This guide is designed as an educational tool for chaperones to use while visiting Pacific Visions with students. Follow the guiding questions, share fun facts, and encourage students to make observations and ask questions as they explore each gallery and interactive experience.

### Schubel Family Culmination Gallery

#### Food
Exploring a future that is better for the health of our planet will mean taking a closer look at what’s on your plate. Thinking about how much water, land, and energy is used to produce our food will help us make smarter choices. For example, did you know that there are farms in the ocean, and they have very little impact on the planet?

**Guiding Questions**
- Where does your food come from? Where is it grown?
- How have humans changed the environment to grow food?
- Why is thinking about where our food comes from important?

**Exploring the Space:**
- Visit the Yellowtail exhibit. Why is this fish important when thinking about the future of food?
- Explore the Oysters exhibit. This is an example of an animal raised in the ocean for food. Can you find the two different species?
- Play at the Food Challenge table with a partner. What did you learn?

**Teacher Resources:**
visit: [www.AquariumofPacific/Teachers.org](http://www.AquariumofPacific/Teachers.org)

#### Energy
Burning fossil fuels to power vehicles and generate electricity is causing excess carbon dioxide to build up in the atmosphere, changing Earth’s climate. Exploring alternate energy sources and finding ways to be energy efficient will help reduce the impacts of climate change.

**Guiding Questions**
- What are some ways you use electricity every day?
- Where does this electricity come from?
- What are some ways that we can use less energy in the future?

**Exploring the Space:**
- Tour through the Future City Fly-Through interactive. How does this virtual city power itself?
- Play at the Energy Challenge table to test your knowledge and learn more about alternative energy sources and ways to be energy efficient.
- Investigate the interactive wall. Pop the bubbles to learn more about water, food and energy.

Today, 80% of all energy used still comes from fossil fuels like coal and oil.

 сегодня мы используем более 50% земли для производства нашей продукции.

### 3rd–5th GRADE

today we use more than 50% of Earth’s ice-free land to grow our food and raise our livestock.

### Gallery Map

2ND FLOOR

- Fly Through the Future City
- Energy Challenge
- Yellowtail
- Delta Smelt
- Population Tower
- Food Challenge
- Water Challenge
- Know Your Food/ The CO2 Lift
- Interactive Wall
- Olympia & Pacific Oysters
- Levers Film
- Schubel Family Culmination Gallery

### CULMINATION GALLERY

**Teacher Resources:**
visit: [www.AquariumofPacific/Teachers.org](http://www.AquariumofPacific/Teachers.org)
During the pre-show experience, vivid imagery will introduce learners to the interconnected relationships humans have with our Earth’s natural resources. Once in the Honda Pacific Visions Theater, students will watch an 8-minute immersive film that encourages them to think creatively about our global future and see themselves as ocean stewards.

The demand for water, food, and energy will grow with our population. In this gallery, students will explore what a sustainable future could look like. Make observations, ask questions, challenge your knowledge, meet some animals, and play with our interactive wall.

We use water every day, and a growing future population will make the availability of fresh drinkable water scarce looking forward. Planning for the future means reducing water use through personal actions and innovative solutions.

Students are encouraged to use their senses to touch, hear, and observe the rich diversity of ocean life, from beautiful coral reef habitats to the tiny hidden world of plankton.

**Plankton**
Look up and explore the glass plankton sculptures. These models are enlarged to represent the diverse shapes of drifting organisms (animals, plants, and algae) that are the foundation of many ocean food webs.

**Guiding Questions**
- What do you notice about the plankton models?
- Find two plankton models and compare. What is the same, what is different?
- What special adaptations do you think plankton have for drifting?

**Exploring the space:**
- Look for the video showing plankton. How do these images compare to the models?
- Visit the Coral Touch Wall. Do the corals feel the same?
- Can you hear that? Listen to the tiny popping sounds created by pistol shrimp snapping their claws!

**Guiding Questions**
- Share what you thought of the show with a partner.
- What did you learn from the movie?
- What made you curious?

More than half of the oxygen we breathe is created by algae plankton (phytoplankton).

Many fish and invertebrates (spineless) animals like coral, start life as plankton.

Although our planet is more than 71% water, only 1% is available as fresh drinkable water.

Raising beef requires a lot more resources, like freshwater, than other kinds of protein.

Guiding Questions:
- What are some ways we use water every day?
- Why is it important for us to conserve water?
- What are some ways that we can conserve water?

- View real-time population and water use information at the Population Column. Why is this information important?
- Investigate the story of the delta smelt. How is the delta smelt’s story tied to water use?
- Play at the Water Challenge table with a partner. What did you learn?

**Art Gallery**

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**Exploring the Space:**
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