

Virtual Seed Survivor Guide for Teachers Giganteus Sunflowers



Lesson - Virtual Seed Survivor Presentation and Planting Activity - Giganteus Sunflowers

Explore what it takes for seeds to survive, thrive and provide us with healthy nutritious food.

Lesson Delivery Options included below:

- Option 1: Teacher Led Presentation/planting as a class
- Option 2: In Class Student Self-directed Learning
- Option 3: At-home Student Self-directed Learning

Background

Seed Survivor educates elementary students, with a focus on grades 3-4, about the importance of agriculture and where food comes from. All materials in Seed Survivor are created in collaboration with teachers and agriculture experts to ensure they are unbiased, curriculum-based and factual. Every presentation explores how to grow healthy plants, the components and importance of soil and how much of the earth can grow food. Students have a chance to play games and plant seeds to grow at home!

Students will:

- Identify what plants need to grow
- Describe the components of loam soil
- Understand how precious and finite soil is on our planet
- Describe the 3 macro-nutrients for plants, where they come from and how they help the plant grow and stay healthy
- Plant and care for giganteus sunflowers

Suggested time needed:

80 minutes+

- 10 minutes – Seed Survivor pre-activity
- 20 minutes – Seed Survivor presentation, planting activity and video questions (plus set-up time and planting time)
- 10 minutes – Post-presentation crossword puzzle
- 30 minutes – Seed Survivor games and website exploration (individual)
- 10 minutes – Seed Survivor post-activity



Materials provided:

Online:

- Go to the Giganteus Sunflower option on the Virtual Seed Survivor Presentation webpage here <http://seed survivor.com/just-for-teachers/virtual-seed-survivor-presentation/> (or under the "Just for Teachers" tab on www.SeedSurvivor.com) to access:
 - Virtual **Giganteus Sunflower** video (16:05m)
 - The following lesson documents which are available as both interactive PDF or print options:
 - Pre-activity
 - Student Lesson - Sunflower Giganteus (if completing individually (option 2) or at home (option 3), optional if in-class (option 1))
 - Seed Survivor Crossword
 - Post Activity
 - Teacher answer keys (for all the above)

From the Kit:

- One Seed Survivor cup and lid per student
- Two giganteus sunflower seeds per student*

***If you are completing this activity without a classroom kit, any variety of sunflower will do. Alternately, you are welcome reach out to Community.Investment@nutrien.com and we will send you giganteus sunflower seeds for this activity.**

By the Teacher:

- Potting soil (enough to almost fill the cup) for each student
- One tablet, laptop or desktop computer with internet connection per student if completing the online learning games in-class and/or completing the online versions of the activities.
- Copies in either online or print and enough to provide one/student of each of the following:
 - the pre-activity sheet
 - the Student Lesson - Giganteus Sunflowers* (optional if completing as a class, option 1)
***All activity sheets are linked for students to download in the interactive version of this document.**
 - the Seed Survivor crossword
 - the post-activity sheet

By the home:

- A tablespoon for watering
**Watering is encouraged to be completed at home in case sunflowers are spilled during the planting or transport process. Dry soil is easier to clean than mud!*
- One tablet, laptop or desktop computer with internet connection if completing the online learning games at home.

Lesson Plan

The Seed Survivor Lesson Plan is flexible. Please choose the option that works best for your students. The activity sheets are recommended to solidify concepts and demonstrate student learning, but the virtual presentation, planting activity, and online games can be completed on their own without any additional resources.



