iMaths 5 Investigation Plan

Student's name..... Due date.....

My group.....

Now that I have read through the Investigation, I am going to make a plan that should help me understand this Investigation.

Name of Investigation:_____

I understand that this Investigation is asking me to:

_____

_____

_____

_____

This Investigation might present some challenges. I may need to solve these problems in order to complete this Investigation:

_____

_____

_____

I think these Topics are really important to this Investigation:

Topic	*Purpose* in this Investigation.
1 _____	_____
2 _____	_____
3 _____	_____

I believe I will have no problems with:

_____

I think I may need some help with:

_____

Select three words from the list in step 1. What do these words mean in the *context* of this Investigation?

Word	Meaning in this Investigation.
1 _____	_____
2 _____	_____
3 _____	_____

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Investigation 10 Radical renovation

Name: _____ Due date: _____

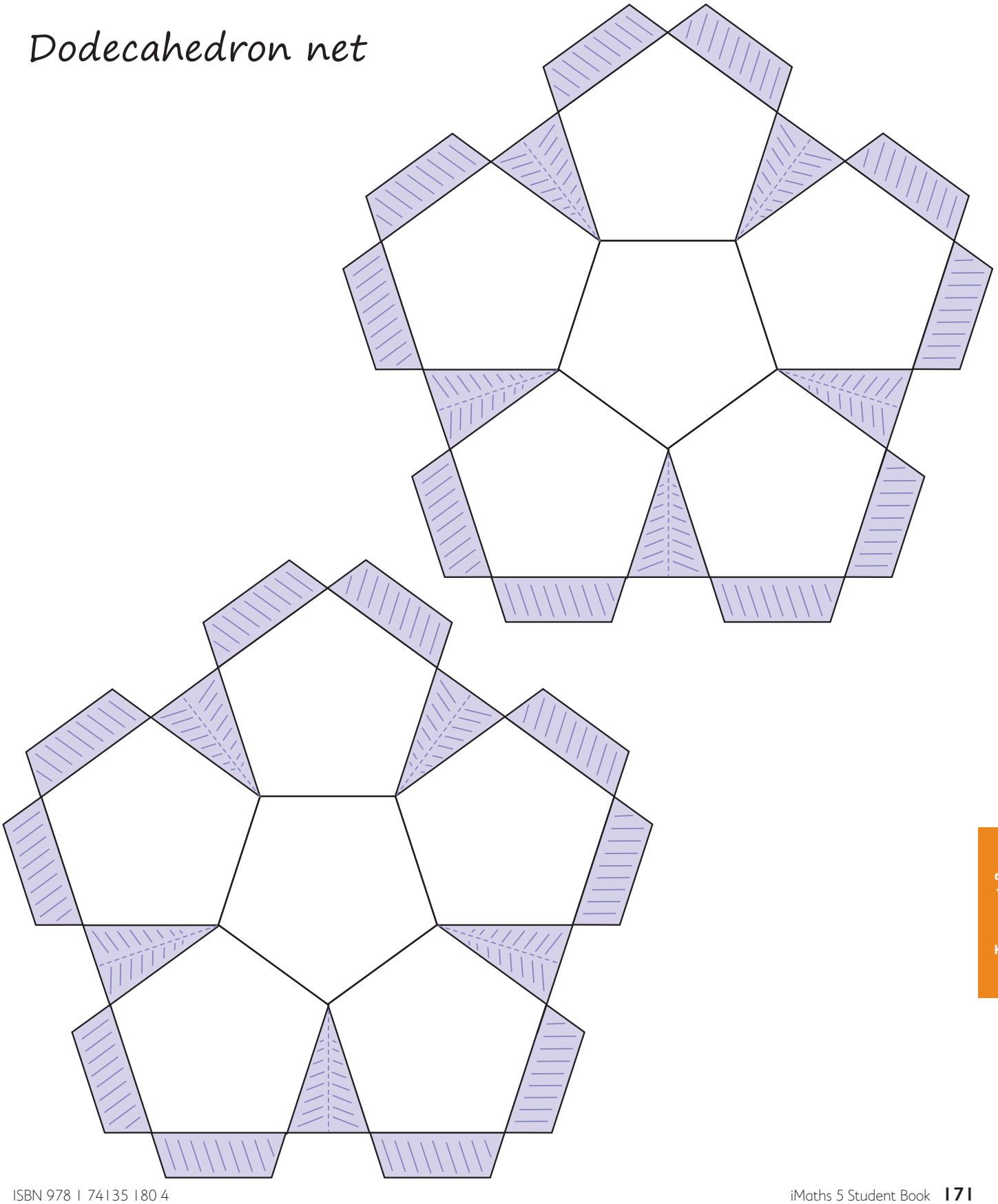
Rubric

		Step	Ability to...	A	B	C	D	E
Proficiency strands	Understanding, Fluency and Problem Solving		Choose a suitable scale and use the grid paper to draw an accurate floor plan of a bedroom, then calculate the area.	Chose a suitable scale. Accurately drew and labelled a detailed floor plan. Used a formula to calculate the area correctly. Used the correct units to express the answer.	Determined the scale with some prompting. Drew and labelled a floor plan correctly. Corrected any errors when calculating the area of the floor.	Needed help to find a suitable scale. Drew and labelled a floor plan. Needed help to calculate the area using the formula, and express the answer with the correct units.	Needed guidance to determine a suitable scale and to draw the floor plan. Had difficulty calculating the area and expressing the answer with the correct units.	The floor plan was poorly drawn with few labels and no scale. Was unable to calculate the floor area even with assistance.
			Design a triangular pattern that includes flips, slides and turns. Draw and colour it on the floor plan.	Designed a well thought out pattern using triangular shapes to display flips, slides and turns correctly. It was positioned well on the floor plan. The pattern's design and colour were creative and visually appealing.	Created a pattern using triangular shapes to display flips, slides and turns correctly. With some prompting, refined the size and shape of the pattern until it fitted neatly on the floor plan. The design and colour of the patterns were visually pleasing.	After some experimentation design a triangular pattern that included flips, slides and turns. With help determined the size and location of the pattern and drew it on the floor plan. Used colours to finish the pattern.	Needed guidance to create a pattern using triangular shapes and flips, slides and turns. Had difficulty finding its size and determining its location on the floor plan. Colours seemed to be used randomly.	Was unable to draw a pattern using triangular shapes and flips, slides and turns, even with assistance. Could not find the size of the pattern or determine its location on the floor plan.
