



Plants Keep the Sand Dune Community Together!

Have you ever gone to the beach and noticed many plants on the dune, but not on the beach? Beaches and dunes both have sand, but the dune is far enough from the salt water for plants to grow. There are many kinds of plants like:

- **Sea oats**, a type of dune grass
- **Saw palmetto**, a type of tree
- **Sea grapes**, a type of shrub

These plants compete well against other plants that both need more nutrients and can't survive contact salt water. These plants' **adaptations** for low nutrients with a little saltwater tolerance allow them to thrive on the dune.

Over time, the sand that blows into the plants gets stuck in the dune grasses and shrubs, where it piles up after years and years. The plants of course don't move like windblown sand, so this keeps the beach and dune from moving the shore. When wind can't blow the sand away so easily and the dune can stay put, it is called **dune stabilization**.

This creates the hills that we recognize as **coastal dunes** and species like the **gopher tortoise** recognize as home. Here they can build tunnels in the sand that are stable and won't fall down as easily since plant roots hold the sand underground and the top of the plants protect from wind.

Activity: Dune Plants Wind Activity

Materials:

- sand (beach or backyard sugar sand)
- scissors
- ruler
- paper towel tube

Directions:

1. Get some fresh air and head outside to a flat surface (keep the sand outside).
2. Cut out the dune plants (**Sea Grape** and **Sea Oats**) from paper.
3. Place gopher tortoises about a foot apart from each other. Cover one tortoise with sand for the first dune.
4. Fold the plants along the line so the top of the plant is upright. Place them on top of the other tortoise.
5. Cover the tortoise and plant roots with sand for the second dune.
6. Use the scissors to make one cut down one side of the paper towel tube lengthwise.
7. Roll the tube more tightly to make a thick blowing straw.
8. Use the blowing straw to make a few gusts of wind on each dune.