

**A Discuss**

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

Ans. Things that are soaked before cooking:

1. Chana, moong etc.
2. Dry pea, rajma etc.
3. Soya-bean
4. Pulses before grinding up
5. Rice, pulses etc. before grinding

After soaking, these things swell up and become soft. Only when they become eatable. If rice, pulse etc. are soaked before cooking, they take less time in cooking and thus fuel can be saved.

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

Ans. We eat chana, moong etc. after sprouting them. To sprout them, first these are soaked in water and then wrapped in a wet cloth and hanged up so that they get proper water and air. Chana takes about 36-48 hours in sprouting while moong take 24-36 hours.

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

Ans. Yes, doctor has advised me to eat sprouts because they are very nutritious.

B Do this and find out

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

- (a). Take some chana and three bowls.
- (b). Put five chana in the first bowl and fill it up with water.
- (c). 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.
- (d). Put the same number of chanas in the third bowl. Do not anything else in it. Cover all the three levels.

Observe after two days and note the changes in the bowls?

Ans.

	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 up	Chanas have sprouted	
Have the seeds sprouted	No	Yes	No

C Tell And Write

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

Ans. 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.

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

Ans. Gopal's mother tied the chana in a damp cloth so that they get proper water and air.

D Write

1. 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 the plant (in cm)	Number of leaves seen	Any other change

Ans. Name of the seed: Mustard (sarson)

The date of which you planted them: 2nd June 2023

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

Date	Height of the plant (in cm)	Number of leaves seen	Any other change
10 th June	1 cm	2	No
11 th June	1.5 cm	3	No
12 th June	2.5 cm	4	Stem is getting higher
13 th June	4 cm	6	Stem is getting more and more thicker

E Find out

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

Ans. It took a week for the plant to come out from soil.

2. What was the differences in the height of the plant on the first and second day?

Ans. The differences was of half centimetres.

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

Ans. The height of the plant increased the most on the third day.

4. Did news leaves come out of the plant every day?

Ans. Yes. Day by day it got thicker.

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

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

F Discuss

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

Ans. Sesame (til).

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

Ans. Mustard.

3. Which seed did not grow at all? Why?

Ans. All seeds grow up. However, if proper water and air had not been provided, they would not have grown up.

4. Did anyone's plant dry up to turn yellow? Why did this happen?

Ans. Yes. It happened because that plant may not get proper water and nutrients.

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

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

G Straight from your heart

1. What is inside the seed?

Ans. Inside the seed, there are cotyledons and embryo.

20. How does a big plant grows from a tiny seed?

Ans. The seeding absorbs water and nutrients from the ground and grows into a big plant.

H Think and imagine

1. What would happen if plants could walk?

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

I	Find out
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1. Do some plants grow without seeds?



Ans. Yes, there are few plants which grow without seeds.

J	So many seeds
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1. 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

Ans.

Name of the seed	Colour	Shape (draw)	Texture
Rajma	Reddish brown		Smooth
Papaya	Black		Rough

Apple

Brown



Soft

Musk melon

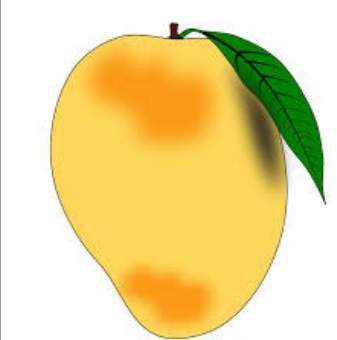
White



Soft

Mango

Whitish yellow



Rough

Lady's finger

Green



Soft

Chana

Brown



Soft

Moong	Green		Soft
Mustard	Green-black or yellow		Soft
Aniseed	Green		Soft
Cumin	Brown		Soft

K Think

1. Did you keep aniseed (Saunf) and cumin (Jeera) in your list?

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

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

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

L	Make list of
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1. Seeds that are used as spices in your home.

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

2. Seeds of vegetables.

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

3. Seeds of fruits.

Ans. Seeds of fruits are oranges, apples, grapes, etc.

4. Light seeds (check by blowing them).

Ans. Light seeds are cumin, aniseed, etc.

5. Seeds which are flat.

Ans. Seeds which are flat are cumin, aniseed, sesame, rajma, etc.

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

Ans. 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.

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

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

M Wandering seeds

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

Ans. Yes, I have seen seeds which fly.

2. What is it called in your area?

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

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

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

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



Ans. 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.

5. 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?

Ans. No, I have not heard anything as such.

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

Ans. 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.

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

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

8. 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!

Ans. 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.

N What we have learnt

1. 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.



Ans. 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.

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

Ans. 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.