

Bean Plant Life Cycle

Beans are legumes: a type of plant with double-seamed pods containing, a single row of seeds.

1



The Seed Germinates

The plant starts life as a seed during the first stage of its life cycle. The seed is usually planted in soil or compost in spring, when it is warmer. The runner bean plant seeds are round, hard and multicoloured, usually red or purple with black spots. The seed begins to germinate and a shoot emerges, usually after about 2 to 3 days.



2



The Plant Grows

The seedling continues to grow. Underground, roots also continue to grow to keep the plant rooted in the ground. A stem starts to grow above ground. A few leaves appear on the stem of the plant. The stem gets harder and thicker, making it stronger. Runner bean plants usually grow to around 3 metres.



3



The Plant Flowers

During the third stage, the mature plant produces flowers. The runner bean plant usually has red petals, but they can also be white. The plant waits to be pollinated. Usually after between 6 to 8 weeks, you will begin to see flowers on the bean plant.



4



The Flower Produces Fruit

After the flowers are pollinated or fertilised, plant seeds grow into a fruit or seedpod. The bean plant produces pods of beans, which is what we can pick and eat, usually after about 12 to 14 weeks. There are around 40,000 varieties of bean.



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5



The Fruit Releases Seeds

Eventually the flower shrivels and seeds from the remaining pods fall onto the ground. Some of them settle and then begin the next plant's life cycle. The hard shell of the seed helps to protect it.



6



The Plant Dies

The final stage of the bean plant life cycle is when the plant dies. The seeds that are left germinate to produce new plants and the life cycle begins again.

Did you know?

- **Annuals** complete their life cycle in one year.
- **Biennials** complete their life cycle in two years. They germinate and grow roots and leaves in their first year. They flower, set seeds and die in their second year.
- **Perennials** live for many years after germinating.
- **Monocarpic** plants produce seeds only once, but may take years to become fully grown. Some even live to 60 years or more before they produce flowers and seeds.

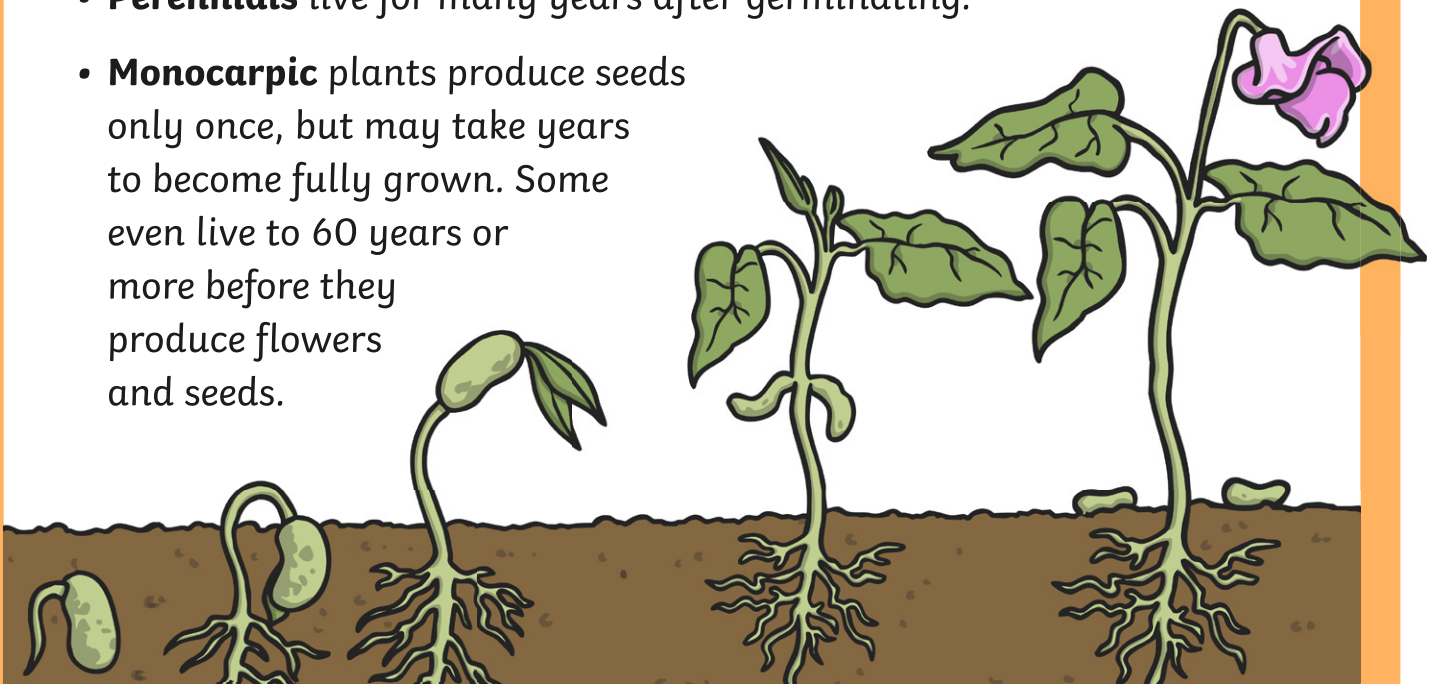


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Bean Plant Life Cycle Questions

1. What are the first and last stages of the bean plant life cycle?

2. What does the plant start life as and what happens to it after 2-3 days?

3. What happens below ground and above ground in the second stage?

4. When do you begin to see flowers on the bean plant?

5. What do we eat on the plant and when?

6. Why do you think only some of the remaining pods settle on the ground?

7. What are biennials?

8. What type of plant produces seeds only once but takes years to grow?

9. What does it take 60 years for some plants to do?

10. Which beans have you eaten before?

Bean Plant Life Cycle **Answers**

1. What are the first and last stages of the bean plant life cycle?

The seed germinates and the plant dies.

2. What does the plant start life as and what happens to it after 2-3 days?

The plant starts life as a seed during the first stage of its life cycle. The seed begins to germinate and a shoot emerges usually after about 2-3 days.

3. What happens below ground and above ground in the second stage?

The seedling continues to grow. Underground, roots also continue to grow to keep the plant rooted in the ground. A stem starts to grow above ground. A few leaves appear on the stem of the plant.

4. When do you begin to see flowers on the bean plant?

After 6 to 8 weeks you will usually begin to see flowers on the bean plant.

5. What do we eat on the plant and when?

The bean plant produces pods of beans, which is what we can pick and eat, usually after about 12 to 14 weeks.

6. Why do you think only some of the remaining pods settle on the ground?

Pupil's own response.

7. What are biennials?

They are plants that complete their life cycle in two years. They germinate and grow roots and leaves in their first year. They flower, set seeds and die in their second year.

8. What type of plant produces seeds only once but takes years to grow?

Monocarpic plants produce seeds only once, but may take years to become fully grown.

9. What does it take 60 years for some plants to do?

Some even live to 60 years or more before they produce flowers and seeds.

10. Which beans have you eaten before?

Pupil's own response.