STEAM STATIONS

Ocean Dive

WEEK 1 SEASCAPE

STEAM STATION	YOUR SUPPLIES	BIG QUESTION AND INSPIRATION PHOTOS	TEACHER TIPS
LESSON 1 **Salt Water Experiment** **SCI 1** Investigation & Inquiry	Clear jars (2) Egg Salt Water		Set out two cups of water. Children put a few scoops of salt in one cup, then see what happens when they put an egg in the salty water cup as compared to the no-salt cup. Discuss how people and objects float better in salty water.
LESSON 2 **Sand & Water Sensory Bin** **SCI 2** Natural & Earth Science	Bin Sand Water Shells or ocean animal figurines Rocks or shells	 	Put sand on one side of a bin and water on the other side. Put rocks or shells and water figurines in the bin for the children to explore and play with.
LESSON 3 **Magnetic Sandcastle** **SCI 4** Technology	Sandpaper Magnetic sheet Scissors Baking pan	 	Adhere sandpaper to a magnetic sheet. Then cut the magnetic sandpaper into a variety of shapes. Children use the magnetic shapes on a baking pan or other metal surface to build a sandcastle.
LESSON 4 **Floating Plants** **SCI 2** Natural & Earth Science	Tweezers Aquarium plants Bin of water	 	Add a variety of real or faux aquarium plants to the bin of water. Set out tweezers for the children to grab and investigate the plants.
LESSON 5 **Stringing Coral Reefs** **MR 7** Logic & Reasoning	Playdough Pipecleaners Straw segments or beads	 	Make large balls of playdough and stick pipecleaners into it. Thread beads or straw segments onto the pipecleaners to design 3D coral reefs.

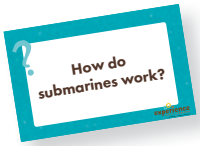
WEEK 2 LARGE SEA CREATURES

LESSON 6 **Sea Foam Discovery** **SCI 2** Natural & Earth Science	⅓ c. dish soap ½ c. cornstarch 1 Tbsp. water Bin Ocean animal figurines Blender Cake pan or tray	 	Put cornstarch, dish soap and water in a blender and whip until foamy. Pour it in a cake pan or tray for the children to explore. Hide ocean animal figurines in the foam for children to find and rescue.
LESSON 7 **Suction Exploration Technology** **SCI 4** Technology	Suction cups Eyedroppers Water	 	Explore the suction cups and experiment sticking them to a window or other hard surfaces. Use an eyedropper to squeeze water into suction cups, then stick them to surfaces. Does the moisture make a difference?
LESSON 8 **Goldfish Patterning** **MR 7** Logic & Reasoning	Multicolor goldfish crackers Scissors	 	Set out colored goldfish crackers and encourage the children to complete or extend the colored fish patterns.
LESSON 9 **Ocean Animal Strip Puzzles** **MR 7** Logic & Reasoning	Scissors	 	Cut the photo puzzles into strips. Find the fish strips and assemble them to complete the puzzles.
LESSON 10 **Shell Memory Matching** **MR 7** Logic & Reasoning	Shells (12) Marker		Gather 20 shells. Write numbers 1-10 on the inside of the shells. Turn them all facedown, then invite the children to pick up and hunt for matching numbers.

WEEK 3 SMALL SEA CREATURES

STEAM STATION	YOUR SUPPLIES	BIG QUESTION AND INSPIRATION PHOTOS	TEACHER TIPS
LESSON 11 **Ocean Discovery Bottles** **SCI 2** Natural & Earth Science	Water bottles Body wash Seashells & small objects Sand Glue gun Hot glue	 	Fill water bottles with a mixture of body wash, water and sand. Then put in a variety of small objects, e.g., shells, coins, ocean figurines. Seal the lid with hot glue, then leave out for the children to shake and investigate.
LESSON 12 **Shell Sorting** **SCI 1** Investigation & Inquiry	Basket of seashells (variety) Multi-section tray	 	Set out a basket of shells and a multi-sectioned tray. Encourage the children to sort shells into the sections.
LESSON 13 **Seahorse Tail** **SCI 2** Natural & Earth Science	Bin of water Straw Pipecleaner Aquarium plants (faux or real) Strainer	 	Explore sticking pipecleaners, sticks or small aquarium plants into the holes of a submerged strainer. Explain that seahorses can't stop moving unless they grab onto something with their tails.
LESSON 14 **Fish Breathing Experiment** **SCI 2** Natural & Earth Science	Coffee filter Rubber band Coffee grounds Clear jar Water		Fold a coffee filter over the opening of a jar and secure it with a rubber band. Mix the grounds with water and pour it over the coffee filter. Explain that the liquid represents oxygen and the filter is like the fish gills.
LESSON 15 **Invertebrate Sponges** **SCI 2** Natural & Earth Science	Sponges Water Bowls (2) Scissors	 	Cut sponges into a variety of shapes. Soak up water and squeeze it into the other bowl.

