

CREATING THE BUTTERFLY EFFECT

A SOUND OF THUNDER PRE-READING ACTIVITY

Background:

Have you ever heard of the butterfly effect? No, not the movie, I'm talking about the scientific theory from which the movie gets its name. The driving theory behind the butterfly effect is the notion that even the smallest of actions can result in drastic changes. The name of the theory is derived from a hypothetical example of this force in action proposed by the mathematician, Edward Norton Lorenz. Lorenz proposed that even the simple action of a distant butterfly flapping its wings could lead to the formation of a hurricane several weeks later. Although the butterfly effect may appear to be a mysterious and unlikely behavior, it does have real life applications. Consider if you were to place a ball on the top of a small table, where the ball falls to the ground and whether the ball falls at all are all contingent on a number of smaller factors such as the degree of slant of both the table and the ground on which it is placed, the texture of the ball and table, and where you initially place the ball in relation to the edge of the table. The butterfly effect has even become common plot device used in science fiction when presenting scenarios involving time travel in which a seemingly minor event can result in two significantly different outcomes. Like it or not, each action we take has its unforeseen consequences, and sometimes, those consequences can be more devastating than we could ever imagine.



Activity:

In this activity you will be provided with a scenario. From there, it will be your task to create a story based on that scenario. However, here is the catch: your story must end drastically differently than it begins. Using the idea behind the butterfly effect (that one small action can have drastic consequences), you will create a step by step account of events to create your story. Each step must have **an action**, and each action must have **a consequence** that is presented in the very next step. Use the example below as a model for how to construct your story.

Example:

Scenario: *Your friends put trick candles on your birthday cake.*

Step #1: I try to blow out the candles, but they won't go out despite how hard I try.

Step #2: I get frustrated with the candles and pick them off the birthday cake, angrily throwing them behind me.

Step #3: One of the candles hits the curtains on the wall behind me, and the wall goes up in flames because my friends also thought it would be a hilarious if they soaked the curtains in lighter fluid. Unfortunately I have a poor sense of smell.

Step #4: After the wall is ablaze, I search the house in vain for something to put out the fire. My wonderful friend also thought: "Hey, won't it be a great idea if we steal his cell phone and cut his phone lines!" Thanks, guys. I pick up the only thing I can find around me that stands any chance of putting out this fire. "Sorry, Nemo!" I exclaim grabbing my fishbowl and tossing it on the flames. Wouldn't you know it? More lighter fluid. Curse my poor sense of smell!

Step #5: I hurriedly rush out of the house to find the cops, the fire department, and the paramedics pulling up at the curb of the charred remains of what was my house.

Step #6: After taking a moment to catch my breath, I hear a cop says "You have the right to remain silent..." as he cuffs my hands behind my back.

RESULT: So now I'm here, sitting in jail under suspicion of arson. My friends had fled the scene and called 9-1-1 claiming that I attacked them with a soufflé torch while screaming "BURN BABY BURN!!!!!!" at the top of my lungs. Wow, I'm really going to need some better friends.

Continued on back...

Scenario: Choose from one of the following scenarios. Circle the one you choose.

- *A test monkey escapes from a medical facility.*
- *Someone cuts you off on the highway.*
- *Someone puts a mysterious note in your locker.*
- *You find out that you have inherited \$1,000,000.*
- *You pick up a hitchhiker.*
- *You miss your school bus.*
- *You see a flash of light outside of your bedroom window.*

Step #1: _____

Step #2: _____

Step #3: _____

Step #4: _____

Step #5: _____

Step #6: _____

RESULT: _____

Further Instruction: When you are done, find a partner and take some time to share what you created!