From the booklet: Living processes and what plants need to grow

*Teaching Notes*

**Do plants need soil to grow?**

***Resources and preparation for the activity***

For the class, you will need the following:

* *Five clear film or dessert pots*
* *Labels*
* *Seeds (such as radish)*
* *Small plastic teaspoon*
* *Range of materials that might be suggested by the children, such as: soil, sand, paper, compost, cotton wool*

***The activity***

Discuss with the children the different types of medium that we use for sowing seeds. Ask if they think seeds would germinate if put in a pot with water only. Let them make a prediction as to which materials the seeds will germinate in and how to make this a fair test.

* Place the same ‘amount’ of material in each pot. One pot can be left without any material. Discuss with the children what they mean by ‘amount’ (weight, volume, depth?).
* Wet the material in each pot and then pour off any excess water.
* Add two seeds to each pot and then put the lid or cling film on the pot to keep the material moist.
* Leave for one week then observe the results. (All of the seeds should have germinated, but some seedlings may look better than others.)
* Record their results on the Pupil Sheet. This can be increased to an A3 page to give more space for children to write and draw in the boxes.

Remember – you can use the Planning Plant to help guide children in your class through the investigation. For this activity, you may wish to use only part of the planner and to do the planning as a class activity.

*Pupil Sheet*

**Do plants need soil to grow?**

**We will need**

**What we will do**

We will put a small amount of at the bottom of the pot, add

 and and put it in the light. We will leave our

seeds for a week. It will be fair because we will keep these things the same:

1 2 3 4

and only change

|  |  |  |
| --- | --- | --- |
| What we put in the pot | What might happen | What did happen |
| paper |  |  |
| compost |  |  |
| sand |  |  |
| cotton wool |  |  |
| nothing |  |  |

**What we found out**