

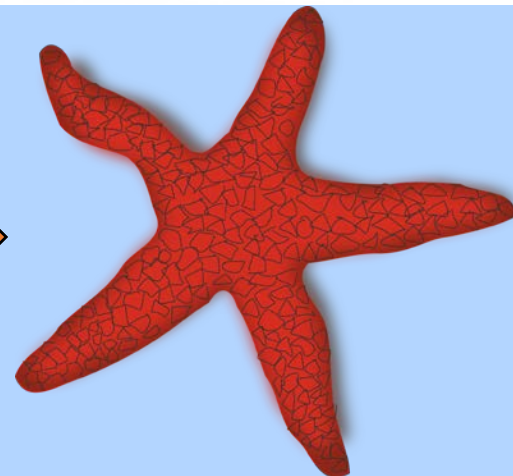


# Snappy's Unique Adventure

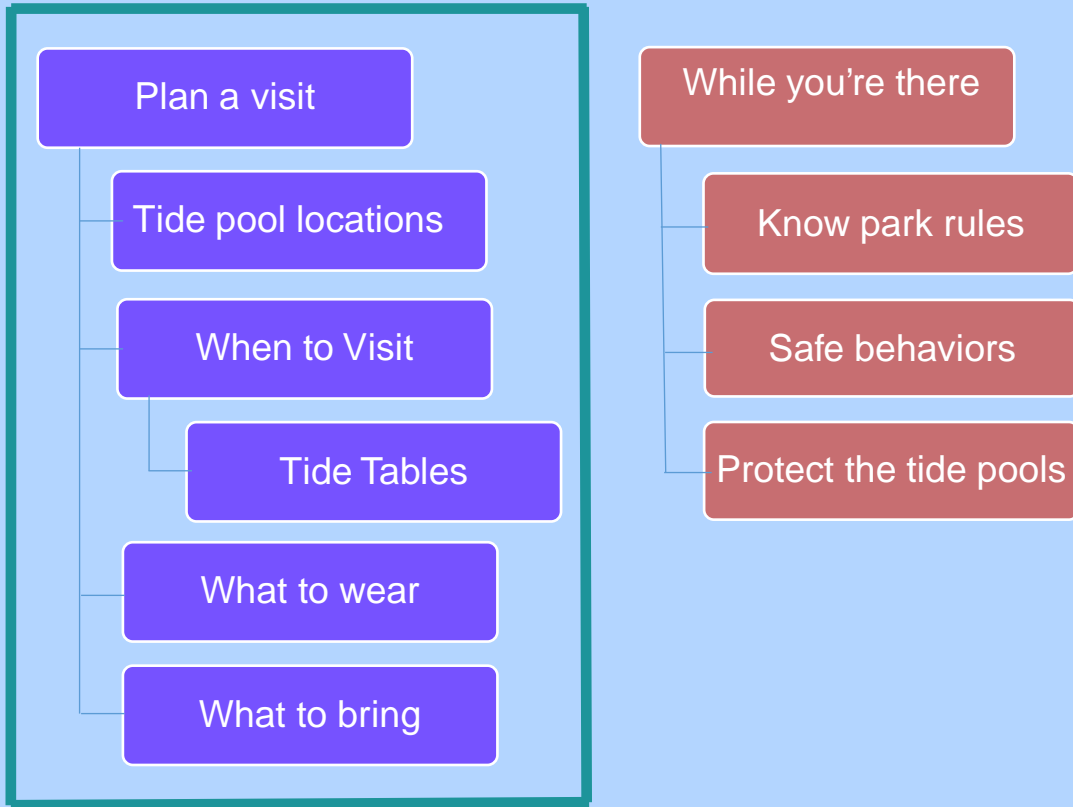
Tide Pool Resource Prototype

Steve Cummings  
Leopoldo Lopez  
Steve Schlichtenmyer

Click to continue

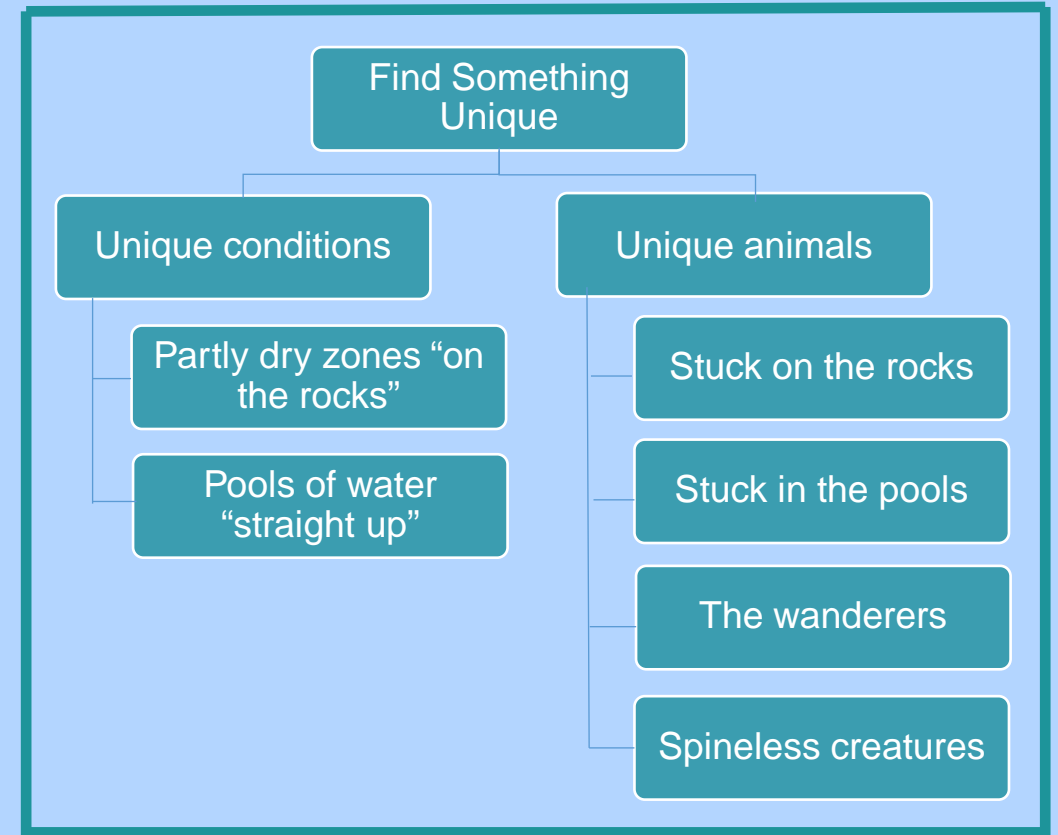


## Pre-visit: A **unique** adventure



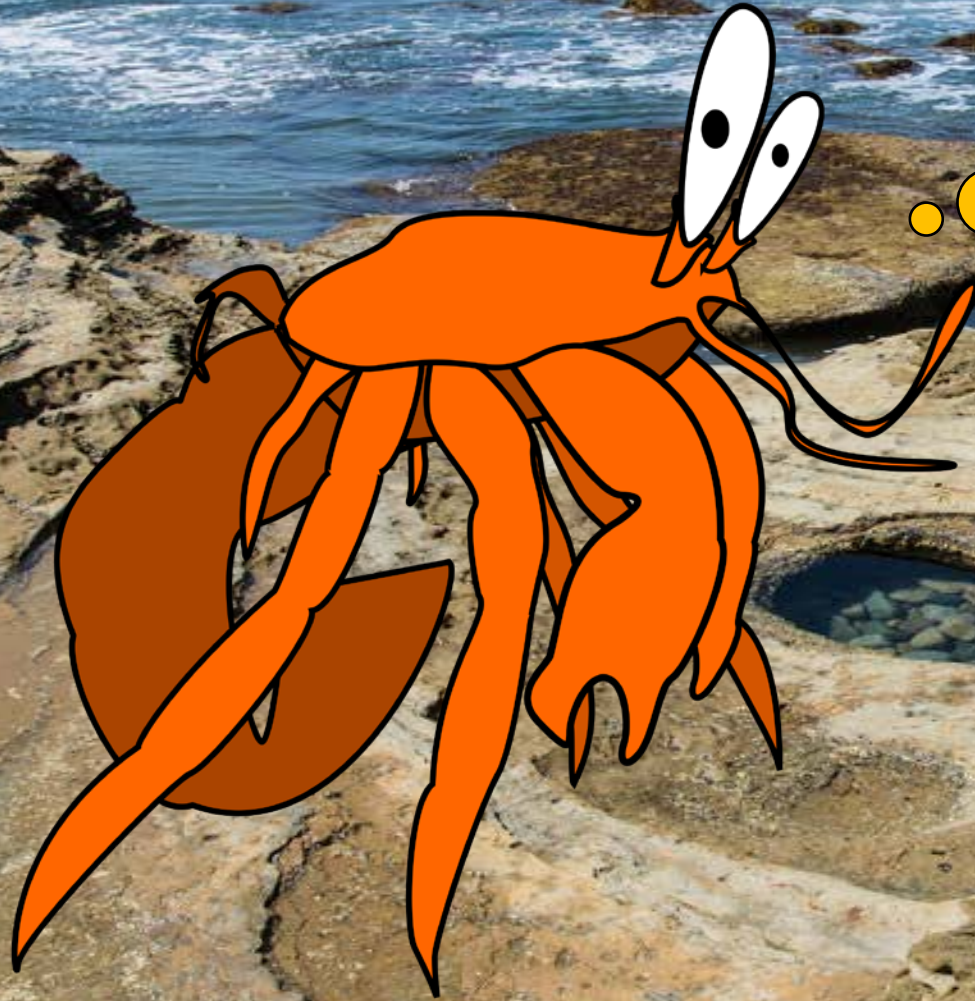
↑  
Click to enter Prototype

## Content Map



↑  
Click to enter Prototype





Hi! My name is Snappy!  
I'm going to help you  
**plan** your tide pool  
adventure. Let's get  
started!

Click to continue

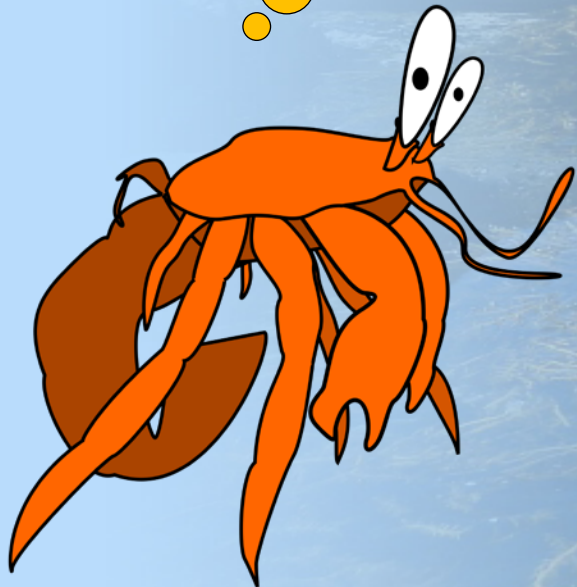




# WHERE ARE TIDE POOLS LOCATED?

Tide pools only occur at the edge of land where it meets the ocean at a rocky place.

Tide pools cannot be found at a sandy beach.



