Grade 2 | SCIENCE

WEEK 21 • PRACTICE WORKBOOK • DAYS 101–105

Read the matching lesson in the Week 21 Student Textbook first. Write each answer on the line below its question. Day 105 is answered on your own.

Day 101: What Plants Need to Grow

Seed packet directions (make-believe packets)

Plant	Sun	Water
Okra	Full sun	Keep the soil damp until the seeds sprout.
Collard greens	Full sun or part shade	Water once a week if it does not rain.
Zinnia flowers	Full sun	Water when the top of the soil feels dry.

1. Name the two things this lesson says every plant needs from its surroundings to grow. Tell how the plant uses each one.

   Answer:

2. Use the seed packet table. Which plant can grow with some shade? What does its packet say about water?

   Answer:

3. A tomato plant sits in a dark closet for two weeks. Its soil stays wet. Predict what will happen to it, and explain why.

   Answer:

Day 102: Planning a Fair Test: Do Plants Grow Toward Light?

Plan for the light test

	Cup C	Cup D
Seeds	2 bean seeds	2 bean seeds
Soil	Same potting soil	Same potting soil
Water	Same amount	Same amount
Place	Same table by the window	Same table by the window
Box	Shoebox with a hole on one side	Shoebox with no hole

1. In the light test plan, what is the one thing that is different between Cup C and Cup D?

   Answer:

2. Name three things that stay the same for both cups.

   Answer:

3. Jay puts one cup under a box with a hole in a sunny window and the other cup under a box with no hole in a dark closet. Is his test fair? Explain.

   Answer:

Day 103: Keeping a Plant Log

Sample plant log (made up for this lesson; not anyone's real results)

Date	Height	Leaves	Note
Day 1	0 cm	0	Seed planted
Day 4	2 cm	0	A curved stem pushed up
Day 7	6 cm	2	First two leaves opened
Day 10	11 cm	4	Stem leans toward the window

1. Use the sample log. How much did the plant grow from Day 4 to Day 7?

   Answer:

2. On which day did the first leaves appear? How do you know?

   Answer:

3. Why should a scientist write the date and measure the same way every time?

   Answer:

Day 104: Hands-On: Start Two Plant Investigations

1. What is the one thing you changed in Test 1? In Test 2?

   Answer:

2. Write your prediction for Test 2. Which way do you think the plant in Cup C will grow? Why?

   Answer:

3. Why must Cups C and D get the same amount of water?

   Answer:

Hands-on task: Start two plant investigations

1. With an adult, fill four clear plastic cups with the same potting soil. Label them A, B, C and D. Plant two bean seeds in each cup, about 2 centimeters deep.
2. Test 1, water: set Cups A and B side by side in the same sunny window. Water Cup A now and whenever its soil feels dry. Give Cup B no water. Water is the only thing that is different.
3. Test 2, light: water Cups C and D the same way as Cup A. An adult cuts a hole about the size of a quarter in one side of a shoebox. Set Cup C under that box with the hole facing the window. Set Cup D under a second shoebox with no hole, right beside it. The hole is the only thing that is different.
4. Fill in the Day 1 row of the plant log below, and write a prediction for each test.
5. Keep the cups and this page together. Check the cups every day or two, water A, C and D when the soil is dry, and write in the log. You will measure the plants on Day 111.

When	Cup A (water, light)	Cup B (no water)	Cup C (box with hole)	Cup D (box, no hole)
Day 1 (today): date ____	____	____	____	____
Check 2: date ____	____	____	____	____
Check 3: date ____	____	____	____	____
Check 4: date ____	____	____	____	____

My predictions and why:

Day 105: Independent Check: Reading Plant Test Results

Sample results after 10 days (a make-believe class; not your plants)

Cup	What changed	Result
A	Water and light	Sprouted. 10 cm tall, green leaves, straight stem.
B	No water	Did not sprout. The seeds stayed hard and dry.
C	Box with a hole	Sprouted. 9 cm tall, green leaves, stem bent toward the hole.
D	Box with no hole	Sprouted. 13 cm tall, thin stem, pale yellow leaves.

Answer on your own. An adult may read the questions aloud but should not give the answers.

1. In the sample results, what happened to the seeds with no water? What does that show?

   Answer:

2. Which way did the stem in Cup C grow? Why?

   Answer:

3. The plant in Cup D was the tallest, but its stem was thin and its leaves were pale yellow. Was it the healthiest plant? Use the table to explain.

   Answer: