

## Handout H08A-1.

Name(s): \_\_\_\_\_

### INSTRUCTIONS:

- Develop your experimental plan (this page).
- Get the teacher's approval to proceed (bottom of this page).
- Carry out your experiment.
- Share your results (next page).
- Write and submit your report (next page).

### OUR EXPERIMENTAL PLAN:

- A. Our experimental question: What is the effect of \_\_\_\_\_ on fire behavior?
- B. Our hypothesis:
- C. Our *experimental variable*, the one thing that we will change from one trial to the next (take this from "A" above):
- D. Our *treatments*, the way we change our experimental variable from one trial to the next:
- E. Our *controlled conditions*, things that we will not change from one trial to the next:
- F. The things we will observe and measure – which will be our experimental *results*:
- G. Our table for recording record data from each trial burn.

**TEACHER'S APPROVAL:** Teacher's initials approving our experimental design: \_\_\_\_\_

### SHARING EXPERIMENTAL RESULTS

- H. When you have finished your experiment, project your results or copy them onto the board.
  
- I. Describe your experiment and results to the class. Indicate if there are any changes that you would make if you were to redo your experiment. Create two questions to ask the class about the data you collected. These questions should make your peers think critically about your experiment.

## **WRITE AND SUBMIT FINAL REPORT**

### **J. Formal Report:**

1. What is your question about fire? What are you trying to find out about fire behavior?
2. What is your hypothesis?
3. Do you accept or reject your hypothesis? Show how your results justify your answer.
4. Did your results help answer your question about fire? If so, how?
5. Did any new experimental questions emerge during your experiment? If so, what are they?
6. Based on your results, what practices would you recommend to (a) firefighters, (b) people with homes in forests, and (c) wildland managers?
7. (a) What are some limitations of the matchstick forest model? (b) What “real-world” influences on fire spread could not be tested with this model? (c) Could you revise the model or develop a different model to test them?