# Science Log – 5th

**Topic: Plant Adaptations**

**Learning Goals:**
1. Create a model of a plant illustrating the parts of a plant.
2. Explain the role of photosynthesis in the survival of plants.
3. Describe the traits of a plant that allow it to survive in its environment.

## Vocabulary Preview

<table>
<thead>
<tr>
<th>Seed-producing plants</th>
<th>Have roots, stems, leaves, and flowers (aka vascular plants!)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollination</td>
<td>Part of the reproductive process of flowering plants; pollen is transferred from the stamens to the stigma.</td>
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<tr>
<td>Stamen and Pistil</td>
<td>Reproductive parts of the flower.</td>
</tr>
<tr>
<td>Sepals</td>
<td>Small leaves that form the housing of the developing flower.</td>
</tr>
<tr>
<td>Plants with spores</td>
<td>Nonvascular plants!</td>
</tr>
<tr>
<td>Photosynthesis</td>
<td>How planets produce their own food.</td>
</tr>
<tr>
<td>Spores</td>
<td>A small usually single-celled reproductive body produced by fungi and some plants.</td>
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<tr>
<td>Pollen</td>
<td>The very tiny grains produced by the stamens of a flower that fertilize the seeds and usually appear as fine yellow dust.</td>
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<tr>
<td>Vascular</td>
<td>Plants that have specialized tissues for conducting water, minerals, and photosynthetic products through the plant.</td>
</tr>
<tr>
<td>Nonvascular</td>
<td>Plants that have no roots, stems, or leaves, so the plants cannot retain water or deliver it to other parts of the plant body.</td>
</tr>
</tbody>
</table>
PLANT DESIGN CHALLENGE

You are botanist (plant scientist) on hike through the wilderness when you discover a plant that has never been seen.

**STEP 1:** Find your birth month. Use your birth month to determine the environment in which you discovered your plant. Read details about the type of environment, or habitat, in which your plant survives.

My plant has the adaptations needed to survive in the ______________________________ environment.

I will name my newly discovered plant ______________________________________________ .

**STEP 2:** Brainstorm

- Decide if your newly “discovered” plant produces a product useful to humans. If so, please share what the product is and how the plant is used to create it. (Example: Oak tree’s trunk is cut down and the bark is removed before the trunk is cut to produce lumber to build houses.) CHECK ONE BELOW.
  - My plant will not produce a product for humans to use.
  - My plant will produce __________________________ for ________________________________ .
PLANT DESIGN CHALLENGE

• Your plant must have a way to get energy, a way to protect itself from weather/climate and animals, and a way to reproduce. Explain how your plant will...
  
  o Get energy: __________________________________________________________
  __________________________________________________________

  o Protect itself from weather/climate:
  __________________________________________________________
  __________________________________________________________

  o Protect itself from animals:
  __________________________________________________________
  __________________________________________________________

  o Reproduce:
  __________________________________________________________
  __________________________________________________________

STEP 3: Draw the life cycle stages of your plant.

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SEED
SEEDLING (Germination)
FLOWER
FRUIT
ADULT PLANT
YOUNG PLANT
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STEP 4: Using craft supplies, design your plant in its final stage of life. Label the plant's roots, stems, and leaves. Take a picture of your plant and share it with us at Explorers@Blueskyfund.org or by posting it on social media with the hashtag #ThinkOutsideWithBlueSky

HAVE FUN SCIENTISTS!!!