

Activity-46: Respiration in sprouted seeds

Aim:

How to find out if seeds respire like animals (us)?

Procedure:

Most of the pulses that we eat are seeds. Go to your kitchen or a local vendor and collect 2 handful of the following seeds:

1. Rajma seeds. (Kidney Beans)
2. Methi seeds. (Fenugreek seeds)
3. Dhaniya seeds. (Coriander seeds)
4. Urad seeds. (Black Gram)
5. Channa Seeds (Chick peas)
6. Dried Green Peas (Garden Peas)

Take six different tumblers with clean water just enough to submerge the above seeds. Leave them for 8-12 hours in a warm place.

Before setting them, observe if you find any bubbles on the surface of the water or inside the water or on the surface of the seeds.

After 8-12 hours, what do you observe?

Observation:

There are bubbles all along the margin of the surface of the water.

Blowing air (mixture of gases) through a pipe into the water causes bubbles.

If there are bubbles, then it is due to a gas.

Can you guess the name of the Gas?

Now to confirm the identity (name) of the gas repeat the experiment using the setup described in the book.

Do you observe the Lime water turning Milky? If so, so you agree that seeds (and also plants) respire?