

Seed Packets — Things to Know Before You Grow

Recommended Grade Level:

2-5

Season:

All

Indoor/Outdoor

Description:

Students will research a plant or one that's growing in the garden, gathering information from seed packets and displaying the information using a rubric.

Background:

Learning about seeds and the steps that you need to take when planting is a great lesson in sequencing. Seed packets contain a wealth of information about the plant that grows from them. It's important that the directions on the seed packet are followed so that they grow and produce a large harvest. Review the directions with students. Like seeds, people who live healthy (healthy diet, exercise, sleep) can grow healthy and strong.

Materials:

- Several varieties of seed packets
- Things to Know Before You Grow Worksheet

Preparation:

Determine if students will complete the activity individually, with a partner or in a small group. Make copies of the Things to Know Before You Grow Worksheet for each student, partner or group.

Activity:

1. Explain to students that they'll be researching plants using seed packets as a reference. Seed packets have important information that helps gardeners know how to take care of their plants and help them grow in to healthy plants. Most seed packets have the following information:
 - Picture: A picture of the plant when it's full grown and ready for harvest.
 - Plant description: The common and scientific name of the plant, the plant height and days to harvest.
 - Planting directions: Directions normally include planting depth, spacing, sunlight requirements, indoor or outdoor planting, and basic care instructions.

2. Pass out seed packets and allow students to read the information on them. Have students share what they find on the seed packets. Ask students:
 - Why is it important to follow directions and how can that impact the success of their harvest?
If plants don't get what they need, they won't grow into healthy plants.
 - What directions should you follow as you grow to be healthy?
Eating healthy, exercising, sleep well, drinking water
3. Allow students to choose a plant that they would like to research from the seed packets. If you don't have enough seed packets for the number of students who want to research it, make copies of the front and back of the seed packet.
4. Pass out and review the Things to Know Before You Grow Worksheet.
5. Give students time to gather information and complete the Things to Know Before You Grow Worksheet. Have students share their worksheet with the class.

Tying it Together:

1. Why is it important to read the instructions on seed packets?
The seed packets tell you the important steps for planting and will help you get the best harvest.
2. What happens if we plant seeds too close to each other?
They become crowded and won't grow properly.
3. What happens if we plant them at the wrong time of the year?
They won't produce a plant or the best harvest.
4. Will our plants grow properly if we don't follow the directions?
No. Plants have things they need to grow properly just like humans do.
5. What do we need to help us grow healthy?
Healthy foods, exercise, sleep, drinking water.

Special Care:

The font of seed packets can be small. If you need larger font size for students, you can make an enlarged copy of the front and back or you could buy some larger seed packets with bigger lettering.

If you want to eliminate some of the information on the seed packets, highlight the information you want to include on a black and white copy of the seed packet to reduce the visual clutter and allow the student to focus on the information that they'll be researching.

Digging Deeper:

Using the app Aurasma, or another similar free app, students choose a plant growing in the garden. They research and gather information about the plant. Have them create a marker for the plant that the QR reader can scan. Then, have students create a video that links to the QR scan for their plant.

National Standards:**CCSS.ELA**

- Reading: Informational text: Key ideas and details.
- Writing: Production and distribution of writing.
- Writing: Research to build and present knowledge.

ISTE

- Creativity and innovation: Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.
- Communication and collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
- Research and information fluency: Students apply digital tools to gather, evaluate, and use information.

NGSS

- Interdependent relationships in ecosystems.
- Inheritance and variation of traits.
- Structure, function and information processing.
- Matter and energy in organisms and ecosystems.

Lesson Extensions:

Health: Students create or share a healthy recipe that uses the plant as an ingredient.

History: Students can extend their research to include the origin, history and uses of their plants and make Produce Fact Sheets with the information.

Language Arts: Students take the information from their Things to Know Before You Grow Worksheet and write the information in a narrative form. Create a class book using all the worksheets.

Math: Make word problems using the information from the seed packets. Students can also make word problems that can be assigned to the class. Here are some examples:

- If the planting space is 1 inch apart, how long would your row be if you planted all the seeds in one row?
- If the seeds take 75 days until harvest and you planted today, when would your produce be ready?
- How many more days do carrots take to sprout than lettuce?

Science: Seed packets could be sorted into a variety of groups:

- Fruits/Vegetables/Flowers/Herbs
- Fall/Winter/Spring/Summer Crops
- Color

If it's planting time, have students plant their seeds in the garden or in indoor container gardens.

Literature Connections:

From Seed To Plant by Gail Gibbons

Oh Say Can You Seed? All About Flowering Plants by Bonnie Worth

Things to Know Before You Grow

PLANT NAME	
DAYS TO GERMINATION <i>(plant sprouts out of the soil)</i>	
DAYS TO HARVEST <i>(fruit or vegetable is ready to pick)</i>	
PLANTING DEPTH <i>(how deep to plant seeds)</i>	
PLANT SPACING <i>(how far apart to plant the seeds)</i>	
PLANT HEIGHT <i>(how tall the plant grows)</i>	
OTHER PLANTING TIPS	