



EARTH DAY

OUR POWER, OUR PLANET



Beaches are dynamic places! The best way to understand the power of wave energy and its impact on coastal landscapes and ecosystems, is get out on the shore to experience it with all of your senses.

Watch. Listen. Go barefoot. Feel. Play in the waves. Breathe.

If you can't get out to the shore, bring the beach inside to experiment with energy dynamics of water and sediment using this "Beach in a Bottle".

BEACH IN A BOTTLE

1. Gather materials



- empty bottle
- water
- sand
- stones (various sizes that can fit in the bottle)
- organic bits of wood, grass, leaves etc.
- small pieces of plastic (hard plastic or torn bits bags)

2. Assemble and experiment



- Place stones in the bottle
- Add water, leaving air space
- With lid on, tap the end, roll it, tilt it, shake it.
- Add organic bits
- Add plastics
- Add sand (a funnel can help)
- After experimenting with motion, leave bottle standing still.

3. Observe and discuss

- Look. Listen. Feel. What happened to the water when you tapped the end of the bottle? When the bottle rolled? When it was tilted? Shaken?
- How did different materials act as the bottle moved? After it stopped moving? Why?
- Explain how energy is changing, both outside and inside the bottle.
- Brainstorm energy changes that could happen along a natural shoreline and on hardened shorelines.



ENERGY
CANNOT BE
CREATED OR
DESTROYED,
ONLY
TRANSFORMED
FROM ONE
FORM TO
ANOTHER