



Climate Change

and Wildfire

MODEL	BEGINNING MASS (g)	END MASS (g)	MASS OF WATER LOST (g)	END TEMPERATURE (° C)	OBSERVATIONS FROM BURNING
CONTROL: Room Temperature					
CONTROL: Climate Change					
YOUR MODEL: Climate Change + 1 variable change					

EXPERIMENT SET UP

A. Circle the variable you will change.

- More Grass
- More Shrubs
- More Trees
- More Water
- Less Grass
- Fewer Shrubs
- Fewer Trees
- Less Water

B. Build your ecosystem model, changing the variable you circled above.

Control Model:	My Model:
1 small aluminum pie plate	1 small aluminum pie plate
1/2 cup of sand	1/2 cup of sand
1 spoonful of paper shreds (grass)	_____ paper shreds (grass)
1 cotton ball pulled apart into about 12 pieces (shrubs)	_____ cotton balls
15 toothpicks (trees)	_____ toothpicks (trees)
5 sprays of water	_____ sprays of water

- C. After spraying your model with water, take the mass and record it in the table above.
- D. Place your model under a lamp, and place a thermometer next to your model.
- E. Fill out the model description and place it next to your model.
- F. Answer questions 1-3 on page 2.

1. Look at the models other groups have made. Describe the model you think has the lowest fire risk and what makes it low risk.
2. Look at the models other groups have made. Describe the model you think has the greatest fire risk and what makes it high risk.
3. Draw a picture of an ecosystem that is at high risk of fire due to climate change. Make sure you:
 - Label the fuel types (what types of plants)
 - Note the moisture level

CONCLUSIONS

4. Compare the control model and the climate change model. Based on the class results, what was the overall effect of increased temperature on fire danger?
5. Based on the class results, how did changing the fuel load affect fire danger?
6. Based on the class results, how did changing the moisture levels affect fire danger?