

## Grade 4-5: Farming Cycle

### National Science Standard

Life Science: Life cycles

History of Nature and Science: Science as a human endeavor

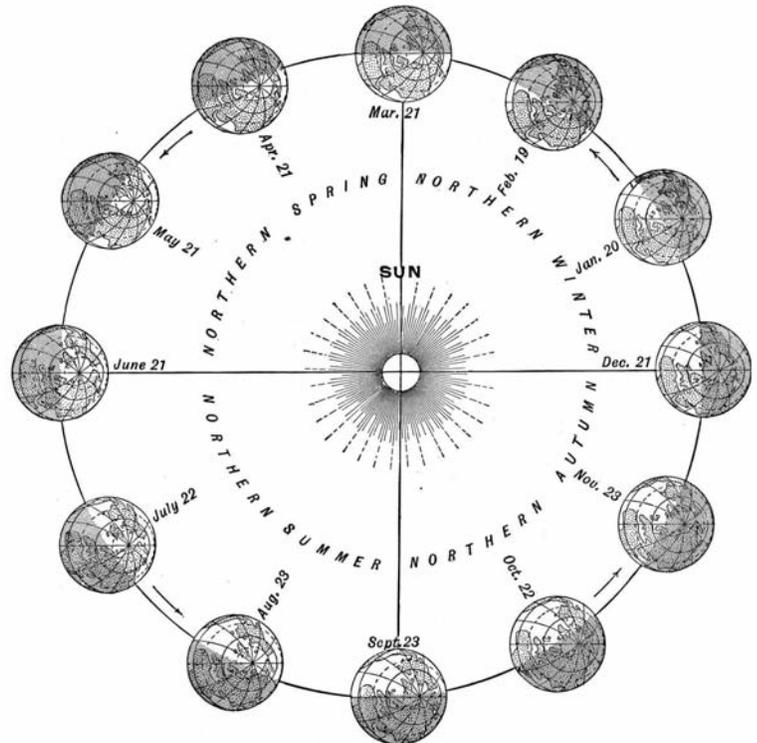
### Objectives

The student will:

1. identify the farming cycle
1. identify the factors from nature and man that affect the farming cycle.

### Background

A farmer has to cultivate (prepare) the ground for planting, plant the seeds, nurture and protect the crops and finally harvest at the end of the season.



**Planting:** Before planting a farmer must prepare the ground by opening up or “tilling” the soil. The next step is to plant the seeds. Planting involves digging a straight line or trench, dropping the seeds at precise increments, then covering them up again with dirt. Planting usually occurs around April.

**Growth:** The amount of time it takes a crop to mature varies according to the crop type. Between 60 and 90 days is common. The crop needs nutrients, air, light, and the right temperature to grow.

**Harvest:** Once the crops are mature, they are harvested or picked. Harvest time occurs during the months of September through November before the onset of winter.

### Instructional Procedure

1. Review the background material.
2. Conduct Activity 1
3. Have the students complete Activity 2

### Word Power:

Cultivate (v.): to prepare the ground for the preparation of raising crops.

Harvest (v.): to collect or gather up crops

Till (v.): to prepare land for growing crops.

Plant (v.): to put a plant or seed in the ground so that it can grow.

