

Investigation 1 Ripper rides

Name: Harry Grey Due date: _____

Rubric

Step	Ability to...	A	B	C	D	E
Proficiency strands Understanding, Fluency and Problem Solving	Calculate $\frac{3}{4}$ of the area of the board.	Independently found and used an efficient method to identify $\frac{3}{4}$ of the board. Accurately counted both whole and part squares.	Needed prompting to find the most efficient way to find $\frac{3}{4}$ of the board. Made very few errors when counting the whole and part squares.	Used a simple method to divide the board into 4 equal parts. Counted the whole squares but needed help to accurately count the part squares and find $\frac{3}{4}$.	Needed teacher guidance to find a way to divide the board into 4 equal parts. Counted the whole squares but was unable to include the part squares to find $\frac{3}{4}$.	Could not find a way to divide the board into equal parts. Counted an estimated number of whole squares only. Did not count any part squares.
	Plan a board design using all of the required geometric elements.	Independently used all the geometric elements accurately to draw a plan of the design. Formed a complex and visually appealing pattern.	Needed prompting to use all the geometric elements to draw a plan of the design. The elements formed a clearly defined pattern.	Needed some help to use all the geometric elements to draw a plan of the design. The elements formed a simple, uncomplicated pattern.	Needed teacher guidance to use all the geometric elements in the design plan. The elements formed a very basic pattern.	Did not understand what the geometric elements looked like. The design was random with no clear pattern.
	Transfer the design onto a template of a board.	Transferred the design plan neatly and accurately onto the template.	Was able to fix any problems identified when transferring the design plan onto the template.	Made some errors when transferring the design plan onto the template.	Had difficulty transferring the design plan accurately onto the template.	The final result was untidy and did not contain the geometric elements.
Proficiency strands Reasoning	Explain the design.	Used clear, concise and appropriate mathematical terms to explain the elements of the board design.	Described the elements of the design clearly. Made only minor errors when using mathematical terms to describe the pattern.	Gave a simple description of the elements of the design. Made some errors when using mathematical terms to describe the pattern.	Described some of the elements of the design, but did not always use the correct mathematical terms when describing the pattern.	Did not understand what the geometric elements looked like and was therefore unable to describe the design elements.
	Prove that $\frac{1}{4}$ of the board has been left blank for a solid colour.	Gave a clear and detailed description of an efficient method used to calculate $\frac{1}{4}$ of the board.	Described a reasonable method for calculating $\frac{1}{4}$ of the board.	Gave a simple description of the method used to calculate $\frac{1}{4}$ of the board.	Had difficulty describing the method used to calculate $\frac{1}{4}$ of the board.	Was unable to describe the method used to calculate $\frac{1}{4}$ of the board.
	Justify the choice of the best three board designs. Explain how the elements combined to form an appealing and well balanced design.	Gave well reasoned and detailed arguments for their choice of the best three designs.	Briefly described why the elements on the three boards chosen combined to form an appealing and well balanced design.	Gave a simple explanation of the elements which helped them choose the best three designs.	Reasons for choosing the best three designs did not always relate to the elements.	The reasons for choosing the three best designs were confused and unrelated to the design elements.

Teacher comments

Overall rating
➔ **B**

Investigation 1

Have students complete the Step column.

Understanding, Fluency and Problem solving section.

Reasoning section.

The highlighted areas on this rubric show the result of the student's performance in the Understanding, Fluency, Problem Solving and Reasoning components of the Proficiency strands.

Teachers look at the highlighted sections and use their judgment to decide on an overall level of achievement. (A-E)