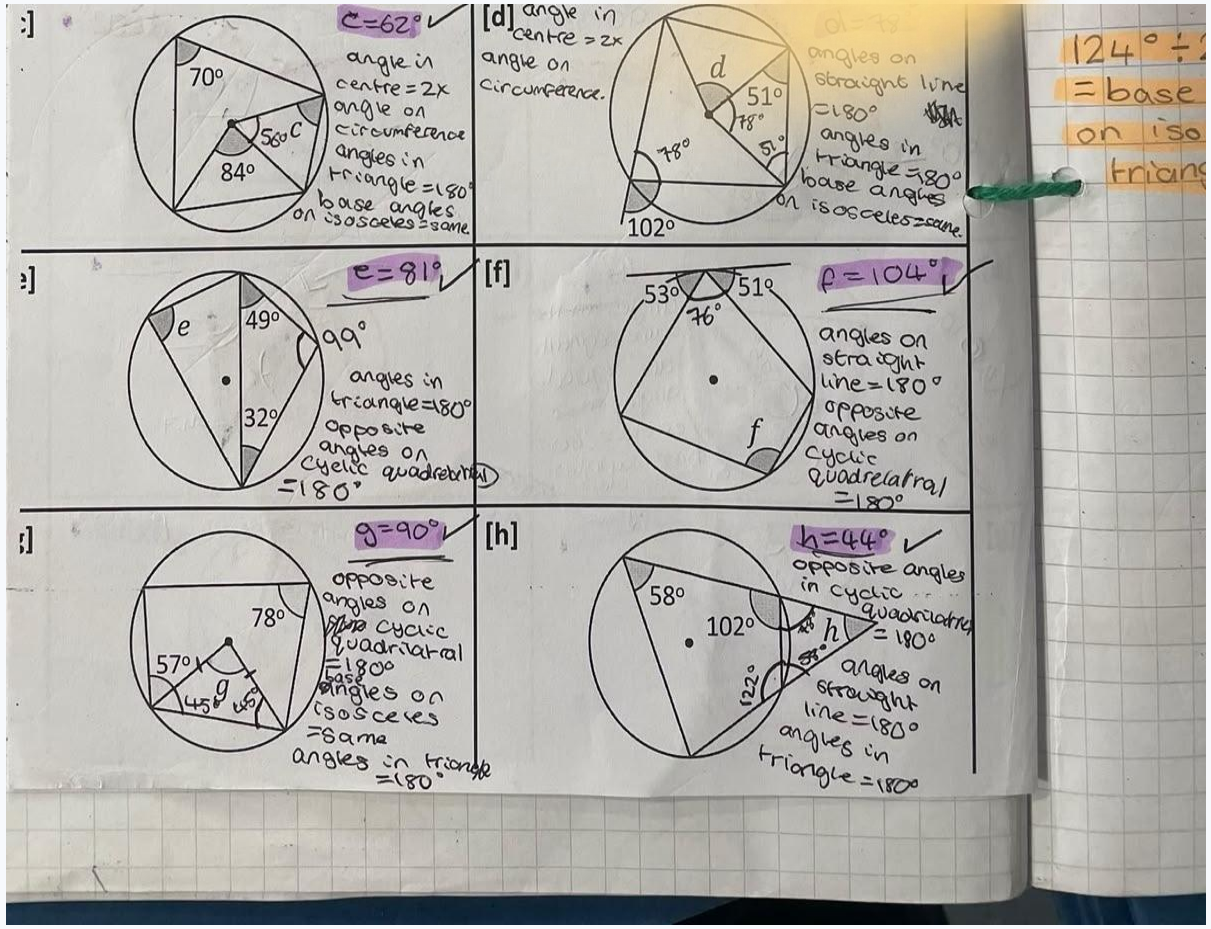
Applying circle theorems

Labelled diagrams and worked examples support students as they calculate missing angles and explain their answers.



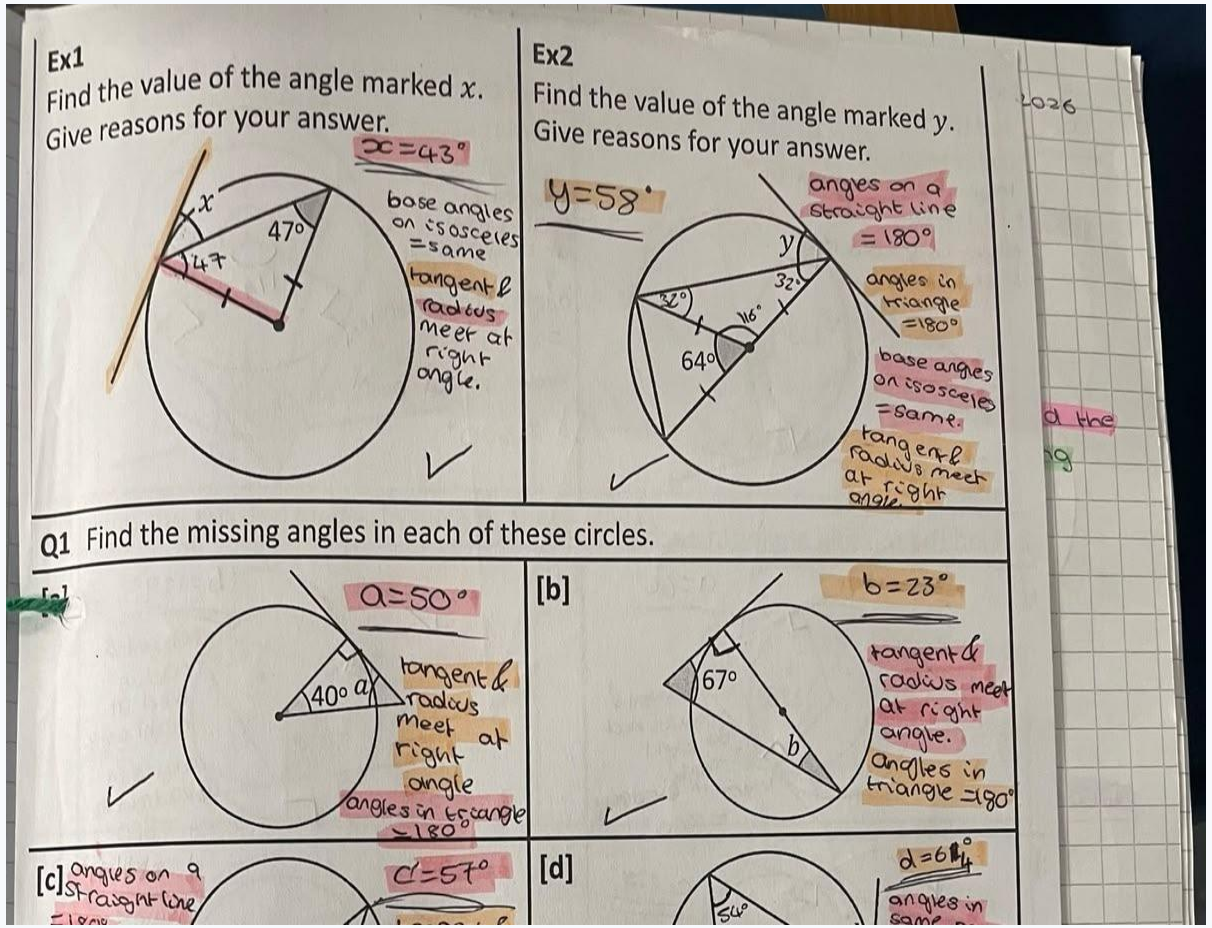
Explaining the reasoning

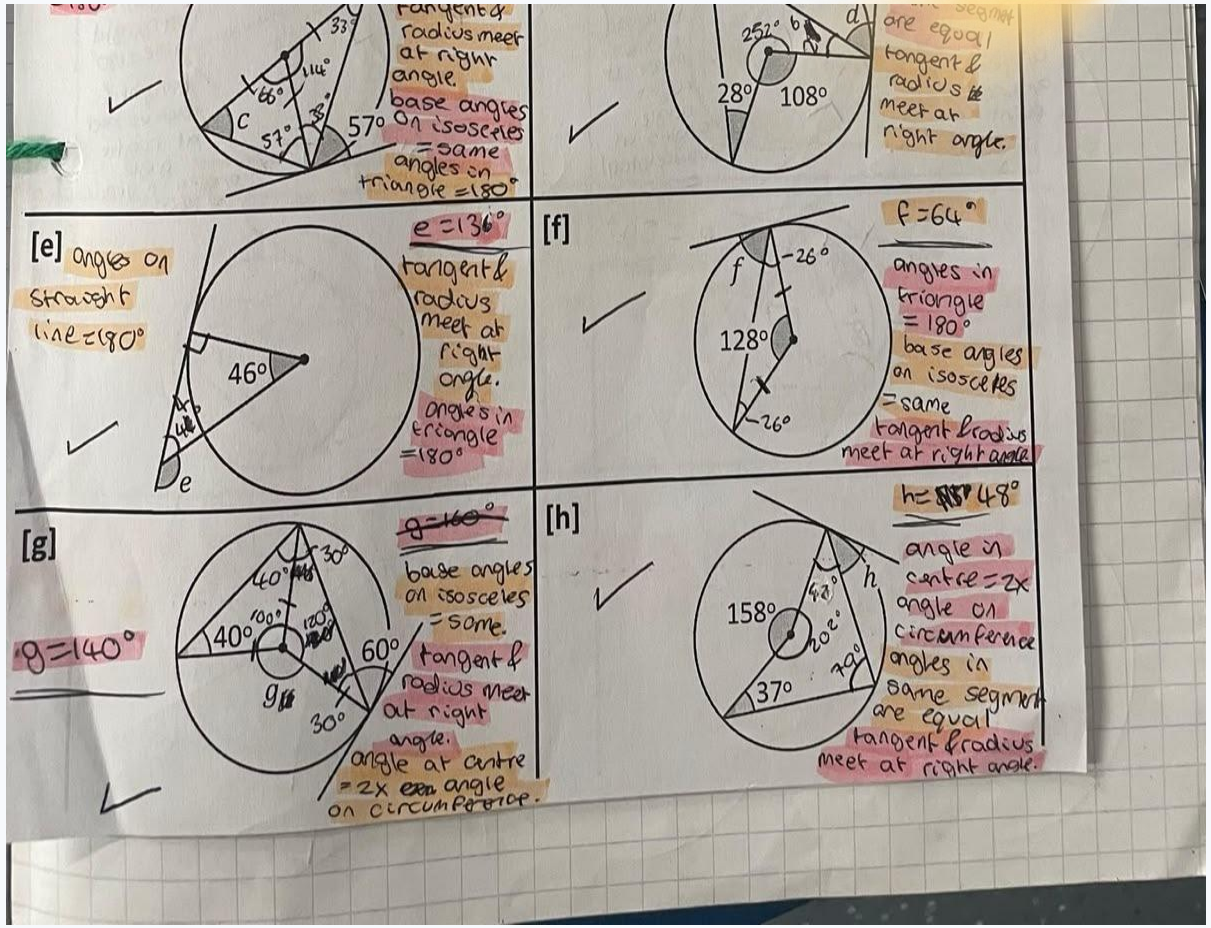




Students name the angle rules they use and record their reasoning beside each diagram.

