Virtual Field Trip Program Materials

Dear Teacher,

We are looking forward to our interactive virtual field trip with you and your learners. During the program your learners will have the opportunity to explore the unique animals of the Pacific Ocean with one of our Aquarium Educators.

The following materials are provided to support learner exploration and dive deeper into program topics. These resources are optional and can be used before or after your virtual field trip. Suggested discussion questions and a vocabulary words are also included.

Wigglie Squigglie (Grades 1-2)

- Invertebrate Writing — Pre or Post Activity
- Invertebrate Word Scramble — Pre or Post Activity
- Dance Like An Invertebrate — Pre or Post Activity
- Coloring Page — Pre or Post Activity
- Invertebrate Search — Post Program Activity
- Animal Adaptations — Post Program Activity

You may find additional activities for your learners in pre/post materials from other programs.

Thank you for your interest in our programs, we are excited to connect with you!

Sincerely,

The Aquarium of the Pacific Education Staff

Teacher Resources

Vocabulary Word Bank

Invertebrate: Animals that do not have a backbone or spinal column. Recognizable groups are the echinoderms, cnidarians, mollusks, and arthropods.
Vertebrate: Animals that do have a backbone or spinal column. Recognizable groups are birds, mammals, amphibians, reptiles, and fish.
Spine: Sequence of vertebrae that runs from the spine to the lower back or tail, depending on the animal. Also called the backbone.
Tube Feet: Appendages of the echinoderms (stars and urchins) used for movement and to attach to the surfaces they rest on.
Tentacle: The limb or appendage
Beak: hard structure forming the jaw or mouth of an animal like a squid or octopus.
Exoskeleton: rigid external body covering found on many invertebrates to protect a soft body.
Suction Cups: cup-shaped mechanisms that can create a seal to stick to a surface, found on many invertebrates including octopus and sea stars.

Activity Notes

Invertebrate Writing

This activity can be done before or after the class and is intended to either engage learners' prior knowledge or help review class concepts. This page can also serve as lined paper for any writing prompts.

Invertebrate Word Scramble

This activity can be completed before or after your class program, most of the concepts will be discussed in class. If you would like to, you may prep your learners with some of the vocabulary from this activity or help them review the vocabulary after the program's completion.

Word Scramble Key

1. Sea Jellies
2. Bones
3. Suction Cups
4. Sea Cucumber
5. Tube Feet
6. Spines
7. Octopus
8. Stomach

Dance like an Invertebrate

This activity can be done either before or after the program. This is designed to help associate animal movement compared to our bodies. Depending on your group's size this may require enough space to be done outside or in a large room with desks/furniture moved towards the edges.

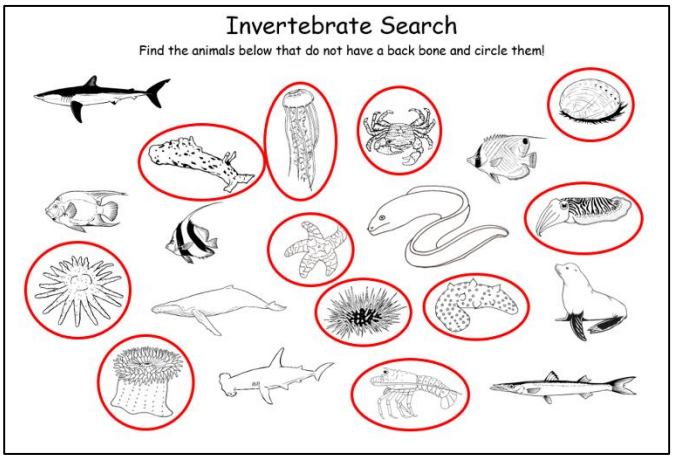
Coloring Page

Enjoy this tide pool coloring page!

Invertebrate Search

This activity is designed to act as a post program activity, but depending on your curriculum can be suited to work as either a pre or post program activity.
This page contains a mixture of animals. Learners are asked to identify which of the animals are invertebrates (*do not* have a backbone). Alternative activities with this page can include having the

