**CGC1D**

**Unit 2: Interactions with the Physical Environment**

**Assignment 2.3 Master of Disaster**

**Description:**

You will use various simulators to conduct experiments on how natural disasters work, and what can be done to prevent them. You will record your findings and respond to questions about natural disasters.

**Instructions:**

1. All work is to be completed in this document
2. Carefully read and follow the instructions for each experiment of this assignment
3. Record the findings of your experiments in relevant sections of the assignment
4. Answer the accompanying questions for each section you complete
5. Turn this document in on Google Classroom

**Experiment 1: Hurricanes**

1. Go to this hurricane simulator <https://scijinks.gov/hurricane-simulation/>
2. Manipulate factors such as season, high pressure cells, and wind direction to get a sense of when and how various types of storms are formed
3. Create and record the conditions that create a:
	1. Tropical storm (marked by an “L”)
		1. Season:
		2. Sea Surface Temperature (SST) in oF:
		3. Track taken by the storm (describe)
	2. Category 1-2 Hurricane
		1. Season:
		2. Sea Surface Temperature (SST) in oF:
		3. Track taken by the storm (describe)
	3. Category 3-4 Hurricane
		1. Season:
		2. Sea Surface Temperature (SST) in oF:
		3. Track taken by the storm (describe)
	4. Try to create a category 5 hurricane, if you are successful, what does it take to create this monster storm?
	5. What areas are most commonly affected by all the tropical storms you created?

**Experiment 2: Tornadoes:**

1. Go to this tornado simulator <https://scijinks.gov/tornado-simulation/>
2. Experiment with the different tornado settings and run several experiments to fill out the data table below:

|  |  |  |  |
| --- | --- | --- | --- |
| **EF Scale** | **Wind Speed** | **Funnel Size** | **Damage (point form notes)** |
| EF 0 |  |  |  |
| EF 1 |  |  |  |
| EF 2 |  |  |  |
| EF 3 |  |  |  |
| EF 4 |  |  |  |
| EF 5 |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Success Criteria** | **Level 4** | **Level 3** | **Level 2** | **Level 1** |
| **Geographic Inquiry and Skills Development**/20 |  |  |  |  |
| **Interactions in the Physical Environment**/20 |  |  |  |  |

**Total /40**