Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Answer sheet**

Module 7, Lesson 2

In the eye of the storm

Task 2: Identify the capital cities of Central America

Q1) Record the capitals of Central American countries in the first column of the table below.

**Central America Prior to Hurricane Mitch**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Country** | **Populated places** | **Transportation** | **Precipitation** | **Agricultural use** |
| **Capital** | **Distribution** | **Roads** | **Railroads** | **Airports** |
| Belize | Belmopan | Throughout the country, but concentrated around the capital | Sparse network | None | One near the coast | Climate is driest in the northern 2/3 of the county (1401-2000mm) with increasing annual precipitation in the southern 1/3 of the country | Primarily forest, with some irrigated land and little cropland |
| Guatemala |  |  |  |  |  |  |  |
| Honduras |  |  |  |  |  |  |  |
| El Salvador |  |  |  |  |  |  |  |
| Nicaragua |  |  |  |  |  |  |  |
| Costa Rica |  |  |  |  |  |  |  |
| Panama |  |  |  |  |  |  |  |

Task 3: Investigate Central America prior to Hurricane Mitch

**Q2)** Fill in the Populated places Distribution column and the three Transportation columns in the table in Q1.

**Q3)** Analyze the annual precipitation for each country and fill in the Precipitation column in the table in Q1.

**Q4)** Fill in the last column in the table in Q1.

**Q5)** Which country has the largest proportion of its area devoted to crops?\_\_\_\_\_\_\_\_\_\_\_\_

**Q6)** Which country is the most mountainous? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q7)** Fill in the transportation roads column in the table in Q1. Which country has the largest proportion of its territory covered by roads? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Task 4: Track Hurricane Mitch

**Q8)** When was Tropical Storm Mitch at this location? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q9)** What was Mitch’s wind speed at this location? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q10)** What are the latitude and longitude coordinates for Hurricane Mitch at this location?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q11)** When was Hurricane Mitch at this location? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q12)** What was Mitch’s wind speed at this location? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q13)** When was Hurricane Mitch at this location? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q14)** What was Mitch’s wind speed at this location? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q15)** How long did it take for Tropical Storm Mitch to become a category 5 hurricane? Write down the time for each event and determine the difference.

Hurricane–5 time point: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Tropical\_Storm time point: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Time difference: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q16)** What was Hurricane Mitch’s maximum wind speed during this period? \_\_\_\_\_\_\_\_\_\_\_

Task 5: Measure the size of the storm

**Q17)** What is the diameter of the eye of Hurricane Mitch? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q18)** Fill in the first row in the table below with: the diameter of the eye, diameter of the storm, and the distance between the eye of the storm and coastline of Honduras.

|  |  |  |
| --- | --- | --- |
| **Image** | **Distance (miles)** | **Change from previous image** |
| **Diameter of the eye** | **Diameter of the storm** | **Between the eye and the coastline of Honduras** |
| Mitch2 Satellite Image |  |  |  | ------------------ |
| Mitch3 Satellite Image |  |  |  |  |
| Mitch4 Satellite Image |  |  |  |  |
| Mitch5 Satellite Image |  |  |  |  |

**Q19)** Fill in the rest of the table above.

Task 6: Analyze rainfall from Hurricane Mitch

**Q20)** What pattern do you notice in the amount of rainfall?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q21)** Is this a pattern you expected to find? Why or why not?

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**Q22)** What is the highest range of rainfall in the Rain4 layer?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q23)** Which country received the majority of this heavy rain?

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**Q24)** Describe the difference between the rainfall patterns on October 30 (Rain4 layer) and October 31 (Rain5 layer).

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Q25)** What kind of damage do you expect to find with this type of storm? What aspects of the region will be most affected? Use the table in Q1 as a resource.

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_