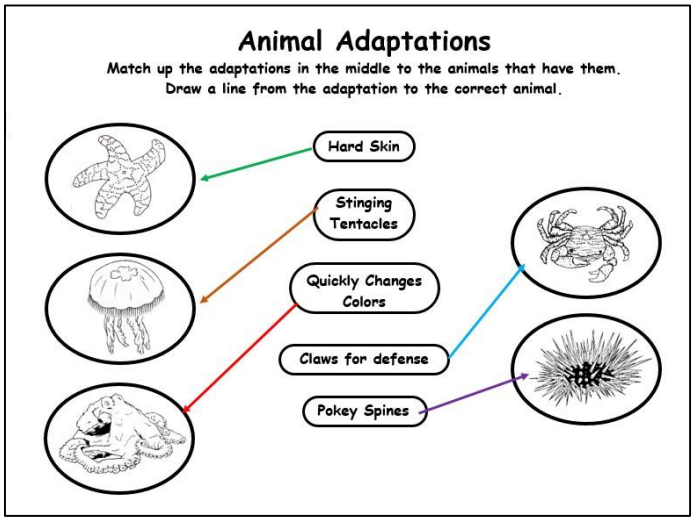
learners color the 2 groups different colors, color the animals however they wish, or they can even cut out the animals to group them on an empty table or desk.



Animal Adaptations

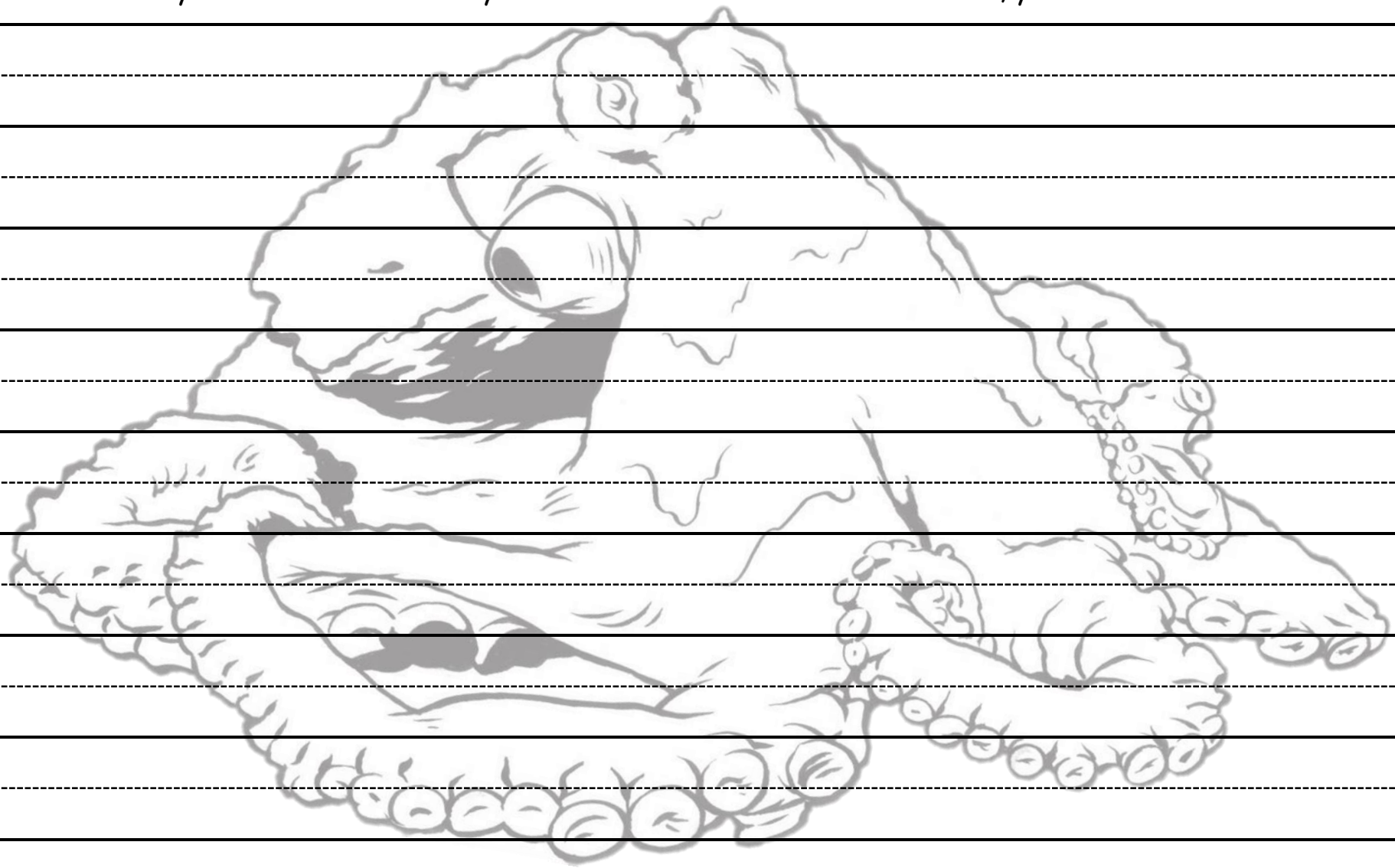
This activity is designed to be completed after the program's completion. This will help review some of the adaptations these invertebrates have. See the key below. One animal that may create some discussion is the sea urchin. Urchins belong to the same group of animals as the sea star whose scientific group, the echinoderms, means spiny skin. If learners do not make that connection this can be introduced to them if it wasn't during our class program. Urchins have a shell called a test, covered in spines and tube feet, while they don't have hard or spiny skin they are covered in spines.

