1) The Earth has one big ocean with many features.

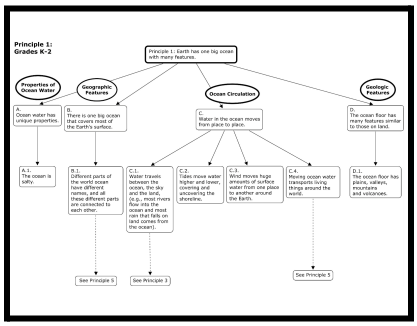
~https://www.natgeokids.com/uk/discover/geography/general-geography/ocean-facts/

NG, A. (2022, June 8). *Ocean facts!*. National Geographic Kids. https://www.natgeokids.com/uk/discover/geography/general-geography/ocean-facts/

National Geographic is one of my student's favorite resources. The information is presented in a way that is easy to understand and follow. This resource gives students a strong understanding of the ocean and its' characteristics and features. This is a great resource to present students with when introducing an ocean unit.

~https://www.coexploration.org/oceanliteracy/CFDs/EP1/GB_K-2/w%20K-2%20Principle%201%206-09.pdf

CFD for principle 1 and grade band K-2. (n.d.). https://www.coexploration.org/oceanliteracy/CFDs/EP1/GB_K-2/cfd_1a.html



This flow chart is incredibly helpful for K-2 teachers. So many aspects or topics can be covered when thinking about essential principle #1, the Earth has one big ocean with many features. The flow chart is easy to follow and covers the necessary standards that should be taught in K-2. Depending on where you live, the lessons that are created to cover these standards can be created as a hands-on learning experience for students.

~https://www.youtube.com/watch?v=y-aGjNdWuQk

YouTube. (2020, June 16). *Ocean literacy principle #1 - World Oceans Day 2020*. YouTube. https://www.youtube.com/watch?v=y-aGjNdWuQk

This might not work for all classes, but my students respond well to an introductory video. I live in Missouri. Therefore, when I am teaching my students about the ocean or something they cannot make a personal connection to, I like to bring that experience or place to them as best I can. I have found that this makes the learning experience more meaningful and tends to stick with my students longer.

3) The ocean is a major influence on weather and climate.

~https://oceanliteracy.unesco.org/principles/

Principles. Ocean Literacy Portal. (2022, June 27).https://oceanliteracy.unesco.org/principles/

This reading is second-grade friendly. A teacher would need to read alongside them to help with tricky vocabulary and more advanced terminology, but this article is presented in a way that young learners can understand. There is also a video linked at the bottom of the article that discusses essential principle #3. This reading can also be incorporated into ELA time (non-fiction text unit specifically).

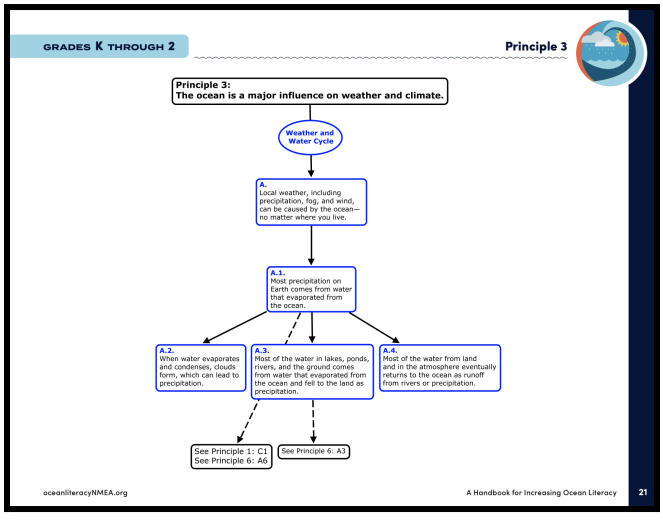
~https://climatekids.nasa.gov/ocean/

NASA. (n.d.). *How does climate change affect the ocean?*. NASA. https://climatekids.nasa.gov/ocean/

What a perfect resource for young learners to better understand how our ocean is a major influence on weather and climate. This is a resource that many of my students who think at higher levels would love to read and explore on their own. The explanations given are in student-friendly language. There is also a video (it shows how a water balloon can demonstrate climate change - this would be great to do in class with your students), which my students love. Lastly, students who are deeply invested can click on an additional link that this resource has which takes students to a conversation/interview with a scientist.