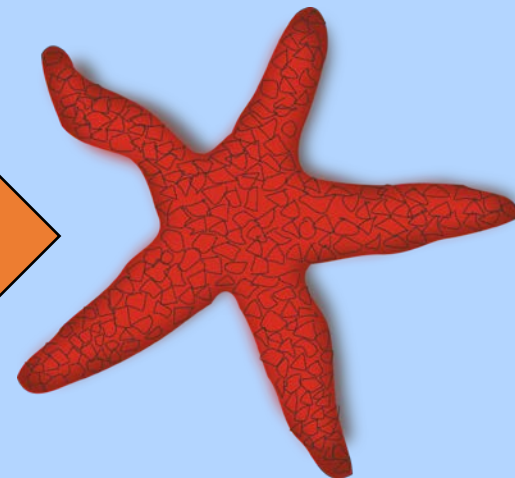


# The best tide pools in So-California for families are:

Click each name to learn more about the tide pools.

- [Leo Carrillo State Park](#)
- [Little Corona del Mar Beach](#)
- [Crystal Cove State Beach](#)
- [La Jolla Cove](#)
- [Cabrillo National Monument](#)

Click to continue





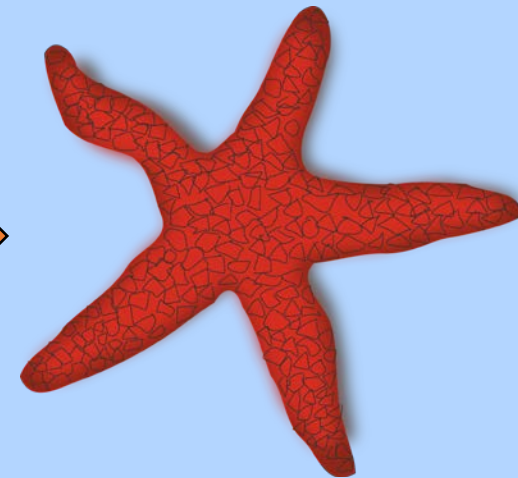


# The best tide pools in So-California for families are:



## **Cabrillo National Monument**

- Located at the southern tip of the Point Loma Peninsula in San Diego, California.
- Commemorates the landing of Juan Rodríguez Cabrillo at San Diego Bay on September 28, 1542.
- The southern end of Cabrillo is one of the best-protected and easily accessible rocky intertidal areas in southern California.







# The best tide pools in So-California for families are:



## La Jolla Cove

- San Diego's most desirable spot for kayaking, snorkeling and diving.
- Protected as part of a marine reserve; underwater it is very rich in marine life.
- The swells that roll in from the open ocean here can be large and strong, and may not be suitable for people who do not have good water skills.







# The best tide pools in So-California for families are:



## Crystal Cove State Beach

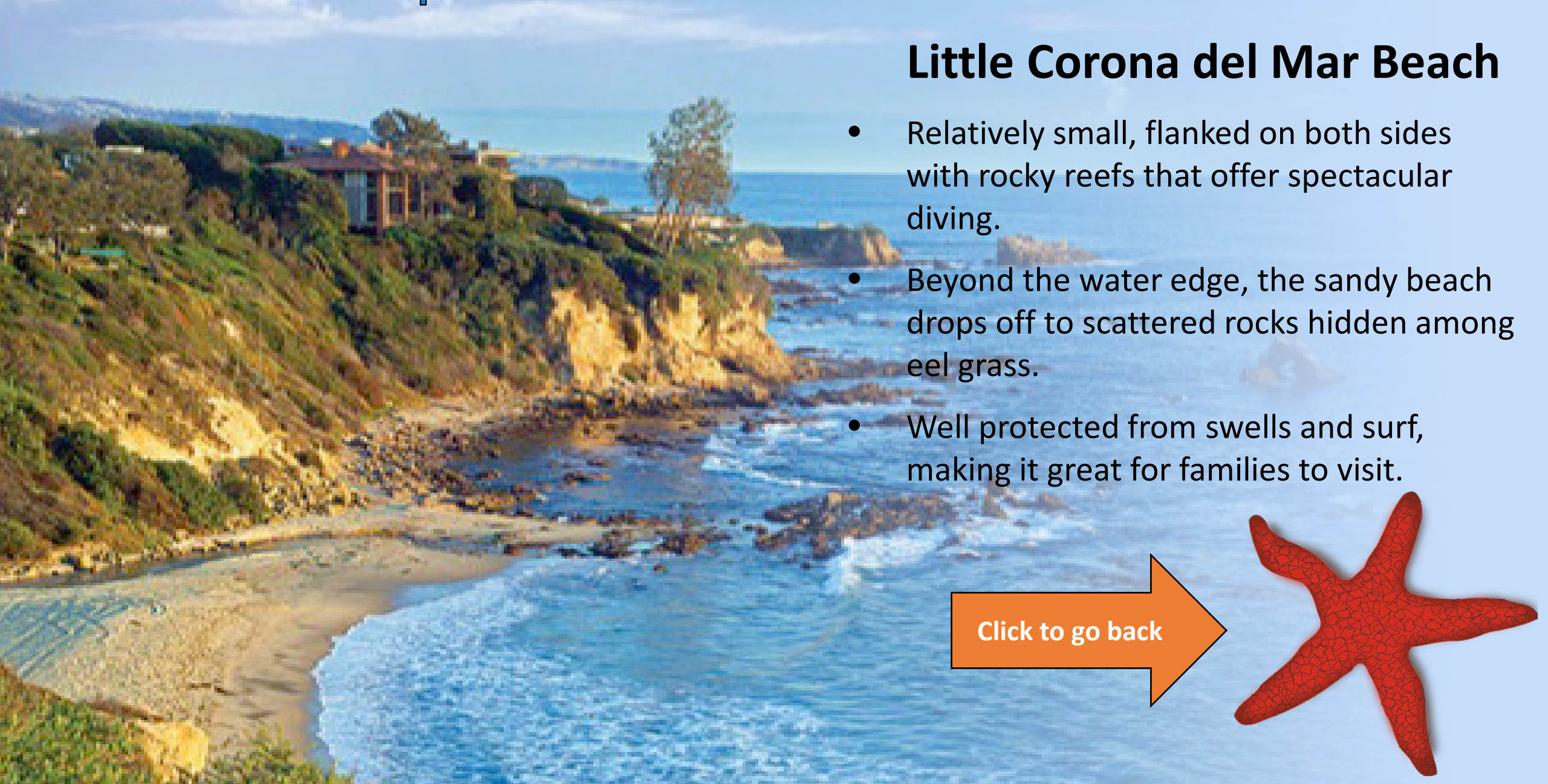
- Located off Pacific Coast Highway between Corona del Mar and Laguna Beach.
- Offers 3.5 miles of coastline in its natural state.
- The 3,936-acre park was established in 1979.





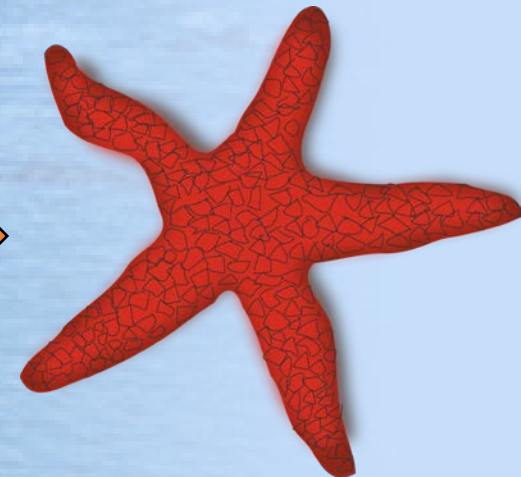


# The best tide pools in So-California for families are:



## Little Corona del Mar Beach

- Relatively small, flanked on both sides with rocky reefs that offer spectacular diving.
- Beyond the water edge, the sandy beach drops off to scattered rocks hidden among eel grass.
- Well protected from swells and surf, making it great for families to visit.



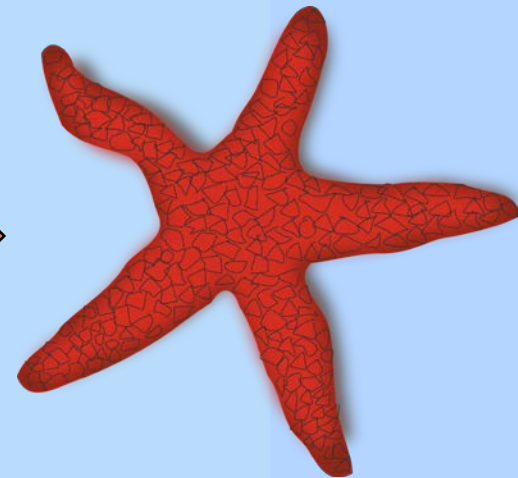


# The best tide pools in So-California for families are:



## Leo Carrillo State Park

- The park was named after Leo Carrillo, actor, preservationist and conservationist.
- A component of Santa Monica Mountains National Recreation Area.
- Beach has tidepools, coastal caves and reefs for exploring.

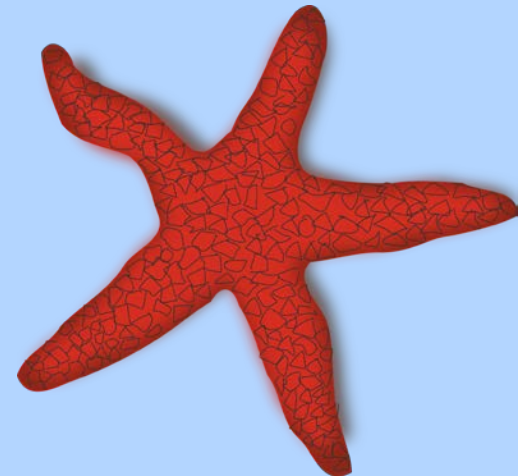




# WHAT CAUSES TIDES?



**The Moon (and Sun's) gravity pull on the Earth's oceans. This causes the ocean levels to rise and fall twice a day.**



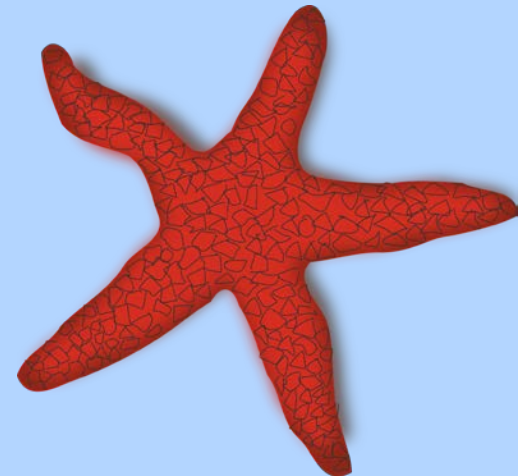
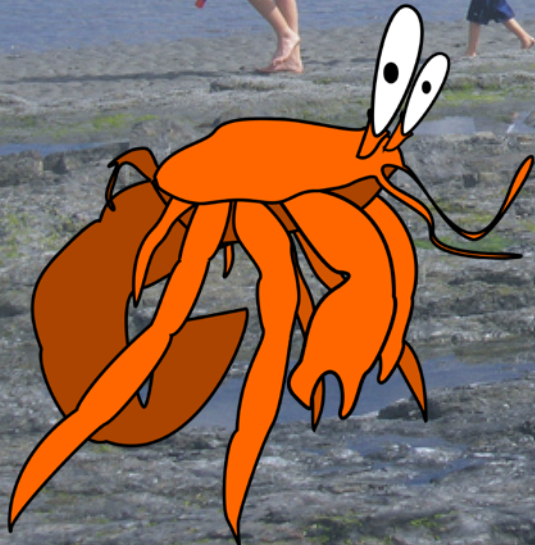


# WHEN IS THE BEST TIME TO VISIT?




**During low tide, when the tide is receding...from two hours before through two hours after.**

**Don't come if the low-tide is higher than one foot...The tide pools will be underwater!**





An underwater scene with a light blue background. On the left, there is a dense cluster of brown, branching coral. On the right, there is a large green seaweed plant with several broad leaves. The bottom of the scene is a light blue sandy seabed.

