

APPENDIX D: Option 2 – TEACHER’S LIST OF JOURNAL PROMPTS

The main purpose of the journal assignments is to help foster a sense of continuity and encourage the students to keep looking at how what they are doing in class relates to the overall goal for the project. They provide you with homework assignments over the course of the unit and a chance to get a look at your students' thought processes as they move through these activities. These are just some suggested questions to assign, and there are suggested times for assignments to appear throughout the activity instructions. You may want to alter these to meet your own classes' needs or fit into your own structure. You may want to collect them as the unit progresses as a progress check on your students' thinking about the process, or you may want to review them together at the end. The general goal is just to keep your students thinking about **why** they are doing what they are doing.

Assignment 1

1. Think about the list of possible factors that influence crater size generated by your class. Write a paragraph that explores the following questions: Which factors do you think are the most important factors for determining crater size? Why did you select those factors? And, what effect do you expect those factors to have?
2. If you were designing an experiment to test one of the factors, how would you do it? How would you set it up? What things would you change in each trial? What would you keep the same? What measurements would you make?
3. How did what we did in class today contribute to our goal for the project?

Assignment 2

1. What factors seemed to have the most effect on cratering? Why do you think those factors were having an effect?
2. What needs to be done differently from today's exploration to prove that there is a definite relationship between a factor and the crater's size?
3. How did what we did in class today contribute to our goal for the project?

Assignment 3

1. Why do formal experiments, designed to find a relationship between two quantities, need to be more structured than the initial explorations into cratering we conducted?
2. What results do you expect to get from your experiment?

Assignment 4

1. Is there anything in your data or experiment that has surprised you so far? Explain your answer.
2. Did your group collect additional data today or research some strange points in your data? If so, what did you find?
3. How does your experiment contribute to our overall goal for the project?

Assignment 5

1. Write a paragraph describing what happens during an impact event and the formation of a crater. Include all factors in your answer and discuss why you think those factors are influencing crater size.

Assignment 6

1. Why is it useful to find patterns in data?
2. How did what you did in class today contribute to our overall goal for the project?

Assignment 7

1. How did what you did in class today contribute to our overall goal for the project?