





Q1. What things are soaked before cooking in your house? Why?

Solution:

We soak rice, lentils, and beans to make them softer and cook faster.

Q2. What things do you eat after sprouting? How are they sprouted? How much time does it take?

Solution:

We eat sprouted mung beans and lentils. They're sprouted by soaking them overnight and then keeping them in a damp cloth. It takes about 1-2 days.



Q3. Has the doctor or someone you know ever told you to eat sprouts? Why?

Solution:

Yes, because sprouts are full of nutrients and good for health.



Do this and find out

Do you remember that in Class IV you did an activity with seeds? Now try another one.

- Take some chang and three bowls.
- Put five chana in the first bowl and fill it up with water.
- Put a damp piece of cloth or some cotton wool in the second bowl.
- Now keep the same number of chanas in it.
- Make sure that the cotton wool or cloth remains wet.
- Put the same number of changes in the third bowl.
- Do not put anything else in it.
- Cover all the three bowls.









	Bowl 1	Bowl 2	Bowl 3
Are the seeds getting air?	No	Yes	Yes
Are the seeds getting water?	Yes	Yes	No
What changes did you see?	The seeds swelled up.	The seeds sprouted.	No change, the seeds remained dry.
Have the seeds sprouted?	No	Yes	No



Tell and write

Q1. In which bowl did the seeds sprout? What difference did you see between this bowl and the other bowls?

Solution:

The seeds sprouted in Bowl 2.

The difference was that Bowl 2 provided the seeds with both water and air due to the damp cloth, which is essential for sprouting. Bowl 1 had water but no air, and Bowl 3 had air but no water, therefore, the seeds in those bowls did not sprout.

Q2. Why did Gopal's mother tie the chana in a damp cloth?

Solution:

Gopal's mother tied the chana in a damp cloth to provide the right environment for the seeds to sprout. The damp cloth ensures that the seeds have enough moisture and access to air, which are necessary for the seeds to germinate and sprout.









Write:

Q1.	Name of the seed:							
The	date on which you planted	them: _						
The	day you observe somethin	g coming	out of	the soil,	start	filling	the	table.

Solution:

Name of the seed: Bean

The date on which you planted them: 5th April



Date	Height of plant (in cm)	Number of leaves seen	Any other change
12th April		2	Tiny leaves appeared
14th April	3.5	3	Leaves got bigger
16th April	SICS	5	First true leaves developed
18th April	7	7	The plant looked stronger

Find out:

Q1. How long did it take for the plant to come out from the soil?

Solution:

It took about 8 days for the plant to emerge from the soil.



Q2. What was the difference in the height of the plant on the first and second days?

Solution:

The plant grew 1.5 cm from the first to the second observation day.





Q3. On which day did the height of the plant increase the most?

Solution:

The height increased the most between the 14th and 16th April.

Q4. Did new leaves come out of the plant every day?

Solution:

Yes, new leaves appeared almost every day.

Q5. Was there any change in the stem of the plant?

Solution:

Yes, the stem got thicker and stronger as the plant grew.



Discuss:

Q1. Which seeds took the most number of days for the stem to come out of the soil?

Solution:

Bean seeds took the longest time.

Q2. Which seeds took the least days to come out of the soil?

Solution:

Mustard seeds sprouted quickly.

Q3. Which seeds did not grow at all? Why?

Solution:

Seeds need both water and air to grow; without them, they won't develop.

Q2. Did anyone's plant dry up or turn yellow? Why did this happen?

Solution:

Lack of water or sunlight caused some plants to dry up or turn yellow.





Q3. What would happen if the plants do not get water?

Solution:

Plants would wilt and die without water.



Straight from your heart:

Q1. What is inside the seed?

Solution:

A tiny plant waiting to grow and food for it.

Q2. How does a big plant grow from a tiny seed?

Solution:

The seed absorbs water and nutrients, growing into a big plant with sunlight's help.



Think and imagine:

Q1. What would happen if plants could walk? Draw a picture.

Solution:

Plants might move to find sunlight or water, making it surprising to see them move.



Q2. Do some plants grow without seeds?

Solution:

Yes, there are few plants which grow without seeds.











Find Out:

Q1. Do some plants grow without seeds?

Solution:

Yes, some plants, like potatoes and strawberries, can grow from their parts instead of seeds. For example, you can plant a piece of potato with eyes, and it will grow into a new potato plant.



So many seeds:

Question: How many types of seeds can you collect? Where will you find them? Each of you should try to collect as many different types of seeds as you can. After that, put all the seed collections together. Now, observe these seeds carefully - their shapes, sizes, colours, and textures (smooth or rough). Make a seed chart to put up in the class. You can start with a table like this.