Turning feedback into progress

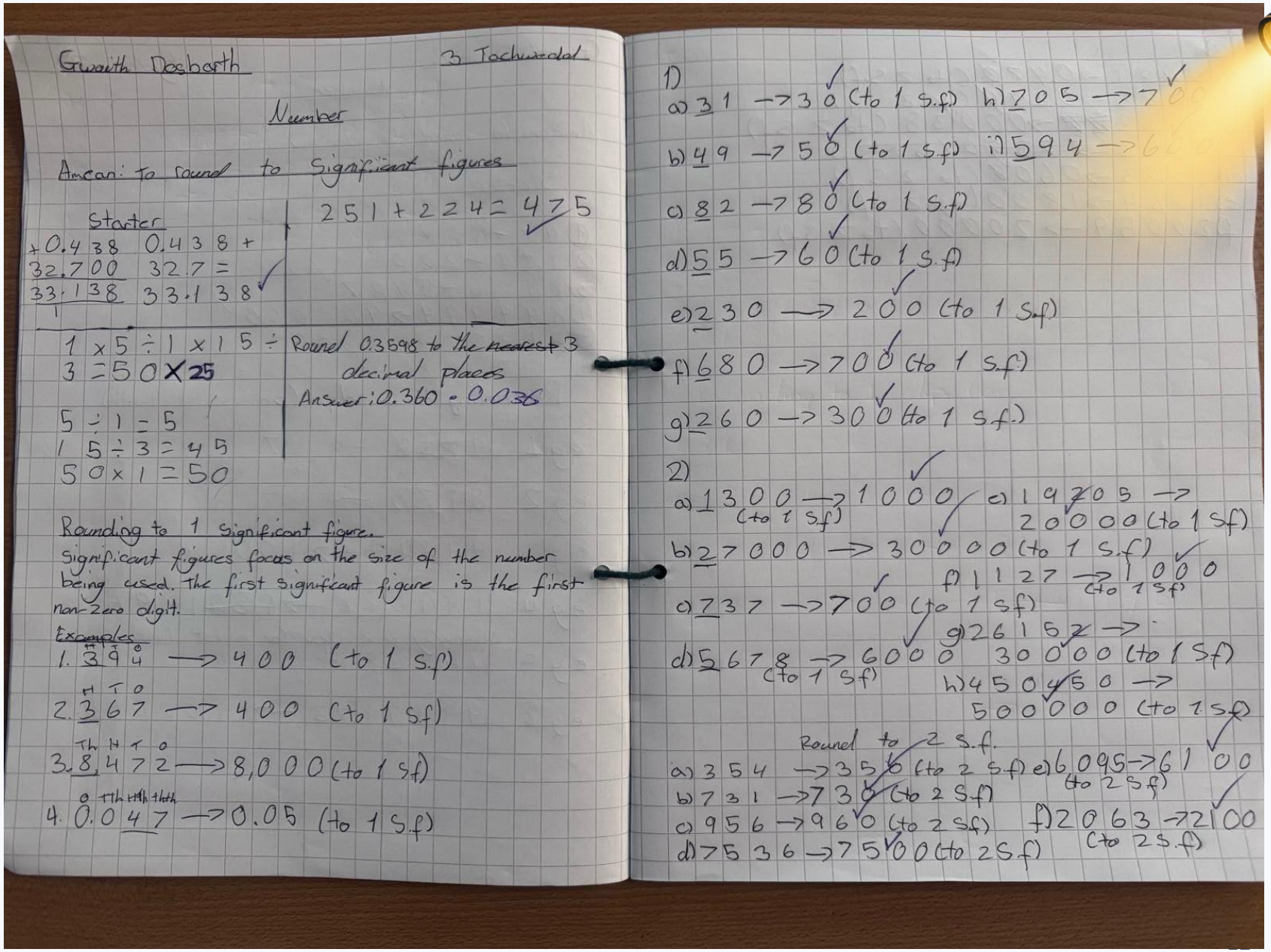




Students revisit circle-theorem questions, annotate their working and make corrections to their answers.

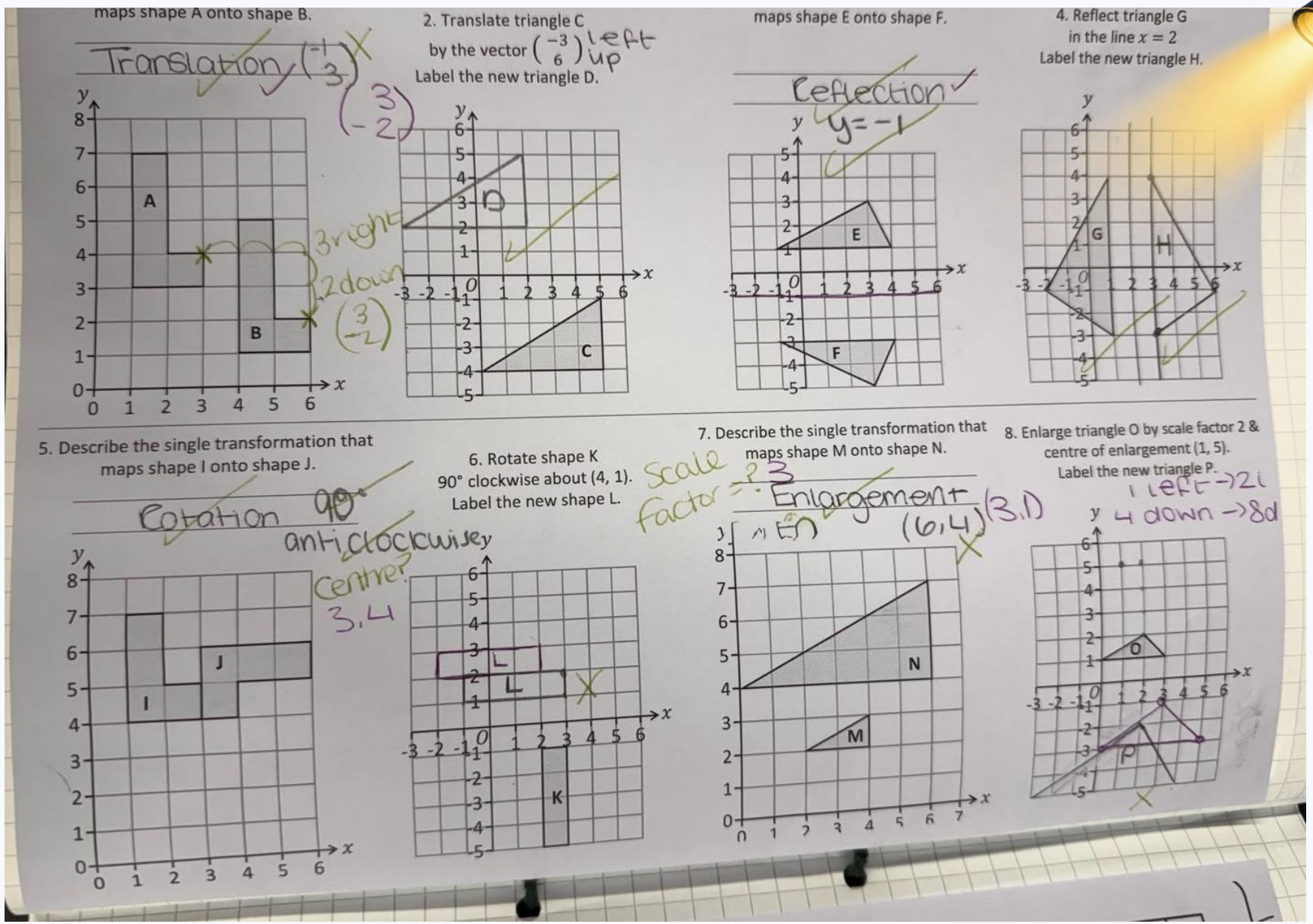
Revisiting number skills

Students practise rounding to significant figures, with checking and corrections recorded in their work.

