

PROJECT

Title of the project : Dispersal of seeds
(Enrichment of greenery)

class : VII EM

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Name of the Project : Dispersal of seeds
(Enrichment of greenery)

Aims of the Project : To enable the students

- 1) to acquire the knowledge about the dispersal of seeds.
- 2) to make them aware of the different agents for dispersal of seeds.
- 3) to appreciate how a seed becomes a new plant.

Hypothesis : Are there any agents for dispersal of seeds?

Tools :
Discussion
Interview

Procedure :

- 1) we approached a well known Agriculturist and had a brief discussion with him on seed dispersal.
- 2) we conducted an interview with a good biology teacher.
- 3) we collected some information and pictures from internet.
- 4) We observed dispersal of seeds in some plants in our surroundings.

collection of data through discussion and an interview

Seeds :

A seed is the part of a plant from which a new plant usually grows. The fleshy or hard part of a fruit protects the seeds till they are mature.

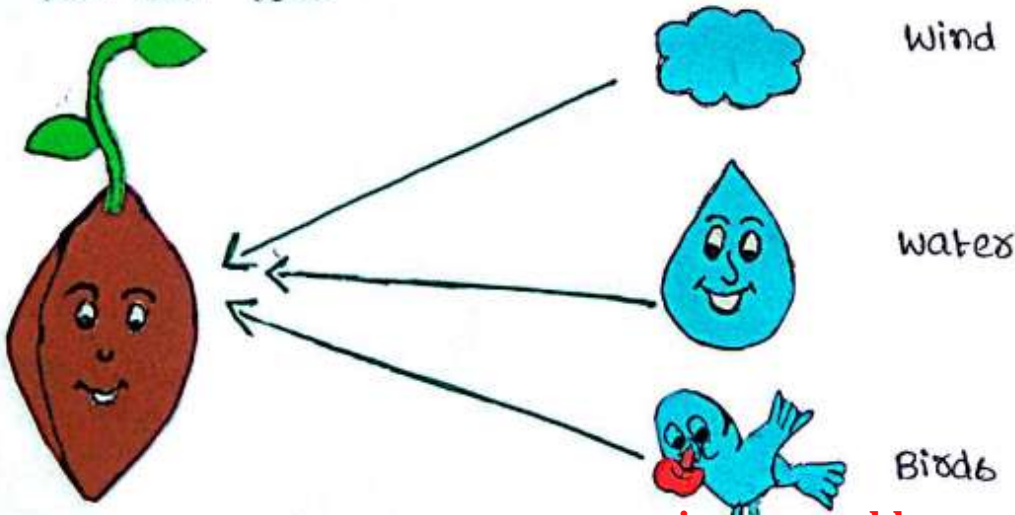
Need for dispersal of seeds :

Plants generally produce many seeds. If all of them were to fall under the parent plant, they would grow. In such crowded conditions, many of them would die due to lack of enough light, food, water and space to grow. Since the plants are fixed they take the help of natural agents like wind, water, birds, animals etc. for dispersing their seeds. This process of scattering & spreading of seeds of different places is called as seed dispersal.



New mango plants

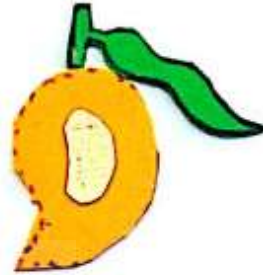
Help me travel :



Fruits AND Seeds :

Fruits have seeds inside them. Some fruits have one seed. Some have a few seeds while others have many.

For ex : A mango has one seed



Whereas watermelon has many seeds.

Most Plants grow from seeds :

Most new plants grow from seeds. Seeds are usually protected inside the fruit

There is a baby plant and its food inside the seed of the mother plant.

When the seed gets enough air, water, and warmth, the baby plant starts growing. It grows till it is a fully grown plant.

A baby plant
grows from a seed.

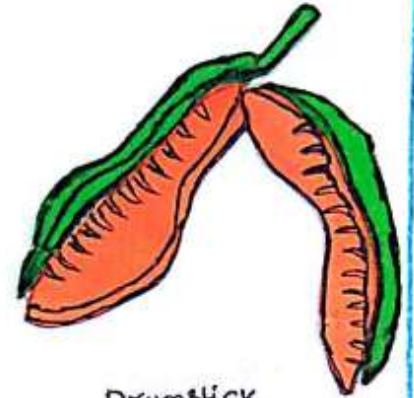


Agents for dispersal of seeds :

Many plants have special devices or organs for scattering of seeds.

By wind :

Seeds of some plants like cotton, madao, dandelion & drumstick are small, light and have wings or hairs. Therefore these seeds are easily carried to distant places by wind.