WEEK 4 OCEAN EXPLORATION

LESSON 16 **Sea Urchin Designs** **SCI 2** Natural & Earth Science	Playdough Pipecleaners	 	Set out playdough, pipecleaners and the photo of sea urchins. Explore building sea urchins.
LESSON 17 **Treasure Hunting** **SS 2** Civics & Economics	Coin chart Combs or forks Tray of sand	 	Put coins in sand and set out old hair combs or forks. Explore combing the sand and making different designs in the sand while hunting for coins. Count the value of the discovered coins.
LESSON 18 **Fishing with Magnets** **SCI 4** Technology	Magnets Paper fish Stick String Box Marker	 	Cut fish out of paper, number each one and slide a metal paperclip onto each, then place them in a box. Use a stick and yarn to make a fishing pole and attach a small magnet to the line. Invite the children to go fishing for specific numbers or letters.
LESSON 19 **Submarine Bottles** **SCI 3** Physical Science	Old water bottles Sand or rocks Bin of water	 	Experiment with putting an uncapped bottle in the water. What happens when it fills with water? What happens when a capped bottle is placed in water? What happens if a capped bottle has sand, rocks or water inside?
LESSON 20 **Stamping Seashells** **SCI 3** Physical Science	Playdough Seashells	 	Set out seashells and playdough. Press the shells into the dough and remove to see the impressions. Imagine making fossils.

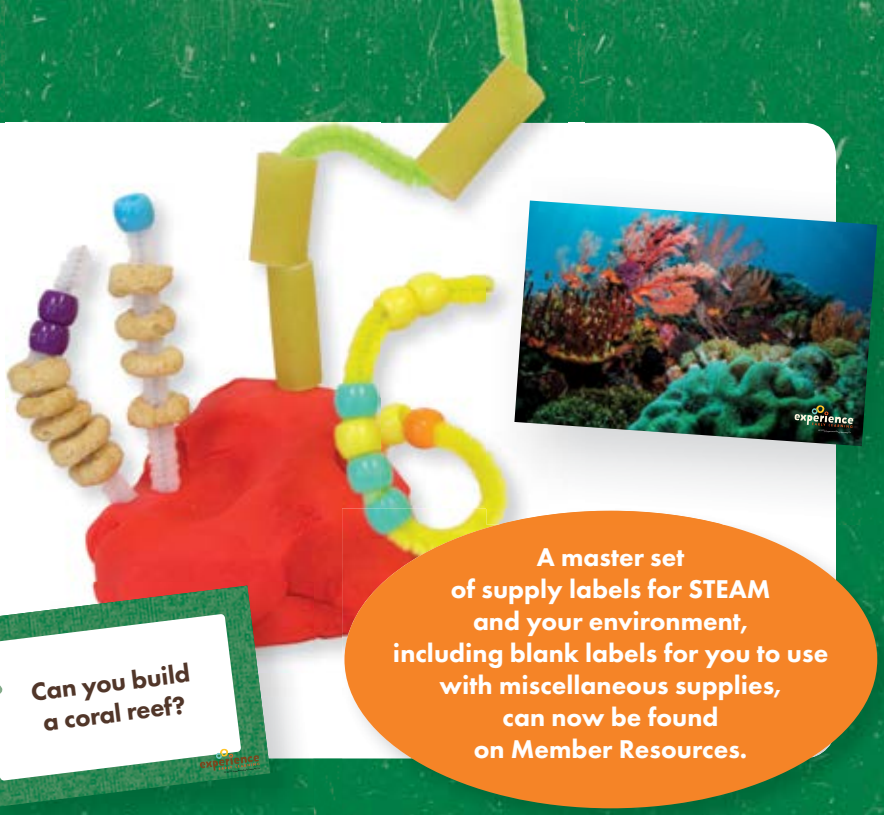
Set-Up Directions

These open-ended STEAM stations invite children to investigate, problem-solve and create.

