

# Activity #1 - Ocean Floor Model

## Concept # 1

#1 The floor of the ocean is composed of hills, plains, ridges, trenches, and seamounts.

### Objective:

Students construct a simulated model of the ocean floor in a shoebox. The shoebox model can be used for a sonar mapping lesson in Activity #2.

### Materials:

- salt (1 part)
- flour (2 parts)
- food coloring (2-3 drops)
- warm water (1 part)
- bowl
- spoon
- cardboard shoe box (with lid)

### Procedures: (See illustrations)

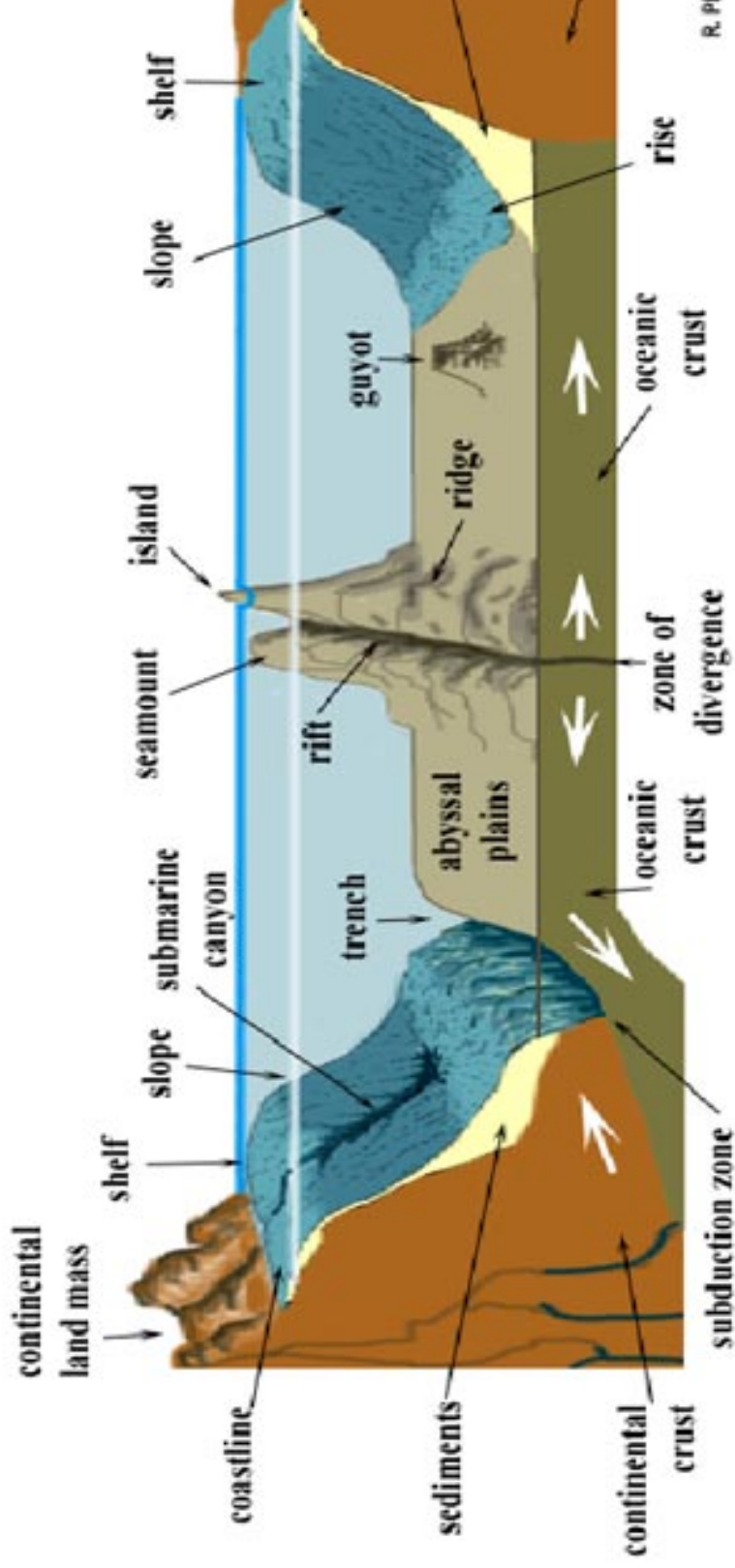
1. Place water and food coloring in a bowl, add salt and mix, add flour and continue to mix to form dough.
2. Divide students into groups of 4-6.
3. Each group draws out a plan for their ocean floor which includes abyssal plains and hills, an atoll, a bay, continental shelf and slope, guyot, island, rift valley, seamount, trench, mid-ocean range, submarine canyon, subduction zone.
4. After a plan is completed students obtain dough mixture from the teacher. Students then shape the ocean floor with the dough on the bottom of the cardboard box.
5. The dough will dry in 3-5 days. Have students label the ocean features and write a definition for each feature.

### Evaluation:

- Which feature forms most of the ocean floor? (abyssal plain)
- Where would you find the best fishing zone according to the features of the ocean makeup? (continental shelf)
- Where is new ocean floor created? (mid-ocean ridge)
- How old is the ocean floor? Explain.

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## Typical Ocean Floor Features



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## Labels for ocean floor map

<b>abyssal hills</b>	<b>abyssal hills</b>
<b>abyssal plains</b>	<b>abyssal plains</b>
<b>atoll</b>	<b>atoll</b>
<b>bay</b>	<b>bay</b>
<b>continental shelf</b>	<b>continental shelf</b>
<b>continental slope</b>	<b>continental slope</b>
<b>contour</b>	<b>contour</b>
<b>guyot</b>	<b>guyot</b>
<b>island</b>	<b>island</b>
<b>island arc</b>	<b>island arc</b>
<b>rift valley</b>	<b>rift valley</b>
<b>seamount</b>	<b>seamount</b>
<b>subduction zone</b>	<b>subduction zone</b>
<b>submarine canyon</b>	<b>submarine canyon</b>
<b>trench</b>	<b>trench</b>
<b>mid-ocean range</b>	<b>mid-ocean range</b>