			Calculate the perimeter of the pattern and show all working.	Calculated the perimeter of the pattern using methods that were clear and efficient. All calculations were accurate and workings were clear and detailed.	Needed prompting to find an efficient method to calculate the perimeter of the pattern. Calculations were accurate with few or no errors.	Used simple addition or enclosed the pattern to calculate the perimeter. Errors were corrected with help from the teacher.	Needed help to determine how to calculate the perimeter of the pattern. Made errors in finding the answer.	Was unable, even with assistance, to accurately calculate the perimeter of the pattern.
			Explain where the frieze was to be placed in the room, calculate its length and provide a sample of a geometric pattern.	Gave logical reasons for the placement of the frieze in the room and calculated its length accurately. Used a variety of shapes to display flips, slides and turns correctly. The frieze was creative and the design and colour were visually appealing.	Gave reasons for the placement of the frieze in the room. Made only minor errors in calculating its length. Used different shapes for the geometric pattern to display flips, slides and turns correctly.	Described where the frieze was to be placed but gave no reasons for this. Made some errors in calculating its length. Used simple shapes to show an understanding of flips, slides and turns.	Described where the frieze was to be placed but gave no reasons. Needed help to find its length. With guidance used shapes to show flips, slides and turns.	Was unable to grasp the concept of the frieze and where it was to be placed. Could not find the length of the frieze and was unable to demonstrate flips, slides and turns.
	Reasoning		Explain the use of flips, slides and turns in the designs and discuss the assumptions that were made when calculating the length of the frieze.	Gave a comprehensive explanation of the use of flips, slides and turns in both designs. Described in detail the method used to find the length of the frieze. Gave clear and logical reasons for the method used.	Was able to describe and show how flips, slides and turns were used in the designs. Explained how certain features in the room may affect the calculation of the length of the frieze.	Described in simple terms how flips, slides and turns were used in the designs. Mentioned how features in the room may affect the length of the frieze.	Had difficulty in describing how flips, slides and turns were used in the designs. Could not present any features of the room that could affect the length of the frieze.	Could not explain the concept of flips, slides and turns. Did not comment on the length of the frieze.

Teacher comments

Overall rating

Dodecahedron net



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