

Life Zones	Characteristic Properties
Bathyal Zone	<ul style="list-style-type: none"> • Extends from approximately 200 m to 4000 m • Plants do not grow in the lower level of this zone due to insufficient sunlight • Many animals in this zone have adapted to dim light or darkness by providing their own light
Abyssal Zone	<ul style="list-style-type: none"> • Extends from approximately 4000 m to about 6000 m • Always completely dark; water pressure may exceed 600 kg/cm² • Most animals that live here are small and many are very strange looking • Many animals in this zone have adapted to total darkness by producing their own light • Most life forms depend on the ocean bottom for food including the remains of plants and animals that have fallen from above

A. Correctly match the descriptions of the special needs and adaptations of the sea organisms listed by writing, in the space provided, the name of the life zone(s) that best meets the need or is best suited to the adaptation of that organism.

Life Form	Description	Life Zone(s) Best Suited to
1. Diatoms	<ul style="list-style-type: none"> • Free-floating plants that require sunlight to produce food • Need shallow water where nutrients are readily available or must be near up-welling of nutrient-rich water that moves up the continental slope 	<hr/> <hr/>
2. Seaweed	<ul style="list-style-type: none"> • Needs sunlight to produce food and must be anchored to the bottom to extract nutrients from the sediment 	<hr/> <hr/>
3. Blue whale	<ul style="list-style-type: none"> • Adapted to filter small organisms from ocean water for food • Needs extremely large amounts of food each day 	<hr/> <hr/>
4. Squid	<ul style="list-style-type: none"> • Extremely large light-gathering organs are adapted to very dim light 	<hr/> <hr/>
5. Anglerfish	<ul style="list-style-type: none"> • Contains light-producing organs that attract prey in the very dim light and total darkness of the deep ocean 	<hr/> <hr/>
6. Lobster	<ul style="list-style-type: none"> • Bottom-dwelling animal that lives on the continental shelf 	<hr/>

during periods when the ocean bottom is exposed to the atmosphere _____

8. Crinoids (Sea Lilies)
- Bottom-dwelling animals that are anchored on the ocean floor
 - Live under extremely high water pressures in the absence of sunlight _____

B. Answer these questions after you fill in the appropriate life zones.

1. What special need of plants in the neritic and photosynthetic zones could not be met by an abyssal zone environment? _____

2. What food need of a blue whale could not be met in the abyssal zone? _____

3. What do diatoms and seaweed have in common? _____
How are they different? _____

4. What characteristic of the neritic zone makes it the richest producer of life forms even though it is not the largest major life zone? _____

5. In which life zone(s) would an ability to produce light to attract other organisms for food be a distinct advantage? _____

6. a. What do seaweeds and crinoids (sea lilies) have in common? _____

b. How are they different? _____