

Student Name: _____

Unit: Flat Stanley

Date: _____

Problem Solving Anecdotal Notes and Checklist

| | Survey (Data Management) | Mail (Patterning, Number Sense) | Symmetry | Geometry | Dominoes (Number Sense) | Measurement |
|---|------------------------------------|---|-----------------|-----------------|-----------------------------------|--------------------|
| Works at understanding a problem before beginning work | | | | | | |
| Uses drawings, graphs, manipulatives to help solve problem | | | | | | |
| Uses appropriate strategies to solve problem | | | | | | |
| Assesses validity of answers (Looking back) | | | | | | |
| Justifies solution methods & results | | | | | | |
| Observes and uses patterns in mathematics | | | | | | |
| Explains ideas in writing | | | | | | |
| Communicates ideas orally | | | | | | |

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Problem Solving Rubric

| | 4 | 3 | 2 | 1 |
|-----------------------------------|--|--|---|---|
| Understanding the Problem | Shows complete understanding of the problem. Has insights beyond the problem. | Shows complete understanding of the problem. | Shows partial understanding of the problem. Needs assistance to clarify. | Requires assistance to understand the problem. |
| Formulating a Plan | Develops sophisticated strategies. Applies strategies within an effective plan. | Independently chooses and applies appropriate strategies. Applies strategy effectively. | Shows evidence of plans and use of a strategy. Strategy may or may not be applied effectively. | Needs assistance to choose appropriate strategy. Applies strategy in a random fashion. |
| Solving the Problem | Provides a correct and complete solution. May show more than one way to solve the problem. | Independently provides a correct and complete solution. | Makes minor mathematical error leading to a wrong answer or incomplete solution. | Give incorrect solution even with direction. Makes major mathematical errors. |
| Looking Back | Continually monitors the reasonableness of the selected strategies and the progress towards a solution. Considers variations and extensions of the problem. | Independently judges the reasonableness of a solution and verifies the answer. | Judges the reasonableness of a solution when directed or encouraged to do so. | Requires prompting and assistance to determine the reasonableness of a solution. |
| Communicating the Solution | Explains reasoning with clarity, coherence, insight. | Independently explains reasoning in a well-organised fashion with justifications. | Gives an answer and begins to elaborate upon explanations with assistance. | Explains reasoning in a disorganised fashion, difficult to follow. |

Source: Ontario Association for Mathematics Education (1998). *Linking Assessment and Instruction in Mathematics: Junior Years* (Revised Edition). London, ON: Author, p. 34. Cited in Van de Walle, John A. and Sandra Folk. *Elementary and Middle School Mathematics*. Toronto, ON: p. 74.

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Math Journal Rubric

| 4 | 3 | 2 | 1 |
|---|--|---|---|
| Responses are complete. | Responses are complete. | Responses are incomplete. | No response. |
| Questions or directions were understood and followed. | Directions were understood and followed. | Directions were partially understood. | Directions were not understood or followed. |
| Ideas are communicated clearly. | Ideas are communicated fairly well. | Ideas are somehow incoherent and ambiguous. | Ideas are irrelevant and/or inadequate. |
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Source: www.geocities.com/kaferico/writemat.htm?200523