

NAME: _____ Section: _____

Subject(s) of video(s): coastal delta evolution of Atchafalaya River, Louisiana USA

Purpose(s) of video(s): observe, describe, explain, infer

YouTube video: <http://youtu.be/0m5uA7743WQ>

Reference: http://earthobservatory.nasa.gov/Features/WorldOfChange/wax_lake.php

While the Mississippi Delta continues to lose land every year due to many factors (such as the rise of sea level and associated phenomena), two deltaic lobes of the Atchafalaya River have grown over recent decades due to manmade and natural influences. Changes to these coastal sedimentary deposits are shown in a striking series of images acquired by remote sensing systems on the 5, 7, and 8 Landsat series of satellites. Green color in the video represents vegetation on land; blue represents water. Your mission is to watch the video, make careful observations, and answer the following questions.

As you watch the images change from 1984 to 2014, record your observations that describe major features that change. No essays, please. Just bullet point your significant observations in a list below.

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1. Note the overall change of the deltas from 1984 to 2014. Which choice best describes the OVERALL change to the deltas during this time period?
 - a. decrease in land area
 - b. no change in land area
 - c. increase change in land area

2. Which choice best describes changes in the delta land area as each image changes to the next?
 - a. ALWAYS decreasing in land area
 - b. ALWAYS no change in land area (land area remains constant)
 - c. ALWAYS increasing in land area
 - d. SOMETIMES increasing and SOMETIMES decreasing in land area

Suggest some ideas that explain your choice of answers in #1 above.

Suggest some ideas that explain your choice of answers in #2 above.

Thinking questions for further understanding

Why are the delta deposits where they are? Why aren't these deposits located further offshore in deeper water?

How might future increases in sea level, and the rate of sea level rise, affect the growth of the Atchafalaya Bay deltas?