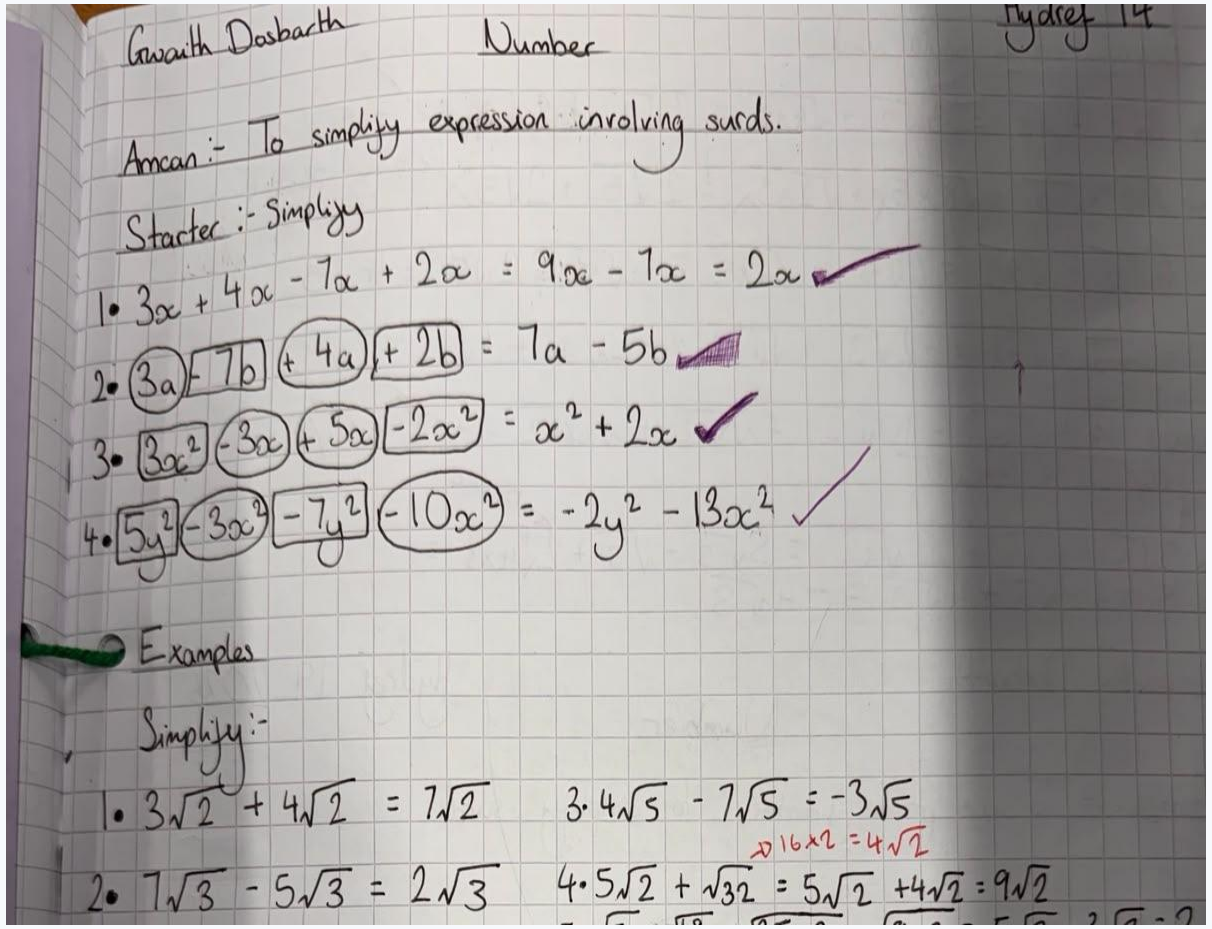


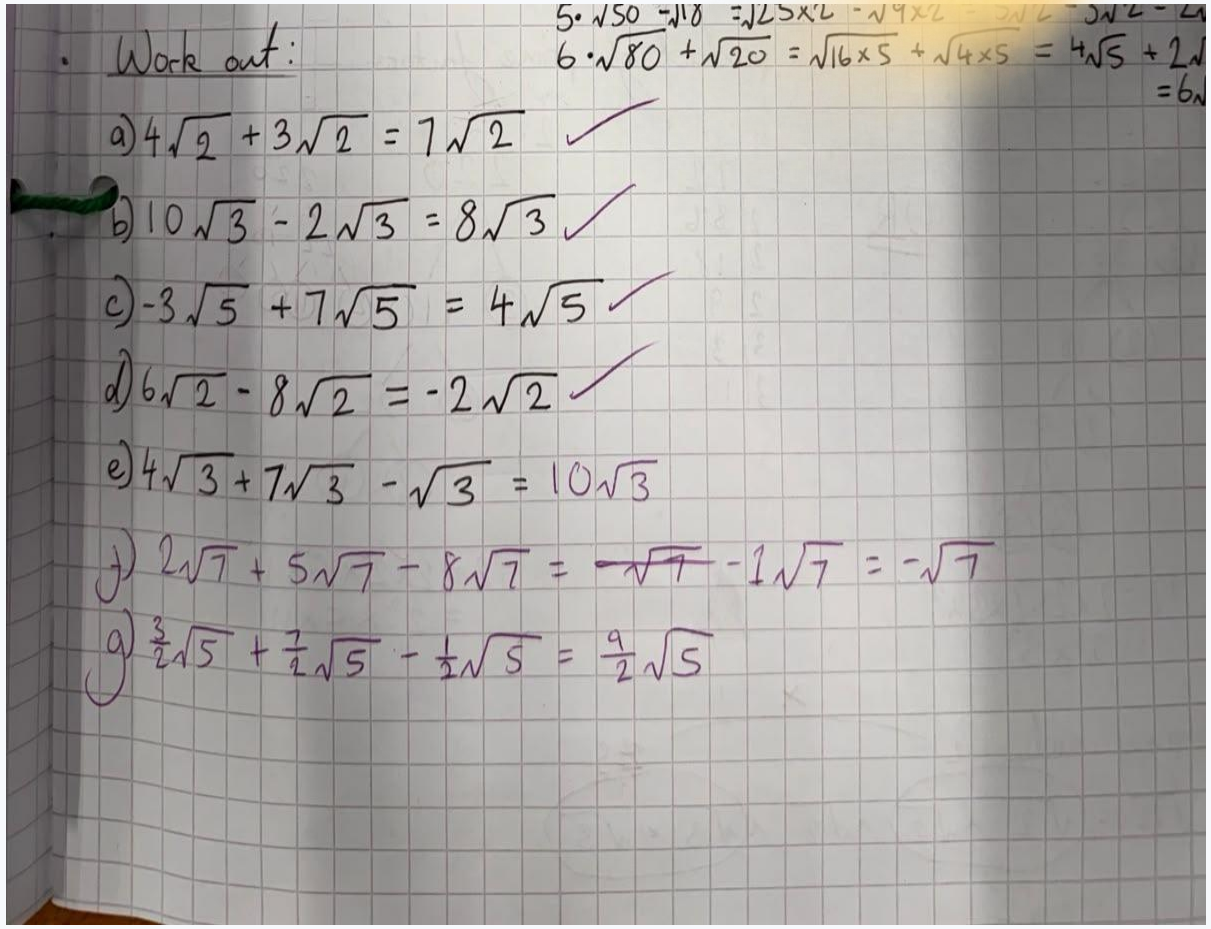
Responding to feedback on transformations

Feedback prompts students to refine vectors, centres of rotation and descriptions of transformations.



