

TERRARIUM RECIPE CARD

Project
Level: Easy

Materials

- Container: 10 Gallon glass aquarium
- Mesh Screen lid
- Clay balls or gravel
- Eco Earth
- Tree branches or bark to provide climbing areas
- Sphagnum moss
- RO Water or Water conditioner to treat tap water
- Aquarium Thermometer
- Aluminum foil or plastic wrap
- Clean spray bottle used only for water
- Heating pad
- Millipedes
- Sow bugs
- Earthworms
- Calcium powder

Food

- Romaine lettuce and other high vitamin content veggies sliced Do not use spinach, onions or citrus
- slice of apple or potato for moisture (water)
- oatmeal or some type of grain for food

Recommended Temperature and

Humidity: In the wild decomposers prefer dark moist warm areas. Keep tank between 70-80°F (21-26° C) Do not warm tank by exposing to sunlight or heat lamp, use a heat pad under or on the side of the tank to warm the tank. Keep the humidity at a high level.



DECOMPOSITION HABITAT

Set up: Rinse clay balls or gravel in a bucket or tub until water runs clear. Layer the clay balls into the bottom of the tank, taking up the first 5 cm so that the tank has a drainage area. Next layer about 6 cm of moistened Eco Earth. Do not over saturate the Eco Earth, it should be moist but not muddy. Mix in about 6-8 Red Earthworms into the Eco Earth soil. Arrange tree bark or branches on top of the soil so that the animals have something to climb on. If you are placing bess beetles into the tank be sure to add rotting log into the terrarium as well as this is what bess beetles feed upon. Moisten sphagnum moss and arrange over exposed Eco Earth area. The moss will help the environment to keep moist and help the soil retain water. Put on latex gloves before placing in the millipedes, sow bugs and other types of decomposers. Millipedes can sometimes excrete a brown liquid that is used as a defense against predators. It is both bad smelling and can irritate the skin or eyes. Cover terrarium with the mesh lid so that animals will not escape. If air in the surrounding environment is arid (absent of humidity) cover half of the mesh lid with aluminum foil or plastic wrap to retain moisture.

Maintenance: This is a decomposition display and is not the same as a mulch box or composter. In this tank you will need to make sure not to over feed the animals so that food does not smell as it decomposes. Any large smelly amounts of rotting or molding food should be removed. However, leaf materials and harder vegetation like carrots and potato will decompose nicely within the tank so that your students can see the stages of decomposition with the decomposers in the tank. Soil must be kept moist and tank should be sprayed with RO water at least once a day. This tank runs the risk of attracting fruit flies and gnats. If they become a problem, you can attract the fruit flies to an open container of vinegar near the tank.

Care: Place veggies in tank for decomposition. Millipedes need greens to remain healthy but avoid using spinach, iceberg lettuce., onions or citrus. Sprinkle calcium powder on veggies occasionally to support healthy exoskeleton growth. Do not put the tank in sunlight. Cover the soil areas with construction paper on the outside of the terrarium glass to get your earthworms to come side of the glass for observations (they will not venture to the glass walls of the aquarium unless it is dark). You can use a heating pad under the tank to keep terrarium at a warm temperature.