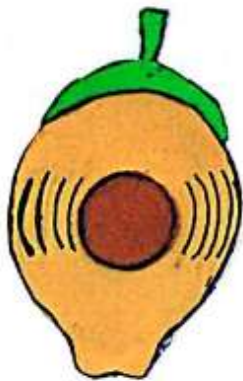


Drumstick

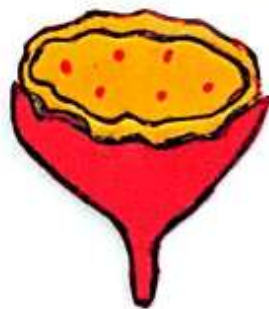


Dandelion

By water :



Coconut



Lotus

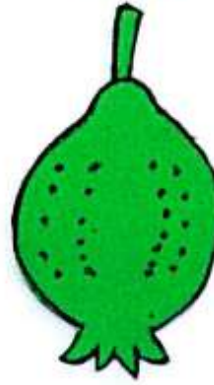
Seeds of some plants which grow in and near water are scattered by water. The seeds of coconut has a spongy fibrous outer coating & the seeds of lotus have a spongy part.

As they are light they can easily float on water.

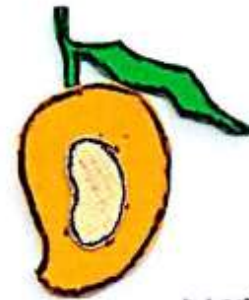
By Animals :

Sweet and juicy fruits like mango, and oranges are eaten by human beings, but their seeds are thrown away to different places. Some fruits are eaten by birds, but their seeds are passed away undigested & unharmed in their dropping. Eg: Tomato, guava.

Guava



Tomato



Mango



Xanthium



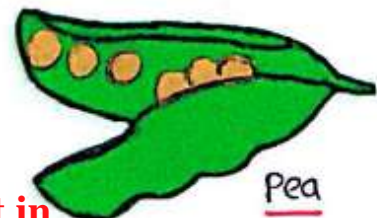
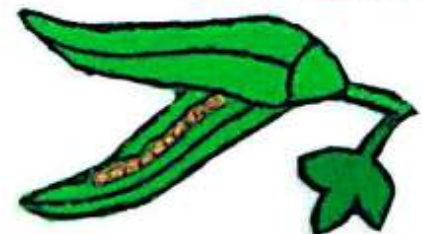
Tiger's tail

Some seeds have hooks or spines. They are attached to the fur (or) hairs of animals (or) clothing of human beings and are carried away to distant places. Eg: xanthium, Tiger's tail.

By Explosion :

Some fruits on drying burst open or explode. So the seeds are thrown away with force in all directions. Eg: Pea, balsam, castor, lady's fingers.

Lady's Fingers



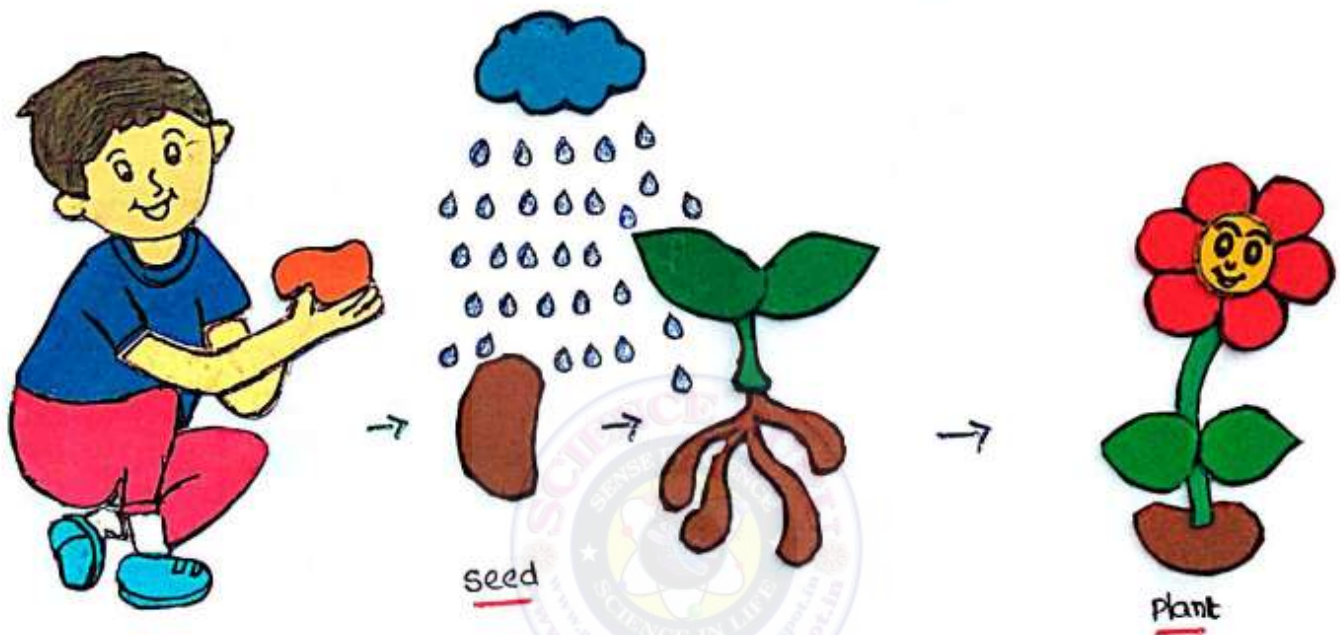
Pea

How Plants Travel :