# QUIZ TIME!

Click this button  
to begin!

# QUESTION 1

[TRUE](#)

[FALSE](#)

Tide pools only occur at the edge of the land where it meets the ocean at a rocky place.

NOTE: The **TRUE** and **FALSE** buttons are active links.



# CORRECT!

Please click here to proceed  
to next question.

Wrong answer,  
but nice try!

Please click here to proceed  
to next question.

Tide pools **ONLY** occur at the edge of  
the land where it meets the ocean  
at a rocky place.



# QUESTION 2

[TRUE](#)

[FALSE](#)

Satellites are what cause the ocean levels to rise and fall twice a day.

NOTE: The **TRUE** and **FALSE** buttons are active links.

# CORRECT!

The Moon (and Sun's) gravity pull on the Earth's oceans. This causes the ocean levels to rise and fall twice a day.

Please click here to proceed to next question.



Wrong answer,  
but nice try!

Please click here to proceed  
to next question.

The Moon (and Sun's) gravity pull on  
the Earth's oceans. This causes the  
ocean levels to rise and fall twice a day.

# QUESTION 3

[TRUE](#)

[FALSE](#)

Tide pools can be found  
at a sandy beach.

NOTE: The **TRUE** and **FALSE** buttons are active links.



# CORRECT!

Tide pools only occur at the edge of the land where it meets the ocean at a rocky place.

Please click here to proceed to next question.

Wrong answer,  
but nice try!

Please click here to proceed  
to next question.

Tide pools only occur at the edge of the land  
where it meets the ocean at a rocky place.



# QUESTION 4

**Cabrillo National  
Monument**

**Leo Carrillo State  
Park**

**This tide pool is located at the most  
southern tip of California.**

NOTE: The “tide pool” buttons are active links.

# CORRECT!

Please click here to proceed  
to next question.



Wrong answer,  
but nice try!

Please click here to proceed  
to next question.

Cabrillo National Monument is the most  
southern tide pool in California.

# QUESTION 5

[La Jolla Cove](#)

[Crystal Cove  
State Beach](#)

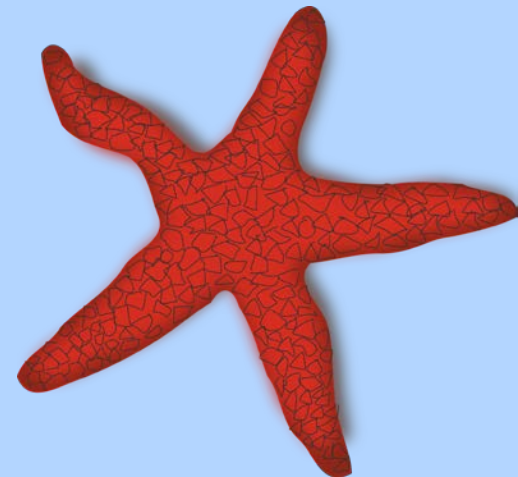
**This tide pool offers 3.5 miles of trail  
on its coastline.**

NOTE: The “tide pool” buttons are active links.



# CORRECT!

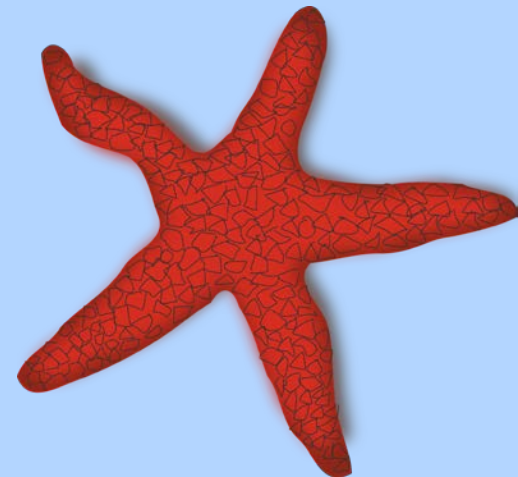
Congratulations!  
You've completed the quiz



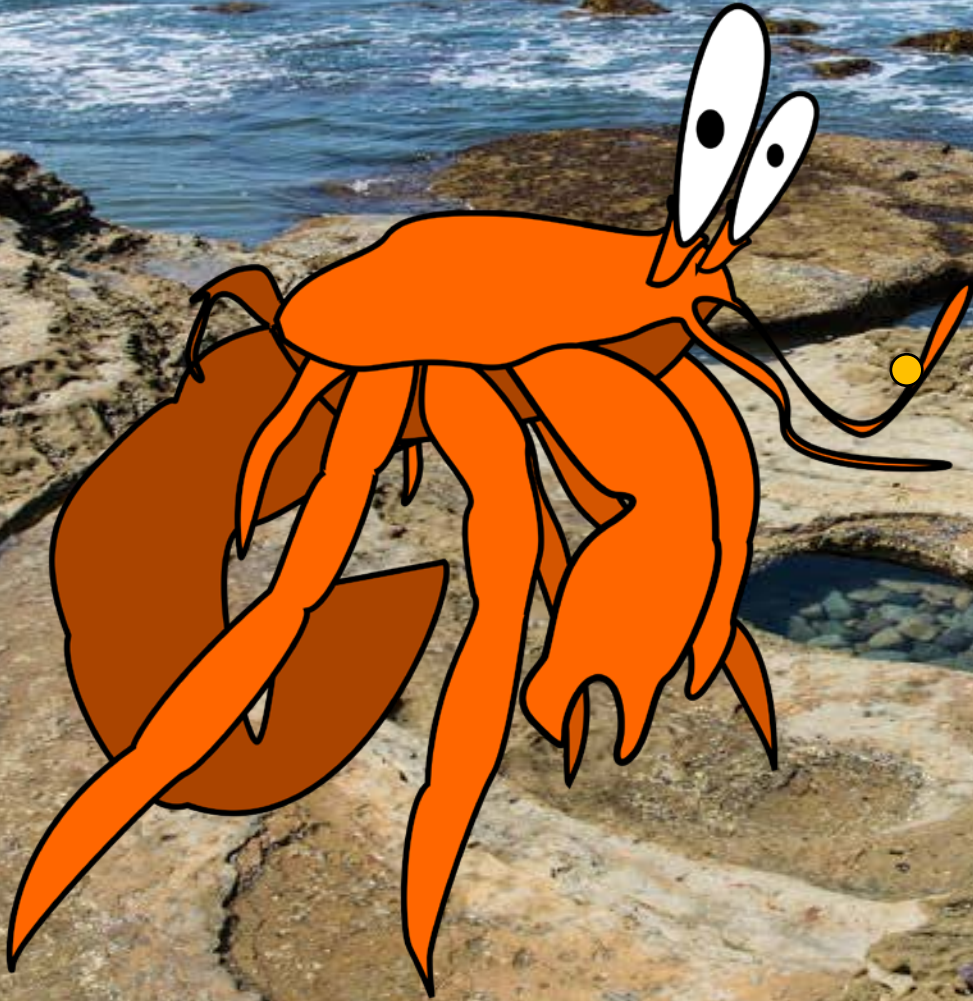
Wrong answer,  
but nice try!

Congratulations!  
You've completed the quiz

Crystal Cove State Beach offers  
3.5 miles of trail on its coastline.







Next, I'll show you what to **wear** and what to **bring** on your tide pool adventure.

Click to continue



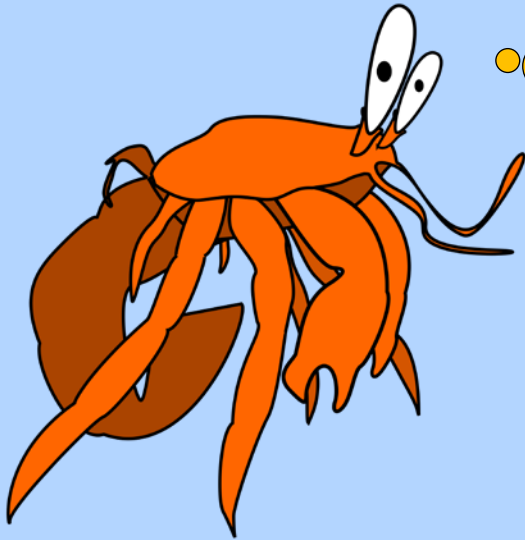


# WHAT SHOULD I WEAR?

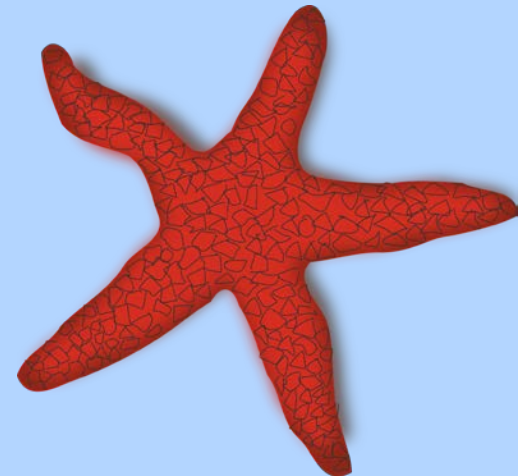
**Shoes with good gripping soles are best. Rocky areas are slippery.**



**Flip-flops or sandals without a heel-strap are not stable on the rocks.**



**Click to continue**



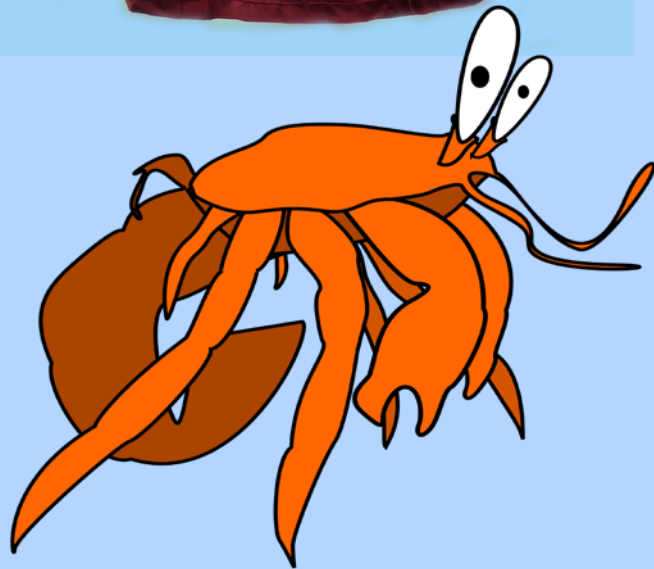
# WHAT SHOULD I WEAR?



