

JOURNEY TO THE OCEAN

FIELD TRIP ACTIVITY DESCRIPTIONS (4-6 GRADE)



FOURTH GRADE

FIFTH GRADE

SIXTH GRADE



Station 1: Plankton/Dock Life Lab

Students learn about the importance of plankton for human and sea animal life. Using specialized nets, students catch different types of plankton and use microscopes to identify and notate their findings.

Students learn about the bay's biodiversity and habitats via dock life examination. They examine mussels, sea squirts, and crabs using field tools and underwater cameras! Students learn about the survival techniques used by sea animals like mussels and create their own invention mimicking their defense mechanisms.

CCSS: S - 2a, b; 3c; 6f

NGSS: 3-5-ETS1-1, 3-5-ETS1-2

Station 1: Ocean Hazard Engineers

Students explore major ocean hazards/disasters such as oil spills and tsunamis. They explore oil spills in the Gulf of Mexico and local areas. In a hands-on experiment, they test and analyze different materials and methods to clean up simulated ocean oil spills. As "engineers," students notate the effectiveness of different clean up methods, and create an invention that effectively cleans oil from water without harming the environment. Cost, material, and time are some of the engineering factors considered.

CCSS: S - 3a; 6b

NGSS: 3-5-ETS1-1, 3-5-ETS1-2, 3-5-ETS1-3

Station 1: Beach Landslides & Erosion

How are beaches disappearing? How do we play a role in making erosion worse along our shoreline? How are we affecting animals? Students learn about topography and how water moves rock and soil to shape California's landscape. Get hands-on and create miniature cities and basic structures that will undergo a variety of different landslide/erosion scenarios on a beach shoreline. Students find solutions and experiment to prevent damage to the land which could affect homes, plants, animals, and shoreline habitats.

CCSS: S - 2a, b, c, d

NGSS: MS-ESS3-3



Station 2: Secrets of Skeleton Cove

Students learn about marine archaeology and California history while on a pontoon boat where they visit Skeleton Cove to recover artifacts that sunk in the ocean during the early 1800's. Using clues around the bay and specialized underwater cameras, students assist in making new artifact discoveries which could uncover hidden skeletons, treasures, and historic relics from long ago.

Good luck explorers and may you uncover the Secrets of Skeleton Cove!

CCSS: HSS 4.2, 4.3.3

Station 2: Plankton/Dock Life Lab & Birding 101

Students learn about the importance of plankton for human and sea animal life. They learn how plankton (plant and animal forms) use matter such as air, water, and decomposed materials as food to grow via photosynthesis, and how they serve as food for many other ocean animals. At the research labs (dock-side), students use plankton nets and microscopes to further their study.

Students also board a pontoon boat and use binoculars to spot and learn about interesting harbor birds highlighting their unique characteristics.

CCSS: S - 3a; 6f, g

NGSS: 5-LS1-1, 5-LS2-1, PS3.D

Station 2: Plankton/Dock Life Lab & Birding 101

Students learn about the importance of plankton for human and sea animal life. At the research labs (dock-side), students use nets and microscopes to examine their plankton catch. Additionally, they examine mussels, sea squirts, and crabs using field tools and underwater cameras. Students learn how environmental factors influence the growth and development of certain species such as mussels.

Students also board a pontoon boat and use binoculars to spot and learn about interesting harbor birds highlighting their unique characteristics.

CCSS: S - 5a; 7b

NGSS: MS-LS1-5