# Climate Close-up Worksheet

Coral reefs are used to collect data about the relationship between trade winds and global temperatures.

Read two articles: “Climate Close-Up: Coral Reefs” and “Corals Show How Pacific Trade Winds Guide Global Temperatures.”

*Answer the questions in complete sentences using evidence from the original source articles.*

## Climate Close-Up: Coral Reefs Questions

*Answer the following questions about the article.*

1. Why does the author refer to the coral reefs as “talkative forests”? What do they "say"? How do the reefs parallel actual forests on land?  (5 points)

1. Give a short summary of how the coral samples give information about past climate. What are the three main factors that determine the growth of corals? How do scientists determine what the bands say about climate change? (5 points)

1. According to the article, what factors limit the climate record found in coral reefs? (5 points)

## “Corals Show How Pacific Trade Winds Guide Global Temperatures” Questions

*Answer the following questions about the article.*

1. Describe how the Kiribati corals “record” the strength of the trade winds. Include what the element manganese tells us about the events in the waters when the coral was developing. (5 points)

1. How did scientists confirm that the coral data accurately mirrors the history of the Pacific trade winds? Explain how the Pacific trade winds led to a slowdown in global warming. Relate this information from the article to what you have learned about heat storage and transfer by air masses and oceans. (5 points)

1. Based on the evidence from the past 100 years, what is likely to happen when the trade winds slowdown in the next couple of decades? (5 points)