

Discuss

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

Answer: A few items which we soak before cooking are soya beans, pulses, chana, rajma, etc. These are soaked because it softens and makes it easier to grind.

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

Answer: After sprouting, we can eat items like chana, moong, etc. We can sprout them by soaking them in water and then by wrapping them in wet cloth so that they get proper water and air. Chana takes around 36-48 hours to sprout, and moong takes around 24-36 hours.

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

Answer: Yes, the doctor has advised me to eat sprouts, as it is good for my health.

Do this and find out

Q1. Do you remember that in Class IV, you did an activity with seeds? Now try another one.

- Take some chana 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 chanas in the third bowl. Do not put anything else in it. Cover all 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?	Chanas have swelled	Chanas have sprouted	No change
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?

Answer: Seeds sprouted only in bowl 2. We noticed that in bowl 2, the seeds got sufficient air and water, so they sprouted. In the other two bowls, bowl 1 got only water, and bowl 3 got no air or water, so they did not sprout.

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

Answer: Gopal's mother tied the chana in a damp cloth so that seeds could get proper air and water to sprout.

Write

Q1. Name of the seed: _____

The date on which you planted them: _____

The day you observe something coming out of the soil, start filling the table.

Date	Height of plant (in cm)	Number of leaves seen	Any other change

Answer:

Name of the seed: Mustard (sarson)

The date on which you planted them: 2nd December 2019

The day you observe something coming out of the soil, start filling the table:

Date	Height of plant (in cm)	Number of leaves seen	Any other change
10 th December	1cm	2	Nil
11 th December	1.5cm	3	Nil
12 th December	2.5cm	4	The stem has become thicker

14 th December	4cm	6	The stem has become even thicker
---------------------------	-----	---	----------------------------------

Find out

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

Answer: The plant took almost a week to come out of the soil.

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

Answer: The height of the plant from the first day to the second day has increased by half a centimetre.

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

Answer: The height of the plant increased the most on the third day.

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

Answer: Yes, new leaves came out of the plant every day.

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

Answer: Yes, the stem became thicker and stronger each day passed by.

Discuss

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

Answer: Seeds of sesame took the most number of days for the stem to come out of the soil.

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

Answer: Seeds of mustard took the least days to come out of the soil.

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

Answer: Seeds require both water and air. If both are not present, then no seed will develop.

Q4. Did anyone's plant dry up or turn yellow? Why did this happen?

Answer: Yes, a few students' plants dried up or turned yellow since there was no proper water or air.

Q5. What would happen if the plants do not get water?

Answer: If the plants do not get water, then they will get dried up.

Straight from your heart

Q1. What is inside the seed?

Answer: Inside the seeds, there exist cotyledons and embryos.

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

Answer: The seeds, by absorbing water and nutrients from the soil, grows to be big plant.

Think and imagine

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

Answer: If plants could walk, then the plant would produce nothing for eating, shelter, or even oxygen.




Find out

Q1. Do some plants grow without seeds?


Answer: Yes, there are few plants which grow without seeds.

So many seeds

Q1. 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		Smooth

Answer:

Name of the seed	Colour	Shape (draw)
Rajma	Reddish brown	

Papaya




Black








Apple

Brown



Musk melon	White	
Mango	Whitish yellow	
Lady's finger	Green	

Chana	Brown	
Moong	Green	
Mustard	Green-black or yellow	

Aniseed	Green	
Cumin	Brown	

Think

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

Answer: Yes, I have taken aniseed and cumin seed in the list.

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

Answer: The biggest seed which I took was the mango seed, and the smallest seed among those were the cumin seeds.

Make list of

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

Answer: Seeds that are used as spices at home are mustard, cumin, aniseed, etc.

Q2. Seeds of vegetables.

Answer: Seeds of vegetables are tomato, lady's finger, brinjal, etc.

Q3. Seeds of fruits.

Answer: Seeds of fruits are oranges, apples, grapes, etc.

Q4. Light seeds (check by blowing them).

Answer: Light seeds are cumin, aniseed, etc.

Q5. Seeds which are flat.

Answer: Seeds which are flat are cumin, aniseed, sesame, rajma, etc.

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

Answer: More groups of seeds are edible seeds, small seeds, big seeds, seeds used as spices, heavy seeds, lightweight seeds, and seeds which produce oil. I could make 7 groups.

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

Answer: Yes, using seeds, we play games. Children play games using mango seeds to make a flute, cut the tamarind seed into halves, etc.

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

Answer: Yes, I have seen seeds which fly.

Q9. What is it called in your area?

Answer: It is called budhiya ke baal (old woman's hair).

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

Answer: Some of them could have travelled by flying like aniseed and cumin seed.

Q11. Look at the pictures given below and guess how the seeds travel and reach different places



Answer: In the first picture, we can see that squirrel is carrying the seed. In the second picture, we can see the parrot carrying the seed, which indicates that the seeds are travelling by means of animals. In the third picture, we can see that the seed is floating on the water. This indicates that the seed is carried away by the water.

Q12. 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?

Answer: No, I have not anything as such.

Q13. Think what would happen, if seeds did not spread and remained in one place only.

Answer: If seeds did not spread and remain in one place, they would fall under their parent tree so that they would not get enough sunlight and water. Hence, the plant will not grow properly, and it might die.

Q14. Make a list of the different ways by which seeds are spread.

Answer: Seeds are spread by water, wind, animals, birds, humans, etc.

Q15. 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!

Answer: Long ago in India, spinach, radish, mango, orange, etc., were grown. Yes, mangoes and bananas were grown here. From other countries, we got items like tomatoes, potatoes, coffee beans, cabbage, etc. It would be difficult to cook food without potatoes and tomatoes, and it would be tasteless.

What we have learnt

Q1. 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.



Answer: Every seed needs water and air for sprouting. If there is no water for the seed, the seed remains the same. And if there is water but no air, then the seed doesn't sprout and would not grow, but it would just swell up.

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

Answer: There are various means for the seeds to travel. The seeds would go to farther places, carried by the birds, water, animals, and air. Birds, after eating, throw the seeds. Lighter seeds get carried away by air and spread out.

