

Essential Question:

What makes a good home for things that live in the water?

S-Science

CCSS Standard:

K-LS-1. Use observation to describe patterns of what plants and animals (including humans) need to survive.

1. What happens when you add animals to an aquatic habitat?
2. Compare what you see on TV (Finding Nemo) with what is real.
3. Fiction verses nonfiction (Sponge Bob) – Is his TV home realistic? Compare a real sponge in water – What happens to it?
4. How to separate baby fish, that are hatching, from the larger fish that might eat them?
5. What makes a healthy aquatic environment?
 - a.) fresh water source, full of nutrients
 - b.) healthy ecosystem
Wolves That Changed A River -Yellowstone National Park
 - c.) humans/conservationists
6. What makes an unhealthy environment?
 - a.) human development, fill in wetlands
 - b.) industry
 - c.) fertilization
 - d.) recreational use

T-Technology

CCSS Standard:

Grades K -4. Identify, locate and use appropriate print, non-print and/or digital resources available through the school library media center, with assistance.

Electronic Resources

1. Pebble Go – Digital Encyclopedia, nonfiction literature connections
1. Brain Pop – Animated Educational Site for Kids- Science, Social Studies, English, Math, Arts, Music, Health and Technology
2. Hoopla – borrow free digital movies, music, eBooks and more with your library card

3. Chatter Pix – free app
4. Virtual Tour (Simulator)
5. Green Screen

E- Engineering

CCSS Standard:

Grades K - 4: Identify existing knowledge and, with assistance, list areas where more information is needed.

1. Create plankton net using 2-liter soda bottle, nylon, duck tape
2. Build a bird nest
3. Design a habitat, keeping in mind how organisms are different with different adaptations.
 - a.)Resources: gravel, sand, water (chlorine removed) container, organism, (plants and animals),
4. Design a more realistic home for Sponge Bob. Compare what you see on TV to a realistic nature view (fiction verses nonfiction)
5. Pollution:
 - a.)something to contain an oil spill?
 - b.)something absorb an oil spill?
6. Design a device to sample water from the bottom/floor of the body of water.
7. Create a Filtration device that clears muddy water.
8. Design a way to identify and control or eliminate invasive plants or animals

A- Art

CCSS Standard:

Grades K - 4:

1. Students sing a short phrase as a solo, (as students pass the microphone) , on pitch and in rhythm, with appropriate timbre, diction and posture.
1. Life cycle wheels, what creatures need
 2. Salt marsh mural
 3. Three dimensional pictures to create water aquarium,

- a.)layer sheets of laminate, first add sand or gravel, next plants, living things
- 4. Picture cards that show pictures of realistic plants and animals, with names
- 5. Model of Grannis Island
- 6. Diorama

M- Mathematics

CCSS Standard:

Grade K - 4:

- 1. Sort and classify objects by attributes, including size, shape, color, texture, orientation, position and use, and explain the reason for each sort.
- 1. Tallies
- 2. Measuring
- 3. Graphing
- 4. Patterns
- 5. Integration of shapes

Songs:

- 1. Down By the Bay
- 2. River (16 Songs Children Love to Sing – Northeast Foundation) 3

Books:

The Pattaconk Brook by James Stevenson
A River Ran Wild by Lynne Cherry

Movie:

When Wolves Changed a River – YouTube video about when wolves were reintroduced into Yellowstone National Park