Name of the seed	Colour	Shape (Draw)	Texture
Rajma	Reddish brown	Kidney shape	Smooth
Wheat	Golden brown	Oval	Smooth
Sunflower	Greyish black	Tear drop	Rough
Pumpkin	Cream to orange	Flat, oval	Smooth











Mango	light brown or tan color	large, flat, and oblong or elliptical in shape	smooth, with a fibrous inner part
Mustard	Brownish-yellow	Small, round	Smooth
Saunf (Aniseed)	Green or sometimes a faded greenish-brown	Tiny, elongated, slightly curved	Smooth with ridges
Jeera (Cumin)	Light brown to dark brown.	Small, oblong, with a slightly curved side.	Ridged, somewhat rough.



Think:

Q1. Did you keep aniseed (saunf) and cumin (jeera) in your list?

Solution:

Yes, these are included in my list.

Q2. Which was the smallest seed and which was the biggest seed in your collection?

Solution:

The smallest was Cumin seeds, and the biggest was Mango seeds.









Make a list of:

Q1. Seeds that are used as spices in your home:

Solution:

Mustard, cumin, coriander, fennel, and caraway are some seeds used as spices.

Q2. Seeds of vegetables:

Solution:

Seeds from vegetables include peas, beans, capsicum, eggplant, and cucumber.

Q3. Seeds of fruits:

Solution:

Fruit seeds can be found in apples, oranges, kiwis, grapes, and melons.



Q4. Light seeds (check by blowing them):

Solution:

Dandelion seeds and poppy seeds are so light that you can blow them away.

Q5. Seeds which are flat:

Solution:

Pumpkin, sunflower, and sesame seeds are examples of flat seeds.

Q6. Make more groups. How many groups of seeds did you make?

Solution:

You could also group seeds by their use in oil production, as bird feed, or by their color. Including the new groups suggested, you might now have around eight or more groups.

Q7. Do you know any games that you can play with seeds? Discuss with your friends.

Solution:

Yes, you can play games like guessing the seed type with friends, using seeds for tic-tac-toe, or seeing who can spit watermelon seeds the farthest.







Make a list of:

Q8. Look at the pictures given below and guess how the seeds travel and reach different places.





Solution:

The seeds travel and reach different places by animals eating them and then moving to a new location where they might be dropped (as seen with the squirrel), by birds carrying them away (as depicted by the bird), or by floating on water (illustrated by the seed pod near the water).

Q8. Have you ever seen any seed that can fly?

Solution:

Yes, I've seen seeds that can fly. Seeds like dandelions or maple seeds are designed to be carried by the wind.

Q9. What is it called in your area?

Solution:

In many areas, dandelion seeds are often referred to simply as "dandelion fluff," and maple seeds might be called "helicopter seeds" due to their spinning motion as they fall.

Q10. Look at your seed collection. Guess how many of those could have travelled by flying.

Solution:

Looking at a typical seed collection, seeds from plants like dandelions, maples, and thistles could have travelled by flying. The exact number depends on the collection's diversity, but these are common examples.

Q11. Some plants spread their seeds over long distances. When the soya bean pods are ripe, they burst, and the seeds are thrown out. Have you ever heard their sound?









Solution:

While some people may have heard the popping sound of soybean pods bursting open to release seeds, many have not had the opportunity to hear it

Q12. Think what would happen, if seeds did not spread and remained at one place only.

Solution:

If seeds remained in one place, they would likely overcrowd the area, compete for resources, and possibly prevent healthy growth, leading to fewer plants surviving.

Q13. Make a list of the different ways by which seeds are spread.

Solution:

Seeds are spread in various ways, including by wind, water, animals, bursting from pods, and being carried away by birds or insects.

Q14: What all was grown in India long ago? Were mangoes and bananas grown here? What came from other countries? Imagine food without potatoes or tomatoes!

Solution:

Long ago, India cultivated crops like wheat, rice, lentils, mangoes, and bananas, which are native to the region. Foods like potatoes and tomatoes were introduced from the Americas after the Columbian Exchange. Today, these foods are integral to Indian cuisine, and imagining meals without them would mean missing many of the vibrant flavors and dishes that define Indian food culture.



What we have learnt:

Question: Reena has drawn this picture of the seed sprouted by her. What do you think the seeds need for sprouting? Write in your own words. How would Reena's seeds look if they did not get the things needed? Show by drawing a picture.











Solution:

Seeds need water, air, and warmth to sprout. They absorb water, which swells them up, and then they use the air and warmth to start growing. Without these, Reena's seeds would stay small and hard, just like they were when she first planted them. They wouldn't grow roots or a stem, and they would look the same as they did before being planted.

Q2. How do seeds spread to far-off places? Write in your own words.

Solution:

- Some seeds are light and fly with the wind.
- Others hitch rides on animals or get eaten and later dropped in new places.
- Some can float on water and travel to where they land and grow.

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