



EDUCATOR'S GUIDE: I LOVE BLUEBERRIES

Activity 1: Go Blue! Germinating Blueberries

Time: 45 minutes plus continued care for 3 to 4 weeks

Objectives:

Students will...

- Understand the key components of seed germination
- Identify the purpose of seeds
- Document experiment progress
- Learn about blueberries

Pillar of Ag Literacy:

The Relationship Between Agriculture and the Environment, The Relationship Between Agriculture and Food, Fiber and Energy

Vocabulary: germination, soil, seed, sprout, roots

Materials:

- Blueberries
- Plastic knives
- Paper plates
- Small plastic cups
- Soil
- Access to water
- Activity 1 journal booklet

NGSS or Common Core Standards:

- K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.
- 1-LS3-1. Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.
- CCSS.ELA-Literacy.SL.2.3 Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.
- CCSS.ELA-Literacy.W.1.3 Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.



Teacher Prep:

- » Gather supplies for lesson, with one material per student or team
- » Print and staple blueberry journal booklet
- » Prepare KWL chart on whiteboard or shared screen
- » Preview and prep video



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Procedures:

1. Show students pictures or examples of common fruits and vegetables, such as apples, strawberries, and pumpkins. Ask students, “Where are the seeds?” with each picture or example. Talk about how some seeds are on the outside of fruits, but most are inside. Review purpose of seeds – to grow a plant that will produce more of the same fruit.
2. Tell students that you’re going to read a book about blueberries. Ask them to vote with a show of hands: “Are blueberry seeds on the inside or outside of blueberries?” Have a paper plate, blueberry, and knife ready. Show students a blueberry and discuss its characteristics. Carefully cut open the blueberry horizontally (opposite the stem) and show students the tiny seeds inside.
3. Create a KWL chart on a whiteboard or shared screen titled “Blueberries.” Make a list of what students know (K) about blueberries from their background knowledge and discussion so far in the K column. Add things that the students want (W) to know about blueberries in the W column.
4. Say, “Let’s read the book and see what we learn about blueberries.” Read “I Love Blueberries.”
5. Add to the class KWL chart in the L column, sharing what students learned (L) about blueberries from the book.
6. Share that the class will germinate blueberry seeds to grow blueberry plants, just like Jolie did in Mission #1.
 - a. To provide visual sequencing, this video may be viewed. The key moments in the video are around 00:45 and 2:40.
Link: fb.org/GrowBlue



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7. Have students work individually or in teams of two. Each person or team will get a plate, blueberry, knife, and cup $\frac{3}{4}$ full of soil. Have students carefully cut the blueberry horizontally to expose the seeds. Place the blueberry halves cut side up in the soil, and have students put $\frac{1}{4}$ inch soil over the blueberry, packing it down lightly. Water sparingly and place in a warm, sunny location.
8. Each student or team will draw or write an entry for "Week 1" of their blueberry journal. Ask students to record what they did, how it looks, and any other key information.
9. Bring students back together and ask, "What do you think will happen over the next few weeks?" Guide the discussion to talk about germination, including the seeds, roots, and sprouts. Remind students that they will continue to care for their seeds over the next few weeks to see what happens and document it in their blueberry journal.
10. Every student or team will continue to monitor their blueberry seeds over the next 3 to 4 weeks. Water seeds every 1-3 days, as needed, and keep in a sunny location. Each week, set aside approximately 10-15 minutes for students to check on their seeds and journal about their experience.

Optional extensions:

Have students:

- Explore the reasons for seed placement on fruits and vegetables (inside vs. outside).
- With adult/guardian permission, look at their fruits and vegetables at home and explore the look, feel, and seed placement.
- With adult/guardian permission, germinate several different types of seeds at home.
- Transplant class blueberry sprouts into a larger container with drainage and continue to care for and/or document growth.



Activity 1: Journal Booklet



Blueberry Journal
Week 1



Blueberry Journal
Week 2



Activity 1: Journal Booklet continued



Blueberry Journal
Week 3



Blueberry Journal
Week 4