~https://www.marine-ed.org/ocean-literacy/scope-and-sequence

Ocean literacy scope and sequence. National Marine Educators Association. (n.d.). https://www.marine-ed.org/ocean-literacy/scope-and-sequence



This flow chart is incredibly helpful for K-2 teachers. So many aspects or topics can be covered when thinking about essential principle #3, the ocean is a major influence on weather and climate. The flow chart is easy to

follow and covers the necessary standards that should be taught in K-2. My thoughts - the water cycle and states of matter can easily be incorporated into the enhancement of teaching students about how the ocean influences our weather.

5) The ocean supports a great diversity of life and ecosystems.

~http://www.perspectx.com/VES-V/

Unity WebGL player: NOAA_VES-V. Unity WebGL Player | NOAA_VES-V. (n.d.). http://www.perspectx.com/VES-V/

Again, students who do not live near an ocean or have never visited the ocean will have a hard time making connections to these lessons. Providing students with simulations that allow them to explore the ocean and the life and ecosystems it's home to, gives students these necessary experiences in a virtual setting. With older students, this resource can be utilized in a more structured way. If you are using this resource with younger students, I would suggest just giving them time to explore and see what they can find while exploring. They can also write down and keep track of what they have found and write down the questions they come up with as they explore the ocean.

~https://ninepbs.pbslearningmedia.org/resource/plum14_int_watersafari/water-safari-a-photo-scavenger-hunt/

Plum Landing. (2021, January 16). *Water safari: A photo scavenger hunt: Plum landingTM*. PBS LearningMedia. https://ninepbs.pbslearningmedia.org/resource/plum14_int_watersafari/water-safari-a-photo-scavenger-hunt/

There are lots of interactive games and missions, which will immediately draw students in. Aside from the game aspect, they will be learning about different animals that live in various ecosystems. From there, they can research the animal(s) that they want to learn more about. I like how they can go on scavenger hunts to look for animals that live in different climates. They can use this resource to compare and contrast animal traits and characteristics based on the climate they live in. Lastly, this is a wonderful resource for young learners because many of my students have not explored different parts of the world, other than the area we live in. This resource allows them to virtually explore other parts of the world.

~https://askabiologist.asu.edu/sites/default/files/resources/activities/plankton/plankton_eat_plankton_packet5.pdf

It's a - plankton eat planktonworld. (n.d.). https://askabiologist.asu.edu/sites/default/files/resources/activities/plankton/plankton_eat_plankton_packet5.pdf

This resource would be wonderful to utilize in your classroom to show students that even though we might not be able to see something with our eyes, doesn't mean that it is not vital to our ecosystem. "All other life in the ocean needs phytoplankton to survive. Phytoplankton get their energy directly from the sun using photosynthesis, just like plants. Zooplankton then feed on phytoplankton and are then eaten by larger zooplankton, fish, larger fish, and so on. Plankton are at the base of a complex aquatic food web." I like how

this resource has a print-off to show students what several marine organisms eat and what they rely on to survive.

6) The ocean and humans are inextricably interconnected.

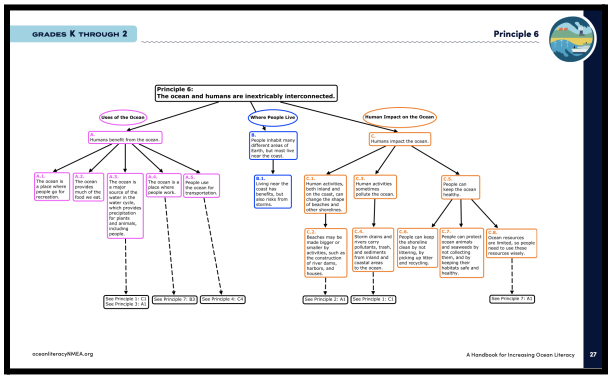
~https://teachoceanscience.org/pdfs/os_tragedy_of_commons.pdf

Teach ocean science curriculum and modules. title banner. (n.d.). https://teachoceanscience.org/

This resource is a little too advanced for second graders but can be altered to meet the needs of younger learners. This activity shows students how overfishing can occur and what the impacts are on us, as humans, and marine life. By participating in this activity, the goal is for students to understand how humans affect the ocean and therefore need to find ways to protect it and keep it safe.

