

FIRE BEHAVIOR RECORD (1 OF 5)

Board Conditions — these stay the same for all three rounds

Set up the board so it has:

- 1 house with a fire break
- At least 65 trees
- 10-15 water squares
- 7-10 squares with dead wood

Write down the number of trees, river squares, and houses that you choose to put on your board below:

Trees: _____ Water: _____ Dead wood: _____

FIRST ROUND

1. Roll an 8-sided die for climate

Roll	Climate	Conditions
1 or 2	Very wet	Trees only burn in four directions, North, South, East, West
3 or 4	Wet	Trees burn in all 8 directions
5 or 6	Dry	Trees burn in all 8 directions, plus for two spaces in the direction of wind, but the fire cannot jump breaks
7 or 8	Very Dry	Trees burn for 2 spaces and the fire can jump a fire break (1 space)

Write down the number you rolled and the climate conditions.

Number: _____ Condition: _____

* If you get a Very Wet Climate, look for a special rule later on.

2. Roll a die for wind/no wind

Even numbers are wind, odd number are no wind.

Write down the number you rolled and whether there is wind.

Number: _____ Is there wind? _____

* If you have wind, roll the 8-sided die for wind direction. Look at the compass to figure out which direction the wind is rolling from. If there is no wind, skip to lightning.

Write down the number you rolled and the wind direction.

Number: _____ Wind direction: _____

FIRE BEHAVIOR RECORD (2 OF 5)

2. Roll for a lightning strike

Roll a 10-sided die twice to see where lightning hits and start the fire. The first roll is the row across, same as the number you rolled. The second roll is the vertical column: 1=A, 2=B, 3=C, 4=D, 5=E, 6=F, 7=G 8=H, 9=I, 10=J.

Write down the numbers you rolled and the location of the lightning strike.

First number: _____ **Second number:** _____ **Strike location:** _____

SPECIAL RULE FOR VERY WET CLIMATE:

After rolling to determine the lightning location, roll again. The trees around the lightning strike only catch fire if the roll is an even number.

VERY WET CLIMATE ONLY: Write down the number you rolled and if the trees burn.

Number: _____ **Will the trees catch fire?** _____

Look at your board conditions, climate, wind, and lightning strike location. What do you think is going to happen? **Explain why.**

3. Continue the fire until everything is burned or the fire cannot burn any longer.

What happened? Did the fire burn the way you thought it would?

FIRE BEHAVIOR RECORD (3 OF 5)

Return the board to its original conditions with the house, rivers and dead wood in the same places as before. For the second round, you will roll again for climate, wind and lightning.

SECOND ROUND

1. Roll an 8-sided die for climate

Write down the number you rolled and the climate conditions.

Number: _____ **Condition:** _____

2. Roll a die for wind/no wind.

Write down the number you rolled and whether there is wind.

Number: _____ **Is there wind?** _____

If there is wind, roll for direction. Write down the number you rolled and the wind direction.

Number: _____ **Wind direction:** _____

3. Roll for a lightning strike.

Remember there is a special rule for a very wet climate.

Write down the numbers you rolled and the location of the lightning strike.

First number: _____ **Second number:** _____ **Strike location:** _____

VERY WET CLIMATE ONLY: Write down the number you rolled and if the trees burn.

Number: _____ **Will the trees catch fire?** _____

Look at your board conditions, climate, wind, and lightning strike location. What do you think is going to happen? Explain why.

FIRE BEHAVIOR RECORD (4 OF 5)

2. Continue the fire until everything is burned or the fire cannot burn any longer.

What happened? Did the fire burn the way you thought it would?

THIRD ROUND

1. Roll an 8-sided die for climate

Write down the number you rolled and the climate conditions.

Number: _____ **Condition:** _____

2. Roll a die for wind/no wind.

Write down the number you rolled and whether there is wind.

Number: _____ **Is there wind?** _____

If there is wind, roll for direction. Write down the number you rolled and the wind direction.

Number: _____ **Wind direction:** _____

3. Roll for a lightning strike.

Remember there is a special rule for a very wet climate.

Write down the numbers you rolled and the location of the lightning strike.

First number: _____ **Second number:** _____ **Strike location:** _____

VERY WET CLIMATE ONLY: Write down the number you rolled and if the trees burn.

Number: _____ **Will the trees catch fire?** _____

Look at your board conditions, climate, wind, and lightning strike location. What do you think is going to happen? Explain why.

FIRE BEHAVIOR RECORD (5 OF 5)

2. Continue the fire until everything is burned or the fire cannot burn any longer.

What happened this time? Did all the fires burn the same way?

Now that the fires have burned three times with the same basic conditions, compare the different ways the fires burned. What had the biggest effect in how the fires burned?

Were there things that surprised you? Why or why not?