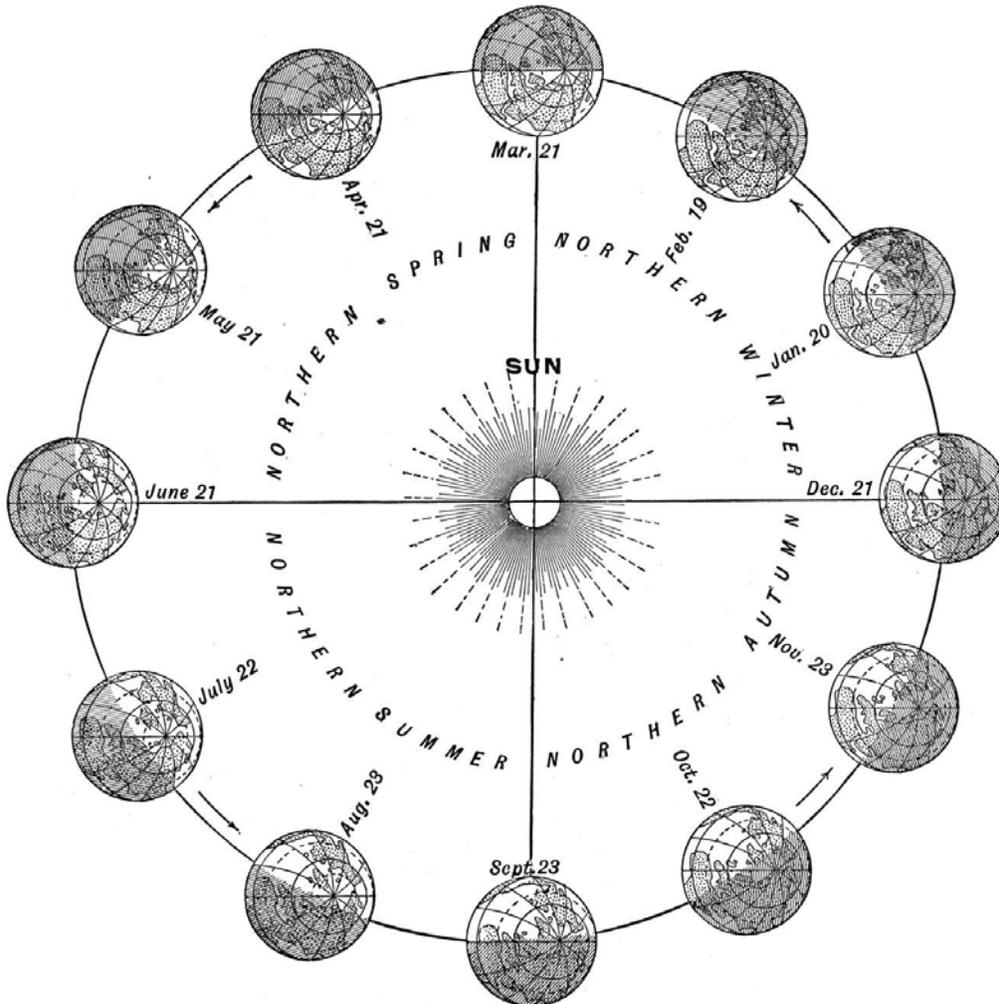
**Assessment:** Review cause and effect paragraphs and sequencing activity.

Name \_\_\_\_\_

## Activity 1: The Farming Cycle: Growing Conditions

**Supplies:** 3 small pots, potting soil, seeds

1. Fill each pot with the same potting soil.
2. Plant the same kind of seed in each pot.
3. Water each pot.
4. Store the pots in the following manner:
  - Keep one pot in a sunny warm spot in the classroom. Keep soil moist.
  - Keep one pot in a cool spot but with light. Outside if it is spring or fall. Keep soil moist.
  - Keep one pot in a covered box in a warm spot. Keep soil moist.
5. Keep an observation record for each pot. Check each pot weekly. Date and note observations on observation record.
6. Observe the difference in the seeds sprouting and growth over 2-4 weeks.
7. For the plants that grew slowly or not at all, discuss what factors caused this to happen.
8. Have the students write cause and effect statements for the results observed.



Name: \_\_\_\_\_

## Activity 2: The Farming Cycle

### Sequencing

**Number these sentences (1-10) in their correct order.**

It is winter and the temperatures are freezing.

\_\_\_\_\_ Soon, the seeds start to sprout.

\_\_\_\_\_ Next, the farmer plants the corn seeds.

\_\_\_\_\_ First, the farmer plans what crops he will plant for the year.

\_\_\_\_\_ After summer arrives, the corn grows to 6 feet tall.

\_\_\_\_\_ The season changes to summer with long days and warm to hot temperatures.

\_\_\_\_\_ Finally, the temperature is cool and the days are shorter.

\_\_\_\_\_ Next, the farmer purchases the corn seeds.

\_\_\_\_\_ So the corn is ready to harvest (pick).

\_\_\_\_\_ Spring arrives and the temperature begins to warm up.

\_\_\_\_\_ So the farmer can till his field.

The events in the farming cycle take place in a certain order. Clue words such as first, next, then and finally will help determine the order of the farming cycle.

