

*Module 2*

**GARDENING  
AND  
FARMING**

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GRADE: 3 - 5

SUBJECT: SCIENCE, MATH, ENGLISH

DATE:

TOPIC: PLANTS & ECOSYSTEMS

LESSON #

# Gardening & Farming

## LESSON FOCUS/GOALS:

- UNDERSTANDING HOW PLANTS INFLUENCE THE ECOSYSTEM
- PLANT LIFE CYCLE AND WATER CYCLE
- PRACTICAL USE OF MATH IN THE OUTSIDE WORLD
- REFLECTION WRITING PRACTICE

## MATERIALS NEEDED:

POTTING SOIL, PEAT POTS, SEEDS, WATER,  
PENCIL/PEN, LABELS FOR YOUR PLANTS, TRAY

PLEASE SEE HANDOUT FOR DETAILED INSTRUCTION

## LEARNING OBJECTIVES:

- PRACTICING OBSERVATIONS AND HYPOTHESIZING
- WRITING, LISTENING
- UNDERSTAND THE PHASES OF HOW PLANTS GROW
- UNDERSTAND THE WATER CYCLE AND HOW DIFFERENT AREAS GET MORE/LESS
- IDENTIFY WHY PLANTS GROW IN DIFFERENT CLIMATES
- ASKING QUESTIONS
- BEING ABLE TO REFLECT ON THEIR LEARNING
- GRAPHING PERIMETER AND AREA
- UNDERSTANDING WHERE THEIR FAVOURITE FOOD COMES FROM

## STRUCTURE/ACTIVITIES:

THIS MODULE IS INTENDED TO BE USED OVER THE COURSE OF A WEEK. THOUGH NOT ALL CLASSES WILL MOVE THROUGH EACH STEP AT THE SAME RATE, PLEASE ADAPT THE TIMELINE AS NEEDED. THIS MODULE CAN ALSO BE ADDED AND ADAPTED TO SUIT THE GRADE LEVEL YOU ARE TEACHING AT.

**\*\*BEFORE BEGINNING THE MODULE PLEASE ASSEMBLE THE STUDENT WORKBOOK THAT ACCOMPANIES THIS LESSON\*\***

### STEP 1: CLASS DISCUSSION WITH GUIDED QUESTIONS

- WHAT DO WE KNOW ABOUT PLANTS?
- WHAT PLANTS CAN WE EAT?
- WHAT PLANTS DO YOU GROW IN YOUR GARDEN?

## STEP 2: PLANT GROWTH IN YOUR AREA

- WHAT TYPE OF PLANTS GROW HERE? WHY DO WE THINK THAT THESE PLANTS GROW HERE?
- HYPOTHESIZE WHAT HAPPENS AS PLANTS GROW
- USE THE PLANT LIFE CYCLE WORKSHEET LOCATED IN THIS MODULE
- WATCH THE PHOTOSYNTHESIS VIDEO: [HTTPS://WWW.YOUTUBE.COM/WATCH?V=UPBMG5EYYDO](https://www.youtube.com/watch?v=UPBMG5EYYDO)
- WATCH THE WATER CYCLE VIDEO: [HTTPS://WWW.YOUTUBE.COM/WATCH?V=Y5GFI3PMVOI](https://www.youtube.com/watch?v=Y5GFI3PMVOI)
- HAVE THE STUDENTS DRAW THEIR OWN WATER CYCLE AND PHOTOSYNTHESIS DRAWINGS
- CLASS DISCUSSION OF THE TYPES OF PLANTS THAT GROW IN RAINFOREST, DESERT ETC. CLIMATES

## STEP 3: CREATING YOUR CLASSROOM/COMMUNITY GARDEN

- USE THE TEACHER PLANTING GUIDE SHEET TO SET ALL STUDENT STATIONS UP
- RESEARCH THE SEEDS YOU WILL BE USING - HOW FAR DO THEY NEED TO BE PLANTED APART, CALCULATE THE SEEDS YOU WILL NEED FOR EACH POT
- CONSIDER WHERE YOUR PLANTS NEED TO BE IN THE CLASSROOM TO GET THEIR NUTRIENTS
- HAVE THE STUDENTS PLANT THEIR SEEDS, WATER THEM AND LEAVE THEM ON A TRAY TO CATCH ANY EXCESS WATER

## STEP 4: JOURNAL REFLECTIONS

- HAVE STUDENTS DOCUMENT THE GROWTH AND CHANGES OF THEIR PLANTS ON A WEEKLY/BI-MONTHLY BASIS DEPENDING HOW LONG YOUR SEEDS WILL TAKE TO GROW
- HAVE STUDENTS DOCUMENT HOW THEY TAKE CARE OF THE PLANTS. DO THEY NEED TO BE MOVED TO RECEIVE MORE SUNLIGHT, WATERED MORE, COVERED IN A MINI GREENHOUSE ETC.
- AS A CLASS LOOK AT OTHER TYPES OF PLANTS (CACTUS ETC.) AND WHY THEY DON'T NEED AS MUCH WATER/SUNLIGHT/SHADE ETC. (RAINFOREST, DESERT ETC.)
- COMPARE WHAT YOU CAN GROW IN YOUR CLIMATE TO ANOTHER CLIMATE

## STEP 5: RE-PLANT

- TRANSPLANT YOUR PLANTS TO A COMMUNITY GARDEN/SCHOOL GARDEN IF YOU HAVE ONE OR TAKE THEM HOME.
- GUIDED QUESTIONS: HOW CAN THESE PLANTS HELP THE COMMUNITY/SCHOOL/CLASSROOM?

## STEP 6: DISCUSS WHAT THE STUDENTS LEARNED

- DO A THINK, PAIR, SHARE WITH SMALL GROUPS FOR 5-10 MINUTES DEPENDING ON GRADE LEVEL.
- WHAT DID THE STUDENTS FIND INTERESTING, WHAT WAS SOMETHING THEY DIDN'T KNOW AND WHAT IS SOMETHING THAT THEY WANT TO KNOW MORE ABOUT.