Early Childhood and Lower Elementary: Do plants need sunlight?
Connections to Standards: Science K-LS1-1; 2-LS2-1

Lesson: Cauliflower is white because large green leaves grow over the flower portion (the part we eat) of the plant. Because the flower does not receive sunlight, it cannot make chlorophyll (the green we see) from photosynthesis. Adapt this lesson from Michigan Reach Out! to perform an experiment to see what happens when plant leaves are covered and do not receive any light.


Upper Elementary: How Many Veggies Should I Eat?
Connections to Standards: English Language Arts 3.RI.5; 3.SL.4; 4.RI.7; 4.SL.2; 5.RI.7; 5.SL.4

Lesson: Cauliflower can be eaten in a variety of ways - fresh, cooked, cooked from frozen, or even pureed. All forms count toward the USDA's daily recommended amount of vegetables. The amount each person needs depends on age, gender, and physical activity level. Have students visit the USDA's MyPlate website to find out how many vegetables they need to eat each day - and also to learn how fruits and vegetables are part of a healthy diet. Have students create a meal plan for a day that meets the daily requirements outlined on MyPlate. This online platform also allows students to track how much they eat from each food group, set goals, and assess their progress over time.

Resources: USDA's MyPlate http://www.choosemyplate.gov/

Middle School: Range of Maturity
Connections to Standards: Science MS-LS1-4, 5

Lesson: Farmers have been breeding for different traits in plants and animals since the dawn of agriculture. An important trait is the average number of days to maturity for a crop. Some varieties have been bred to reach maturity quickly while others take longer. This can be useful in different climates or in determining when you want to produce and eat a particular vegetable throughout the season.

Using garden seed catalogs, look at the differences in days to maturity between different cauliflower types. Have students graph these different points, labeling each variety and noting both the range and average of their findings. Lead students in a discussion about their findings and why these differences may be important for farmers.

Resources: Seed Companies with a wide variety of cauliflower http://www.territorialseed.com/ http://www.johnnyseeds.com/

High School: Seasonal, Local Food
Connections to Standards: Social Science HS.16, 20, 60, 63

Lesson: Adapt this lesson from the Center for Eco-literacy's Nourish Curriculum Guide to help students begin to uncover the benefits of seasonal, local food. Students begin by exploring the idea of local and researching what foods are growing locally in their area. Students are then challenged to create a seasonal circle or local food wheel that highlights local food and the season or month it is available. Discussion follows about how food choices may impact not only students personally, but their community and the world.