



| TOPIC:  | LEVEL:                 | TIMING:             |
|---------|------------------------|---------------------|
| Science | First class- secondary | 3 lessons – 6 hours |
|         | school (11 years old)  |                     |

# Aim:

# The students:

- •Will understand the relationship between the seasons and nature.
- •They will also understand which factors are necessary for a seed to be able to germinate.

| A -Content  | B-Cognition                                  |  |
|---|--|--|
| The students:                                     | The students will:                           |  |
| <ul> <li>Explore which conditions have</li> </ul> | <ul> <li>Use observations and</li> </ul>     |  |
| to be present for a seed to                       | experiments, they                            |  |
| germinate   | should be able to draw                       |  |
| <ul> <li>Gain basic knowledge about</li> </ul>    | conclusions                                  |  |
| the four seasons, using spring as                 | <ul> <li>Apply their knowledge of</li> </ul> |  |
| a reference                                       | experimentation                              |  |
| <ul> <li>Understand the structure of</li> </ul>   | •Use their knowledge <u>in a</u> new         |  |
| plants  | context                                      |  |
| <ul> <li>Understand the basics of</li> </ul>      | •Explain and predict what                    |  |
| setting up an experiment                          | happens to plants in other                   |  |
| 492 Sg 38-7 M                                     | seasons                                      |  |

# C- Comunication

# Students will:

- Work collaboratively to develop hypotheses
- •Explain the effects different conditions have on a plant and its ability to grow
- Discuss predictions and give conclusions
- •Be able to describe a plant



| LANGUAGE OF      | LANGUAGE                       | LANGUAGE           | D-CULTURE    |
|------------------|--------------------------------|--------------------|--------------|
| learning         | FOR learning                   | THROUGH            |              |
| This unit helps  | Students will                  | The four seasons:  | The          |
| students         | be able to:                    | Which kind of      | students     |
| understand       | <ul><li>Describe the</li></ul> | weather is typical | have to      |
| plants and       | stages of plant                | for each season    | explain the  |
| their structure, | development                    | and what do the    | cress        |
| the factors      | during spring                  | woods look like at | experiments  |
| affecting        | <ul><li>Set up and</li></ul>   | that time of year? | to pre-      |
| growth, with     | perform                        | What is            | schoolers    |
| an emphasis on   | experiments                    | germination?       | and use the  |
| seasons and      | •Draw                          | Experiments with   | experiments  |
| seasonal         | conclusions                    | cress to show how  | to explain   |
| changes.         | from                           | a seed germinate.  | the seasonal |
| Particular       | experiments                    | Two experiments    | changes.     |
| reference is     | <ul><li>Describe the</li></ul> | with peas to show  |              |
| made to spring.  | four seasons                   | the students the   |              |
|                  | differences                    | forces of nature   |              |
|                  | using weather                  | and how            |              |
|                  | and the life of                | important the root |              |
|                  | the plants as                  | is for the plant   |              |
|                  | reference                      | What happened      |              |
|                  |                                | and how do we      |              |
|                  |                                | explain jt?        |              |

# CROSS-CURRICULAR APPROACH –ACTIVITIES

#### **LESSON 1**

The class talks about the seasons, with the teacher introducing weather-phrases and descriptions, and hanging pictures /flashcards on the walls in the classroom.

The learners are divided into 8 groups. Two groups will work on each season.

Within 15 minutes the groups have to draw and write what the weather is like in the season they have been assigned. When time is up the groups working with the same season join and compare their drawings and notes to see if they have come up with the same things

### **LESSON 2**

What is germination?

The class talks about what happens when a seed is planted.

•The students will be able to describe what happens with a seed

## Lesson 3:

The students are given an experiment description with drawings. They now have to set up their experiment with the cress being placed under different light and temperature conditions. They then describe what they think is going to happen.

Every other day the experiments are checked and if needed, watered. After one week the experiments are evaluated and the pupils compare their hypothesis with what has actually happened. If their hypothesis turns out not to be correct, they have to try to explain why the result came out different than anticipated.