Self-correction in algebra

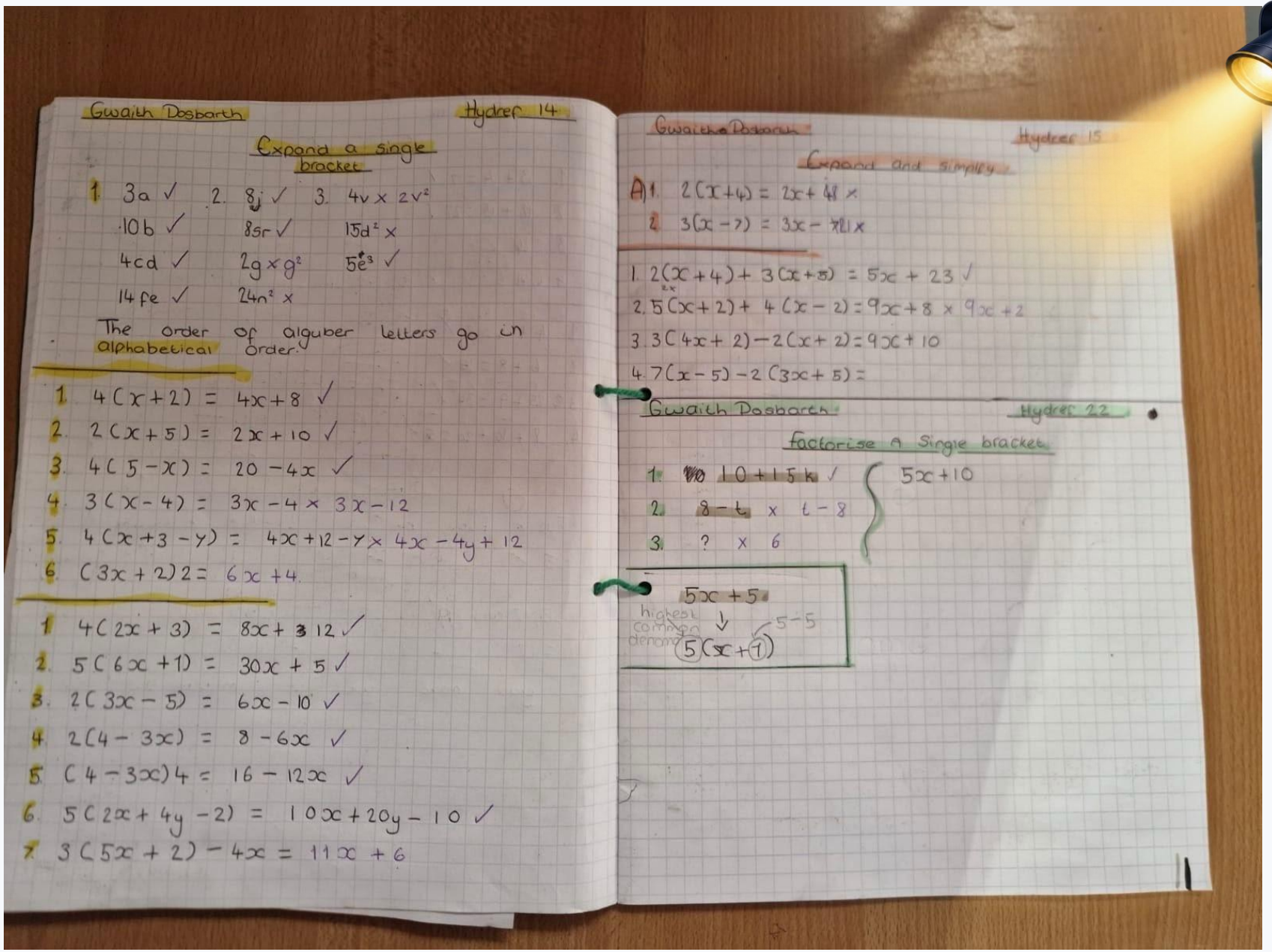




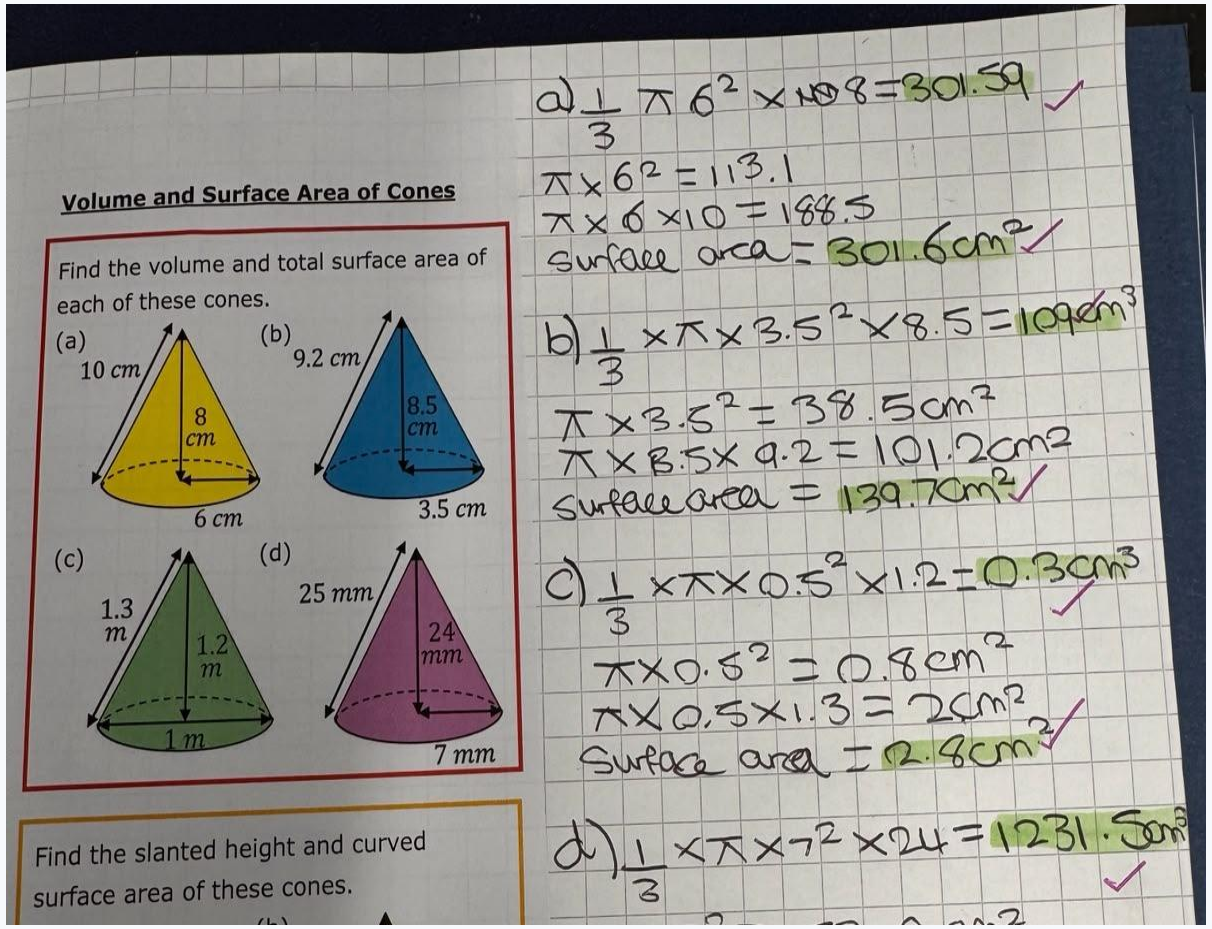
Students revisit calculations with surds and record corrections alongside their original answers.

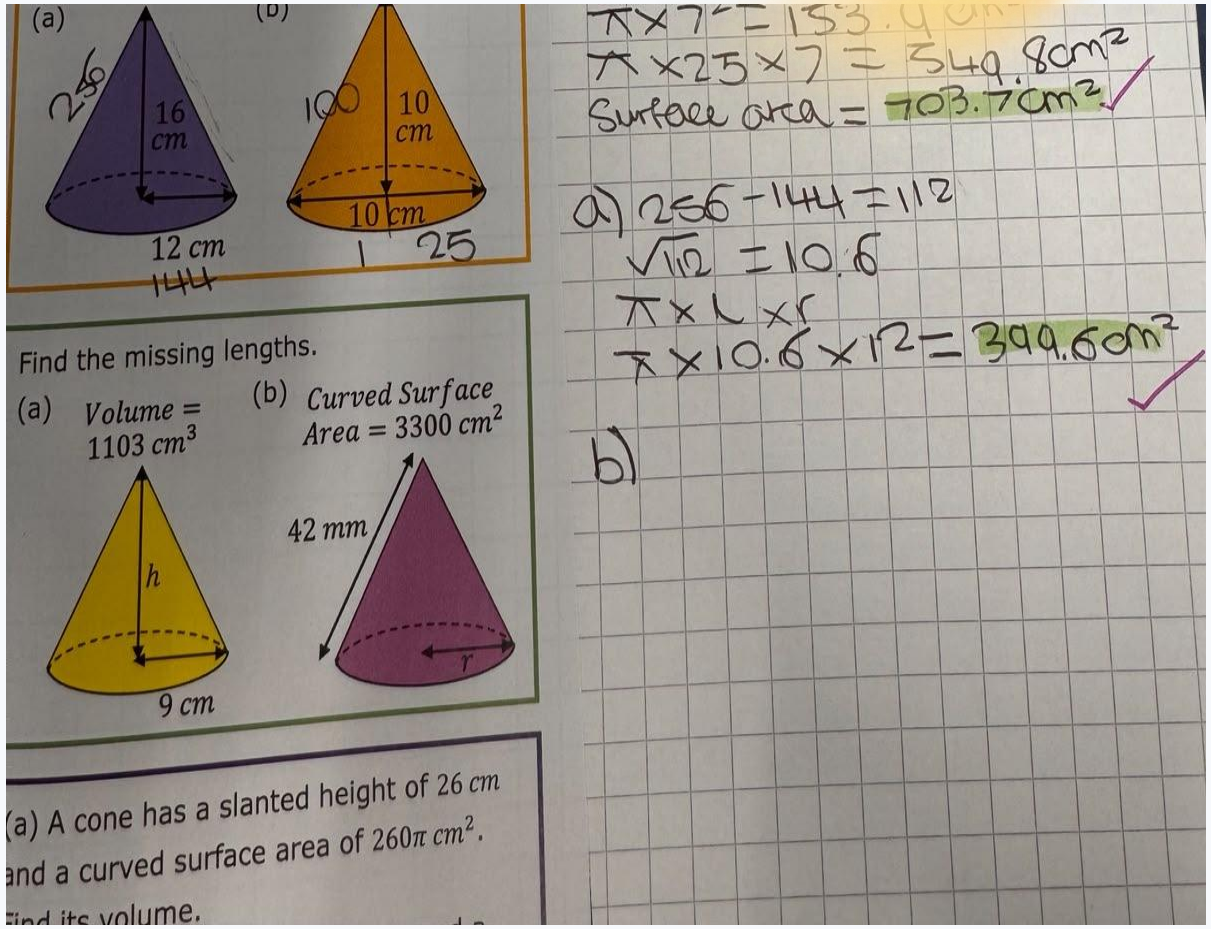
Improving work with brackets

Students use feedback to correct expansion and simplification, keeping the improvement beside the original attempt.



Recording methods in geometry





Students set out multi-step calculations for the volume and surface area of cones, with checked answers highlighted.

How we know we are learning

We can see progress in our test results and Year 10 exam results. We remember what we have been taught.

Retrieval starters help us revisit earlier learning and remember it.

Lessons have a clear structure. Whiteboards and questions check our understanding before independent practice.



Paraphrased from pupil feedback.

What helps us succeed in maths

The pace helps us learn. Our teacher breaks difficult ideas into manageable steps.

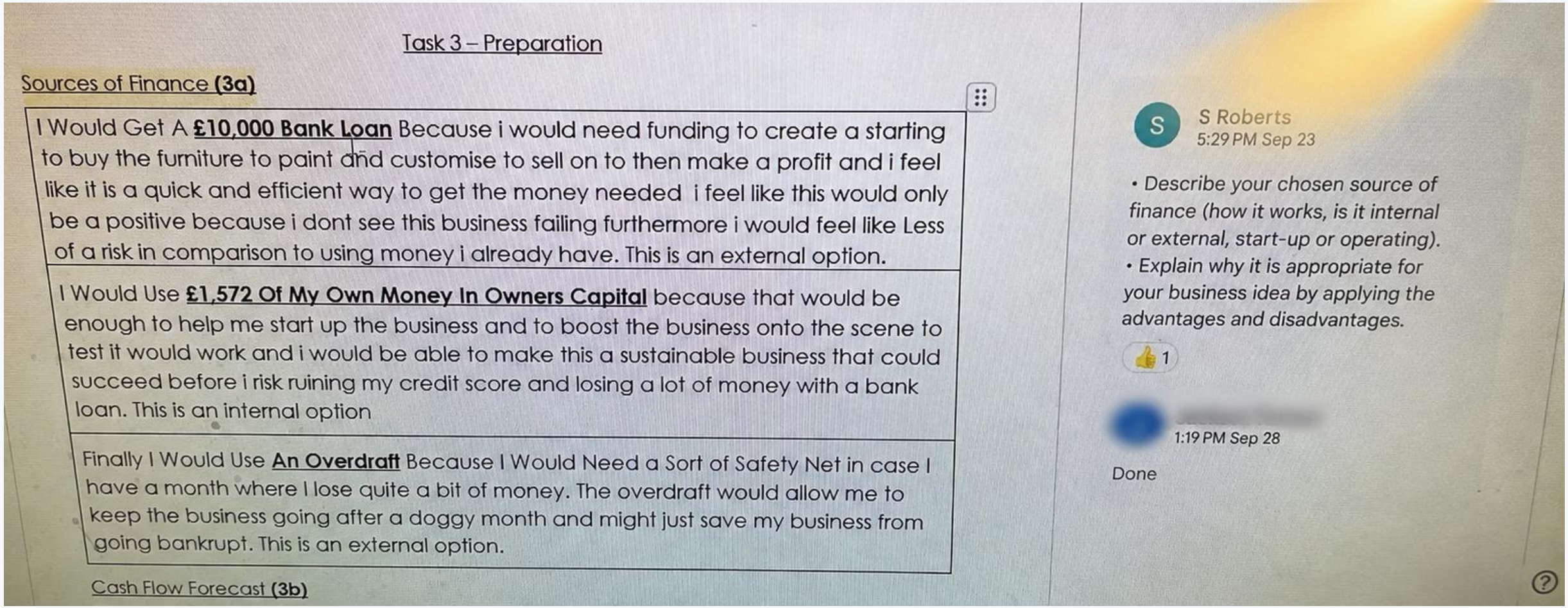
We all feel challenged. We could each show work we found difficult but were helped to succeed with.