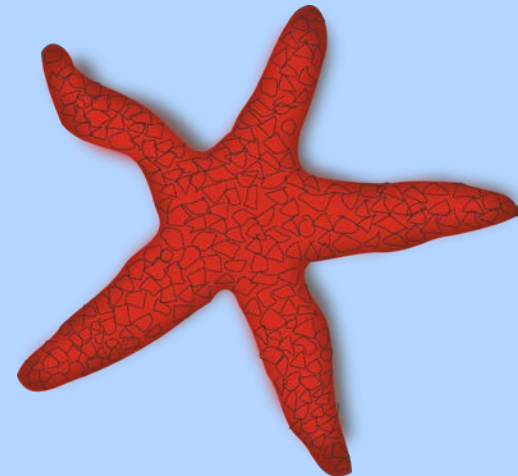
**A warm jacket  
or sweatshirt, as  
it is often cold  
at the coast.**



**Wear a bathing  
suit or shorts or  
roll up your pants.**



**Click to continue**



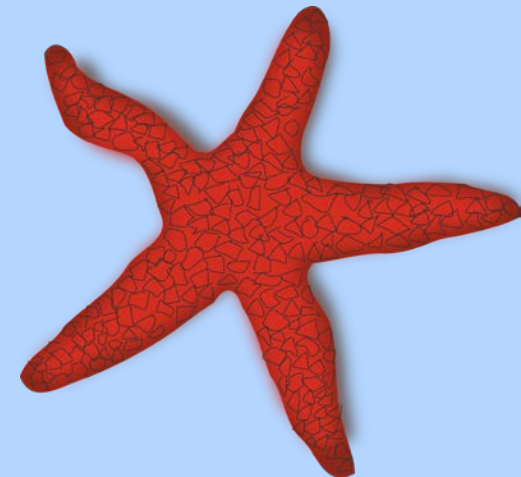
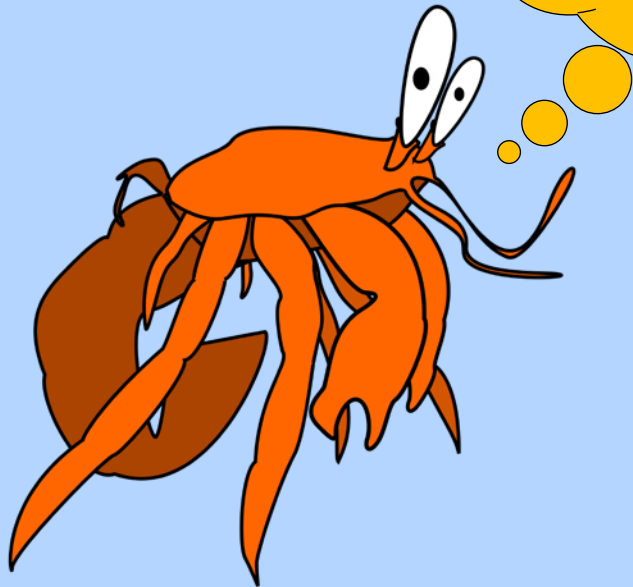


# WHAT SHOULD I BRING?




A zip-lock bag to protect stuff from water and sand.

Sunscreen and a hat will help protect from sunburn.





An underwater scene with a light blue background. On the left, there is a dense cluster of brown, branching coral. On the right, there is a large green plant with broad, pointed leaves. The bottom of the scene is a light blue sandy floor.

# QUIZ TIME!

Click this button  
to begin!

# QUESTION 6



Which footwear is ideal when exploring a tide pool?

NOTE: The **images** are active links.



# CORRECT!



Please click here  
to proceed to  
next question.

Flip-flops and other sandals without a heel-strap are not as stable when maneuvering among the rocks, and are not recommended.



# Wrong answer, but nice try!



Please click here  
to proceed to  
next question.

Flip-flops and other sandals without a heel-strap are not as stable when maneuvering among the rocks, and are not recommended.

# QUESTION 7



It's a warm day at your house in the valley,  
what should you bring to the tide pools?

NOTE: The **images** are active links.

# CORRECT!



Please click here  
to proceed to  
next question.

However, a sun hat is also correct. The hat can protect you from the sun's rays.





# CORRECT!



Please click here  
to proceed to  
next question.

However, a warm jacket is also correct. A jacket will keep you warm as it is often cold at the coast even if it is warm inland.



# QUESTION 8



Which of these will protect your personal belongings from water and sand?

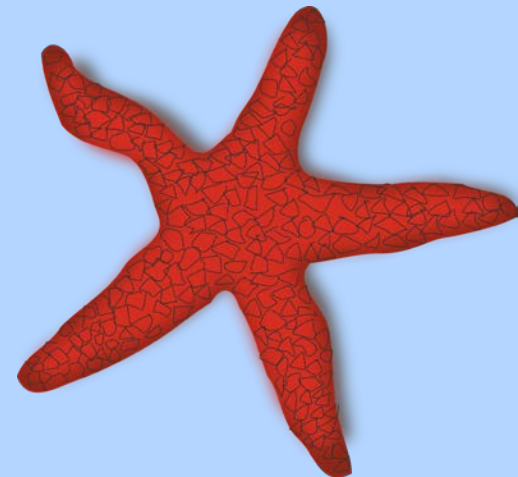
NOTE: The **images** are active links.

# CORRECT!



A zip lock bag will protect  
your personal belongings

Click to continue



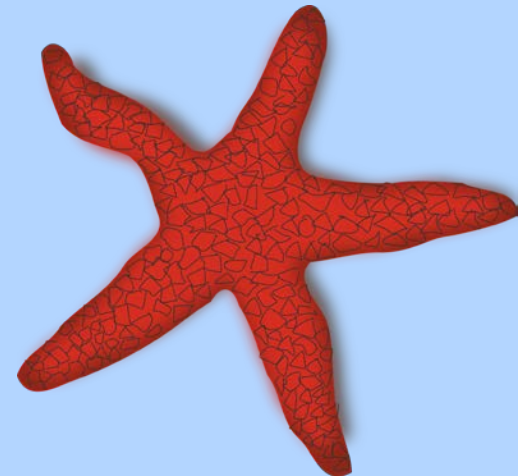


# Wrong answer, but nice try!




A zip lock bag will protect  
your personal belongings

Click to continue





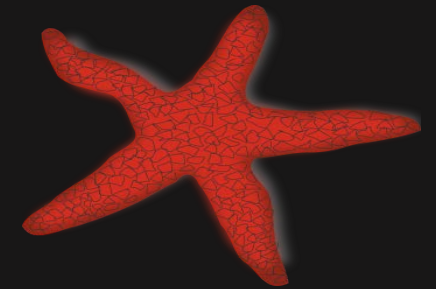
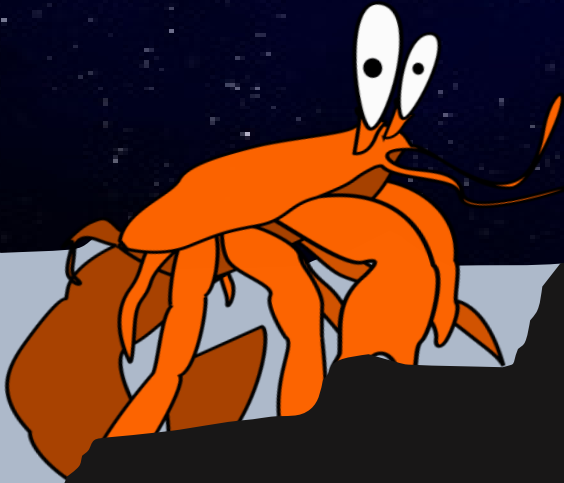


Hi! Select a **unique** tide pool adventure below, and I'll give you a personal tour!

**Unique Conditions**

**Unique Animals**

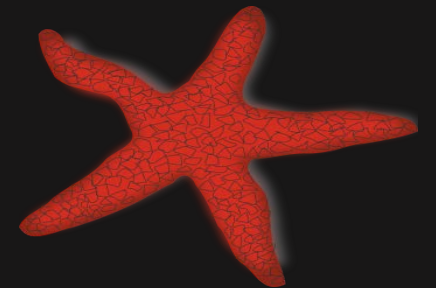
**Hi Snappy here! Tides make  
conditions Unique.**



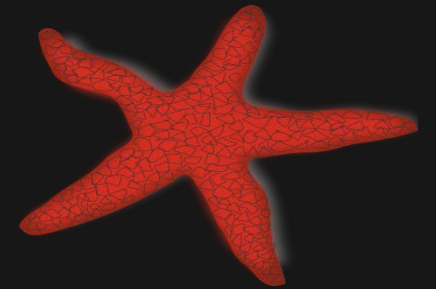
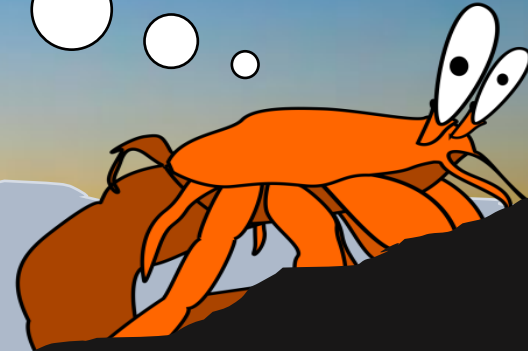


UNIQUE CONDITIONS – twice a day the tide rises and falls

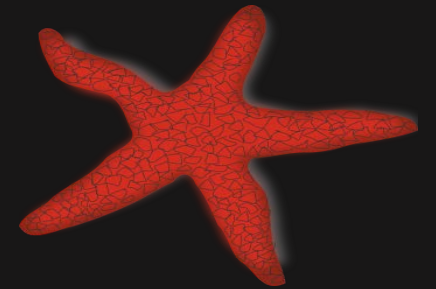
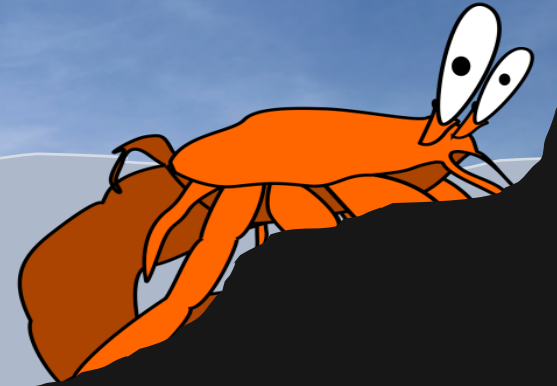
Hi Snappy here! Tides make  
conditions Unique.



**Tides rise and fall twice a day.**

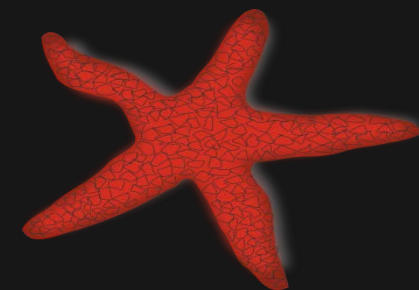
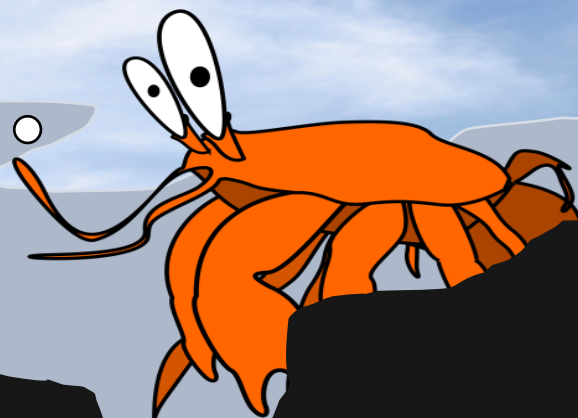


**Tides rise and fall twice a day.**

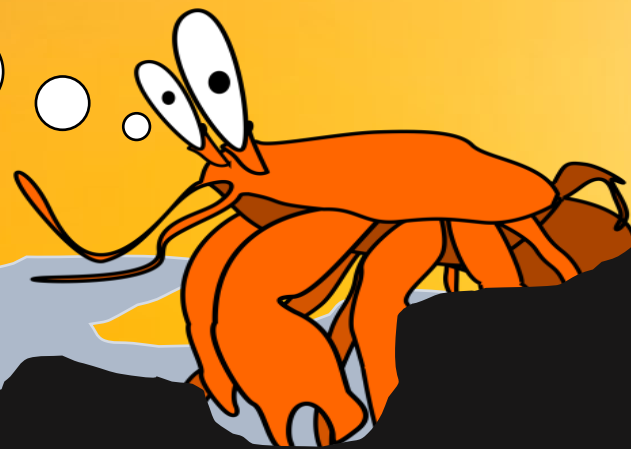




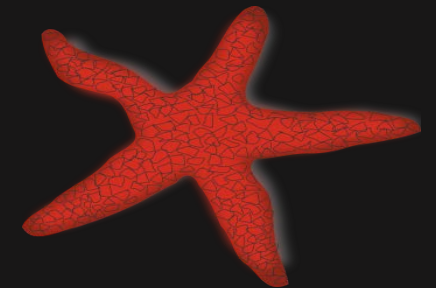
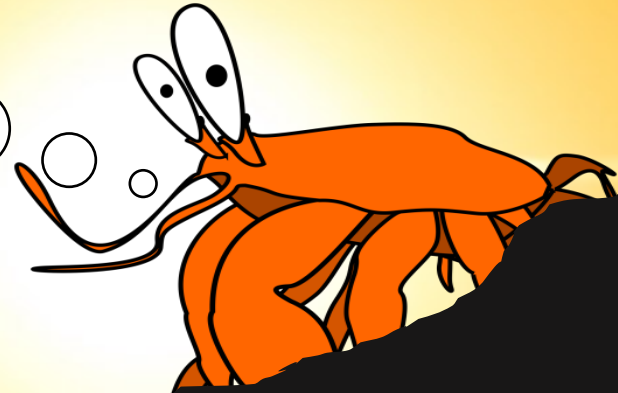
**Low tides are most  
unique.**



**Low tides are most  
unique.**



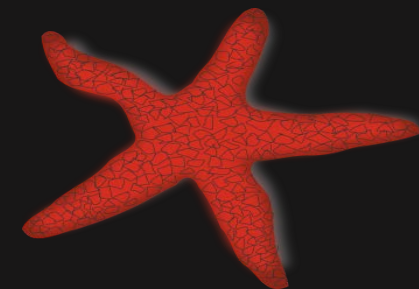
**Low Tides expose area of  
rock.**



**INTERTIDAL ZONE – BETWEEN LOW AND HIGH TIDES**

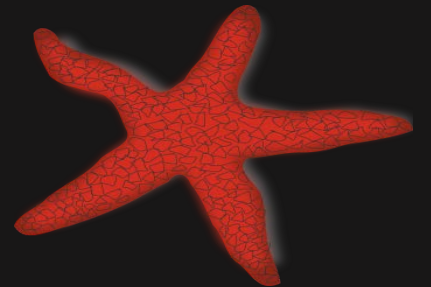
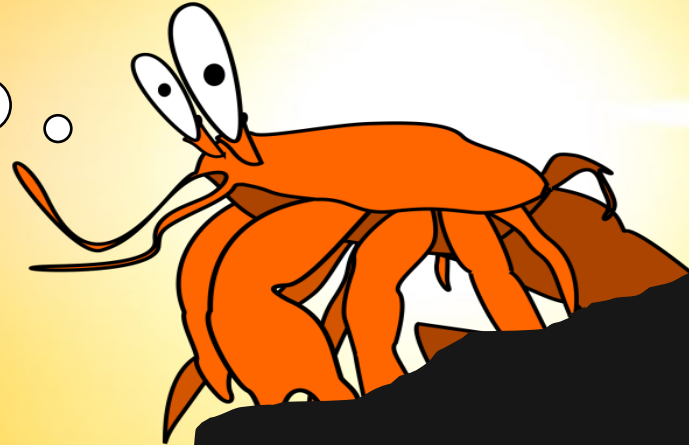


...and trap water in pools.

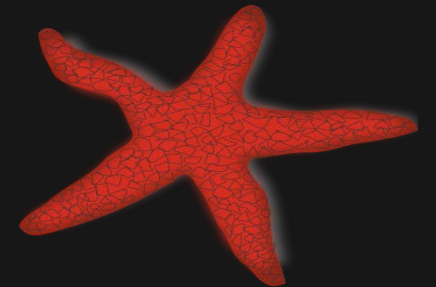


INTERTIDAL ZONE – BETWEEN LOW AND HIGH TIDES

**Click on the sea star to  
continue.**

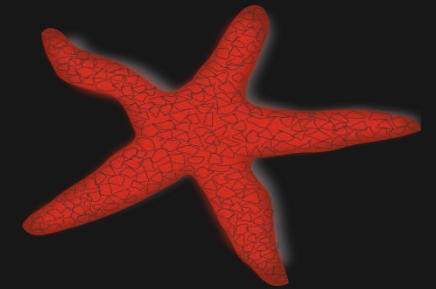
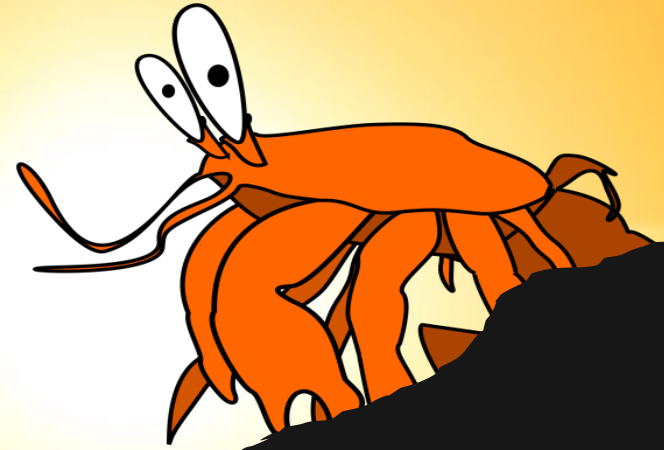


I like it here because  
there is plenty to eat.

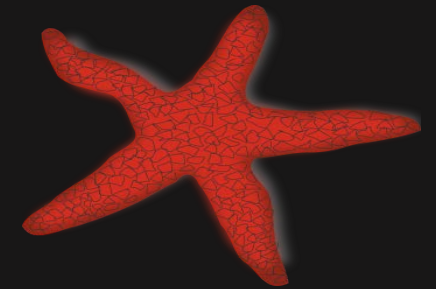
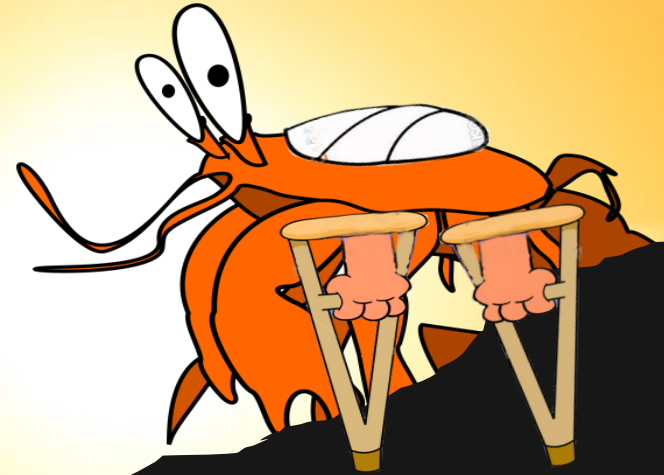





**And the waves put lots of oxygen into the water for me to breathe.**



**...but ocean waves can be  
brutal, so watch out!**

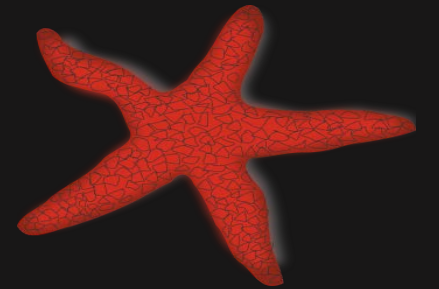
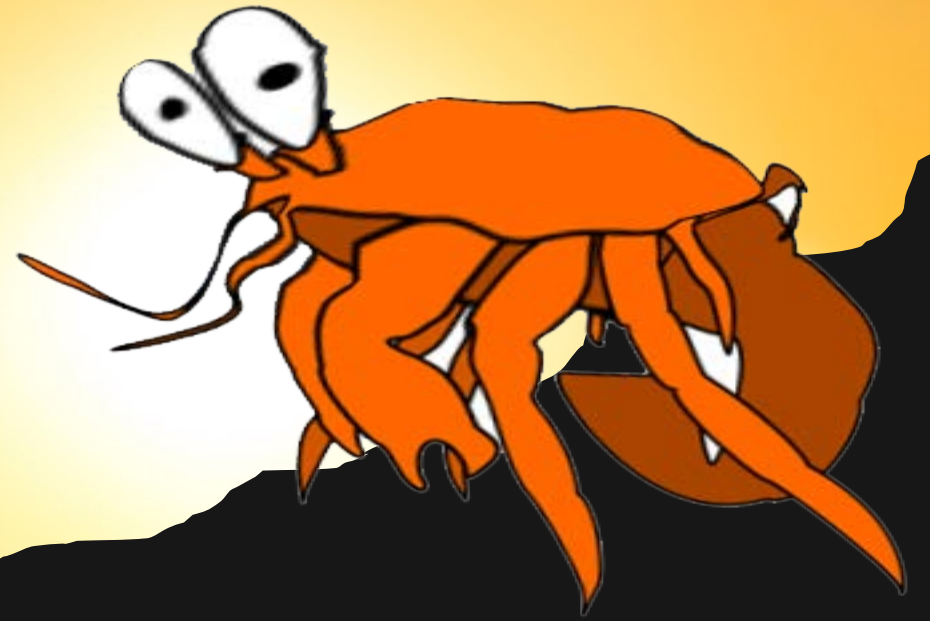


A cartoon illustration of an orange crab with large white eyes and long antennae, standing on a dark, jagged rock. The crab is looking towards the right. Above it is a large white thought bubble with a black outline, containing the text "I can breathe in the water, but...". The background is a bright yellow and orange gradient, suggesting a sunset or sunrise. To the right, a red starfish is visible on the dark rock. The overall style is simple and colorful.

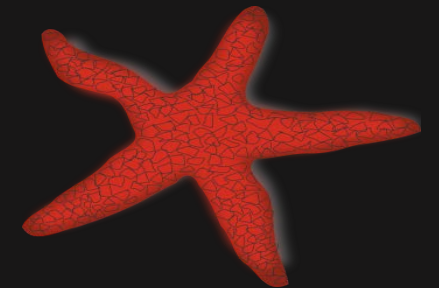
**I can breathe in the  
water, but...**



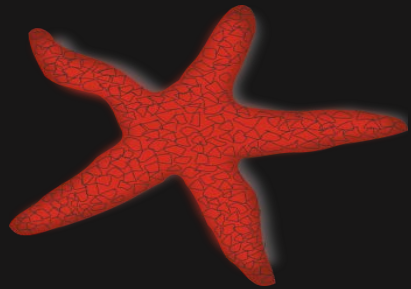
**...up on the rocks I have  
to hold my breath.**



**Up on the rocks, I get hot  
and dried out.**

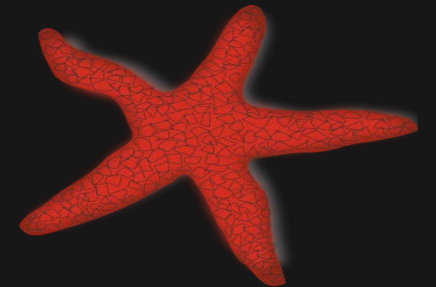


**...and it's easier for  
predators to catch me!**

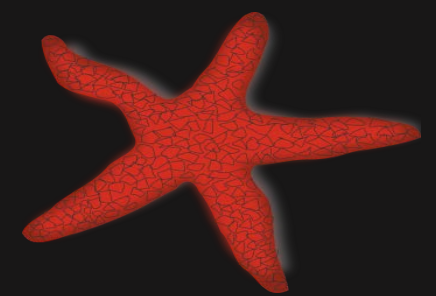




**The Pools are not so hot  
& dry, and I can breathe!**



**But predators can get me here, too! See ya later.**



# CHOOSE THE UNIQUE CONDITIONS NEEDED TO FORM A TIDEPOOL.





# CHOOSE THE UNIQUE CONDITIONS NEEDED TO FORM A TIDEPOOL?



**Rocky Shore.  
That's Right!**





# CHOOSE THE UNIQUE CONDITIONS NEEDED TO FORM A TIDEPOOL?



**Sandy Beach.**

**No, water can not pool.**



# CHOOSE THE UNIQUE CONDITIONS NEEDED TO FORM A TIDEPOOL?



**High Tide. That's Right!**





# CHOOSE THE UNIQUE CONDITIONS NEEDED TO FORM A TIDEPOOL?

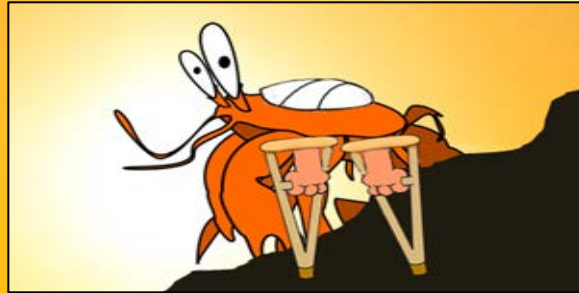
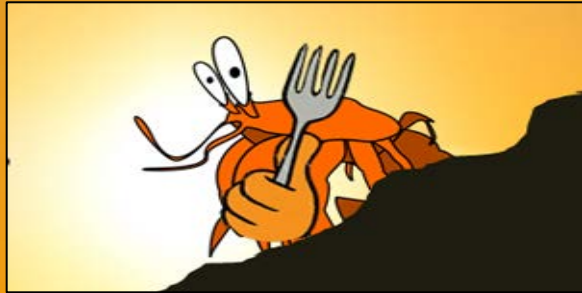


**Low Tide. That's Right!**

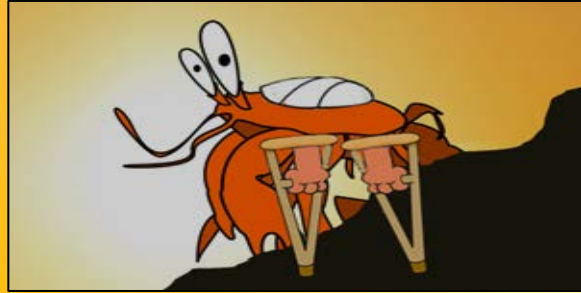
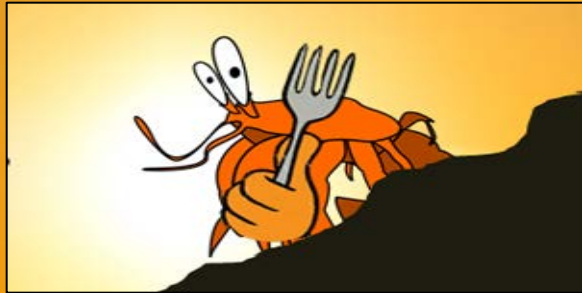




# CHOOSE THE UNIQUE CONDITIONS THAT ARE FOUND AT THE TIDEPOOL.



# CHOOSE THE UNIQUE CONDITIONS THAT ARE FOUND AT THE TIDEPOOL.

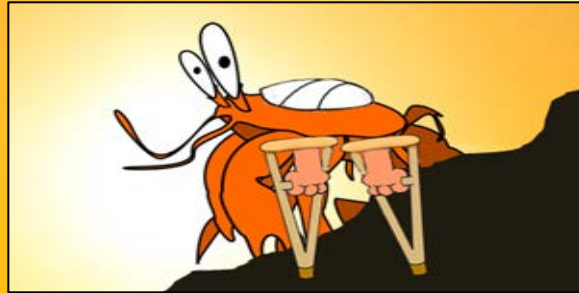
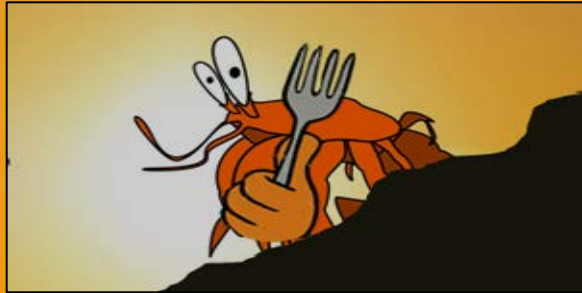


There's plenty to eat.





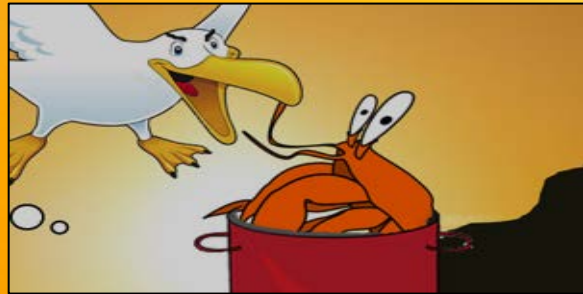
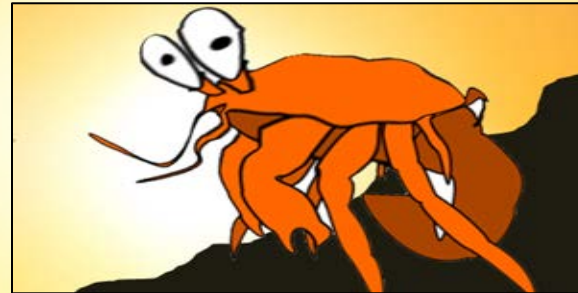
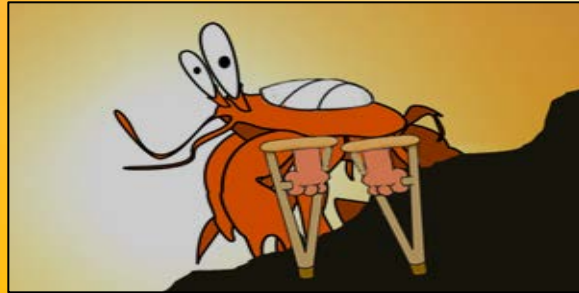
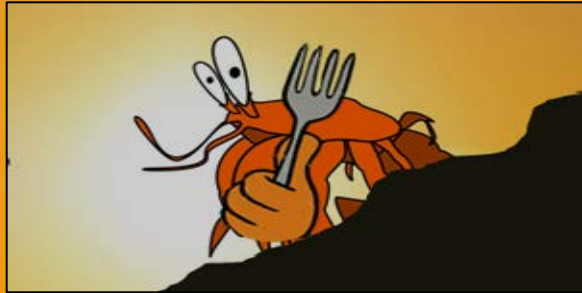
# CHOOSE THE UNIQUE CONDITIONS THAT ARE FOUND AT THE TIDEPOOL.



The pounding surf is rough, but the waves also churn oxygen into the water.

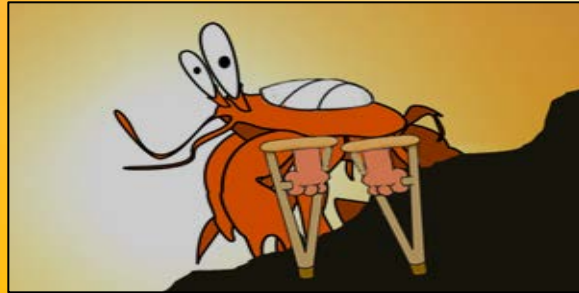
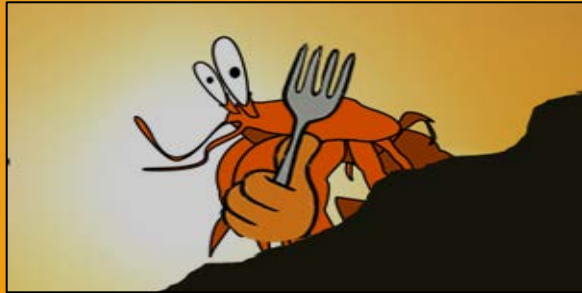


# CHOOSE THE UNIQUE CONDITIONS THAT ARE FOUND AT THE TIDEPOOL.



Air – Sea animals can't breathe it.

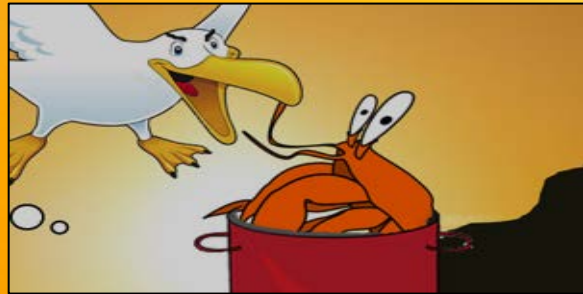
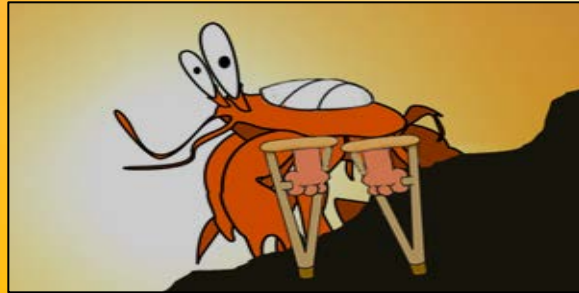
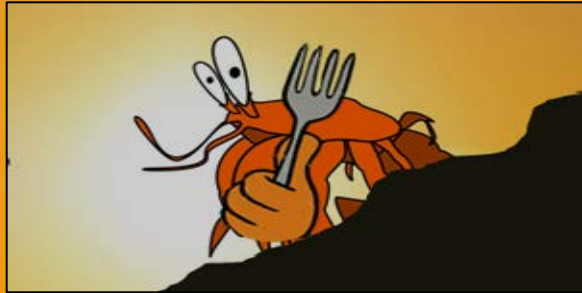
# CHOOSE THE UNIQUE CONDITIONS THAT ARE FOUND AT THE TIDEPOOL.



Exposed to predators.



# CHOOSE THE UNIQUE CONDITIONS THAT ARE FOUND AT THE TIDEPOOL.



It's hot and dry up on the rocks.



Tide pool animals are **unique** and well adapted...Which ones would you like to see?

Animals that live on Rocks

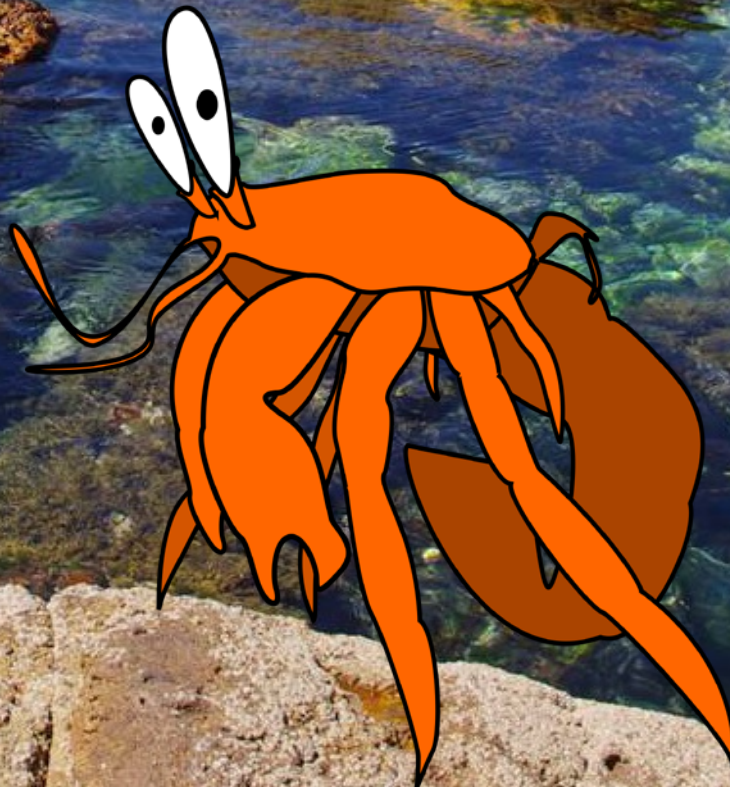
Active Link

Animals that live in Pools

Active Link

The Wanderers

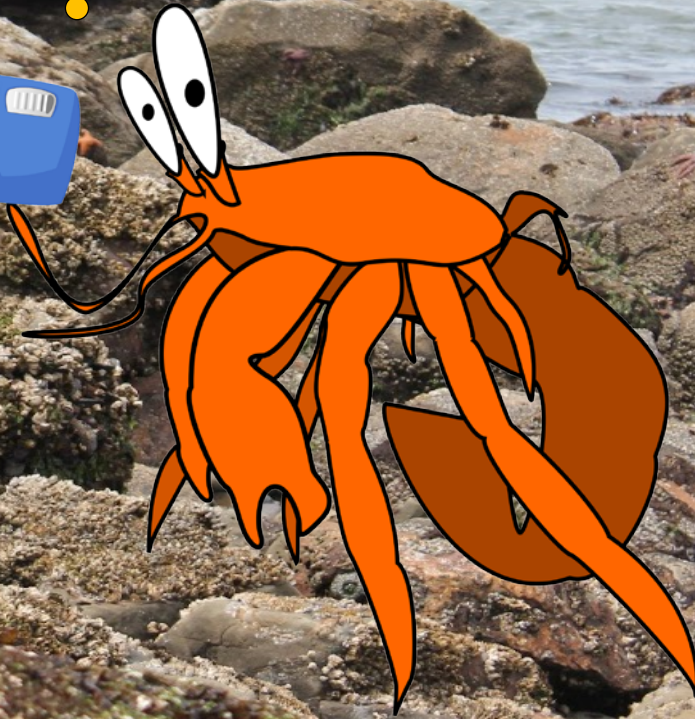
Spineless Creatures





**Great! I brought  
my camera so we  
can “snap” some  
photos.**

**Click any rock  
and let’s take  
a closer look!**







**Barnacles**



**Chitons**



**Limpets**



**Mussels**

**Some animals attach themselves to the rocks and hold on tight.**

**They close their shells to trap a bit of the sea and hide from predators**

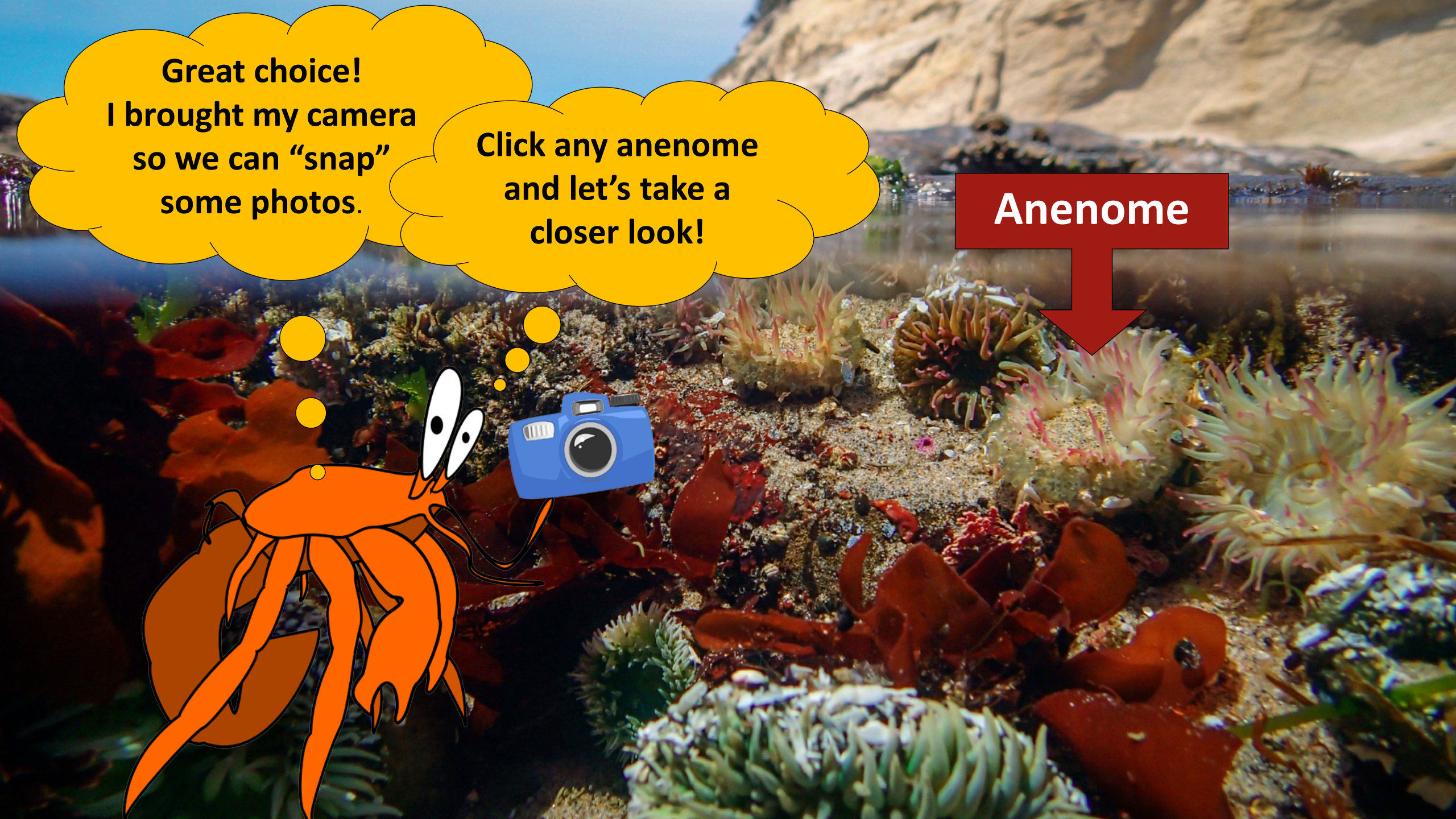




**Great choice!  
I brought my camera  
so we can “snap”  
some photos.**

**Click any anenome  
and let’s take a  
closer look!**

**Anenome**





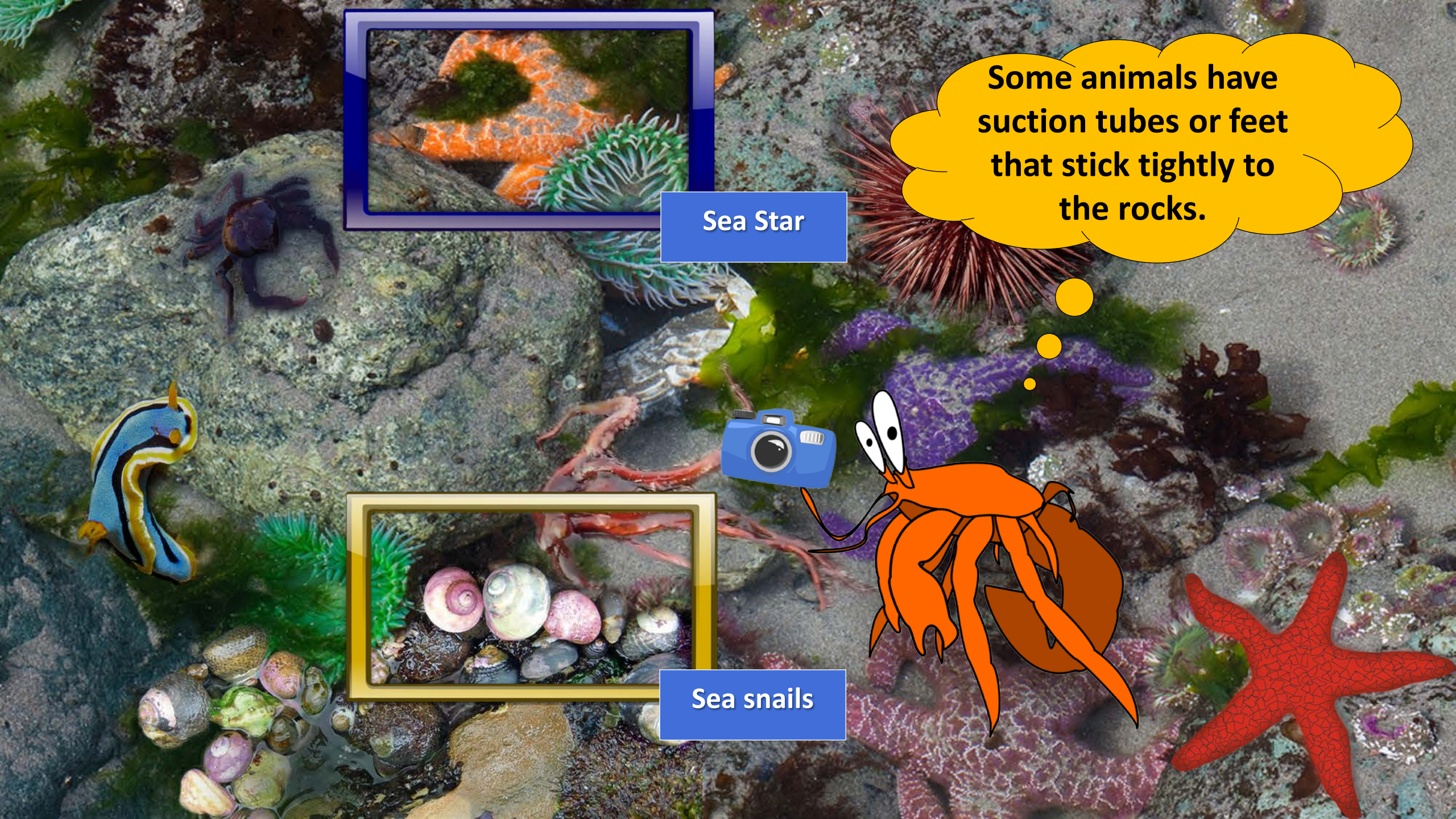


Sea Star

Some animals have suction tubes or feet that stick tightly to the rocks.



