

# El Niño & La Niña Climate Detective Lab

Name:

Date:

## Part 3: Historical Record Questions

1. What does SST stand for? What does SST anomaly mean?
2. What does it mean when the anomaly is positive (above zero)? What about when it's negative (below zero)?
3. Identify FIVE years that show strong El Niño conditions. List them and their approximate SST anomaly values.
4. Identify THREE years that show strong La Niña conditions. What pattern do you notice?
5. How often do El Niño and La Niña events occur?

## Part 4: Map Analysis Questions

1. What do the colors on the map represent?

2. During El Niño, is the water off Peru warmer or cooler than normal? By how much?
3. Describe how water temperature changes as you move from Indonesia to South America.
4. Why would warmer water off Peru's coast be bad for fish populations?

## **Part 5: Recent Trends Questions**

1. What type of conditions dominated 2022?
2. What major change happened in 2023?
3. By the end of 2024, what trend do you observe?

## **Part 6: Prediction Questions**

1. What typically happens AFTER a strong El Niño weakens?
2. Based on 2024 data, what direction is the temperature anomaly trending?

3. How long do El Niño and La Niña events typically last?
  
4. MAKE YOUR PREDICTION: What conditions do you predict for 2025-2026?  
(Write 6-10 sentences with evidence)
  
5. If your prediction is correct, what impacts might we see on global weather?
  
6. What areas should prepare for these conditions? What should they do?

## Part 4: Media Statement

Your Task: The media needs a statement they can use in an article about whether 2025-2026 is an El Niño year. Write a brief paragraph (6-10 sentences) that:

- States whether you think 2025-2026 is an El Niño year
- Explains the **evidence (data)** you used to reach your conclusion
- Describes what this means for the public (weather, fish populations, etc.)
- Uses proper scientific terminology

## **Submission Instructions**

1. Complete all questions above
2. Add your 3 screenshots
3. Save this document
4. Log into Brightspace
5. Navigate to Assignments
6. Find "El Niño & La Niña Climate Detective Lab"
7. Upload this completed document
8. Click Submit