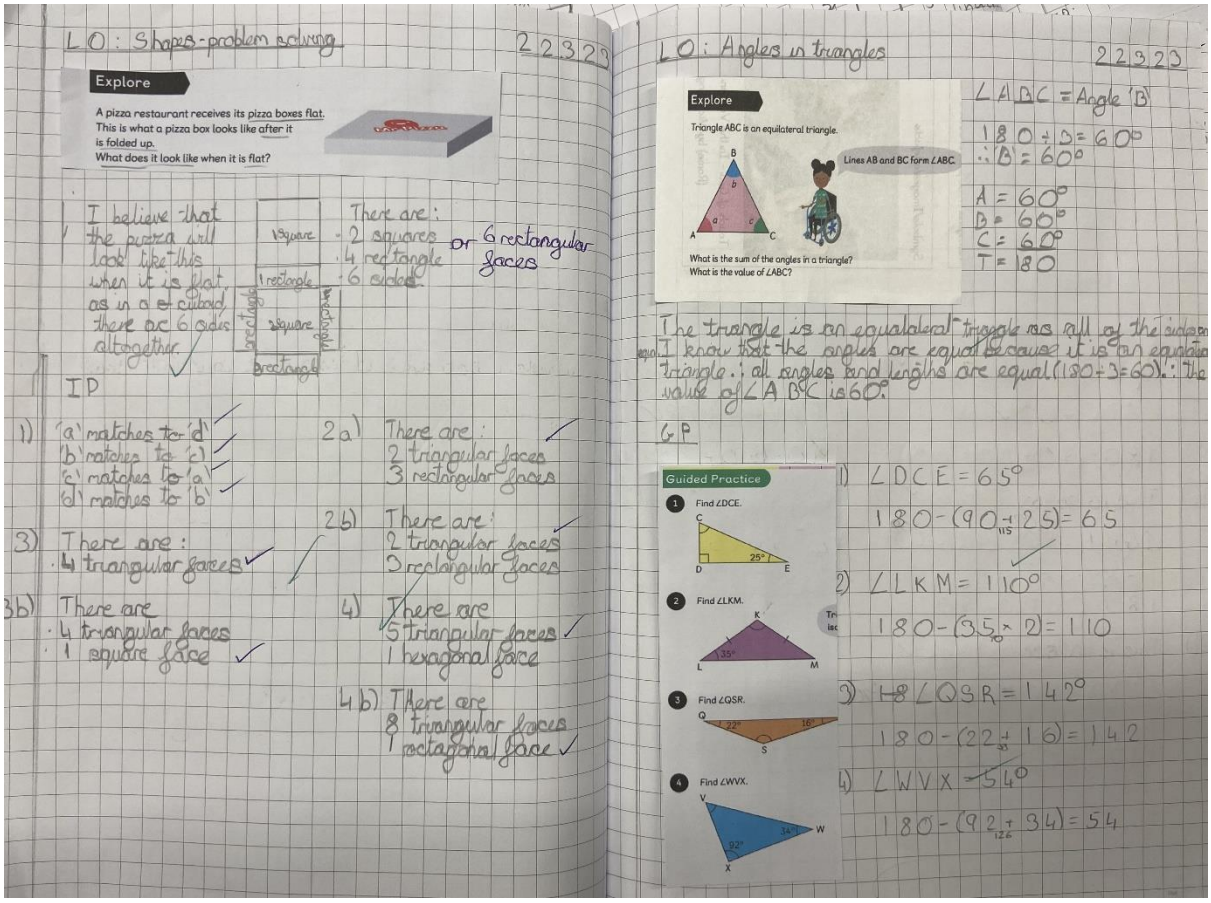
Learning conversation record	
Teacher Habsa	**Leader** David
Date 23rd March 2023	**Before / During / After unit of work**
Summary of unit of work or lesson and relevant learning outcomes intended Exploration of a short maths unit (4 lessons) on angles – one week with two lessons to go. What has been covered and what ambition is there in the unit?	
Questions asked	**Key points, agreed actions and impact sought from them**
Have the pupils covered angles before this year?	Only in mental/oral starters but they covered some in Y5. We have looked at angles in triangles, 2D and 3D shapes and different types of angles. We have explored why the internal angles add up to 180 degrees. They understand internal angles now. We covered the fact that a right angled triangle is not a type of triangle.
Where do you want them to be by the end of the unit?	To work out the internal angles in any polygon. To know why opposite angles are equal and different types of angles. Some will know the formula as to why internal angles add up to 360 degrees in a polygon.
This sounds challenging – how much are you stretching them?	We are going above and beyond the Y6 curriculum. Many pupils enjoy this.
What about the lower attainers? Have they got the basic concept of angles as turns?	Yes, they have cut out the angles of triangles and aligned them to 180 degrees, then moved to pictorial versions.
How are you going to evaluate their learning?	We have some SATs questions and they will carry out an investigation finding angles of different types.
Are they using protractors at all?	They have used them before. By the end of this unit they will draw shapes to measurements, but there's a difference between drawing angles and a whole shape.
What do the books show?	Exploratory tasks and challenges. Calculating angles in triangles and explaining their thinking.
Could I follow up with pupils?	Ask them some of these questions and get them to explain themselves.

Follow up –

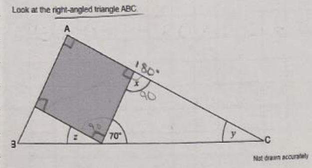
- Ask a group of pupils to explain their knowledge, and perhaps reason how they solve some specific problems finding angles.

Subject Leader reflection: In a 7 minute conversation we can build a balanced view of this short but deep unit. This can be validated with pupil voice easily. Looking at books during the conversation is valuable. There does not seem any need to visit a lesson. There is clearly some depth beyond age related expectations. When talking with pupils later the focus could be:

What is the extent of their understanding and confidence with terminology?
What are the lower attainers achieving that will build core knowledge of angles?



Look at the right-angled triangle ABC



The square fits exactly inside the triangle.

Work out the sizes of angles x, y and z

(T) Z = 180 - (70 + 90) =
20° ✓

x = 180 - 90 = 90° ✓

Y = 70 + 90 = 160°
180° - 160° = 20° ✓

10 Angles in a ~~triangle~~ quadrilateral. 2 2 3 2 3

All angles in a triangle is made from 180° because 2 triangle fit in 1 quadrilateral

Formula
n - 2 × 180

GP

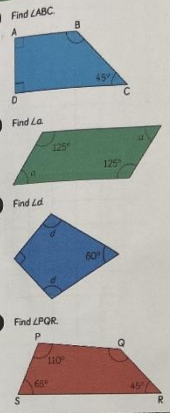
Guided Practice

1 Find ∠ABC.

2 Find ∠a.

3 Find ∠d.

4 Find ∠PQR.



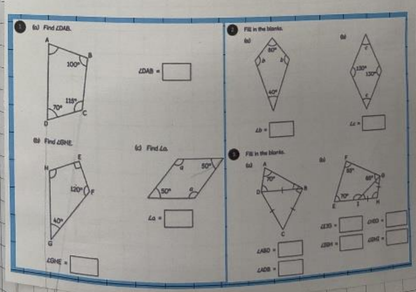
1) Square
B = 360 - (90 + 90 + 45) =
= 135° ✓

2) Parrallelogram ✓
a = 360 - (125 + 125)
= 110° ✓

3) Kite ✓
d = 360 - (90 + 60) ÷ 2
= 105° ✓

4) Quadrilatreal ✓
Q = 360 - (110 + 65 + 45)
= 150° ✓

IP



1)
a) A = 360 - (100 + 115 + 70)
= 75° ✓