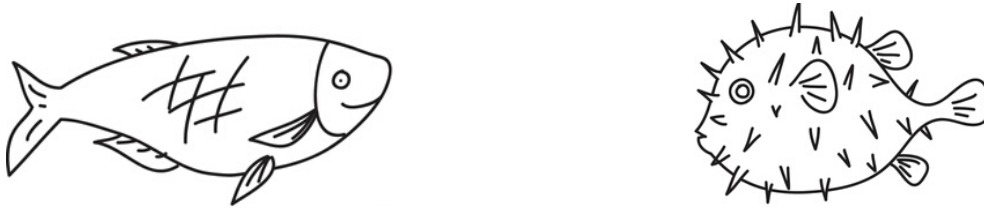


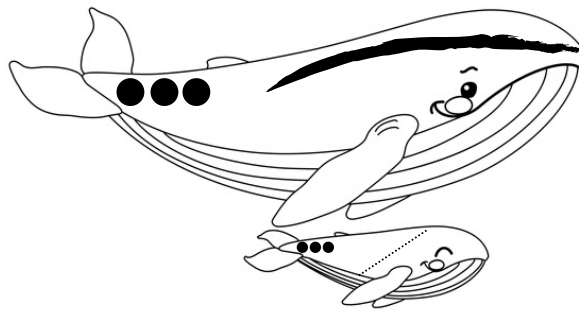
Name: _____

Trait Variation

Marine biologists are scientists who study animals and plants in the ocean. Some marine biologists learn about the traits of animals! A trait is a characteristic of an animal. For example, color and size are traits! Take a look at the two fish below. Both fishes have fins on either side of their body and a tail. They both have round eyes, as well. These fishes also have different traits. The fish on the left has a smooth, long body, and its tail is split down the middle. The fish on the right has a spiky, round body, and its tail is not split.



When animals are related to either other, they have similar traits. This is because children, called offspring, get some of their traits from their parents! Take a look at this parent whale and offspring whale. They both have three dots on their tails. The offspring got this trait from its parent!



However, parents and offspring do not always have the exact same traits. Look at the whales again. The parent has a stripe down its back and the offspring does not. The offspring also has a ring of dots around its belly that the parent does not. The differences in traits is called variation. Family members have variations in traits!

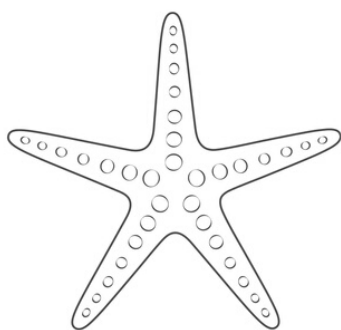
Today, you will be a marine biologist and learn about traits in families of starfish and sharks. Follow the steps on the next page!

Name: _____

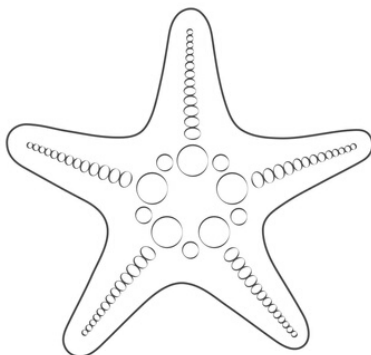
Trait Variation

Step 1: Looking at Starfish Traits

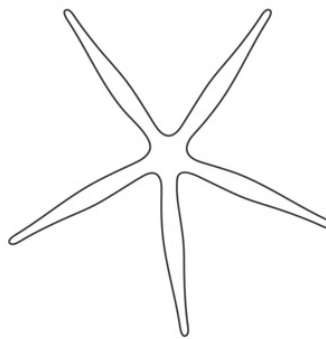
Take a look at these 4 starfish. These starfish are all related. Below, there is a chart with information about each starfish. Across the top of the chart, there are 3 traits listed. The traits are: appearance, number of arms, and thickness of arms. Fill in the the empty boxes with trait information. Then, answer the questions underneath the chart.



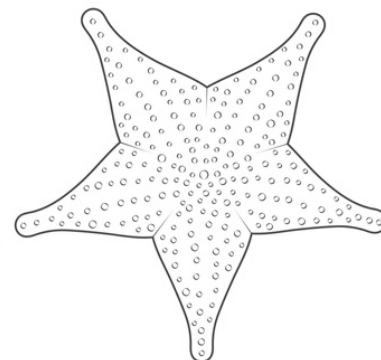
1



2



3



4

Traits of Starfish

	Appearance (Dots or no dots)	Number of Arms	Thickness of Arms (Thick or Thin)
Starfish 1	Dots	5	Thick
Starfish 2	Dots		
Starfish 3		5	
Starfish 4			Thick

Name: _____

Trait Variation

What traits are the same in all of the starfish?

What traits are different in the starfish?

Step 2: Writing a Report on Sharks

Imagine that you discovered a family of sharks! This family of sharks has never been discovered before! Fill out the report on the next page about the traits of the parent shark and offspring shark. The parent shark and offspring shark should have some traits that are similar and some traits that are different. Remember that this shark family has never been discovered before! You can come up with crazy traits, like polka dots or fur!

Name: _____

Trait Variation

Shark Family Report

Parent Shark

Draw a picture of what the parent shark looks like.



Describe the following traits:

Color and pattern on skin: _____

Shape of fin on its back: _____

Shape of teeth: _____

Shape of tail: _____

Shape of mouth: _____

Name: _____

Trait Variation

Offspring Shark

Draw a picture of what the offspring shark looks like.



Describe the following traits:

Color and pattern on skin: _____

Shape of fin on its back: _____

Shape of teeth: _____

Shape of tail: _____

Shape of mouth: _____

Name: _____

Trait Variation

How are the traits of the parent and offspring sharks similar?

How are the traits of the parent and offspring sharks different?