- Hang the Big Question and Inspiration Photos on the wall next to the place you set up the investigation.
- If desired, use labels to identify and organize materials children will use (and clean up) as they explore STEAM stations.

ROTATING YOUR STATIONS

- Introduce one new STEAM station daily. Leave that station set up all week. By the end of the week, children will have five stations to explore.



A master set of supply labels for STEAM and your environment, including blank labels for you to use with miscellaneous supplies, can now be found on Member Resources.

STEAM STATIONS

STEAM stations integrate perfectly with the monthly Experience Preschool Curriculum kits for a comprehensive research-based early learning system. Learn more and start your research-based curriculum today.

ExperienceCurriculum.com

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How does salt affect bouyancy?

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How can you keep sand and water from mixing?

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Can you build a sandcastle?

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What plants grow in water?

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Can you build a coral reef?

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Can you save the animals from the sea foam?

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How do suction cups work?

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What groups of fish can you make?

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Can you find the fish?

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Can you find the shell numbers?

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What lives in the ocean?

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Can you sort the shells?

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How do seahorses use their tails?

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How do fish breathe underwater?

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How does a sponge feel?

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Can you make a sea urchin?

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What designs can you make in sand?

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What did you catch?

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How do submarines work?

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What designs can you make with seashells?

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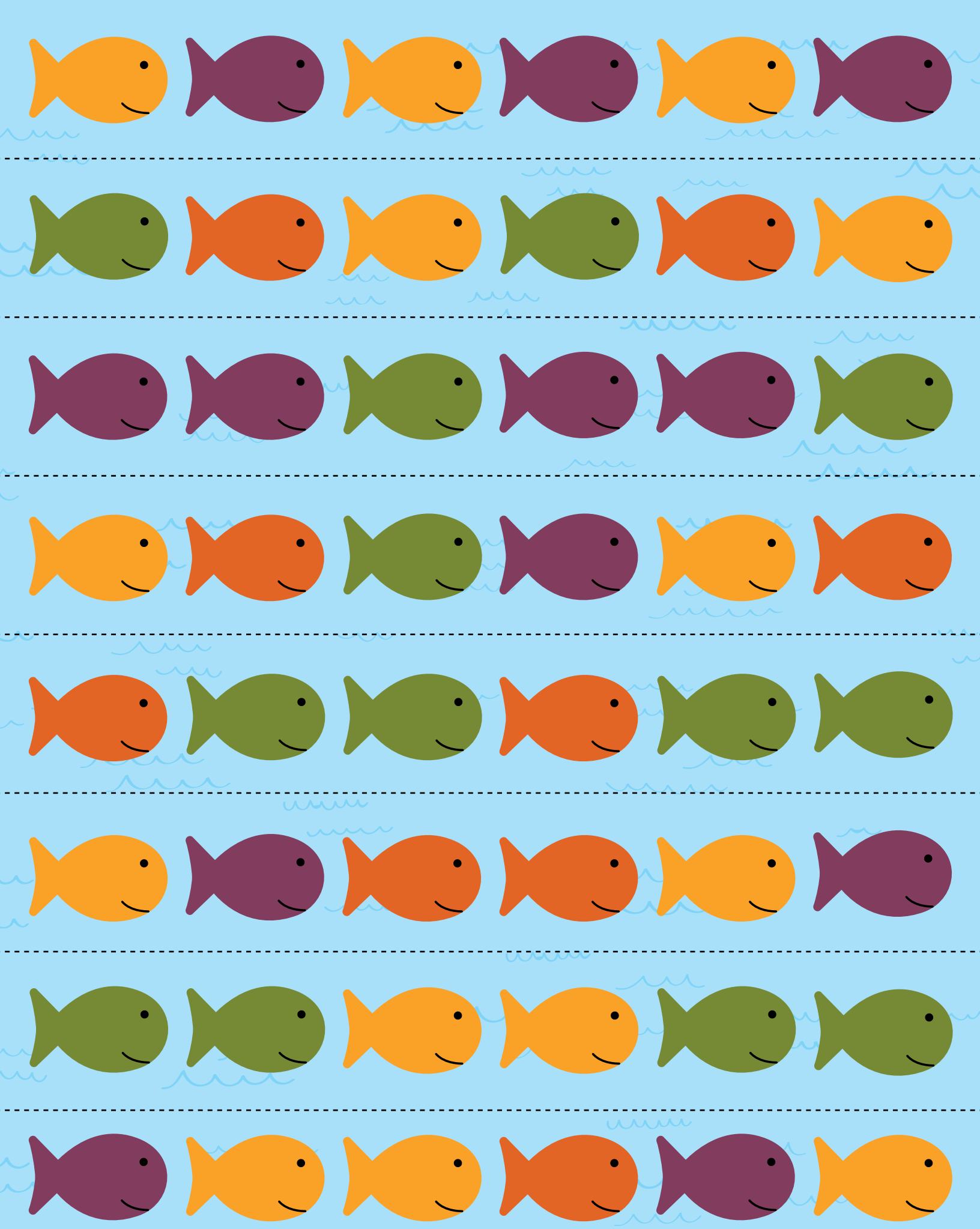

