raft RESOURCE AREA FOR TEACHING

STEAM SCIENCE TECHNOLOGY ENGINEERING ARTS MATHEMATICS

LEARNING ACTIVITY

Growing Green Onions from the Bulb

Tasty Hydroponics

Observing plant life regrow with only water and sunlight is a phenomenal process. Every day small and noticeable growth may inspire the next George Washington Carver, a prominent 20th century agricultural scientist and inventor.

Materials Needed
- Green onions
- Water
- Cup

Grade Range
K-2
3-5

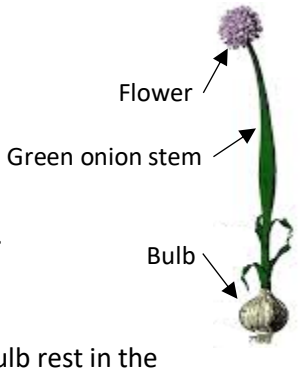
Topics/Skills
Science: Hydroponics, Plant Biology, Reuse, Conservation

Learning Standards
NGSS: From Molecules to Organisms – Structure & Function

Duration
3 minutes every 2-3 days for 2 weeks

Prep Time
3 minutes

Activity Challenge
Regrow green onions (scallions) from their bulbs.



Preparation
1. Collect all materials needed.
2. Cut the bulbs (1-2 inches) from the green onions.
3. Keep the bulbs and store the green onions for later use.

To Do
1. Place green onion bulb in the cup.
2. Fill cup with enough water to have the bottom of the bulb rest in the water. Adjust water level as needed.
3. Place the cup with green onion bulb and water near a window. Direct or indirect sun will allow green onions to regrow.
4. Change water every 2-3 days.

Observations
- Note how much sun the green onion bulb gets in your Science Journal.
- Take notes or draw a picture of green onions every 3rd day or so.
- Estimate how long the green onions will be on the 7th day.

Extensions
- Transplant the green onions into soil and try to regrow green onions on an ongoing basis.
- Try RAFT's Growing Lettuce from the Core Learning Activity.

The Science behind the Activity
Hydroponics is a process for growing plants in a water-based solution instead of in earth or soil. Many hydroponic set-ups use different substrates for roots to take hold as the leaves of the plant continue to grow and use artificial light and nutrients to speed up the production process. The green onion bulbs contain the same cells near the roots as the original green onion plants, so they can grow and make a new green onion plant which is basically a clone (copy) of the "parent" plant.