Background

Whether you are planting a garden, trees, or a meadow, it is important to select plants adapted to the amount of sunlight that reaches your site.

Different plants have adapted to grow under different lighting conditions. Some require **Full Sun** (at least 6 hours of light) during the growing season for optimal growth. Some do best in **Partial Shade** (3 to 6 hours of direct sunlight). Others grow well in **Shade** (less than 3 hours of direct sunlight or filtered light.)

Does your potential site(s) receive sun all day or just for part of the day? You will perform the following two exercises to determine the amount of light that will reach your site during the growing season.

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**PART 1. Sun-Shade Estimate**

It helps to understand the angle of sunlight that will fall upon your site during the growing season. Although the sun rises in the east and sets in the west, the positions of the sunrises and sunsets change during the course of a year.

1. From what compass direction does the sun rise in late March? Northeast, East, or Southeast?

2. From what compass direction does the sun rise in late June? Northeast, East, or Southeast?

3. Where does it set in July?

4. Identify north on your school property. Considering the position of the sun’s path during the summer, do you think your planting site will receive:
   a) Morning sun?
   b) Afternoon sun?
   c) Morning shade?
   d) Afternoon shade?
PART 2. Sun-Shade Observation

Pick two times in the morning and at least two times in the afternoon to observe the light conditions on your site(s). For instance, make morning observations at 9:00 and 11:00 a.m. and afternoon observations at 1:00 and 4:00 p.m. Do your observations on a sunny day, and record them on the following chart. (This chart can be used for up to two locations.)

<table>
<thead>
<tr>
<th>Date</th>
<th>Location 1</th>
<th>Location 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time of observation</td>
<td>Note “sun” or “shade”</td>
<td>Note “sun” or “shade” if this area will be shaded by trees or buildings during summer.</td>
</tr>
</tbody>
</table>

1. From your observations, how many hours of sunlight do you estimate your site will receive each day from May through August?

2. Would some areas of your garden receive less light than others, due to shade from structures?

3. Based on Exercise 1 and your observations, would you classify this site as Full Sun, Partial Shade, or Shade? Why?

4. Extra Credit Research Question: What are two native plants that would do well with this lighting?