Worked examples on the visualiser help us follow each step. Our teacher checks on us while we practise.



Paraphrased from pupil feedback.

Improving work through digital feedback



Task 3 – Preparation

Sources of Finance **(3a)**

I Would Get A **£10,000 Bank Loan** Because i would need funding to create a starting to buy the furniture to paint and customise to sell on to then make a profit and i feel like it is a quick and efficient way to get the money needed i feel like this would only be a positive because i dont see this business failing furthermore i would feel like Less of a risk in comparison to using money i already have. This is an external option.

I Would Use **£1,572 Of My Own Money In Owners Capital** because that would be enough to help me start up the business and to boost the business onto the scene to test it would work and i would be able to make this a sustainable business that could succeed before i risk ruining my credit score and losing a lot of money with a bank loan. This is an internal option

Finally I Would Use **An Overdraft** Because I Would Need a Sort of Safety Net in case I have a month where I lose quite a bit of money. The overdraft would allow me to keep the business going after a doggy month and might just save my business from going bankrupt. This is an external option.

Cash Flow Forecast **(3b)**

S Roberts
5:29 PM Sep 23

• Describe your chosen source of finance (how it works, is it internal or external, start-up or operating).
• Explain why it is appropriate for your business idea by applying the advantages and disadvantages.

1

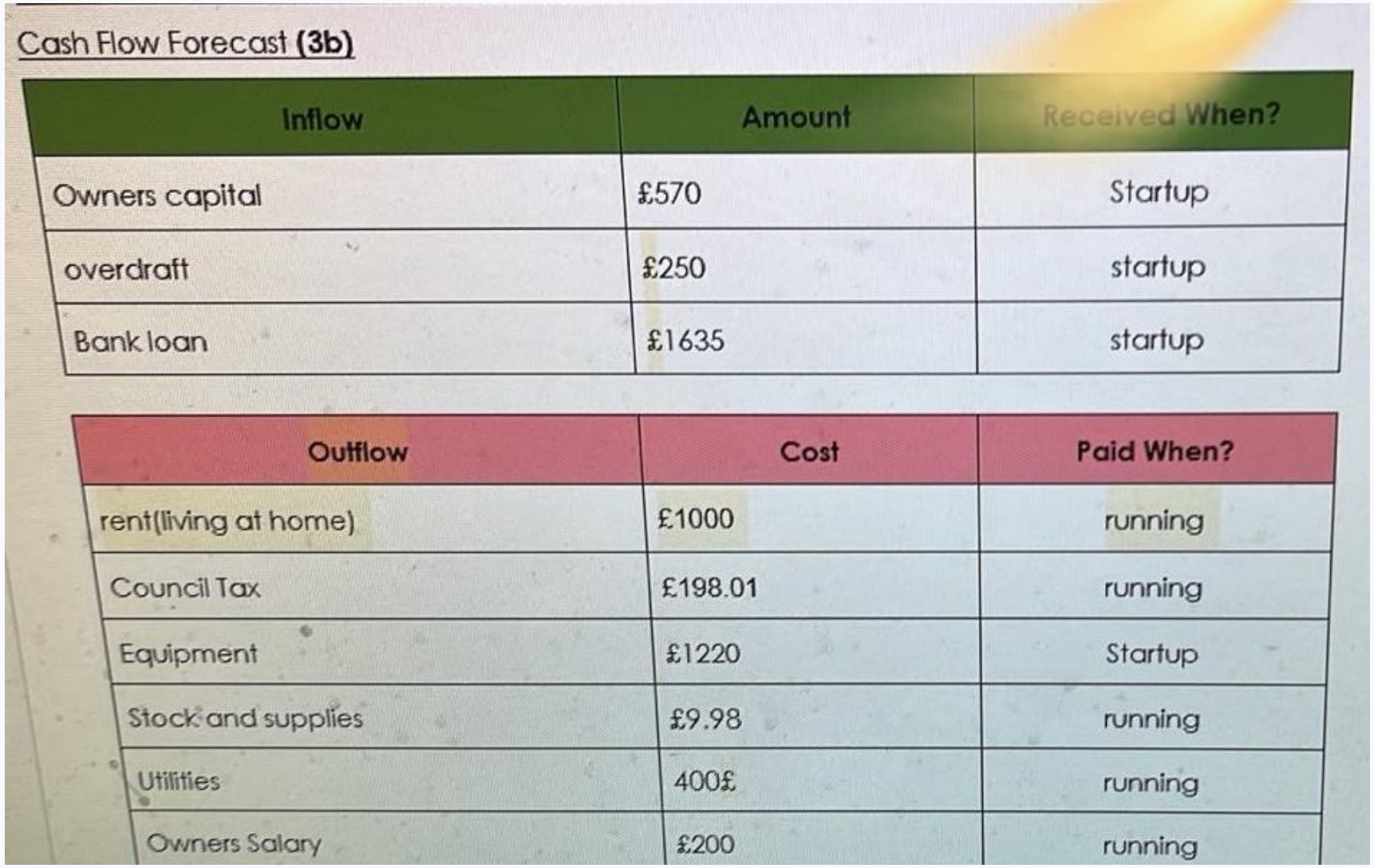
1:19 PM Sep 28

Done

Teacher comments give specific next steps. Students respond and refine their explanations.

Applying financial understanding

Students organise cash inflows and outflows as part of planning a business.

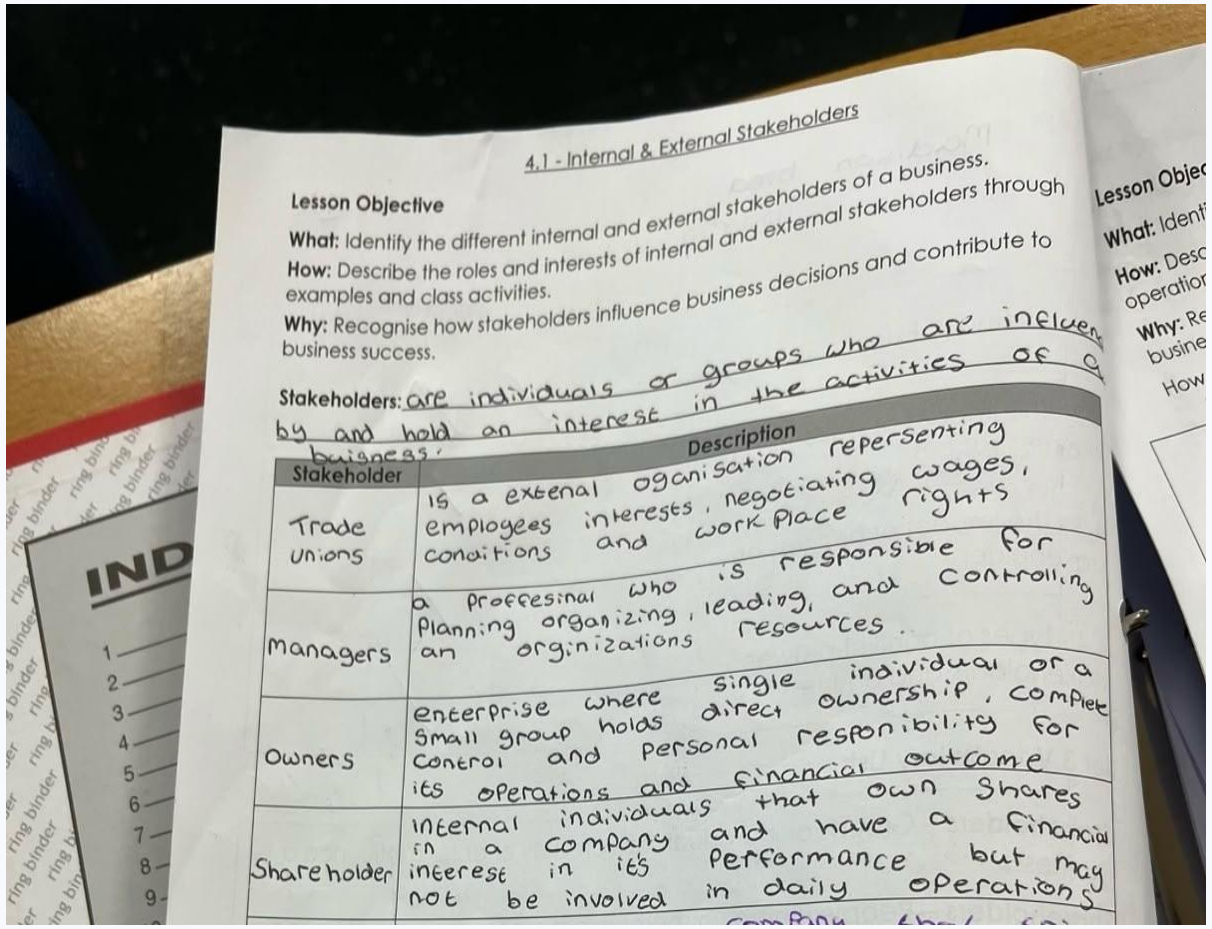


Cash Flow Forecast **(3b)**

Inflow	Amount	Received When?
Owners capital	£570	Startup
overdraft	£250	startup
Bank loan	£1635	startup

Outflow	Cost	Paid When?
rent(living at home)	£1000	running
Council Tax	£198.01	running
Equipment	£1220	Startup
Stock and supplies	£9.98	running
Utilities	400£	running
Owners Salary	£200	running