Sea snails





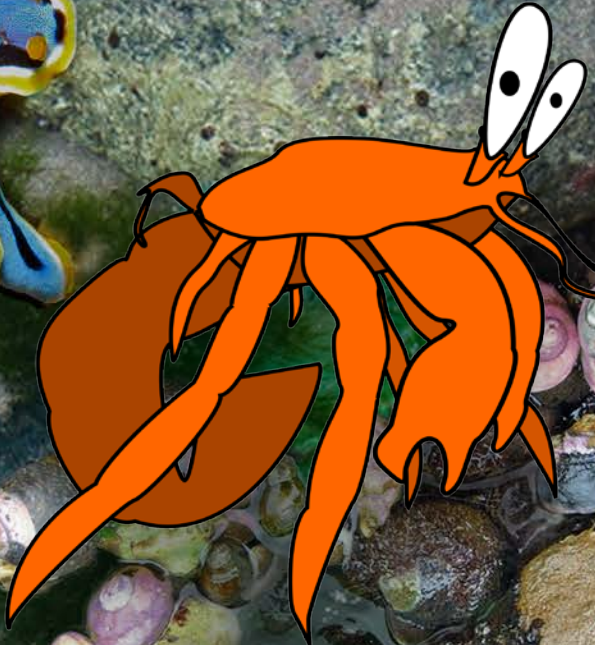


**Crab**



**Sea Urchin**

**Some also have hard and/or spiny shells to protect them from predators**





Others have soft bodies and hide in nooks and crannies.

Click the crab to continue



Nudibranch

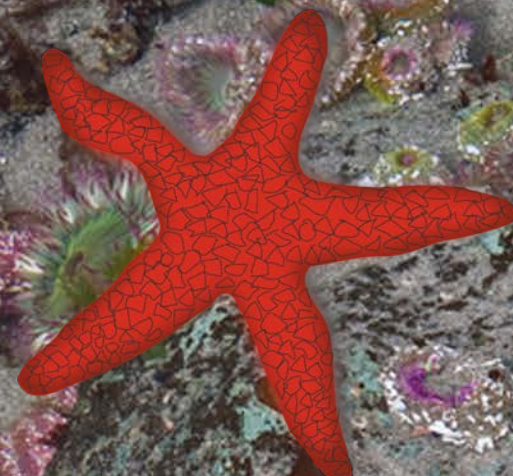
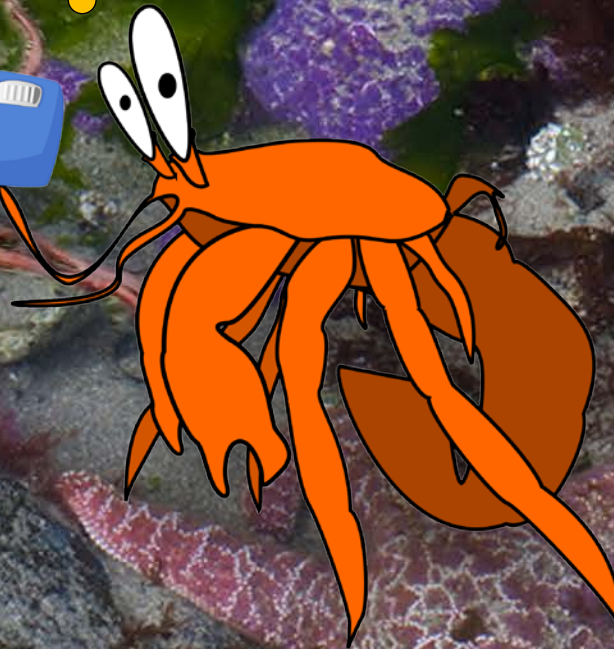


Octopus





**And...one animal can  
wander anywhere in  
the tide pool zone, can  
you guess which one?**





**That's right! It's me!  
I'm a crab and I can  
wander anywhere I  
please!**

**It's time for  
a selfie!**

**Click the crab  
to continue**





# CHOOSE THE ANIMALS THAT HAVE SUCTION TUBES OR FEET TO STICK TO ROCKS





# CHOOSE THE ANIMALS THAT HAVE SUCTION TUBES OR FEET TO STICK TO ROCKS



**Sea star**  
**That's right!**





# CHOOSE THE ANIMALS THAT HAVE SUCTION TUBES OR FEET TO STICK TO ROCKS



Crab

That's not right





# CHOOSE THE ANIMALS THAT HAVE SUCTION TUBES OR FEET TO STICK TO ROCKS



**Sea snails  
That's right!**





# CHOOSE THE ANIMALS THAT HAVE HARD OR SPINY SHELLS TO PROTECT THEM FROM PREDATORS





# CHOOSE THE ANIMALS THAT HAVE HARD OR SPINY SHELLS TO PROTECT THEM FROM PREDATORS



**Urchin**  
**That's Right!**





# CHOOSE THE ANIMALS THAT HAVE HARD OR SPINY SHELLS TO PROTECT THEM FROM PREDATORS



**Nudibranch**  
**That's not right**





# CHOOSE THE ANIMALS THAT HAVE HARD OR SPINY SHELLS TO PROTECT THEM FROM PREDATORS



**Crab**  
**That's right!**





# CHOOSE THE ANIMALS THAT CLOSE THEIR SHELLS TO TRAP A BIT OF THE SEA





# CHOOSE THE ANIMALS THAT CLOSE THEIR SHELLS TO TRAP A BIT OF THE SEA



**Barnacles**  
**That's Right!**





# CHOOSE THE ANIMALS THAT CLOSE THEIR SHELLS TO TRAP A BIT OF THE SEA



**Mussels**  
**That's Right!**





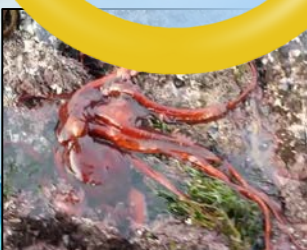
# CHOOSE THE ANIMALS THAT CLOSE THEIR SHELLS TO TRAP A BIT OF THE SEA



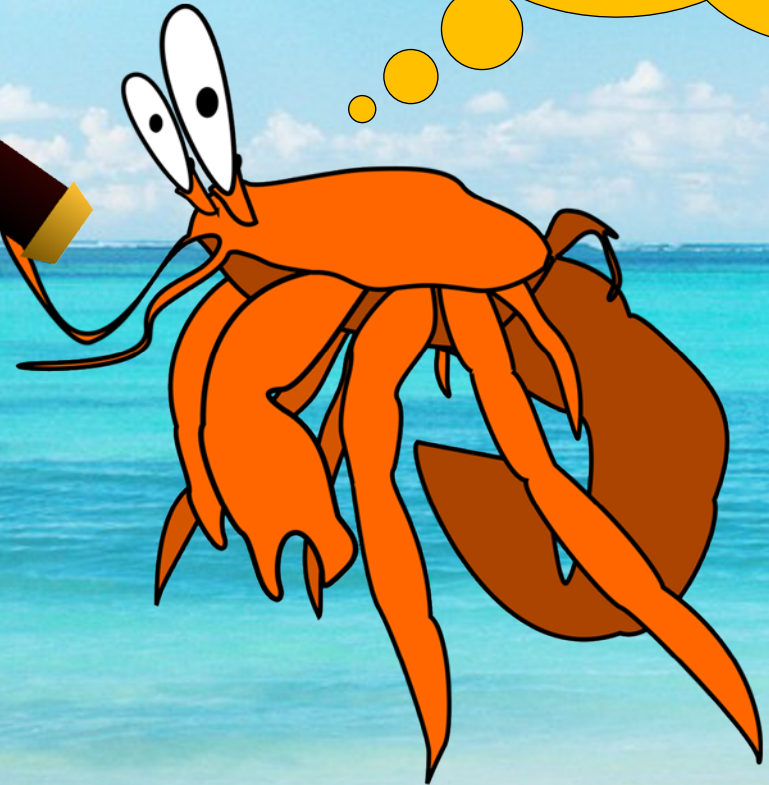
**Octopus**  
**That's not right**







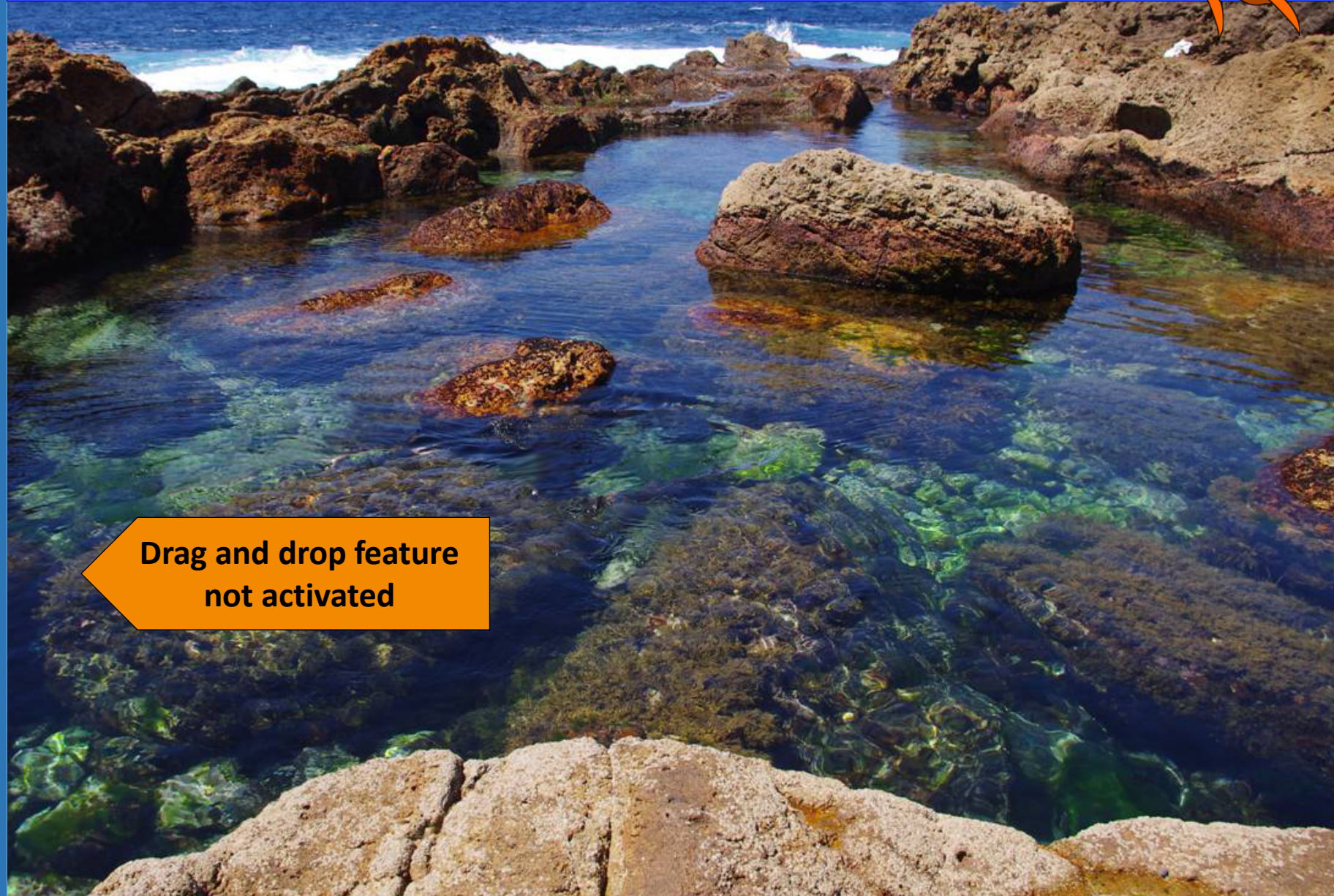
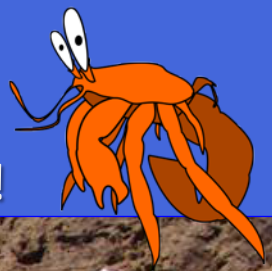
**Wow! You took some really great photos! Click the starfish and let's play a fun game!**





# Snappy's Tide Pool Adventure

Drag the photo of each animal to the place where they live:  
On the rocks or in the pools. Score points for each one you get right!



Drag and drop feature  
not activated