~https://www.marine-ed.org/ocean-literacy/scope-and-sequence

Ocean literacy scope and sequence. National Marine Educators Association. (n.d.). https://www.marine-ed.org/ocean-literacy/scope-and-sequence



This flow chart is incredibly helpful for K-2 teachers. So many aspects or topics can be covered when thinking about essential principle #6, the ocean and humans are inextricably interconnected. The flow chart is easy to follow and covers the necessary standards that should be taught in K-2. Depending on where you live, the lessons that are created to cover these standards can be created as a hands-on learning experience for students to teach and show them how the ocean and humans are connected in more ways than we can begin to imagine.

~https://oceanliteracy.unesco.org/principles/

Principles. Ocean Literacy Portal. (2022, June 27). https://oceanliteracy.unesco.org/principles/

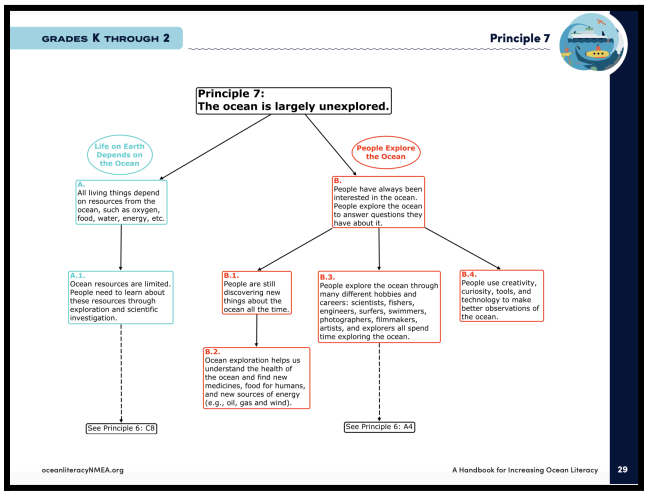
This reading is second-grade friendly. A teacher would need to read alongside them to help with tricky vocabulary and more advanced terminology, but this article is presented in a way that young learners can

understand. There is also a video linked at the bottom of the article that discusses essential principle #6. This reading can also be incorporated into ELA time (non-fiction text unit specifically).

7) The ocean is largely unexplored.

~https://www.marine-ed.org/ocean-literacy/scope-and-sequence

Ocean literacy scope and sequence. National Marine Educators Association. (n.d.). https://www.marine-ed.org/ocean-literacy/scope-and-sequence



This flow chart is incredibly helpful for K-2 teachers. So many aspects or topics can be covered when thinking about essential principle #7, the ocean is largely unexplored. The flow chart is easy to follow and covers the necessary standards that should be taught in K-2. To most students in Missouri, the ocean is something they have only seen in movies, videos, books, etc. Essential principle #7 is important because it goes to show that even people who live close to the ocean or scientists who study the ocean still have so much to learn about the ocean and the marine life it is home to.

~https://oceana.org/blog/why-does-so-much-ocean-remain-unexplored-and-unprotected/

Nuñez, E. (2020, June 8). *Why does so much of the ocean remain unexplored and unprotected?*. Oceana. https://oceana.org/blog/why-does-so-much-ocean-remain-unexplored-and-unprotected/

The reading in this article will most likely be too advanced for young learners but with that being said, teachers can present the main topic of this article in a way that is student-friendly. Also, this resource has some wonderfully detailed pictures that I would love to have students explore. Ask your students questions such as: What do you notice? What do you wonder? What questions do you have? What do you think this is a picture of?

~https://oceanexplorer.noaa.gov/okeanos/edu/lessonplans/lessonplans_hdwe.html

Recommended lessons for key "how do we explore" topics. Okeanos Explorer | Education | Lessons. (n.d.). https://oceanexplorer.noaa.gov/okeanos/edu/lessonplans/lessonplans_hdwe.html

Engineering and design project! Students will invent a robot to develop potential solutions for an ocean exploration problem. This engineering and design project is created for grades 5-6 but can easily be altered to meet the needs of second-graders. (2.ETS1.A.1 Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool). Students have the natural desire to ask questions, explore, and create. When they learn that the ocean is largely unexplored, they are going to want to ensure that it can be explored. By presenting them with a real-life challenge, they are more likely to be motivated and determined to find a useful solution.