Key



Invertebrate Writing

What is your favorite thing you know or learned about invertebrates (animals without a spine)?
If you would rather draw your favorite invertebrate on the back, you can do that too!

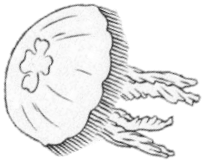


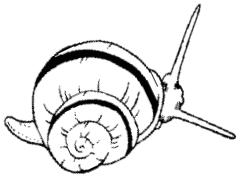
Invertebrate Word Scramble

Word Bank:

Stomach	Suction Cups	Tube Feet	Spines
Bones	Sea Jellies	Octopus	Sea Cucumber

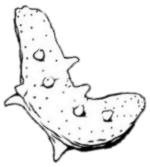
1. This animal has to sting its food to eat it!
ASE SLLJIE ___ ___ ___ ___ ___ ___ ___ ___





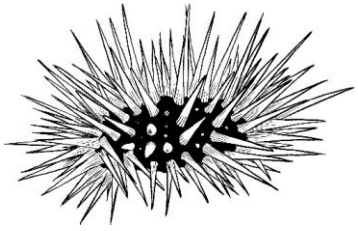
2. Invertebrates don't have any of these
NOBSE ___ ___ ___ ___ ___

3. Octopuses use these to move around
NITUSCO UCPS ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___



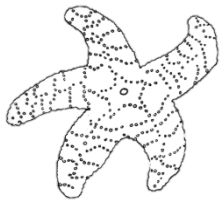
4. This animal has a vegetable in its name, but it's definitely an animal
EAS UMCEBEUCR ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

5. Echinoderms use these to move around
UBTE EFTE ___ ___ ___ ___ ___ ___ ___ ___ ___



6. Urchins are covered in these!
SIPSEN ___ ___ ___ ___ ___ ___ ___

7. These 8 armed animals are excellent at hiding in their habitat
TPOUCOS ___ ___ ___ ___ ___ ___ ___ ___



8. Sea stars spit this out when they eat!
CMTHAOS ___ ___ ___ ___ ___ ___ ___

Dance Like an Invertebrate!

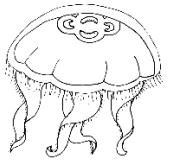
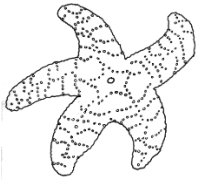
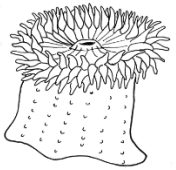
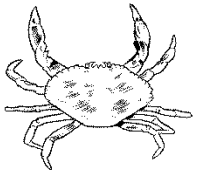
Learn how different animals move in the ocean! Act out movements to understand that ocean animals can move in many different ways.

Directions:

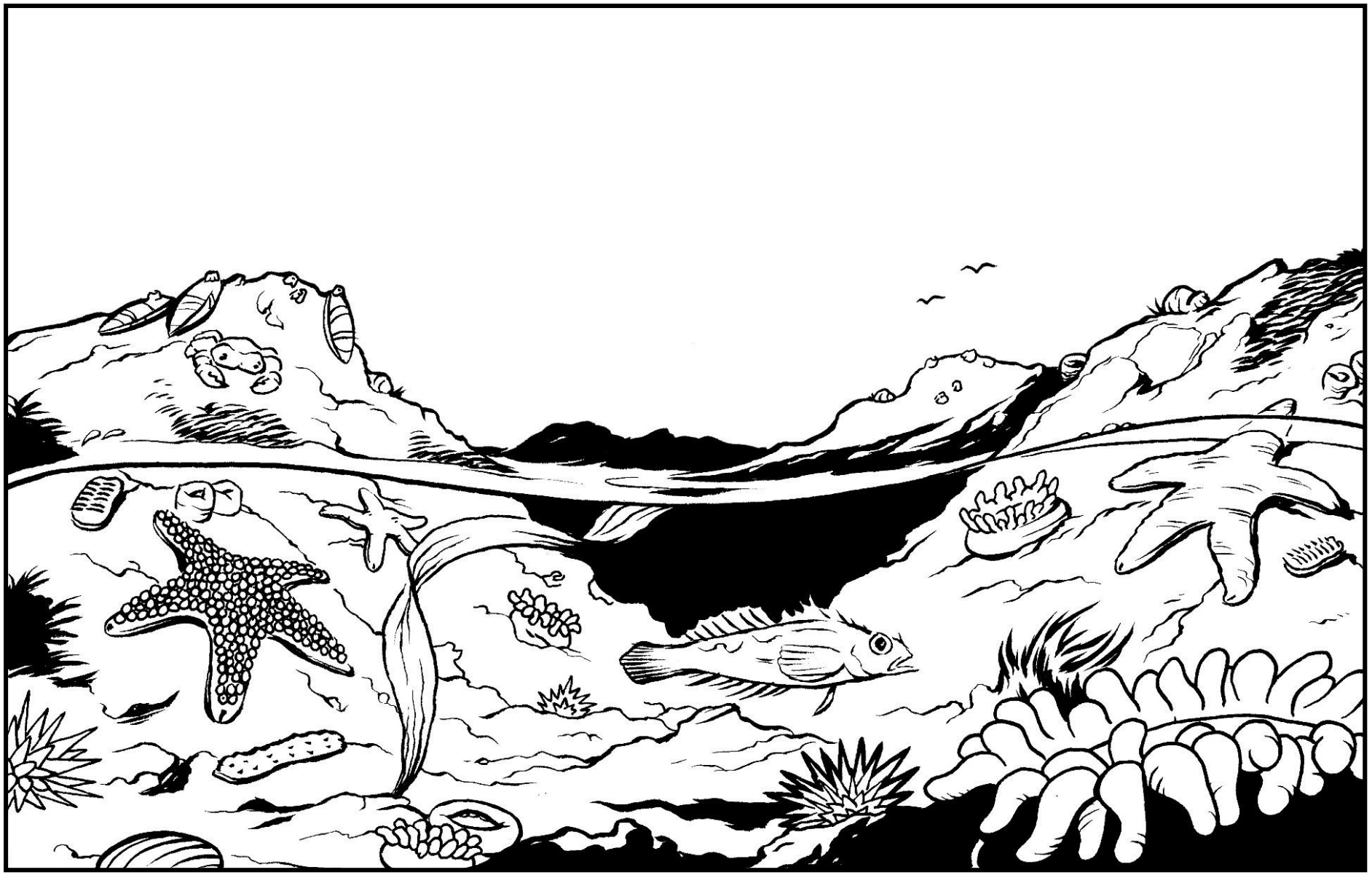
1. Do you know all the animals in the chart? Review the names of the animals pictured to the right and explore how the animals move.

2. You can play and explore further by playing 'Simon Says' and have learners dance like the animals.

3. Learners can color the animals if they like, or even look up how other animals move with the help of an adult.

	Float like a jelly! Hold your arms out in the shape of a jelly and slowly move them up and down while you bob around the room.
	Glide like a sea star! Stick your arms and legs out like a star shape and move very slowly.
	Stick your tentacles out! Raise your arms up like anemone tentacles and use your imagination to grab food from the water and eat it.
	Move like an octopus! Try and wiggle your body, arms, and legs like a flexible octopus.
	Can you crawl like a crab? Or you can hold your hands out like crab claws?

