

Chia Me-a

Turn yourself (or friends, family, and pets) into a real, live chia friend!

(art + science)

The Chia Pet® is an American icon. Since the 1980s, these terra cotta planters have been used to sprout seeds that are meant to resemble hair, fur, or fleece. Since then, many classroom, home, and DIY versions have been invented using everything from clay to ping pong balls to pantyhose.

Here's a version for the art classroom. Create a self-portrait on a seed-sprouting sponge: Chia "Me"-a.

There's as much science involved as art, especially when you start the project using an expandable sponge as a drawing surface. Unlike a standard household sponge, a Miracle Sponge is compressed to a flat, almost cardboard-like 1/8" thick sheet. Head-shaped pieces can be easily cut out and drawn on to make portraits, then expanded with water. Miracle Sponges absorb a lot of water, so it's fun to watch them grow as they become saturated.

Next, seeds are planted and sprouted where hair is drawn. Students can learn about the process of germination and photosynthesis while laughing as their silly green hair grows a little bit each day. Once the "hair" has grown enough for a trim, it can be washed, cooked, and eaten, too!

GRADES 3-8 Note: Instructions and materials are based upon a class size of 24 students. Adjust as needed.

Preparation

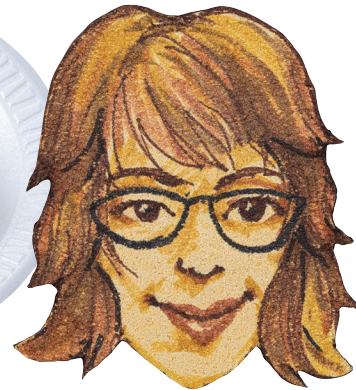
1. Cut sponge sheet into smaller sections using a paper trimmer or scissors. Cut into fourths, sixths, or eighths, depending on how large a face shape is desired. For the instructions in this lesson plan process, the sheet will be cut into eighths or 4" x 2.8" pieces.

Process

1. Using a pencil, draw the outline shape of a head on the sponge sheet, making it as large as possible. Templates of a variety of head shapes are available on page 3 and 4 of this lesson plan. Cut the shape out with a pair of scissors.

Note: younger ages may find cutting through the thickness of the material and may need assistance or for the head shapes to be pre-cut.

2. Using permanent, waterproof markers, draw features on the sponge plus hair, glasses, etc.
3. Place a small amount of water in a flat pan/dish of water and set the sponge in to watch it expand.



Materials (required)

Miracle Sponges, 8" x 11-1/4", package of 2 (60201-1001); share two packages across class

Permanent Markers, recommend:

Sharpie Fine Point, Black, classpack of 36 (21316-2026); share one across class

Blick Studio Markers, set of 24 (22148-1024) or assorted single markers including:
Caramel (22148-8340)
Latte (22148-8110)
Dark Brown (22148-8030)
Shell (22148-3780)
Sienna (22148-8120)
Tan (22148-8230)

Bic Marking Color Collection Permanent Markers, assorted color set of 24, fine (2265-1024); share four to five sets across class

Roylco Goo Spreaders, package of 32 (81331-1001); share one package across class

Westcott All Purpose Preferred Stainless Steel Scissors, package of 3, 8" straight (57608-1008); one pair per student

Materials (optional):

Hygloss Craft Trays, styrofoam, package of 25 (61726-1010)

Hygloss Sponge Ums, package of 4, 5" x 7" (24277-1001)



Process, continued

- To plant the seeds in the sponge, first mix a small amount of water with them in a bowl to make them a little sticky. Spread the seeds over the area where you would like them to grow using a plastic spreader.
- Chia seeds are not the only seeds that can be used. Chia seeds sprout quickly, with bright green leaves that look like curly hair. Grass seeds form straighter, longer "hair." Alfalfa, radish, broccoli, fenugreek, and lettuce are all fast germinating seeds.
- Sprouts can be gently pulled from the sponge and planted in soil for continued growth, if desired. Or, overgrown "hair" can be cut back and new seeds spread over the sponge to keep the Chia Me-a growing.

Options

- Both sides of the sponge can be sprouted if it is hanging. Before applying the seed and water mixture, insert a 3" wire bent into a "U" shape, pushing the ends into the top of the head. Hang from the wire with a piece of string. Keep the sponge wet by frequently misting it with a spray bottle.

Why does a sponge expand?

A sponge is able to take in so much water because it is formed of millions of tiny holes. Water molecules tend to cling to one another, so when a drop of water moves up into a hole in the sponge, it pulls another along with it. That drop pulls another, forcing the first drop up further into the sponge. As the drops pull each other into the sponge, it expands further and further until it reaches the point it can't expand any more. It will stay fully saturated until water evaporates or is squeezed out.

How do chia seeds know when to sprout?

A sprout will survive on just water and light. Water soaks into the seed and triggers it to start creating energy. Light converts that energy into food for the plant. So, the sponge must stay wet, warm, and in the presence of natural or artificial light in order for the seeds to sprout and survive. However, those same conditions are perfect for bacterial growth, so the sprouts should not be eaten unless they are cooked.

National Core Arts Standards - Visual Art

Creating

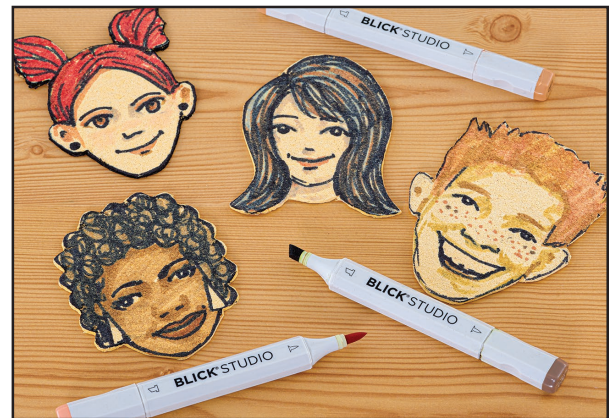
Anchor Standard 1:

Generate and conceptualize artistic ideas and work.

Anchor Standard 2: Organize and develop artistic ideas and work.



Step 1: Cut Miracle Sponge sheet into smaller pieces and cut head shapes.



Step 2: Using permanent markers, create facial features, glasses, hair, etc.



Step 3: Mix seeds with water and spread over hair areas. Keep sponge wet and exposed to light and seeds will soon sprout!

