Horseshoe Crab Blood

Name: ANSWER KEY Date: _____

Vocabulary Words: Match the definition to each word.

1. Blood is absolutely Essential for human life.
2. Horseshoe crab blood reacts to harmful bacterial Toxins by clumping together.
3. If horseshoe crab blood is exposed to dangerous bacteria, the blood Clots immediately.
4. Scientists perform a form of Transfusions on horseshoe crabs to collect their blood.
5. Horseshoe crab blood is turned into a material used to test for dangerous Biological organisms

Word bank: Essential, Toxins, Clots, Transfusions, Biological

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

1. How many basic types of human blood are there?
   a) Two (A and B)
   b) Three (A, B, and O)
   c) Four (A, B, O, and AB)
   d) Five (A, B, O, AB, and HC)

2. What color is the blood of a horseshoe crab?
   a) Red
   b) Green
   c) Blue
   d) Clear

3. How does horseshoe crab blood react to non-harmful bacteria?
   a) It does not clot.
   b) It turns bright red.
   c) It destroys the bacteria instantly.
   d) It clots right away.

4. What medical application was developed using horseshoe crab blood?
   a) A cure for human red blood cell diseases
   b) A test to detect harmful viruses, vaccines, and biological organisms
   c) A treatment to speed up heart operations
   d) An artificial replacement for human blood

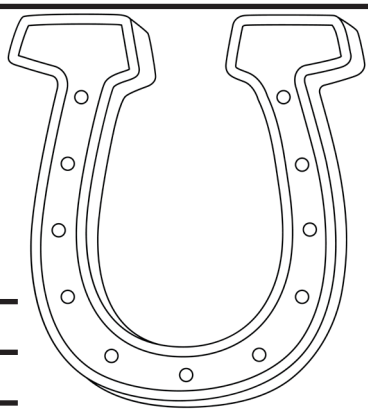
Discussion & Reflection: Answer the following questions in complete sentences

1. Explain the unique medical property of horseshoe crab blood when it comes into contact with different types of bacteria. **When horseshoe crab blood is exposed to harmful bacterial toxins, it reacts by clotting. However, when it encounters non-harmful bacteria—which accounts for roughly 99% of all bacteria—the blood does not clot at all.**

2. Do you think God had a specific purpose in mind when makeing Horeshoe Crabs?

God created everything with a purpose and function. In this case, the unique clotting reaction of horseshoe crab blue blood is used to develop testing methods for vaccines and harmful biological organisms, directly benefiting human health and safety

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

Wise Powerful Caring Creative All of the above

Explain your choice: