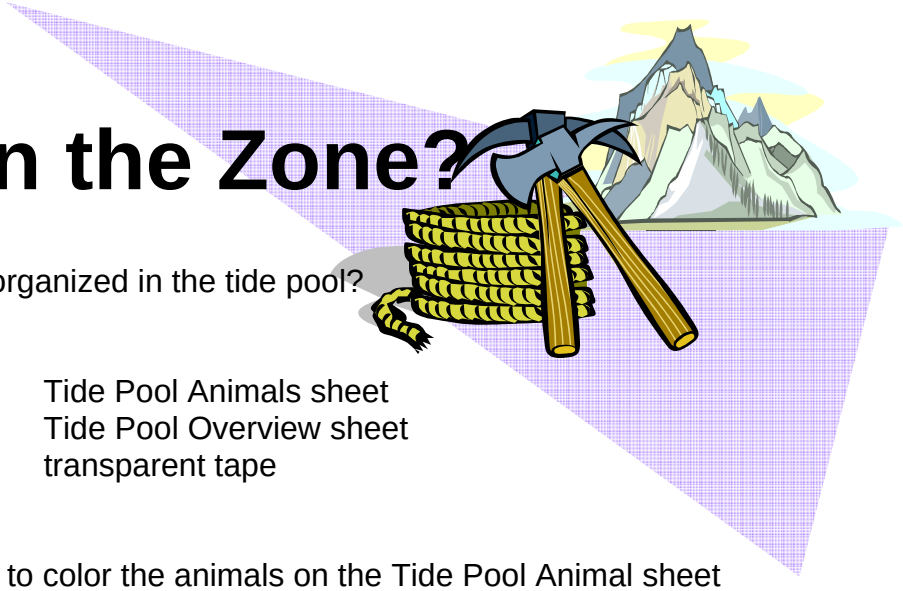
ES – Activity #18

R U in the Zone?



QUESTION: How are animals organized in the tide pool?

MATERIALS:

colored pencils	Tide Pool Animals sheet
construction paper	Tide Pool Overview sheet
scissors	transparent tape

PROCEDURE:

1. Use the colored pencils to color the animals on the Tide Pool Animal sheet provided. Use books and the internet to find out the colors of the animals.
2. When you finish coloring, use the scissors to cut out the pictures of the animals.
3. Next, draw 4 evenly-spaced lines across the construction paper. Position the construction paper with the lines so that they run horizontally (the paper should be positioned vertically lengthwise). Label the top section “Zone 1", label the next section down “Zone 2,” label the third section down “Zone 3," and the bottom section “Zone 4.
4. Construct a tide pool zonation model by gluing the pictures of the animals in the tide zone where they belong. Use the Tide Pool Overview sheet for reference.
5. Add art work to decorate your tide pool model to make it look as realistic as possible.

DATA: Your model is your data

QUESTIONS:

1. What are the tide zones?

2. What causes the tides?

3. What is the most important factor that determines the tide zone where an animal is found in the tide pool?

4. What other factors affect animals that live in the tide pools?

5. What is the importance of the tide pool?

6. What is good tide pool etiquette?

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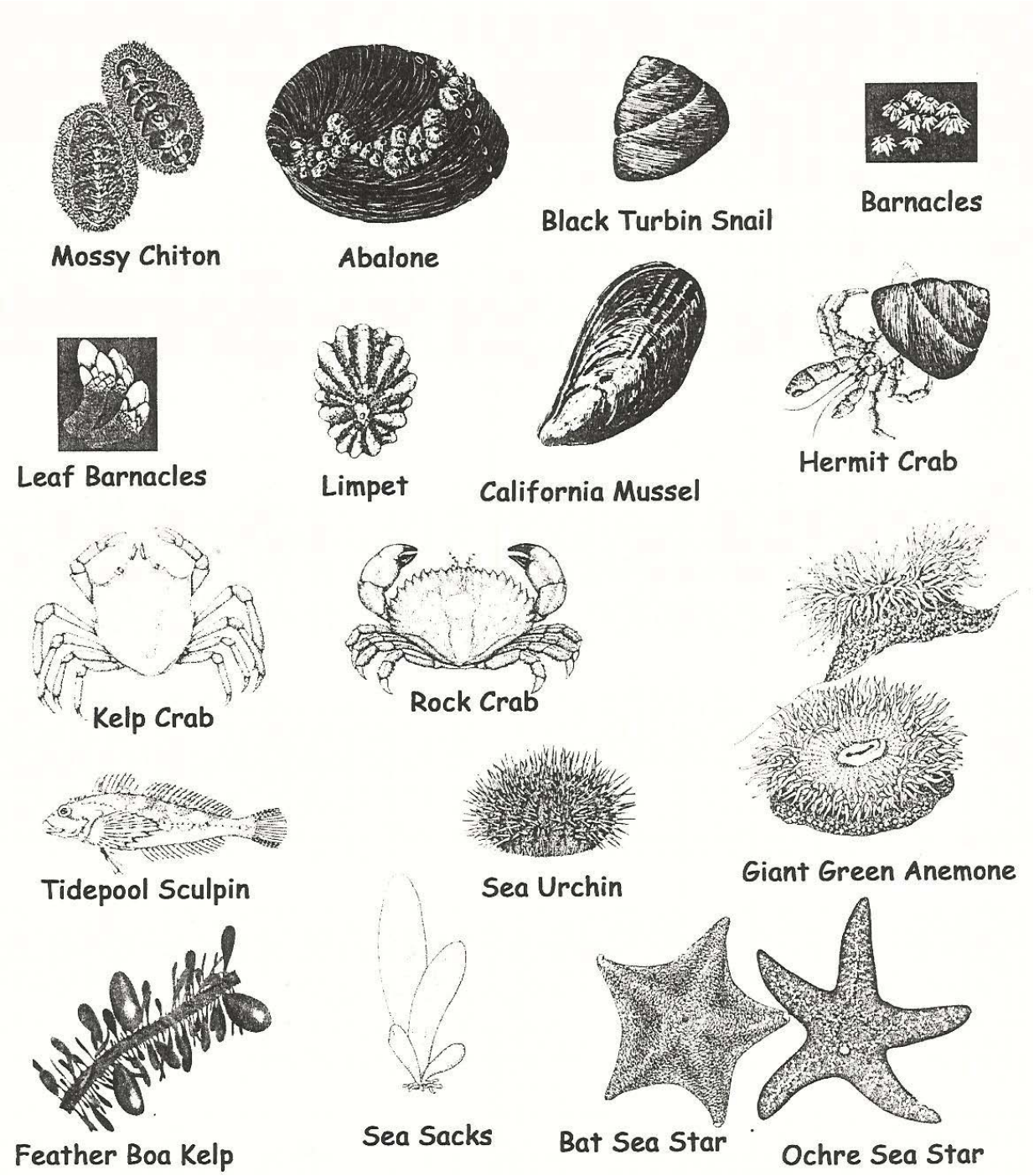
ES – Activity #18

Tide Pool Animals



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ES – Activity #18

Tide Pools - An Overview

A tide pool is a pocket of water that collects in bottom depressions at low tide. There are 4 tide zones. Distribution of the animals is determined by the time the region is exposed to air. Animals stratify according to how long they can tolerate exposure to air.

Zone 1 - Splash zone

- 5 feet above mean sea level
- Lower part of zone covered once a day - spring tides
- Characterized by bare rocks splashed by salt water
- Indicators:
  - rock louse
  - fingered limpet
  - rough limpet
  - periwinkle

Zone 2 - Upper tide pool zone

- 2.5 to 5 feet above mean sea level
- Covered twice a day by high tides
- Characterized by small seaweeds (yellow rock weed)
- Indicators:
  - lined rock crab
  - purple shore crab
  - black turban
  - barnacles

Zone 3 - Seaweed zone

- 0.0 to 2.5 feet above mean sea level
- Covered except during lowest tide of the day
- Characterized by **HEAVY** growth of brown seaweed
- Indicators:
  - mussel
  - goose-necked barnacle
  - common sea star
  - aggregating anemone

Zone 4 - Pink zone (lower tide pool zone)

- 0 to 2 feet below mean sea level
- Covered except on lowest - spring tides
- Characterized by large amounts of pink coralline algae
- Indicators:
  - solitary anemone
  - abalone
  - lined chiton
  - sponges

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Tide Pool Etiquette

- Look more, touch less.
- Leave attached animals attached.
- Be gentle when picking up and handling animals and replace them gently.
- Do not remove animals from the tide pool.
- Walk gently and move carefully. Try to avoid stepping on animals or seaweed.
- Walk single-file when walking through tide pool areas.
- Do not turn over rocks.

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