

# RAFT IDEAS

**Topics:** Sound,  
Environments, Cultures

## Materials List

- ✓ Tube-60 cm (2 ft).  
or longer
- ✓ Pellets (rice, beans,  
plastic pellets, or  
similar material)
- ✓ Pellet Inhibitor  
(strawberry baskets,  
6-pack holders,  
nails, matte board,  
other)
- ✓ End caps (Adhesive  
material, other)

This activity can be used  
to teach:

- Traditions & culture  
(National Curriculum  
for Social Studies:  
Theme 1, Culture)
- Music, society,  
culture, and history  
(National Music  
Standards:  
Connecting: Grades  
K-12, 11.1)

Next Generation Science  
Standards:

- Sound (Grade 1,  
Physical Science 4-1,  
4-4)
- Organisms and their  
environment (Grade  
K, Earth and Space  
Science 3-1; Grade 3,  
Life Science 3-2)
- Observations of  
Organisms (Grade 2,  
Life Science 4-1)



# RAFTy Rainsticks

Simulating the Sounds of Rain with Found Materials



Several different cultures use rainsticks in traditional ceremonies intended to, not surprisingly, make it rain. Authentic rainsticks made from different types of cactus plants or bamboo can be purchased, but you can also have your students make one with easily found materials.

## Assembly

-The most critical part of the rainstick is the material inside the tube (pellet inhibitor) that causes the pellets to trickle down inside the tube and make the pleasant rain-like sound. There are a variety of materials that work well. Here are a few methods:

- **Strawberry baskets:** cut the strawberry basket into quarters and twist it so that it will fit into the tube. It is important that you don't pack the strawberry baskets too close together, or the pellets will not pass through at all.
- **6-pack holders:** twist the plastic 6-pack holders so that they will fit into the tube. Again, be careful not to pack the holders too tightly.
- **Nails:** Large nails slightly shorter than the diameter of the tube can be used with heavier duty cardboard tubes. It requires a large number of nails, which can be placed roughly in a spiral pattern around the tube. Carefully pound each nail into the tube.
- **Matte Board:** cut a strip of matte board almost as long as the tube and slightly narrower than the diameter of the tube. Cut the matte board as shown. Fold each strip, one side then the other. Finally, fold "flaps" in alternating directions in each successive strip



~2 cm (3/4")

-Cap one end

-Pour 60 grams – 90 grams ( $\frac{1}{3}$  to  $\frac{1}{2}$  cup) of pellets into the open end and test how it sounds as they fall through the tube. Adjust the pellet inhibitor as necessary.

-Cap other end and decorate as desired.

## To Do and Notice

1. Invert the tube and listen to the rainfall!

## The Content Behind the Activity

Rain Sticks simulate rain by the large number of small vibrations caused when the pellets hit the pellet inhibitor, similar to the collision of raindrops onto natural surfaces, such as leaves.

In ecology, Rain Forests are a type of environment. A tropical rain forest is an area characterized by tall, broad-leaved, densely growing, primarily evergreen trees and a moist climate, having a dry season that is brief or absent. Rainforests are commonly found in the tropics, subtropics, and some sections of the temperate zone. Rain Forests are home to thousands of unique plant and animal species. Their trees release water into the air through transpiration, helping maintain atmospheric humidity levels worldwide. In the past few decades, the clear-cutting of the rain forests for the high-priced hardwoods of the trees has been a serious and continuing environmental concern.

**Web Resources** - (Visit [www.raft.net/raft-idea?isid=348](http://www.raft.net/raft-idea?isid=348) for more resources!)