

5th Grade Student Guide - Flooding - A

Pre-Assessment/Pre-Discussion Questions: What if.....? How does.....?

- 1) What do you think a flood is?
- 2) What are some events that can cause flooding?
- 3) Is flooding only due to rain? What else might impact flooding?
- 4) What would happen during a heavy storm if all the drainage systems were outdated?

Answer Key

- 1) Answers may vary
- 2) Rain, wind, storms
- 3) No - answers will vary
- 4) They would fill with water, causing more flooding

Viewing Guide Questions: questions to answer while watching the video

- 1) What type of flooding typically affects Down East?
- 2) What is one factor related to flooding that is an environmental cause, and one factor that is not related to the environment (human action)?
- 3) Describe the 3 flood classifications
- 4) How do we measure floods?
- 5) How are the number of flood days in Beaufort predicted to change by 2050?
- 6) Describe why most of Carteret County is colored orange on the map.
- 7) In the future, describe what we could do to prevent flooding in the Down East area?

Answer Key

- 1) Coastal flooding
- 2) Environmental cause: A rainstorm that makes a river overflow its banks naturally
Non-environmental cause: development, filling in ditches, outdated storm drains.
- 3) Minor flooding occurs in areas only along the coastline. Moderate flooding is more widespread, threatening the shoreline and the nearby regions. Major flooding causes severe flooding to roads and buildings.
- 4) We classify floods using tide gauges, which measure how high the water rises and rain gauges, which measure how much rain falls.
- 5) The number of flood days will increase to 70 days per year
- 6) The orange color tells us that these areas can flood during Cat 1, 2 or 3 hurricanes and flood 4-6 days per year.
- 7) A combination of nature-based solutions, smarter infrastructure and development, clean ditches, replace stormwater drains

After Viewing Questions: open ended/HOT

- 1) Compare the results of the types of floods.
- 2) What type of flooding affects Carteret County the most? Why?
- 3) How might that affect the frequency and severity of flooding?

Answer Key

- 1) Minor- some flooding, moderate- more severe, and major would be extreme flooding.
- 2) Coastal flooding. Because of the flatness of the land in Carteret County.
- 3) Climate changes, land-use changes, and heavy rainfall.

Vocabulary Activity

Criss Cross Puzzle - Discovery Education Puzzlemaker

https://docs.google.com/document/d/1Ta_FOWKCfsFe8uHO8y0A6v3EoBwM5C3gXq6Gf6D68Rc/edit?usp=sharing

Hands-on Activity

Color by Number

<https://docs.google.com/document/d/1ofrSn9btLiaePzZvixGBsT2CBuOTkaOmXPmZjZm126l/edit?usp=drivesdk>

Answer Key

Color by Number answer key

https://docs.google.com/document/d/1C_I9GVmbtpKQ6Z78_Y9_VD6qv9WMcxIV30zKhxps8oU/edit?usp=drivesdk

Online videos

The Dangers of Flash Flooding | IMR <https://www.youtube.com/watch?v=PvJuocemHS4>

Floods 101 | National Geographic <https://www.youtube.com/watch?v=4PXj7bOD7IY>

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Going Further Questions

- 1) What if the stormwater drainage system in coastal areas were upgraded to meet current conditions?
- 2) Are Down East floods worse than in other parts of Carteret County? If so, why?
- 3) Explain things that people who live in Down East can do that might stop the high tide from getting on the roads and in their yards.

Answer Key (answers may vary)

- 1) Possible answer: look for less flooding.
- 2) Yes, because they are more frequent and they have low elevation.

3) Answers will vary

Other Resources

<https://www.youtube.com/shorts/9-2poHzvneg>

Rivers and Flooding animation <https://www.youtube.com/watch?v=4LsbJ95T568>

OTHER IDEAS

- Write a story about
- Draw a picture of
- Find the difference between- pictures/paragraphs
- Which words match/not match the topics
- Poster explaining the topic
- Pamphlet to explain the topic