Observe the rocky shore and ocean at low tide. Can you find any **patterns**?

Video link: [https://photos.app.goo.gl/YhZJtJGqvkopRI7](https://photos.app.goo.gl/YhZJtJGqvkopRI7)
Where on the rocky shore do you think each close-up picture was taken? Explain how you decided.
Bare rock = white

Periwinkle snails = black

Mussels = black

Barnacles = white, pink

Red algae = red-brown

Rockweed = yellow-green

Sea grass = green

Feather boa kelp = brown
Now that we’ve found some patterns, what does that make *you* wonder?

Scientists wonder…

1. Which animals and plants make a home in the high, middle, and low parts of the rocky shore and tidepools.

2. Why do they live in patterns on those parts instead of all over?

3. What do these different animals and plants need to survive?

4. How do tidepool animals and plants work together?
Observe the rocky shore at two different times of the day.

- April 9, afternoon (video clip)  
  [https://photos.app.goo.gl/ihSj2mXpbASZGXw8](https://photos.app.goo.gl/ihSj2mXpbASZGXw8)
- April 10, morning (video clip)  
  [https://photos.app.goo.gl/DeiKGnDLznNJKV2z7](https://photos.app.goo.gl/DeiKGnDLznNJKV2z7)

What differences do you notice?

April 9 afternoon at 5:30 p.m.  
April 10 - morning at 8:30 a.m.

Which picture shows high tide? Low tide? How can you tell?

How might the tides affect animals and plants living on the shore?
Why might some of these animals and plants live closer to the ocean?

How might some be able to live farther from the seawater? Video link: https://photos.app.goo.gl/YhZJTJGqvkopRiH7
Can you find patterns from high to low (top to bottom)?

High

Mussels

Barnacles

Middle

Ochre star

Low

Sea anemone
Can you **find patterns** from **high** to **low**?

- **High**

- **Middle**

- **Low**
Can you **find patterns** from **high to low**?

**High**

**Middle**

**Low**
1. Are there many mussels below the ochre star?

2. What might be an explanation for that?
Look closer for evidence.

- What might these ochre stars be doing to the mussels?
- What do you see that makes you think that?
Does this evidence support any of our ideas?
What keeps the mussels from living lower?

If people collected the ochre stars, what would happen to...

1. the ochre stars?
2. the mussels?
3. the sea anemones and other animals that live lower down?
Why might sea anemones live lower than the mussels live?
Do sea anemones have shells to keep from drying up at low tide?

If a crashing wave knocks a mussel off, why would it be better for the anemone to live below the mussels?

Watch this video clip to see what could happen. https://photos.qpp.goo.gl/QZ9kNzVnpsYhMied9