

## Essential Question for our Unit: What is Good Water?

### Framing Question for our Conversation: How is life on land impacting life in the world's water?

In your PODS, please use this shared document to generate thoughtful questions regarding the topics covered in The Sixth Extinction, Ch 5, 6, and 7. It is totally valid for some of your questions to be informed by your research and inquiry on your water teams or your reading from the text.

Your Take 5 is your starting place, but please try to filter some of your Take 5 ideas through these questions:

- \* How is life on land impacting these issues?
- \* What are the ecosystem services that the ocean's provide? How could you ask questions to point the conversation toward these issues?
- \* The ocean is so big, so powerful - how can we ask questions that will expose its fragility?
- \* What questions could you ask, what are those that would help other citizens understand the issues and the science?
- \* What questions will help us explore our concerns, rather than letting fear drive our discussion?
- \* What questions could help guide our discussion to include some of the SOLUTIONS we need to explore?

POD A:

Water teams represented:

Brainstorm questions / points of interest here:

- What will be the eventual downfall of earth if we can't contain the issue early**
- in what way have animals assisted the damage humans created**

POD B:

Water teams represented: Groundwater and Aquifers

Brainstorm questions / points of interest here:

- If the industrial revolution had not happened, in what ways would the world look different than today? Would there be as much extreme ocean acidification accumulation even if the industrial revolution we know in our history textbooks had not happened?**
- Although coral reefs are "organic paradoxes", they have a significant effect on the ecosystem of the world's oceans. What if there was no coral in the world today? Do you think evolution would have been the driving force to give special traits for species that today rely on the coral to either protect or feed itself? Tying this question in with our current situation, what do you think will happen to our coral in the future (it's already bleaching very quickly!)?**
- Human activity has transformed a significant portion of ocean life, mainly as a change of chemistry in the oceans. As coral are destroyed through ocean acidification, what effects would we see in our community (and the rest of the world)?**
- How can we look back upon significant historical events (like the Industrial Revolution), and identify the effects of our environment now and make changes to our current state of consumption/production?**

POD C:

Water teams represented:

Brainstorm questions /points of interest here:

- In what major ways does the destruction of the ocean and coral reefs impact our human lives?**
- How do humans stop the harm of reefs and help improve them?**
- In what ways does human impact involving CO2 impact the oceans?**

## **What is the long term impact of ocean acidification and what can be done to prevent it?**

POD D:

Water teams represented: Tropical Oceans

Brainstorm questions / points of interest here:

**The idea of “good” water is still somewhat blurry, what characteristics does good water have?**

**Is there still damage from the Navy drilling into the reef on the Marshall Islands?**

**In correspondence to the above question, how does this relate to issues we have in our own reefs around the world today?**

**In chapter 5 of the 6th Extinction, the author speaks about the human brain being confused by a deck of cards yet we can perform brain surgery? On that note, why can't we figure out how important the EPA is?**

**Since glaciation was produced by early mosses, do we think it is plausible that future extinctions will be caused by plants and animals instead of only humans?**

**There are many causes for the depleting biodiversity in our ecosystems worldwide, and while some (like coral reef degradation) are more prominent than others, how will they all contribute to not only the diminishing biodiversity but also the consequences that the environment will face with this lack of diversity?**

POD E:

Water teams represented:

Brainstorm questions / points of interest here:

POD F:

Water teams represented:

**Brainstorm questions / points of interest here: What is the safest/most effective way of distributing clean water to developing countries? What are the contributing factors to building a clean water ecosystem? What diminishes a clean water ecosystem?**

**Can humans be named the root of all environmental issues?**

POD G:

Water teams represented:

Brainstorm questions / points of interest here:

**- What is the trade off between industrialization and protecting the environment? How long do humans wait to combat ocean acidification, how can we be more proactive?**

**- Coral reefs are beautiful but they are in danger. In areas where there are giant coral reefs what can people be doing on land to stop their demise?**

POD H:

Water teams represented:

Brainstorm questions / points of interest here:

**-How can we make a change in our lifestyles and CO2 productions to save the ecosystem/ stop PH levels from lowering in our oceans?**

**-How does the destruction of the coral reefs affect our daily lives? Is it effective currently? Or will it be more harmful further down the road?**