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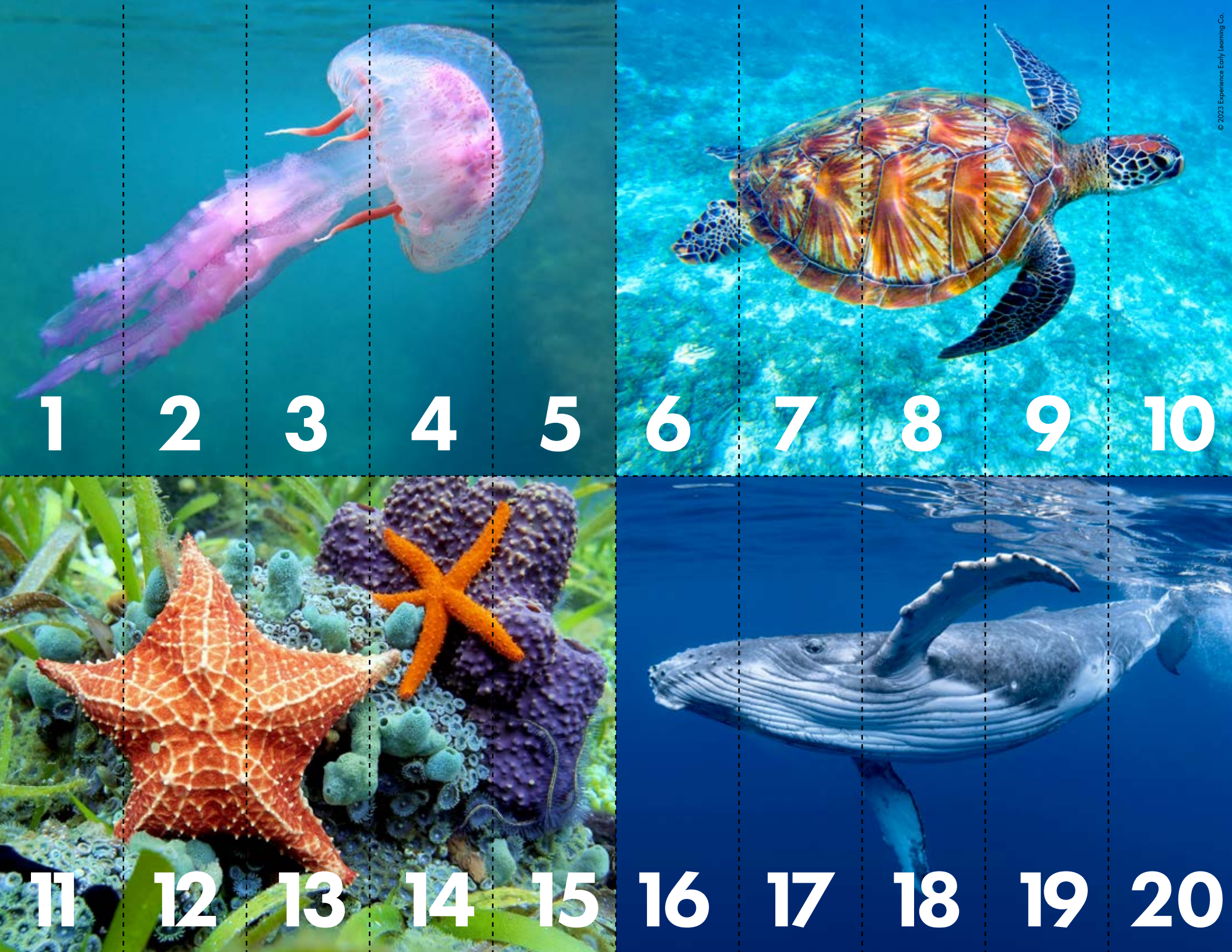