Building business vocabulary



4.1 - Internal & External Stakeholders

Lesson Objective

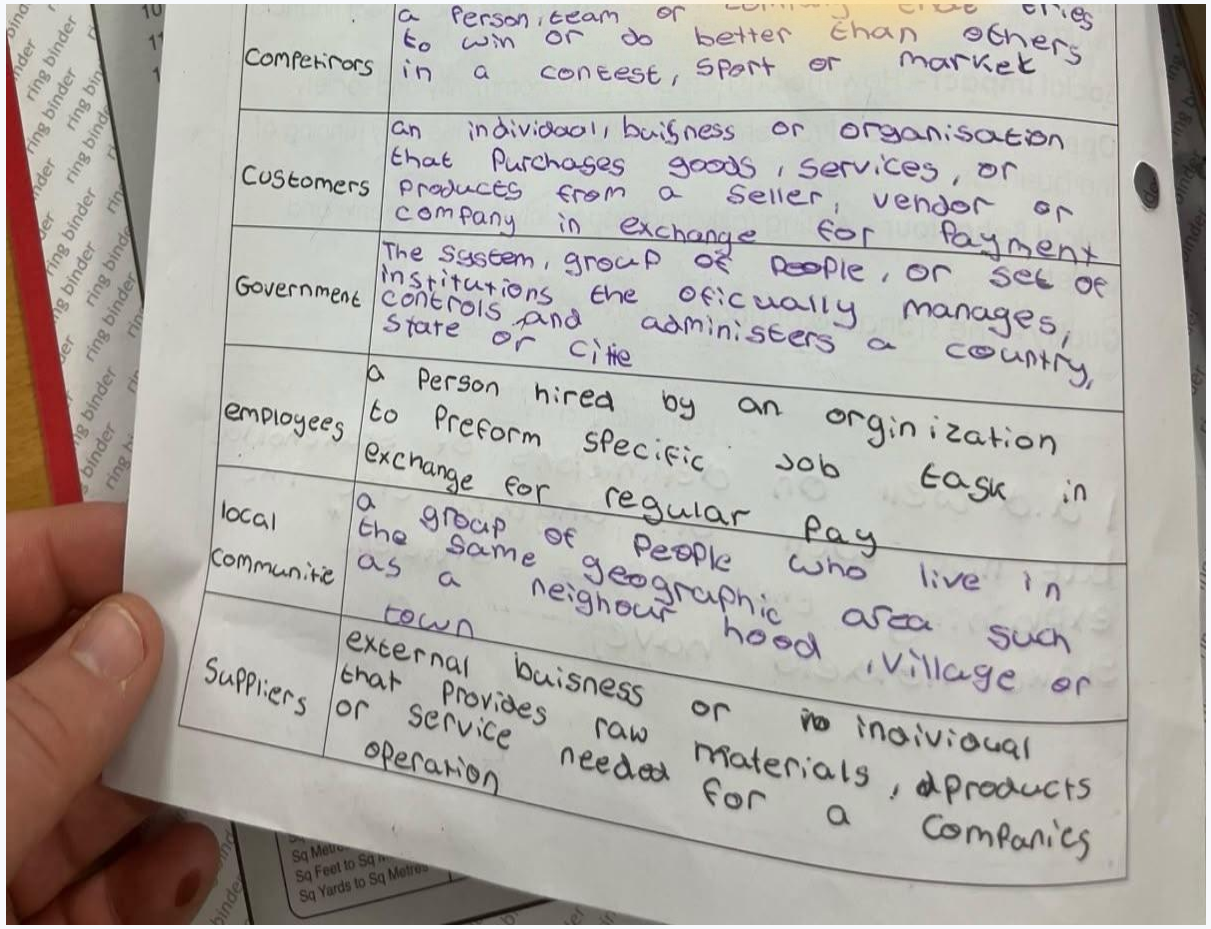
What: Identify the different internal and external stakeholders of a business.

How: Describe the roles and interests of internal and external stakeholders through examples and class activities.

Why: Recognise how stakeholders influence business decisions and contribute to business success.

Stakeholders: are individuals or groups who are influen... by and hold an interest in the activities of o... buisness.

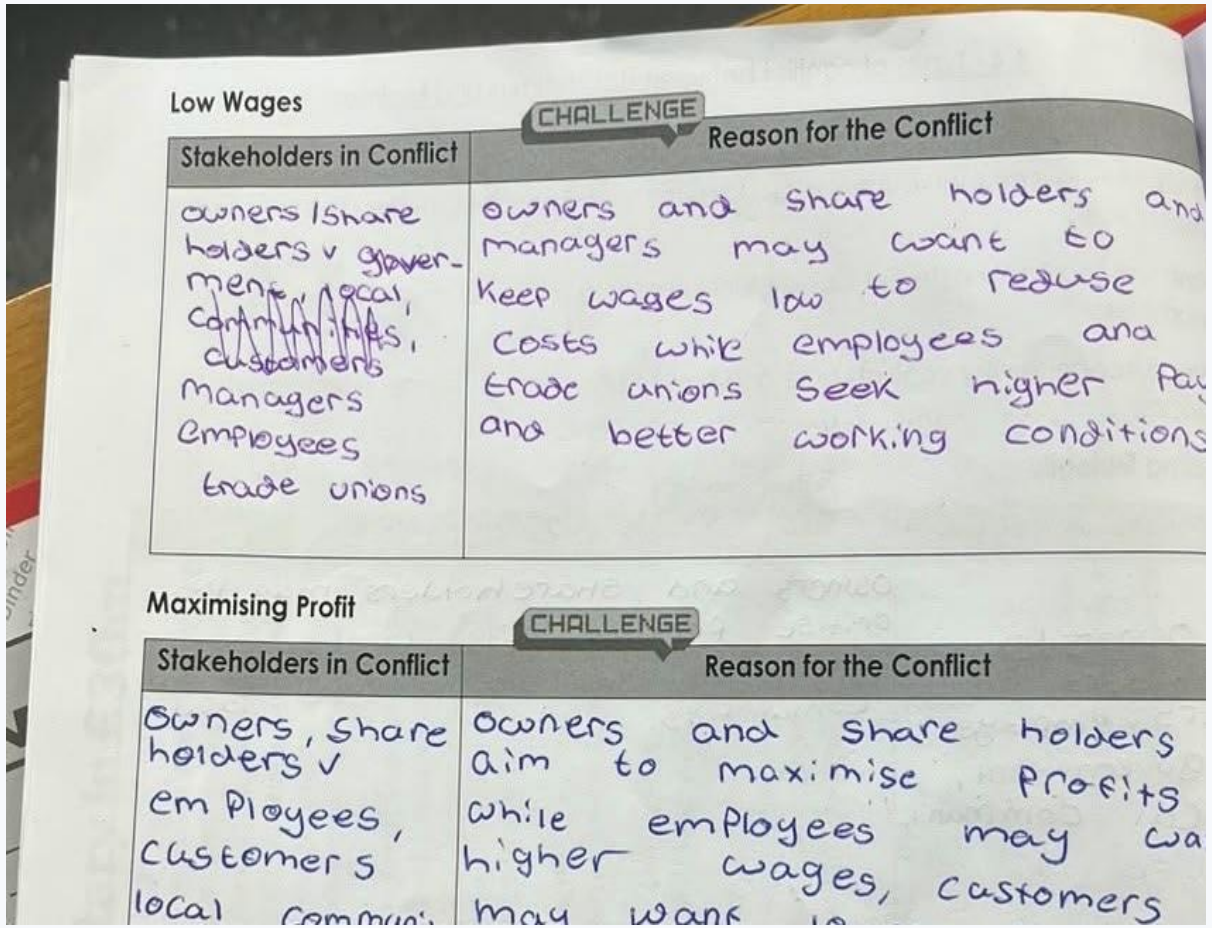
Stakeholder	Description
Trade Unions	is a extenal oganisation repersenting employees interests, negotiating wages, conditions and work place rights
Managers	a proffesinal who is responsible for planning organizing, leading, and controlling an orginizations resources.
Owners	enterprise where single individual or a small group holds direct ownership, complet control and personal responibility for its operations and financial outcome
Shareholder	internal individuals that own shares in a company and have a financia interest in it's performance but may not be involved in daily operations



Competitors	a person, team or ... to win or do better than others in a contest, sport or market
Customers	an individual, buisness or organisation that purchases goods, services, or products from a seller, vendor or company in exchange for payment
Government	The system, group of people, or set of institutions the oficually manages, controls and administers a country, State or citie
employees	a person hired by an orginization to preform specific job task in exchange for regular pay
local communitie	a group of people who live in the same geographic area such as a neighbour hood, village or town
Suppliers	external buisness or no inaividual that provides raw materials, products or service needed for a companies operation

Students develop definitions of internal and external stakeholders, linking their roles to business decisions.

