

Final Project: A Lesson Plan

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Title: How does a seed grow into a plant?

Subject: Science

Grade: 2



Lesson Objectives

The students will:

- ? **classify different seed type by appearance**
- ? **describe how a seed grows into a new plant**
- ? **identify the basic needs of a plant**
- ? **graph seed growth**

Introduction:

Teacher will provide a variety of seeds for children to observe. Ask children how the seeds are alike and how they are different. Record their comparisons.

Description:

Students will discover the factors that are necessary for the germination of seeds. Then compare the results to when those factors are not present.

Faith Integration:

This lesson is designed for students to understand that as much as plants need certain conditions for growth to take place. It is important for us to study daily the Word of God for our own spiritual growth.

Curriculum Benchmark:

- ? **Organize and display data using pictures, charts, bar graphs, line graphs, line plots and stem -and- leaf graphs.**
- ? **Collect data for investigations using scientific process skills including observing, estimating and measuring.**
- ? **Identify physical features of plants that help them live in different environments.**

Materials:

- ? **1/4 in. layer of cotton or 3 paper towels**
- ? **masking tape**
- ? **1 small envelope containing 5-6 of each seed (popcorn, bird seed, grass seed, beans)**
- ? **1 hand lens**
- ? **plastic bags**
- ? **cup of water**
- ? **markers/labels**

Prior Knowledge:

Ask students if they know where adult plants come from. Does anyone have a guess as to how the baby seed becomes a full grown plant? Do all plants grow the same way?

Teacher Preparation:

Soak the seeds in water at room temperature overnight to soften seed coat.

Students Activity:

Hands-on

Explain that the students are going to plant seeds in a plastic bag so they can watch them grow. Encourage students to make predictions about what a seed needs to grow into a plant.

- 1. Divide the students into pairs. Give each student a damp paper towel and demonstrate how to open it up and lay it on the desk. Pass out film canisters full of a variety of bean seeds. Instruct the students not to shake the containers. Have them very carefully open the canisters (which may be difficult for some of them) and pick out 4 bean seeds - alike or different. Put the lid back on the canister and place the bean seeds on the damp paper towel. Discuss the different type of seeds the students picked. Instruct the students to space their seeds evenly on their paper towels. Collect the film canisters. Next, have the students fold their paper towels back up and leave flat on their desks. (Make sure to germinate some seeds yourself.)**
- 2. Pass out labels (or markers) and resealable baggies. Have the students write their names on the label and stick it to their baggies. Then have the students take their paper towels and put them inside their baggies. Seal the baggies and put them in a box to store in a cool, dark place. The seeds should germinate within 3-4 days. Make sure the paper towels do not dry out.**
- 3. After the students have finished their bags, direct them to draw a picture in their journals, under the title, Day One, of what their bean seeds look like.**

Explain that they will continue to observe the seeds and draw another picture in 3 days, in 5 days, and in 7 days.

Technology: Students may choose take out picture with a camera. Teacher will assist students to make a slide show using the KidPix software.

Assessment/Evaluation:

Lab Report: How does a seed grow into a plant?

Teacher Name: **Mrs. Ramsarran**
 Student Name: _____

CATEGORY	4	3	2	1
Data	Professional looking and accurate representation of the data in tables and/or graphs. Graphs and tables are labeled and titled.	Accurate representation of the data in tables and/or graphs. Graphs and tables are labeled and titled.	Accurate representation of the data in written form, but no graphs or tables are presented.	Data are not shown OR are inaccurate.
Journal/Notebook	Clear, accurate, dated notes are taken regularly.	Dated, clear, accurate notes are taken occasionally.	Dated, notes are taken occasionally, but accuracy of notes might be questionable.	Notes rarely taken or of little use.
Drawings/Diagrams	Clear, accurate diagrams are included and make the experiment easier to understand. Diagrams are labeled neatly and accurately.	Diagrams are included and are labeled neatly and accurately.	Diagrams are included and are labeled.	Needed diagrams are missing OR are missing important labels .
Spelling, Punctuation and Grammar	One or fewer errors in spelling, punctuation and grammar in the report.	Two or three errors in spelling, punctuation and grammar in the report.	Four errors in spelling, punctuation and grammar in the report.	More than 4 errors in spelling, punctuation and grammar in the report.
Procedures	Procedures are listed in clear steps. Each step is numbered and is a complete sentence.	Procedures are listed in a logical order, but steps are not numbered and/or are not in complete sentences.	Procedures are listed but are not in a logical order or are difficult to follow.	Procedures do not accurately list the steps of the experiment.

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