Option 1: Teacher Led Presentation/planting as a class

1. Have students complete the pre-activity sheet to gauge their initial understanding BEFORE exposing them to any of the Seed Survivor materials.
2. As a class watch the virtual Seed Survivor **Giganteus Sunflower** video (16:05m)
 - At 4:10 in the presentation, directions are given for planting the microgreen seeds. If students are going to do their own planting at this time, then pause the video and hand out the planting materials or alternately hand out the materials before showing the video. Start and stop the video as needed. Students could be given cups pre-filled with soil to ensure they remain seated.
 - As a class, answer the following questions, option to have students record their answers in the Student Lesson:
 - i. Why did Brent say to plant only two seeds?
 - ii. Why did you need to space the seeds far apart?
 - iii. Plants need water.
 - How often should you water your sunflowers?
 - How much water should you use each time?
 - What should your soil feel like?
 - iv. Where should you put your cup at home?
 - v. How long before your seeds sprout?
 - vi. How big should your plant be when you transplant it?
 - vii. How large can giganteus sunflowers grow if properly cared for?
 - If you prefer to watch the entire video and then hand out the planting materials and have students plant their seeds and/or answer the above questions, include the step by step for planting in box below.

- i. Fill your cup almost to the top with nutrient rich soil
 - ii. Make a peace sign (or a number two) and place your fingers into the soil up to your first knuckle – about 1/2" - 1" deep. Make sure you don't go too deep... leave lots of room for the roots to grow!
 - iii. Add one seed to each hole
 - iv. Cover the seeds with soil
 - v. Place your cup in a sunny window
 - vi. Add approximately one TABLESPOON of water each day or enough to keep the soil moist (should feel like a damp sponge)
 - vii. When the sunflower is about 3" or the size of the student's hand, it is ready to be transplanted to a garden or a larger pot indoors with access to plenty of sunlight
- * Find more tips, growing advice or submit your sunflower pictures on www.SeedSurvivor.com

3. Have students complete the Seed Survivor Crossword to solidify concepts learned in the presentation.
4. Have students play online games found here <http://seedsurvivor.com/just-for-kids/games/>, option to have them record their scores in the Student Lesson. **Students will require their own device with access to the internet.*
5. Have students complete the post activity sheet after playing the games.

Option 2: In Class Student Self-directed Learning

1. Provide each student with
 - a. a device connected to the internet
 - b. one Seed Survivor cup filled $\frac{3}{4}$ full of potting soil
 - c. two giganteus sunflower seeds
 - d. one lid
2. Have them open the Interactive Student Lesson - Giganteus Sunflowers sheet. If using print versions, hand out the pre-activity first, and then the Student Lesson - Giganteus Sunflowers sheet.
 - Note, the interactive lesson sheet will provide them with a step by step guide and links to download all interactive versions of the activities required to complete the Seed Survivor lesson.
 - Note: the student lesson sheet can also be accessed from the Virtual Seed Survivor Presentation page under the “Just for Teachers” tab on the Seed Survivor website www.SeedSurvivor.com. Access print versions of the activities there if preferred.

Option 3: At-home Activity Student Self-directed Learning

- Provide parents with the Virtual Parent Guide - Giganteus Sunflowers
 - The Student Lesson – Giganteus Sunflowers sheet can be found under the **Sunflower Giganteus** option on the Virtual Presentation page under the “Just for Teachers” tab on the Seed Survivor website www.SeedSurvivor.com
- One Seed Survivor cup or similar container per student (about 750 mL or 12oz).
- Nutrient rich soil. Potting soil is a great option.
- Two giganteus sunflower seeds per student

Additional Resources:

For Students:

Go to <http://seedsurvivor.com/>. Students can explore these resources under the “Just for Kids” tab:

- Kids videos
- Nutrient world (learn more about NPK)
- Recipes
- Growing Advice
- Online coloring
- Ask the Agronomist

For Teachers:

Go to <http://seedsurvivor.com/> and look under the “Just for Teachers” tab for:

- In-class or e-learning activities
- Videos
- Posters
- Resources to learn more about agriculture

Feedback Appreciated

We would love to hear from you! We make improvements to the Seed Survivor program each year based on teacher and student recommendations.

Teachers are invited to participate in a short survey located at the bottom of the Virtual Seed Survivor Presentation page or by clicking [here](#).

For questions, or any further feedback please email: Community.Investment@Nutrien.com

Have fun watching your sunflowers grow!