Exploring stakeholder conflict



Low Wages

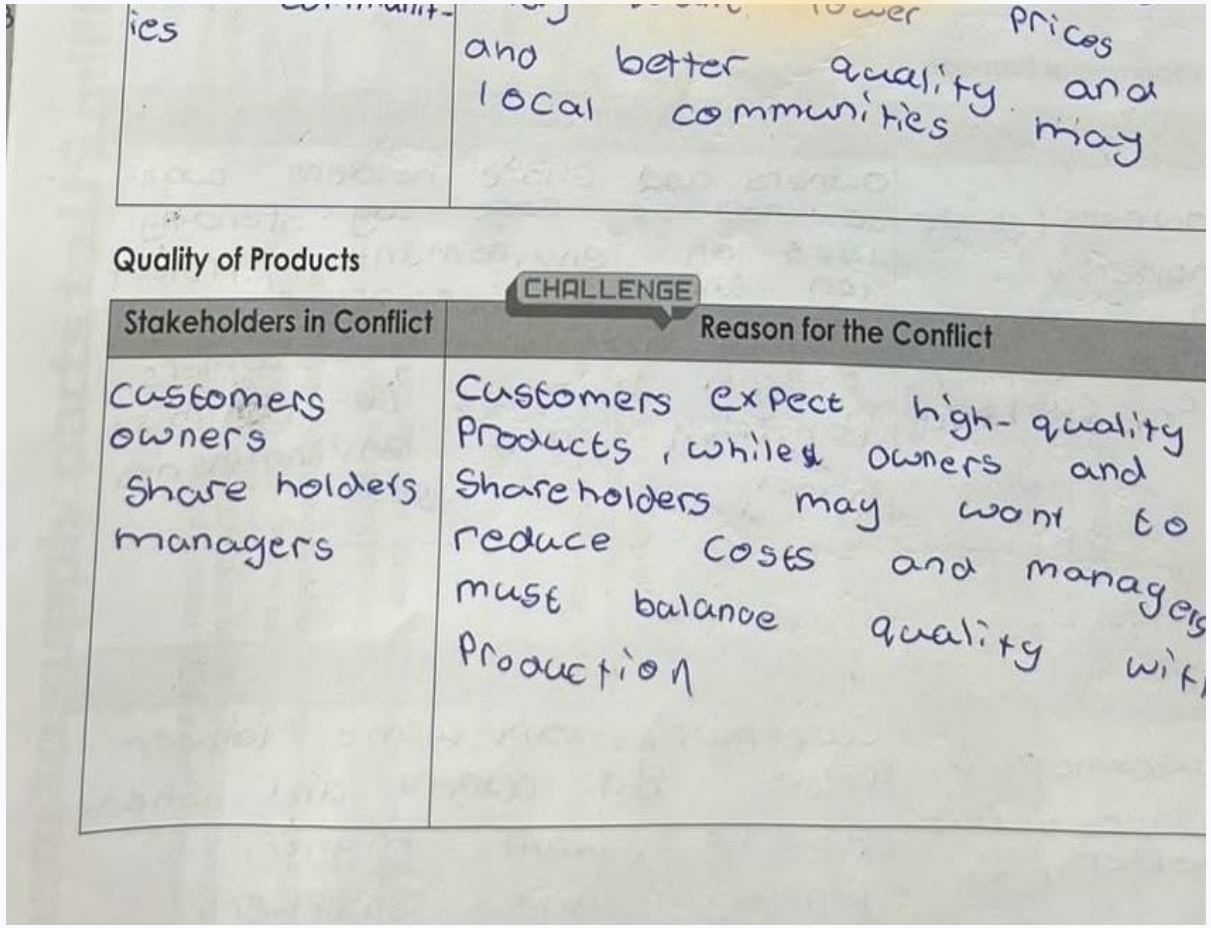
CHALLENGE

Stakeholders in Conflict	Reason for the Conflict
owners /share holders v gover- ment, local, communities, customers managers employees trade unions	owners and share holders and managers may want to keep wages low to reduse costs while employees and trade unions seek higher pay and better working conditions

Maximising Profit

CHALLENGE

Stakeholders in Conflict	Reason for the Conflict
owners, share holders v employees, customers local	owners and share holders aim to maximise profits while employees may wa higher wages, customers



ies	and better quality and local communities may prices

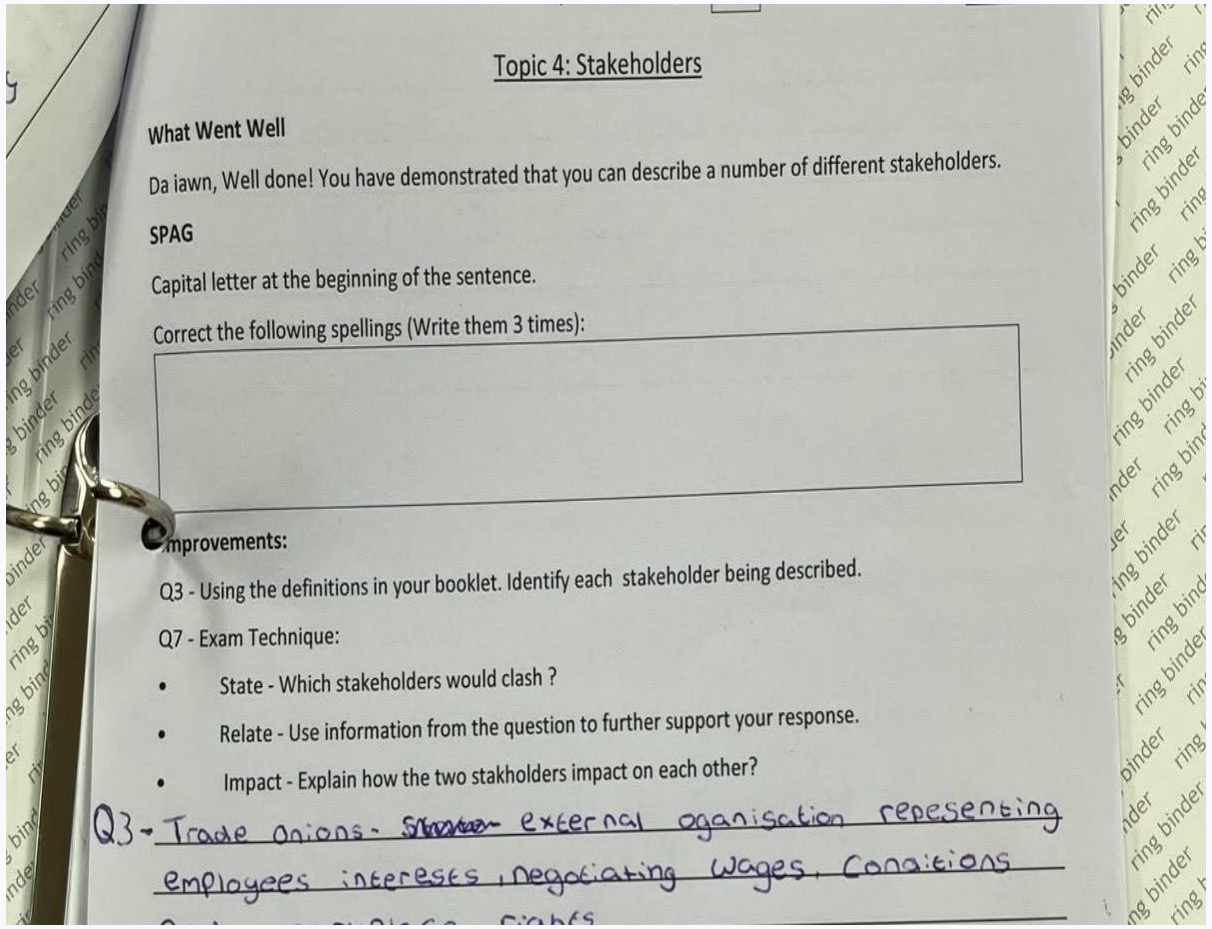
Quality of Products

CHALLENGE

Stakeholders in Conflict	Reason for the Conflict
customers owners share holders managers	Customers expect high-quality products, while owners and shareholders may want to reduce costs and managers must balance quality wit production

Students explain why owners, employees and customers may have competing priorities, applying business knowledge to examples.

Developing exam technique



Topic 4: Stakeholders

What Went Well

Da iawn, Well done! You have demonstrated that you can describe a number of different stakeholders.

SPAG

Capital letter at the beginning of the sentence.

Correct the following spellings (Write them 3 times):

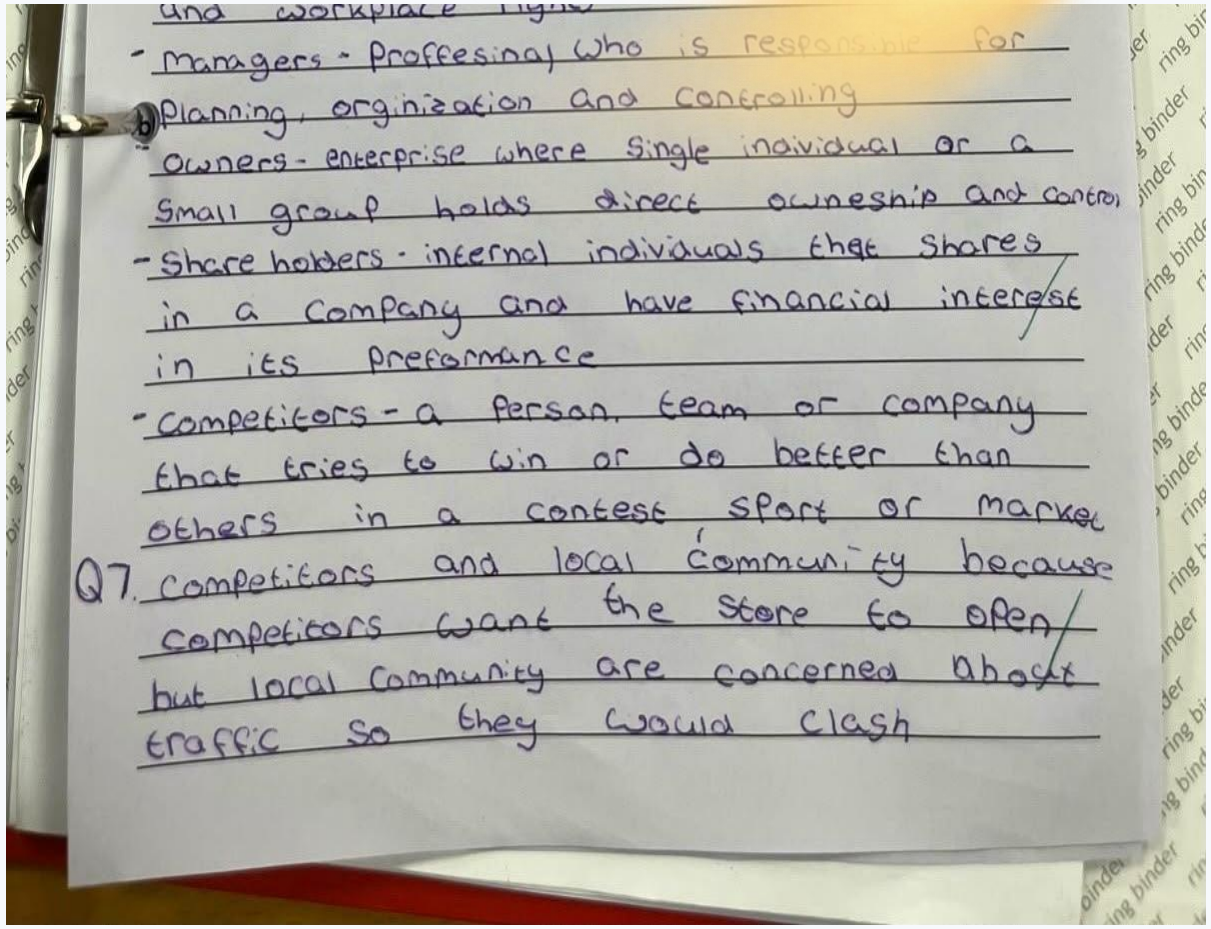
Improvements:

Q3 - Using the definitions in your booklet. Identify each stakeholder being described.