Animal Coloring Page



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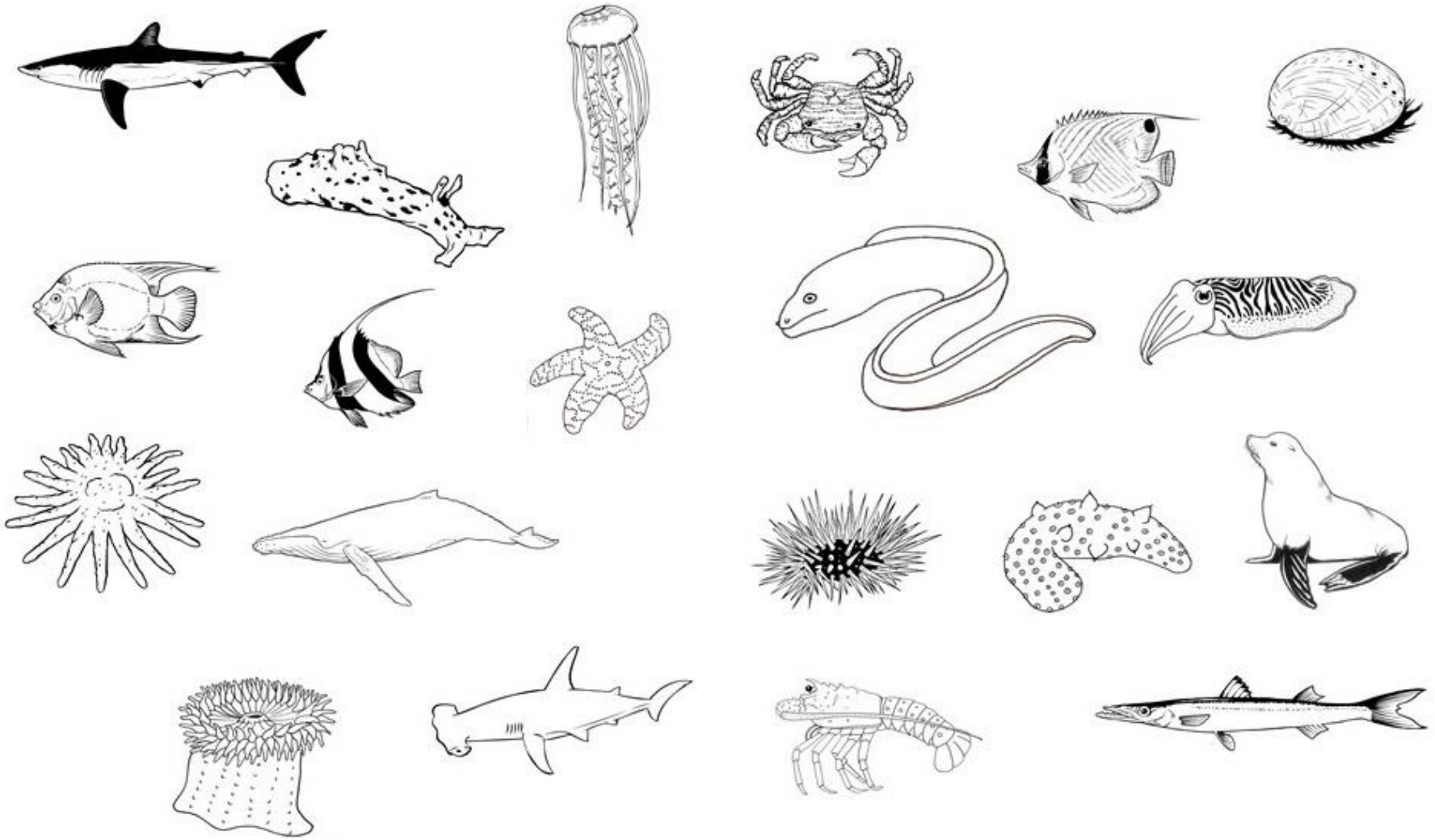
Invertebrate Search

11 of the animals below are an invertebrate. Can you find and circle them? Think of animals with no backbone, are often squishy, or have shells!



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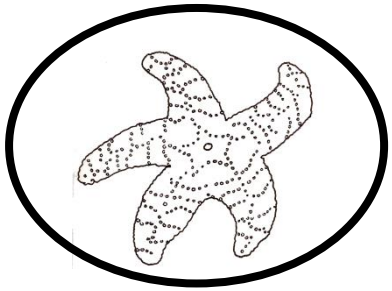
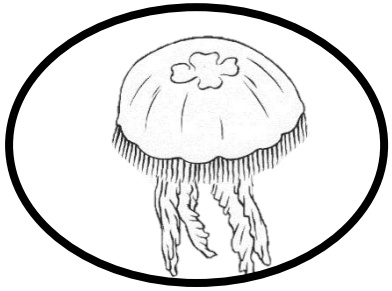
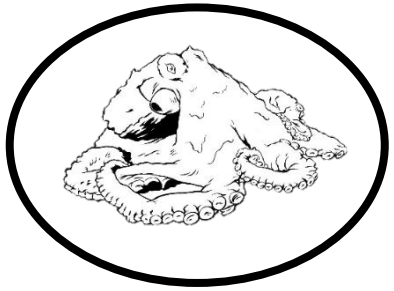
Animal Adaptations

Match up the adaptations in the middle to the animals that have them.
Draw a line from the adaptation to the correct animal.







Hard bumpy Skin

Stinging Tentacles

Quickly Changes Colors

Claws for defense

Pokey Spines