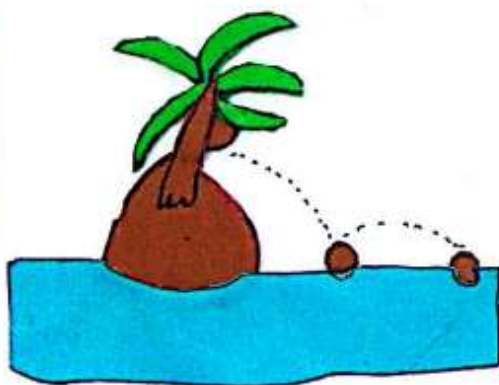
Plant seeds can travel in many different ways by humans, animals or the wind.



① Farmers grow crops by planting seeds in the ground.



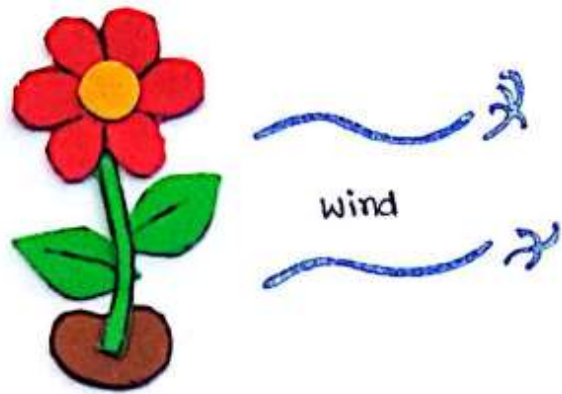
② Birds eat fruit in one place and pop out seeds in another place.



③ Coconuts fall into the sea and are carried to another shore.

4) Some seeds are carried
by the wind.

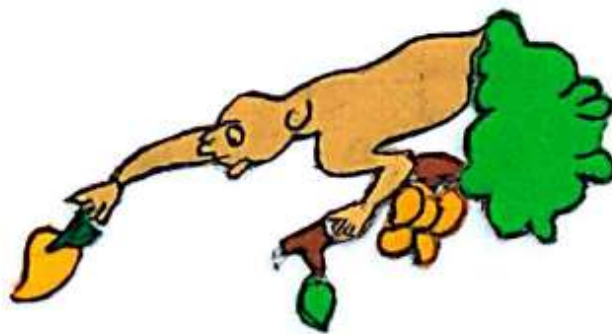
Ex: cotton



We observed dispersal of mango seeds in our surroundings.
Generally monkeys carry mango seeds from one place to
another. Thus they play a role in the dispersal of seeds.



A Monkey eats a mango



(A) The monkey throws the seed



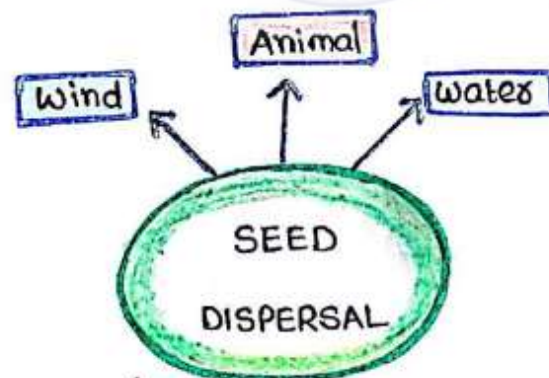
seed



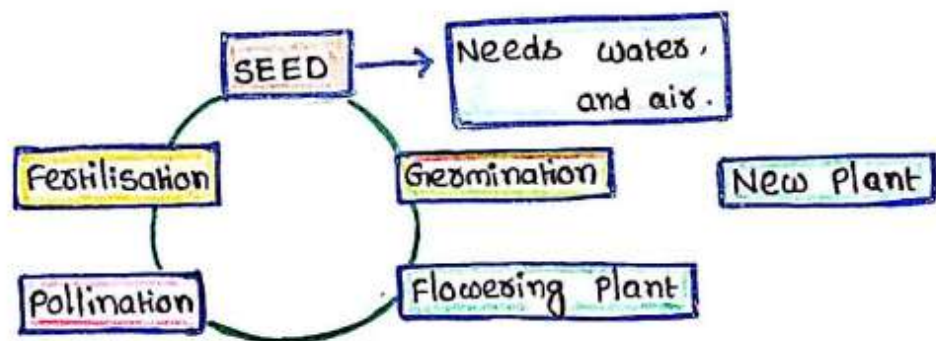
Baby Plant grows from the seed.

Analysis :

After the interpretation of collected data seeds disperse from one place to another by different agents these by spreading life everywhere.



Moving away from mother plant



conclusion :

It is concluded that "dispersal of seeds" is very essential for the existence of plants in different regions.

Experiences :

we are really surprised to know how seeds travel

Acknowledgement :

Thanks to ^{our} guide teacher (N. SUKANYA)

Thanks to Agriculturist

References :

VII class text book

Internet

Magazines .