

Activity 1.2 Seed Balls

Overview: Students will learn about soil composition and seed saving by making seed balls with native clay, compost and seeds.

Lesson Background:

Seed balls are a method for distributing and storing seeds by encasing them in a mixture of clay and soil humus. Throughout history some native North American tribes used forms of seed balls.

Seed balls are simply scattered directly onto the ground, and not planted. They are useful for seeding dry, thin and compacted soils and for reclaiming derelict ground. This method takes a fraction of the time or cost of other methods to cover large areas and is also very applicable in small areas. Seed balls are also useful when planting small seeds with young children.

The clay and humus ball prevents the seeds from drying out in the sun, being eaten by predators like mice and birds or from blowing away. When sufficient rain permeates the clay, the seeds inside will sprout. They are protected within the ball and are provided with nutrients and beneficial soil microbes from the compost in the soil mixture. Seed balls are particularly useful in dry and arid areas where rainfall is highly unpredictable.

Instructions and Ingredients:

Step One: Prepare Ingredients

- Prepare clay by either sifting through a strainer or removing large chunks. Set aside 1¼ cups of clay.
- Prepare ¾ cups of dry organic compost. Remove any large chunks.
- Prepare ¼ cup of seeds. You can use various wildflower seeds, herbs, salad greens, or perennials. Use seeds that are companions and can be planted at the same depth. (Seeds that are lightly covered or planted about ¼ inch deep are optimal.)
- Set aside water in measuring cups or squirt bottles

Step Two: Mix Ingredients

Grade Levels: All ages

Core Subjects: Life Science, Plant and Soil Science, Cultural History

Objectives: Students will learn about soil composition, the role of different soil components (clay and compost) and the history of seed saving.

Materials:

- Clay
- Compost
- Seeds
- Water and water bottle
- Mixing containers and measuring cups
- Tray or containers to dry and store seed balls



- a. Mix Clay, Compost and Seeds in mixing bowl.
- b. Add just enough water to obtain the proper consistency so the mixture sticks and bonds together.

Step Three: Prepare Seed Balls

- a. Take a pinch of the finished mixture and roll (in the palm of your hand) into penny-sized round balls.

Step Four: Dry seeds balls in the sun for a day or two.

Step Five: Broadcast seed balls onto soil surface. Water or wait for rain to allow seeds to germinate.

This recipe makes approximately 30-40 balls. Enjoy!

Notes and Instructions for Giving Seed Balls as a GIFT!

The seed balls are a mixture of local clay, compost, and local wildflower seeds. They could be useful for seeding dry, thin and compacted soils and for reclaiming derelict ground. The clay and humus ball prevents the seeds from the drying out in the sun, being eaten by predators like mice and birds, or from blowing away. Simply scatter the seed balls directly on the ground, wait for rain and enjoy!

Or

These seed balls are a mixture of local clay, compost, carrots, radishes, and salad greens. The clay and humus ball prevents the seeds from the drying out in the sun, being eaten by predators like mice and birds, or from blowing away. Place the seed balls on the surface or ¼ inch in prepared garden bed. Water and enjoy.

ACTIVITY 1.3 Handmade Garden Packets and Labels

Overview: Students will make their own plant seed packages or labels while learning various plant facts including nutrition, plant usage and history and planting guidelines.

Instructions:

You can make a label by using an old seed package or you can create your own label using personal drawings, pictures or cut out of the plant.

Information to Include on Label:

1. Name of Plant
2. Botanical Name
3. Days to Germinate or Days till Harvest or Bloom
4. Light Requirements if known (sun, shade, part sun/shade)
5. Planting Instruction/ Seed Depth
6. Nutritional Fact about Plants: (i.e. carrots are full of Vitamin E which improves your vision)
7. Fun fact about plant of your choice (i.e. tomatoes were first grown as decorative plant before we learned the fruit was edible).
8. Hand drawn picture or cut out picture from seed catalog, or download a picture from the internet

Preparing Wire and Laminating Sheet:

1. Cut wire hanger twice – around 7” to the right and left of center
2. Reshape hanger to create a fork shape
3. Cut plastic album pages into envelopes or prepare laminating paper
4. Slide the fork into album paper or laminating paper
5. Secure sides with tape to keep water or rain from getting in
6. Insert Seed or Plant Label into laminated paper and wire handle

Grades: 3rd Grade and Beyond

Core Subjects: Art, Science, Nutrition or History

Materials:

- Old Seed Packets, Seed Catalogs, or Paper for Hand Drawn Art
- Wire Coat Hangers
- Laminating Paper