

Sea Star Dissection Pre-Post Trip Activities

Activity 1. Benthic Relay

Create a relay where students try to transport water to represent the water vascular system in echinoderms. Each point in the relay is going to represent a part of the water vascular system. Starting will be the madreporite, followed by the stone canal, ring canal, radial canal, and the tube feet. Split students into groups of five and give each group one cup filled with water. Since sea stars are benthic and live on the seafloor, have the students crab walk during the relay. The goal is to make it to the end without spilling all of the water. Students should also call out what part of the water vascular system they represent once they get their groups cup.

Activity 2. Echinoderm Cookies

Make edible echinoderm sculptures using a standard sugar cookie dough recipe, but leave out the baking powder. Provide paint by mixing food coloring with a little egg white. Pretzel sticks make great urchin spines. Chocolate chips and sprinkles are fun for sea star textures. Sliced almonds are great for detailing sand dollars. Use the photos of different echinoderms (sea stars, sand dollars, sea cucumbers, urchins, sea lilies, etc) as visual references for making the cookies. If you'd rather make regular (non-edible) sculptures, you can use a craft dough and then paint them when dry.



Activity 3. A Day in the Life of a Sea Star

Research sea stars with your students and learn all about the species. Then, have them write a short story all about what they would do if they were a sea star for a day. Who would they interact with? What other animals would they see? Have them draw what their sea stars look like and then share with the class.

Activity 4. Sea Star Fascination

Have students research different sea star species and create a sea star out of paper and decorate it like their given species. Within each ray, or arm, there should be something unique about that species of sea star. Students can share in small groups something interesting they found about their sea star species.

Activity 5. Mini Aquarium

Instructors can create a mini aquarium inside their classroom. Aquariums can be filled with different echinoderms (sea stars, sand dollars, brittle stars, etc.) by printing off pictures and putting them against aquarium backgrounds. Each animal can have a brief description about it. Discuss similarities and differences of the animals at the end. As an extra bonus, teachers can expand this activity to include all animals scheduled to see or seen at Burton 4-H Center.

Activity 6. Box Aquarium

Have students create their own mini aquarium out of a shoe box or tissue box. Students must include at least one echinoderm to be featured in the aquarium. Students can research their echinoderm and present their box aquariums to the class. Each aquarium should be representative of the chosen species. For example, the giant sea star lives on rocky shores near the low tide mark and preys on mollusks; these things must be debited when creating the box aquarium.

