CORN IN THE CLASSROOM

Lesson Plans - Overview

LESSON OVERVIEW

Students will learn about the corn plant from seed to harvest with a hands-on experiment and discussions about parts of the plant, life cycles, and agriculture uses.

ACTIVITY DESCRIPTION

Grow corn in a petri dish and observe the parts of the plant, a corn's life cycle and what they need to grow. Students can also create different variables to test (ex. soil in one and water in another).

LESSON STRUCTURE

- Discussion
  - Parts of a corn plant
  - Life cycle
  - What plants need to grow
  - Types & different uses of corn
- Growing Corn in a Petri Dish
- Observation & Reflection Worksheet

POSSIBLE TOPICS

- What a plant needs to grow
- Parts of the corn plant
- Corn's life cycle
- Different uses
- Types of corn

STANDARDS

Aligns with NGSS (Next Generation Science Standards)

- LS1.A: Structure and Function
- LS1.B: Growth and Development of Organisms
- ESS3.A: Natural Resources
- ETS1.A: Defining Engineering Problems

Scan the QR code or visit www.wohagclassroom.org for additional resources and more lesson plans!

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Lesson Plans - Discussion

WHAT PLANTS NEED TO GROW

- What do plants need to grow?
  - Sunlight, Water, Oxygen
- What might happen if the plant doesn't get enough of these?
- Can other things be added to make a plant grow better/faster?

LIFE CYCLE OF CORN

- What is the first thing a corn seed does?
  - Germinates or Sprouts
- What would happen if one part of the life cycle didn't happen?
  - The plant wouldn't grow correctly
- Talk about how corn starts as a seed, then grows roots and a little sprout, grows bigger leaves, makes tassels and silk, then grows kernels, and is finally ready to harvest.
- Walk through each life stage: seed → germination → seedling → vegetative growth → tasseling → pollination → kernel development → harvest
  - Students can complete a cut-and-paste life cycle wheel or timeline

PARTS OF A CORN PLANT

- What part of the corn plant do we eat?
- What do the roots do?
- Why are leaves important?
- What helps the corn stand tall?
- Talk about what each part does: roots hold the plant, stalk helps it stand, leaves catch sunlight, the tassel and silk help make new corn, and the ear is where the kernels grow.
- Students can label/color different parts of the corn plant.

TYPES & USES OF CORN

- Talk about the different kinds of corn. Some are for eating (like popcorn and sweet corn), and some are for animals or machines (like field corn for cows or making fuel).
- Students can make a Venn diagram to compare different types of corn.
- What kind of corn do you eat?
- What other things can corn be used to make?
- Why do we grow different types of corn?
- What would happen if we only had one kind of corn?

CORN IN THE CLASSROOM

Lesson Plans - Corn in a Petri Dish

MATERIALS NEEDED

- Corn Seeds
- Petri Dish
- Water
- Light Source
- Additives (activity variations)
  - Graphite
  - Soil vs. Water
  - Fertilizer
  - Salt water
  - Treated Corn Seed

STEP 1

Lay a piece of a paper towel at the bottom of the petri dish.

STEP 2

Use the syringe to dampen the paper towel.

STEP 3

Place 2-3 corn seeds in each petri dish. For a quicker germination process you can soak the seeds in a damp paper towel before they are in the petri dish.

STEP 4

If the class is creating different variables, add in the additives to different petri dishes (ex. soil in one, water in another) and predict which will grow the best.

STEP 5

Set the petri dishes in a well-lit area. Record the growth over the next several days and observe which corn seed grew the best.

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Observation Worksheet

PREDICT

Which corn seed will grow the best?

How tall do you think it will get?

RECORD

Write or draw what your corn plants look like.

DAY ____:

RECORD

Write or draw what your corn plants look like.

DAY ____:

RECORD

Write or draw what your corn plants look like.

DAY ____:

REVIEW

Which condition helped the seeds grow best? Why?

Was your prediction correct?

What suprised you about the results?

What did this experiment show that plants need to grow?