ModelIt | When Trees Become Matches

Name: _____   Date: _____

VOCABULARY

Match the term to the definition:

_____ Drought

_____ Atmosphere

_____ Biosphere

_____ Vegetation

_____ Hydrosphere

     A. Living things (plants, animals)

     B. Long period without rainfall

     C. The air and weather around Earth

     D. All the water on Earth

     E. Plants and trees

MODEL PLANNING

Before you build in ModelIt, sort your components:

EXTERNAL (things we can't control):

_____

_____

INTERNAL (things that change because of other things):

_____

_____

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ACTIVITY 1: LOCATE

List the 4 components you added to your model:

     1. _____

     2. _____

     3. _____

     4. _____

ACTIVITY 2: ESTABLISH

Draw your model below. Show arrows and label each + or −

Draw your model here

Explain ONE relationship in your own words:

_____

_____

_____

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ACTIVITY 3: VISUALIZE

SIMULATION OBSERVATIONS

When I turned OFF Rainfall (drought), this happened:
- Dry Vegetation: went UP / went DOWN / stayed same
- Fire Spread: went UP / went DOWN / stayed same

When I turned ON Wind, this happened:
- Fire Spread: went UP / went DOWN / stayed same

The WORST fire conditions in my model are when:

_____

_____

Sketch what your graph looked like:

Sketch graph here

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ACTIVITY 4: EXTEND

RESEARCH & EXTEND

NEW COMPONENT I want to add: _____

Is it EXTERNAL or INTERNAL? (circle one)

What does it connect to? _____

Is the relationship POSITIVE (+) or NEGATIVE (−)? _____

Why?

_____

_____

After adding it, my simulation showed:

_____

_____

_____

REFLECTION

Explain, in your own words, why California has wildfires every year:

_____

_____

_____

_____

Which Earth systems interact to create fire conditions? (circle all)

     ATMOSPHERE   BIOSPHERE   HYDROSPHERE   GEOSPHERE