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Weekly Reading HW HW Wk ___

Directions: Read and annotate the passage below. Then answer the questions.

A Bird Whose Life Depends on a Crab

A horseshoe crab

While horseshoe crabs have been around for 475 million years, they may not be around for much longer. The number of horseshoe crabs has declined over the years. We've been catching too many to use as bait or for research. This has meant trouble not only for the birds that feast on the crabs' eggs, but for us as well.

Horseshoe crabs emerge from waters along the East Coast at night in May and June to spawn, or lay their eggs, on sandy beaches. Arriving not far behind them are thousands of small reddish-colored birds, known as red knots. They show up just in time to feast on the abundance of crab eggs before resuming their 9,300-mile migration.

Just as the red knots depend on the crabs for food, we depend on them for their blood. The biomedical industry extracts blood from horseshoe crabs because it is extremely sensitive to toxins that can cause illness or death in humans. The blood is used as a test for contamination in an array of drugs and medical devices, from vaccines to intravenous medicines. After some blood is taken, the horseshoe crabs are released back into the water, however, many die as a result of the process. Last year, it is estimated that 15%, or 79,800 died but their mortality rate is most likely closer to 20-30%. Demand for horseshoe crab blood is likely to increase as worldwide demand for medical devices and drugs continues to rise.

The decline in horseshoe crabs also affects the red knot population, which is in danger of extinction. There is already a ban on using horseshoe crabs for bait and there are plans in place to regulate the number of horseshoe crabs that can be harvested for blood. However their population continues to decrease, further threatening the red knots.

Looking ahead, other threats also loom both for the red knot and horseshoe crab. The sea is becoming increasingly acidic as we pump more and more carbon dioxide into the atmosphere, and this is decreasing the amount of food available for horseshoe crabs. Erosion and storm surges are likely to become more intense as the climate warms and the seas rise, threatening the beaches where horseshoe crabs spawn and shorebirds feed.

We need to address threats to the red knots before another storm or a bad spawning season for crabs pushes the birds closer to extinction. Regulators can begin by reducing horseshoe crab mortality in the biomedical industry. The rest of us can protect what is left of our coasts. As seas rise and storms become more intense, we're not the only ones with something precious to lose.

1. (RST.9-10.2) The main idea of the passage is that:
   a. Horseshoe crabs have saved the lives of millions because their blood is used to test for contamination in medicines.
   b. Humans are causing a decline in the horseshoe crab population which then negatively affects the red knot population.
   c. Global warming is the only cause for the decrease in horseshoe crab and red knot populations.
   d. Red knots are causing horseshoe crabs to disappear because they are eating all of their eggs.

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2. (RST.9-10.1) It can reasonably be inferred that after horseshoe crabs lay their eggs in the sand:
   a. They look for food to feed their offspring when they hatch.
   b. They stay on the beach guarding the eggs until they hatch.
   c. They fight off the red knots from eating all of their eggs.
   d. They return to the ocean and hope all of their eggs hatch.

3. (RST.9-10.4) As it is used in the passage, the term *array* means:
   a. Abundance
   b. A beam
   c. Lack
   d. Assortment

4. (RST.9-10.1) The author's purpose in writing the last paragraph is best described as showing:
   a. The different ways that we can protest the biomedical industry.
   b. The number of ways in which people and things are affecting the horseshoe crab population.
   c. How we can intervene to save the red knots and horseshoe crabs before it is too late.
   d. The dangers of living in a world without horseshoe crabs and red knots.

5. (RST.9-10.1) How do humans affect the horseshoe crab population?

   _____
   _____
   _____
   _____

6. (RST.9-10.2) Aside from humans, what else is affecting the horseshoe crab population?

   _____
   _____
   _____
   _____

Adapted from the article, "A Bird Whose Life Depends on a Crab" by Deborah Cramer for The New York Times*, on November 26, 2013.*