

the Water Brothers EPISODE GUIDE QUESTIONS

ACID OCEAN

1. What is the main cause of ocean acidification?
2. What percent of all carbon dioxide emissions do the oceans absorb?
3. True or False: As carbon dioxide builds up in the ocean, it reacts with seawater, making it more difficult for marine life to absorb calcium carbonate. This process also causes the pH level of seawater to lower, increasing its acidity.
4. Since the industrial revolution, by what percentage has the acidity of seawater increased?
5. Name two marine animals that are affected by ocean acidification.
6. What marine animal thrives in more acidic oceans?

7. 55 million years ago, during the PETM when oceans were more acidic, what kind of marine life went extinct?
8. How many times faster is ocean acidification occurring today compared to during the PETM? 5 times, 20 times or 30 times faster?
9. Name one area mentioned in the episode where the ocean is naturally more acidic.
10. In scientist Jason's experiment, did the corals survive in the acidic waters of Vulcano?
11. How many people directly benefit from reefs for food and coastal protection?