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Common Seashells

Alphabet cone

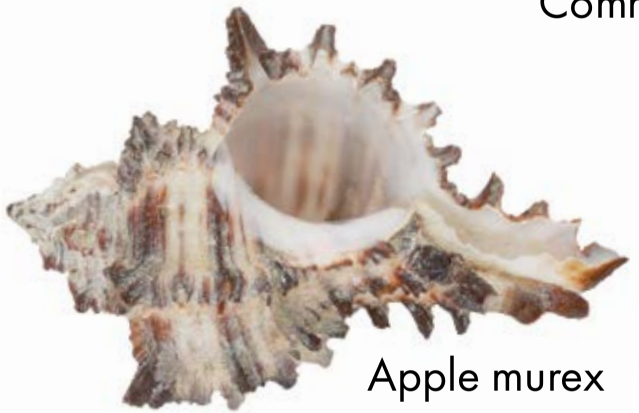
Tower shell

Variegated scallop

Common mussel

Alternate tellin

Painted topshell



Apple murex

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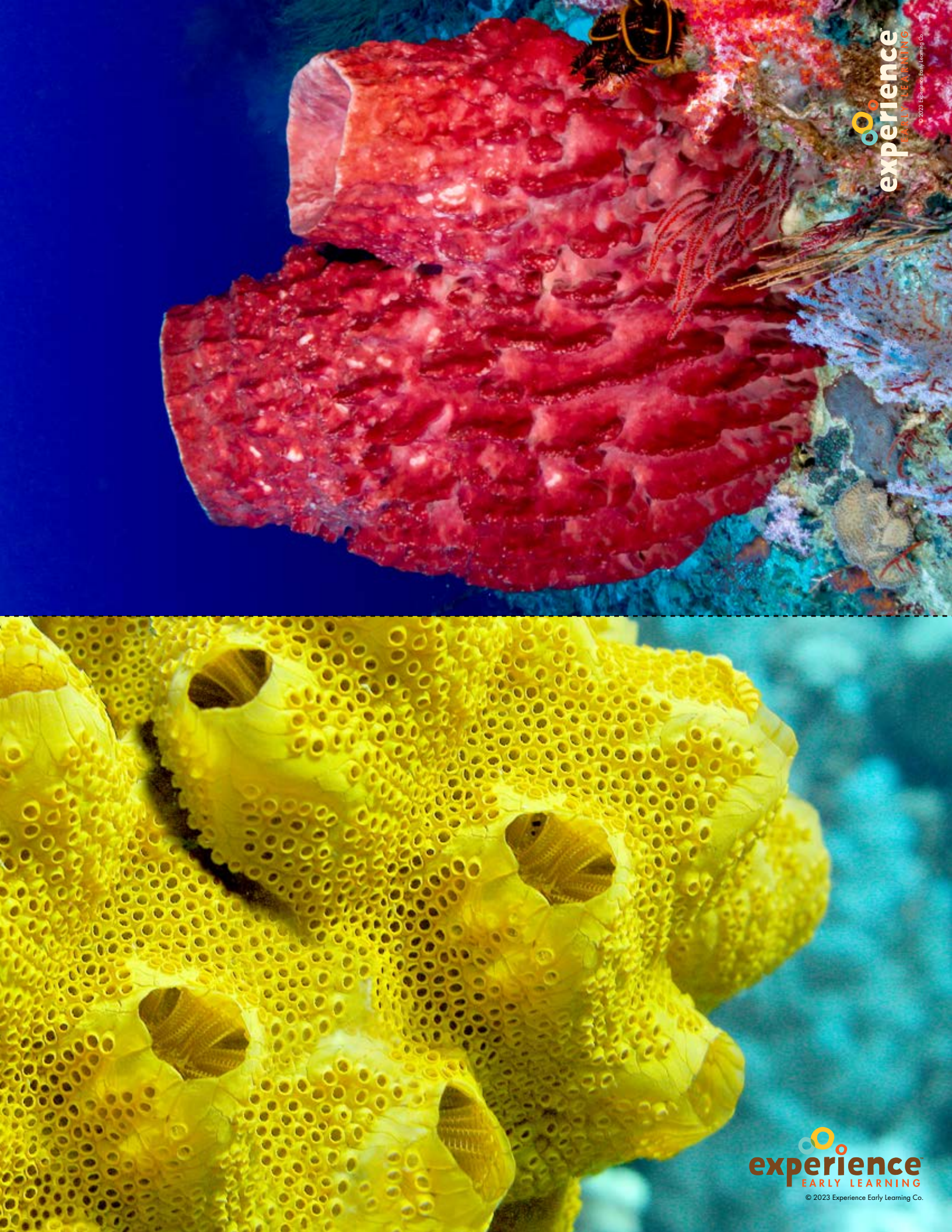
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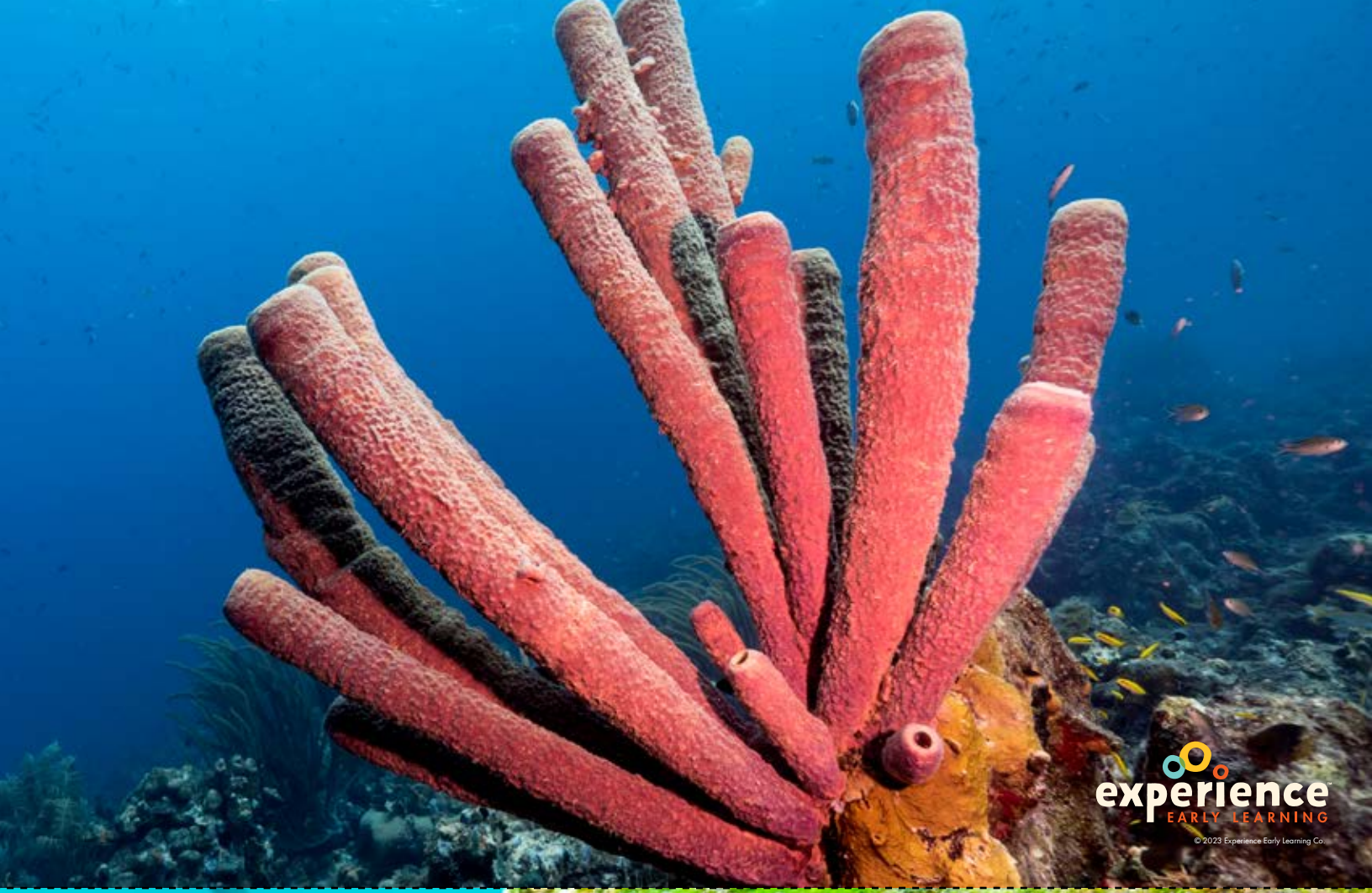

	1¢	penny
	5¢	nickel
	10¢	dime
	25¢	quarter