

Task Specific Rubric: flies and frog

Level	Understanding	Strategies, Reasoning, & Procedures	Communication
Novice	<ul style="list-style-type: none"> ✓ There are no solutions or the solutions have no relationship to the task. ✓ The student cannot identify the pattern: counting by threes. ✓ The student may demonstrate a beginning understanding of the pattern, but will not be able to use the information to find any of the numbers in the sequence. 	<ul style="list-style-type: none"> ✓ The student cannot start the task or s/he has started the task using manipulatives or representations but cannot complete the task. ✓ Sample Strategies: Student uses tally marks to represent the flies and establishes that the frog will eat 3 flies everyday. 	<ul style="list-style-type: none"> ✓ There is little or no communication, the student did not label the work and their thinking is difficult to follow. ✓ The student cannot write/verbalize his/her counting pattern or the number sequence the pattern forms. ✓ The student has no system for tracking his/her numbers. ✓ The student uses little/no math terms/symbols to explain the counting pattern.
Apprentice	<ul style="list-style-type: none"> ✓ The student recognizes and understands that the pattern is counting by threes and can identify some of the numbers in the sequence. ✓ The student cannot apply the pattern to skip counting or grouping 	<ul style="list-style-type: none"> ✓ The student uses an appropriate strategy to identify the pattern of counting by threes, but cannot identify all of the numbers in the sequence or the correct day the frog will eat 21 flies. ✓ Sample Strategies: Student uses tally marks to represent the flies but does not total any of the tally marks and cannot establish which day the frog will eat 21 flies. OR The student adds the flies incorrectly. 	<ul style="list-style-type: none"> ✓ The student has attempted to communicate their findings by labeling their work, but does not attempt to summarize their work by stating their final answer. ✓ The student can write/verbalize the counting pattern clearly, but does not establish an accurate system for tracking his/her numbers. ✓ The student uses some math terms/symbols to explain the counting pattern.

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Practitioner	<ul style="list-style-type: none"> ✓ The student recognizes and understands that the pattern counts by threes and connects this to calendar math. (e.g., Corresponds the number of flies each day to the correct days of the week.) ✓ The student can apply the pattern to skip counting. 	<ul style="list-style-type: none"> ✓ The student uses an accurate and appropriate strategy to identify the pattern (add by threes) and the day the frog will eat 21 flies (Saturday). ✓ Sample Strategies: Student identifies the days of the week, accurately represents the flies for each day, and states that the frog will eat 21 flies on Saturday. ✓ The student may make a statement or generalization about the pattern and how it applies to skip counting. For example: I can count by 3s: $3 + 3 = 6 + 3 = 9$. 	<ul style="list-style-type: none"> ✓ The student represents his/her work in a clear, organized manner, and uses appropriate math terms/symbols in his/her explanation of the counting pattern. ✓ The student can represent their flies and frogs using manipulatives and/or drawings, has created an efficient system for tracking his/her flies, and can describe the pattern in writing. 												
Expert	<ul style="list-style-type: none"> ✓ The student has a solid understanding of the pattern: counting by threes, connects this to calendar math, and creates a chart to demonstrate their understanding ✓ The student understands that s/he can extend the pattern and uses skip counting or grouping ✓ The student can make a rule/generalization connecting the pattern to skip counting or multiplication (grouping). For Example: Add three to the previous days total or multiply the number of days by 3. 	<ul style="list-style-type: none"> ✓ The student uses an accurate and appropriate strategy for identifying the pattern, charting the days of the week with the number of flies eaten, and can apply the pattern to skip counting to build the concept of multiplication (grouping). ✓ Sample Strategy: The student uses a T- table identifying the days of the week with the number of flies eaten, and extends the chart past Saturday by adding three to each day. For Example: <table border="1" data-bbox="911 810 1078 1171" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: left;">Days</th> <th style="text-align: left;"># of Flies</th> </tr> </thead> <tbody> <tr><td>1</td><td>3</td></tr> <tr><td>2</td><td>6</td></tr> <tr><td>3</td><td>9</td></tr> <tr><td>4</td><td>12</td></tr> <tr><td>5</td><td>15</td></tr> </tbody> </table> ✓ The student may make a statement or generalization about the pattern and how it applies to skip counting. For Example: Add by three each day $3 + 3 = 6 + 3 = 9 + 3 = 12$ OR multiply the number of days by 3: Day 1: $1 \times 3 = 3$ Day 2: $2 \times 3 = 6$ Day 3: $3 \times 3 = 9$ etc. 	Days	# of Flies	1	3	2	6	3	9	4	12	5	15	<ul style="list-style-type: none"> ✓ The student represents his/her work in a clear, organized manner, and uses appropriate math terms/symbols in his/her explanation of the counting pattern. ✓ The student represents their answer in a table or chart and can describe the pattern or observations in writing. ✓ The student includes a statement or generalization either verbally or in writing about the number pattern formed by skip counting or grouping.
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