Family edition

Seed Lab: Seed to Seed

Ages 8-11 · about 45 minutes, in one sitting

Your child grows a bean in Seed Lab from a seed to ripe seeds, counts them, and plants one as the next generation.

What you need

- A computer or Chromebook with a current browser.
- The lesson link: mytekdev.com/try/seedlab?lesson=seed-to-seed&ref=fam-seedlab-2. No account, no email and nothing to install.

Before you start: try it once yourself

Open mytekdev.com/try/seedlab?lesson=seed-to-seed&ref=fam-seedlab-2. A short guide opens over the app. A bush bean is planted outdoors in a medium pot, with the helper watering it.

1. **Start.** Set "A day in 1 second" and press `Start`. The first root comes out on Day 4, the shoot is up on Day 11, the first leaves open on Day 14 and the first three-part leaf on Day 20.
2. **Flowers.** Flower buds on Day 35, flowers on Day 40, pods on Day 46. Pause when the Flowers chip lights up, to ask what comes next.
3. **Ripe.** On Day 85 it stops: the leaves turn yellow and the pods hang dry. Press `Count the seeds`: 14 ripe seeds.
4. **Generation 2.** Press `Plant one of its seeds`. A fresh pot, the same room, and the card says generation 2.

> The moment that lands is planting the plant's own seed: the circle closes.

The ideas, in plain words

A bush bean is an annual: it lives one season, flowers, makes seeds and dies. A bean pollinates itself inside the flower before it opens, so it needs no insects. Its flowers turn into pods, and each pod holds a few seeds.

Seeds from one plant are not all the same size. In the app, each new generation's seed is a little bigger or smaller, and a smaller seed has a little less stored food to start on.

Common mistakes: flowers are only for looks; seeds need light to sprout; a plant grows forever. The app grows one model plant, the same way every time, so two children with the same settings get the same numbers. Real plants vary from seed to seed; a real bean in a bag beside the app shows that.

Do it together

1. Open mytekdev.com/try/seedlab?lesson=seed-to-seed&ref=fam-seedlab-2 together. A short guide opens over the app. Set the speed to "A day in 1 second" and press `Start`.

   > **You'll know it worked when:** The stage chips under the stage light up one by one.

2. Press `Pause` when the Flowers chip lights up, and ask: what will the flowers turn into?

   > **You'll know it worked when:** Pods, with seeds inside.

3. Press `Keep going` until the seeds are ripe, then press `Count the seeds`.

   > **If you get stuck:** It takes about a minute and a half: the seeds are ripe on Day 85.
   >
   > **You'll know it worked when:** The card says 14 ripe seeds.

4. Press `Plant one of its seeds` and grow generation 2.

   > **You'll know it worked when:** A new pot, and the card says generation 2.

Talk about it

Ask these while you work together. A child who has understood it can answer them without help:

- Which came out first, the root or the shoot?
- What do the flowers turn into?
- How does a bean get pollen to the right place without bees?
- What happens to the plant after its seeds are ripe?
- Why is the life cycle drawn as a circle?

> The last question is the real test: a child who connects the ripe seed back to the first stage has the idea of a cycle.

For younger and older kids

Younger: For a younger child, press Next stage instead of Start and name each stage together.

Older: For an older child, grow a radish alone and find out why it makes almost no seeds.

Keep going

- Grow a pea under the grow light, always on: it ripens on Day 73. How is its life cycle like the bean's?
- Grow one radish outdoors and leave it to flower. Why does it set almost no seed? (Read the card.)
- Open Puzzles and try Seed to seed, fast.

Bring it into other subjects

- Math: if each of the 14 seeds made 14 more, how many seeds would generation 3 make?
- Art: draw the life cycle as a circle with a picture for each stage.
- English: write the life story of a bean, from its point of view, using the vocabulary words.
- Real plants: grow a bean in a bag (the Journal has a printable sheet) and compare its first two weeks with the app.

For your records

Ready to copy into an hour log, a portfolio or a transcript.

LESSON	Seed Lab: Seed to Seed
SUBJECTS	Life science
TIME	45 minutes
WHAT WE DID	Grew a bean through its whole life cycle, counted its seeds, and planted the next generation.
SKILLS PRACTICED	Plant life cycles; Observing and recording; Drawing a model

Activity sheet (optional)

Name: _____ Date: _____

Open the app: scan the QR code, or go to mytekdev.com/try/seedlab?lesson=seed-to-seed

Essential question: How does a bean seed become a plant that makes new seeds?

Warm-up: Draw what you think happens between a seed and new seeds. _____

1. **Vocabulary.** Life cycle, sprout, seedling, pollination, generation: write each in your own words.

2. **The stages.** Write the day each stage started: first root ____; up ____; first leaves ____; flowers ____; pods ____; ripe seeds ____. How many seeds? ____

1. Draw the bean's life cycle as a circle, from seed back to seed.

2. Why does a life cycle go in a circle?

Quick check

Name: _____

1. What comes out of a bean seed first? (A) a leaf (B) a root (C) a flower

2. A bean's flowers turn into (A) pods with seeds (B) leaves (C) roots

3. Explain why we draw a life cycle as a circle.

Answers

QUESTION	ANSWER	WHY
1	B	The root comes out first, on Day 4, before the shoot is up.
2	A	The flowers turn into pods, and the pods hold the seeds.
3	The seeds start it again	The plant's ripe seeds grow into new plants that go through the same stages. "It repeats" alone is half.

If your state or umbrella school asks, this lesson covers NGSS 3-LS1-1, Texas TEKS 112.5(b)(13)(B).

Terms of use

This lesson was made by mytekDev. You may print and copy it for the children you teach at home, and change it for them. You may not sell it, share it with other families, or post it publicly.

The app this lesson uses is free and runs in the browser, with nothing to install and no account needed. It is at mytekdev.com.

© 2026 mytekDev. All rights reserved.