Jellyfish Eyes

Name: ANSWER KEY Date: _____

Vocabulary Words: Match the definition to each word.

1. Preserved remains found deep in rock layers are calld Fossils.
2. Salt-tolerant trees known as mangroves grow along coastal shorelines.
3. The light-sensing organs of this jellyfish feature a clear outer surface called a cornea.
4. Jellyfish keep themselves in the optimum spot to absorb maximum nutrition.
5. Each complex eyeball measures less than a quarter-inch in diameter.

Word bank: cornea, fossils, diameter, mangroves, optimum

Multiple Choice: Choose the correct answer from the choices for each question.

1. Up to how many eyeballs do the jellyfish discussed have?
   - A) 4
   - B) 12
   - C) 24
   - D) 48

2. How many of the eyeballs are described as being nearly as complex as a human eye?
   - A) About 2
   - B) About 4
   - C) About 12
   - D) All 24

3. What primary environmental feature do these jellyfish use their eyes to navigate around?
   - A) Deep-ocean thermal vents
   - B) Coral reef ledges
   - C) Open ocean current swells
   - D) Mangrove tree roots

4. Why is the presence of complex eyes in these jellyfish considered surprising or paradoxical by researchers?
   - A) Jellyfish live in pitch-black water where light does not penetrate.
   - B) Jellyfish are among the earliest, simplest animals, yet possess highly advanced eyes.
   - C) Jellyfish lose their eyes as they mature into adulthood.
   - D) Jellyfish eyes are larger than their entire body.

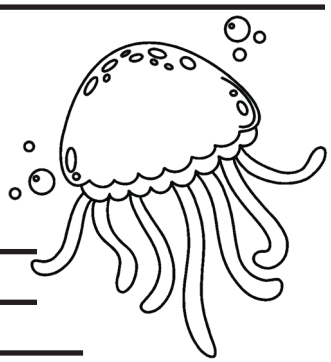
Discussion & Reflection: Answer the following questions in complete sentences

1. How do moving ocean tides impact the jellyfish's environment, and how do its eyes specifically help it survive these tidal changes? **Ocean tides create moving water currents that threaten to sweep the jellyfish away from their primary food source. Mangrove roots host algae, bacteria, and nutrients. By using their eyes to visually maintain an exact distance from the roots, jellyfish can counteract the tide and stay in the optimal position for feeding.**

2. Describe the key anatomical structures shared between the complex jellyfish eyeballs and human eyes. Why is it advantageous for the jellyfish to have such compact structures?

The complex jellyfish eyes feature a cornea, lens, iris, and retina—the exact main structures found in human eyes. Having these compact organs (under 1/4 inch in diameter) allows the jellyfish to navigate accurately while keeping its total body light and efficient.

3. This shows me that God is (Circle the word):

Wise Powerful Caring Creative All of the above

Explain your choice: