Name _____

The Life Cycle of Seaweeds Activity Worksheet

Part 1. Read the section below to learn about each stage in the red seaweed life cycle. Then, use the word bank to label each part of the life cycle with the correct name.

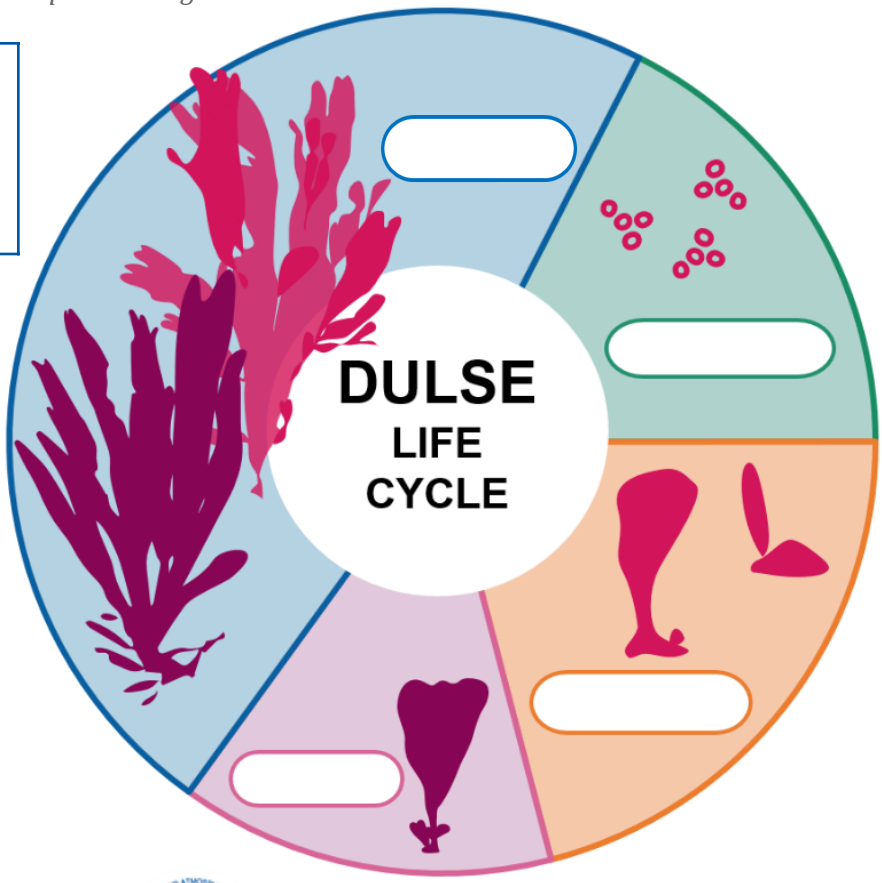
*K'áach (dulse) is a **perennial (a plant or seaweed that lives more than two years)** that can regrow new blades every year from the same holdfast. The maximum life span of individual blades or holdfasts is unknown other than they can persist through the winter.*

The life cycle of dulse is unusual in that females from each generation are reproductive their first year but males aren't reproductive until their second year.

*After **tetraspores (specialized reproductive cells)** are released from specialized patches of sorus tissue on the sporophyte fronds, they quickly adhere to any suitable substrate (rock, shell, or kelp stipes). The tetraspores then develop into male and female **gametophytes.** One-year-old male gametophytes release sperm which combines with the egg from the female gametophyte to create a **sporophyte (spore producing individual)**.*

Dulse can also reproduce asexually, by fragmentation — that is, the blades shed small pieces that develop into completely independent organisms!

Word Bank:
Mature tetrasporophyte
Gametophyte
Tetraspores
Immature tetrasporophyte



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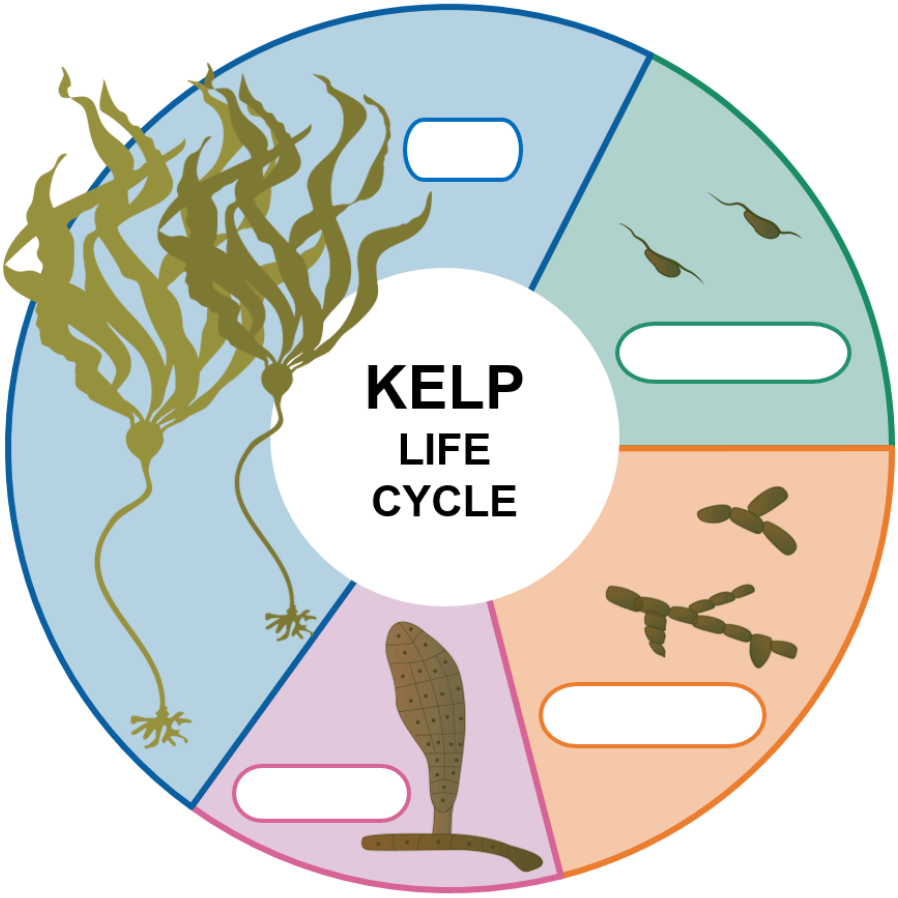
Part 2. Read the section below to learn about each stage in the kelp life cycle. Then, use the word bank to label each part of the life cycle with the correct name.

Sú (bull kelp) is an ***annual*** *geesh (kelp),* ***meaning it usually lives for one year and dies off in the winter.***

Like dulse, the life cycle of kelp involves two major life stages: the microscopic gametophyte stage and the very large sporophyte stage.

After ***zoospores (tiny, seed-like cells that propel themselves using a long appendage called a flagellum)*** *are released from specialized patches of sorus tissue on the sporophyte fronds, they quickly adhere to suitable hard substrate. The zoospores then develop into male and female* ***gametophytes (the stage which produces sex cells in algal species that undergo alternation of generations)****. The gametophytes release* ***gametes (reproductive cells of a plant or algae)*** *which, when they meet, create a* ***sporophyte (spore-producing phase of life cycle an algal body that undergoes alternation of generations)****.*

Word Bank:
Adult sporophyte
Gametophytes
Juvenile sporophyte
Zoospores



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