



## Signs of Spring

Lesson

### Goals

Students will learn about why spring is important and different changes that happen in the garden during the spring.

### Objectives

Students will identify the major signs of spring in the garden.

### Standards

Science: Life Science

GR.3-S.2-GLE.1

GR.4-S.2-GLE.3

GR.5-S.2-GLE.1

Science: Earth Science

GR.2-S.3-GLE.1

### Did you know?

Vegetables such as spinach and radishes are very sensitive to increasing daylight hours. After the first day of summer, they flower, set seed and die.

**Total Time** – 60 minutes

### Materials

- Snack (see recipe at end of lesson)
- Recording sheet
- Journals

### Vocabulary

equinox (spring/fall)

spring bulbs

perennial

solstice (summer/winter)

sensors

annual

pollinators

### Background for Teachers

The first official day of spring occurs on March 20<sup>th</sup>, the spring (or vernal) equinox, which is one of two days in the year (the other being the fall equinox in the fall) when we have equal hours of day and night. The term equinox comes from the Latin words *aequus* meaning equal and *nox* meaning night.

After the spring equinox, the days continue to get longer and the sun rises higher in the sky, until the summer solstice (June 20<sup>th</sup>). This is important for the garden for two reasons. First, some plants have sensors, which determine when to bloom based on the day length (photoperiodism). Second, longer days heat of the air and make it warm enough for many of our plants to grow well.

### Method

#### Introduction (10 minutes)

1. Ask the class what spring means to them. List their ideas up on the board.

2. Discuss with the class what spring means and the background information above. Emphasizing the changes in the amount of daylight, which impacts temperatures and growing conditions.
3. Prepare the class for going outside. Break them into groups of three or four students. If you haven't already, review with the class the rules of being outside and remind them that this is not recess.

#### Activity (40 minutes)

1. Bring the class out the garden (or other outside area that may have various types of plants, flowers, bugs, etc).
2. Each group should look for at least five signs of spring. Pass out attached worksheet or have them write directly in their journals.
3. Some ideas include:
  - a. New buds – What is happening to the trees, spring bulbs, self-seeded annuals (lettuce, cilantro, etc), garlic weeds, perennial herbs (sage, thyme, oregano, rosemary, mint, etc)?
  - b. Insects – Are there worms in the dirt? What type of dirt? Are there bees and other pollinators? Where are they and what are they doing? Are there any other insects?
  - c. Roots – Look at the roots of various types of weeds? Can you identify which are taproots and which are fibrous roots?
  - d. Smells – What does the garden smell like? The new flowers on the trees, spring bulbs, weeds? What do the herbs smell like?
  - e. Soil – What is the soil like that is covered versus uncovered? Describe how it smells and looks? Are there different insects and plants growing in each type?
  - f. Identification – Can you identify any of the plants? What can't you identify? How would you figure out what it might be?
4. There are really countless things you can look at. The point is to get the students to start noticing the changes that are occurring in the garden. This helps them have a starting point to reflect back upon later in the summer or in the fall.
5. After 20 or 30 minutes have the groups report back the most interesting sign of spring they discovered. Discuss any important signs they may have missed, as well answer any questions.

#### Conclusion (5 minutes)

Have the class share what they are most excited to see happen in the garden this year.

#### Snack (5 minutes)

Have a simple spring-related snack in the garden, such as the spinach salad below.

#### Assessment Tools

- Participation
- Observation recording sheet

### **Modifications**

- Have the students draw various observations they saw in the garden.

### **Extensions**

- Have the students research the different plants they found in the garden. Or, have them research the questions that were asked.
- Have the students write a short prediction of what they think the garden will look like in the fall when they return to school.

### **Spinach Salad with Sherry Vinaigrette**

With spinach, spring onions and asparagus, this is a great recipe to showcase spring vegetables.

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| <ul style="list-style-type: none"><li>• 6 oz baby spinach</li><li>• 12 carrots, thinly sliced</li><li>• 3 spring onions, mince</li><li>• 1 bunch asparagus, sliced on a bias</li><li>• <math>\frac{1}{2}</math> shallot, minced</li></ul> | <ul style="list-style-type: none"><li>• 1 tsp Dijon mustard</li><li>• 2 Tbsp sherry vinegar</li><li>• 6 Tbsp olive oil</li><li>• Salt and pepper to taste</li></ul> |
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Preparation (15 minutes)

For the dressing: Combine minced shallot, Dijon mustard, sherry vinegar and olive oil together in a bowl. Whisk until emulsified. Season with salt and pepper and set aside.

For the salad: Blanch the sliced asparagus in boiling water for 1 minute. Shock the asparagus in ice water once removed from the boiling water and set aside. Heat a sauté pan with a little olive oil. When pan is very hot, lightly sauté minced onions in the hot oil for 10 seconds. Remove from the pan and set aside. In a large bowl, combine the spinach and the carrots. Next add the asparagus and onions. Pour the dressing over the salad, mix well and enjoy.

### **Source**

Recipe courtesy of Corey Ferguson

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List three examples of new green growth you found in the garden.

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

Looking in the air, on the ground and under leaves and rocks, can you find three different types of bugs? What are they doing?

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

Compare the soil that is covered versus uncovered. How do they smell and look? Why are they different?

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What plants can you identify in the garden?

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What is your favorite example of spring in the garden?

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