Q7 - Exam Technique:

- State - Which stakeholders would clash ?
- Relate - Use information from the question to further support your response.
- Impact - Explain how the two stakholders impact on each other?

Q3 - Trade Onions - external oganisation repesenting employees interests, negotiating wages, conditions

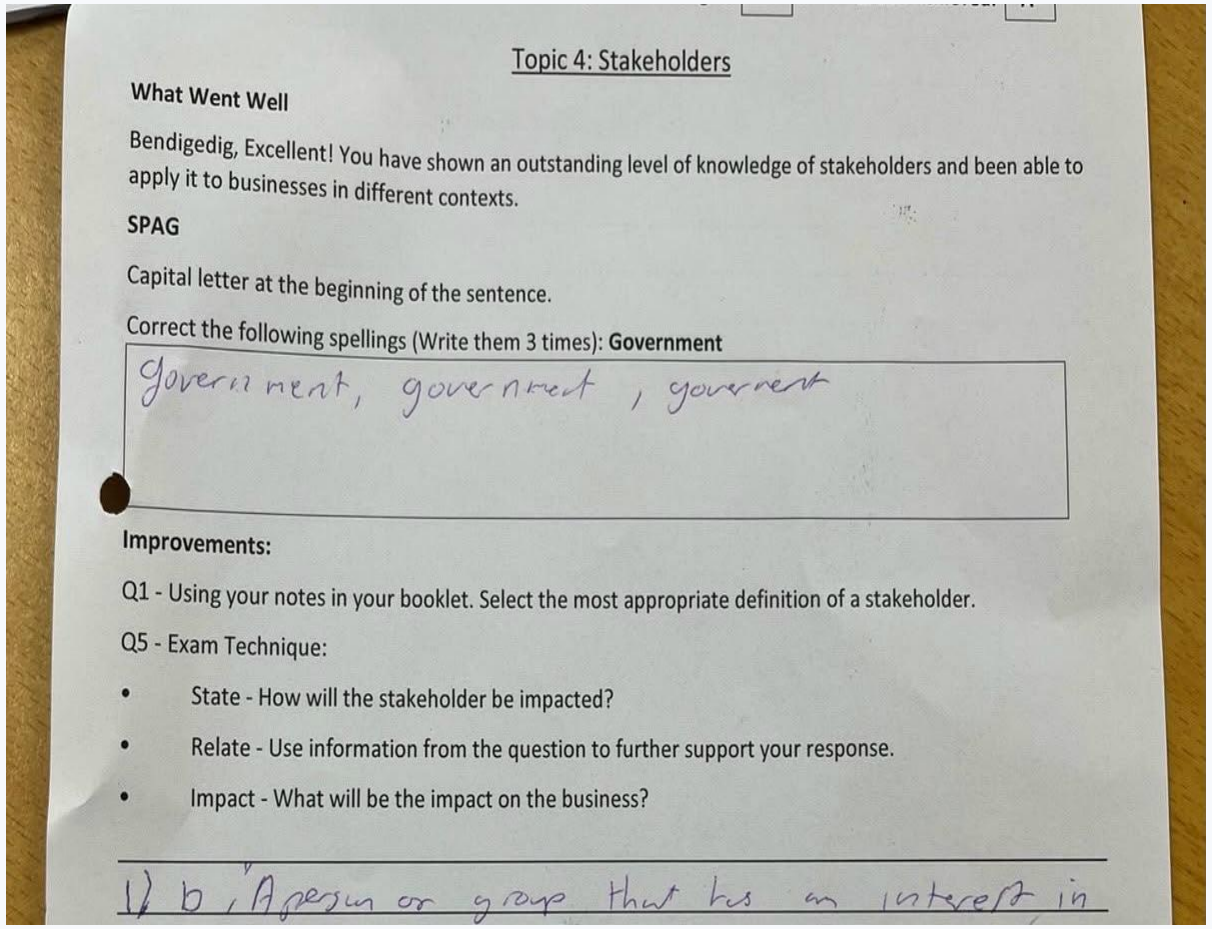


- Managers - Proffesinal who is responsible for planning, orginization and controlling
- Owners - enterprise where single inaividual or a small group holds direct owneship and control
- Share holders - internal individuals that shares in a company and have financial interest in its preformance
- competitors - a person, team or company that tries to win or do better than others in a contest sport or market

Q7. competitors and local community because competitors want the store to open but local community are concerned about traffic so they would clash

State the relevant point. Relate it to the question. Explain the impact.

Acting on written feedback



Topic 4: Stakeholders

What Went Well

Bendigedig, Excellent! You have shown an outstanding level of knowledge of stakeholders and been able to apply it to businesses in different contexts.

SPAG

Capital letter at the beginning of the sentence.

Correct the following spellings (Write them 3 times): **Government**

Goverment, goverment, goverment

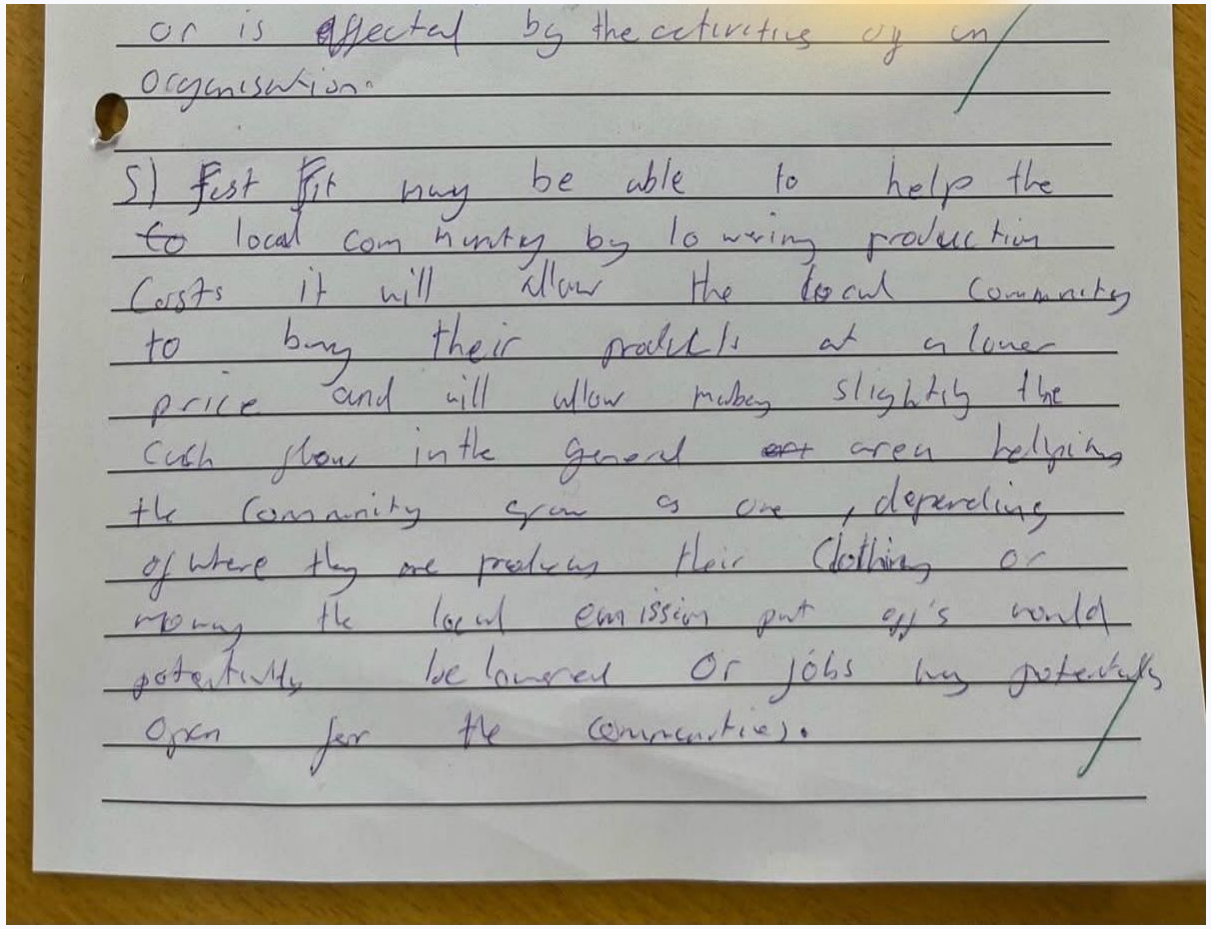
Improvements:

Q1 - Using your notes in your booklet. Select the most appropriate definition of a stakeholder.

Q5 - Exam Technique:

- State - How will the stakeholder be impacted?
- Relate - Use information from the question to further support your response.
- Impact - What will be the impact on the business?

1) b, A person or group that has an interest in



or is effected by the activities of an organisation.

5) Fast Fit may be able to help the to local community by lowering production costs it will allow the local community to buy their products at a lower price and will allow mabey slightly the cash flow in the general area helping the community grow as one, depending of where they are producing their clothing or maybe the local emission put off's would potentially be lowered or jobs may potentially open for the community.

Students respond to personalised next steps in their files, improving subject knowledge and developing fuller explanations.

Reflecting on the next step



LEARNER REFLECTION

“I understood the topic and had a knowledge of the topic. Something I could do better is doing more extended and descriptive writing.”

Students identify what they understand and set a specific focus for improvement.

Celebrating learning at SRG

Clear purpose for learning.
Feedback that pupils act on.
Challenge with support to succeed.

