Before you get creative and start designing a dream garden for the Lower School, let’s spend some time researching and learning more about the basics of gardening.

So DIG IN!.............

START WITH LOCATION

Climate Zones: Gardening is different dependent upon where the garden is located. Climate zone maps were created to help gardeners decide what plants will grow well in their area. If you want a plant to survive and grow year after year, the plant must tolerate the average lowest temperatures for our area.

Let’s learn more about what will grow in our climate.

   a. Notice it is divided into 10-degree Fahrenheit zones, based on the average annual minimum winter temperature. The zones are numbered beginning at zone 1 in the north.
   b. Click on the state of Maine. Look at the color key in the bottom right corner of the map. The ranges for Maine start at
      
      Zone ________ and go up to Zone 6a.

   c. Type in the Lower School’s zip code: 30337 to find the plant hardiness zone for College Park:

      Zone ____________

      Minimum temperature ____________ to ____________ (F)

   d. Thus, when looking for plants to use in our garden, you will want to look for plants hardy for: Zone_____.
2. Planting seeds or transplants at the correct time is also important in getting the most out of your garden. Knowing the first and last frost dates will help you start your seeds at the right time. Visit the Urban Farmer site to find out more about planting times: [http://www.ufseeds.com/Georgia-Vegetable-Planting-Calendar.html](http://www.ufseeds.com/Georgia-Vegetable-Planting-Calendar.html)

   a. Scroll down and find the first and last frost dates for Atlanta:

<table>
<thead>
<tr>
<th>City</th>
<th>Last Frost Date</th>
<th>First Frost Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlanta</td>
<td></td>
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</tr>
</tbody>
</table>

   b. Scroll down to the chart that tells the planting schedule for planting vegetables in our zone in Georgia. (Hint: Scroll down and use the chart with the zone number you found in # 1 d above.)

   List five vegetables that we could **plant and harvest** between now and the end of the school year:

   1. 
   2. 
   3. 
   4. 
   5. 

   List some of the vegetables that we could **plant at the end of the school year and harvest after summer break:**

   1. 
   2. 
   3. 
   4. 
   5.
3. As you can see in this picture, the current Lower School Garden is on the playground and uses raised beds. Watch this video at the Burpee website:

"Introduction to Raised Bed Gardening".

List three advantages to using raised beds:

1. 
2. 
3. 

4. Soil is the foundation for growing healthy plants. Watch the video about soil basics at the Burpee website: “Basics of Great Garden Soil”.
   
a. The best soil is rich, fluffy, and packed with ____________________________.

b. Soil is important because plants ____________________________ through their _____________.

c. How can we tell what type of soil we have in our garden?
   
   __________________________________________________________________________
   __________________________________________________________________________

5. Follow the link and read about the basics of composting: “Composting Basics: How Does Composting Work” at: https://www.gardeningknowhow.com/composting/basics/composting-basics.htm

   a. List three benefits of composting:

   1. 
   2. 
   3. 

   b. List three materials that we have readily available here at school that we could compost?

   1. 
   2. 
   3.
6. Some plants do well planted next to other plants and some do not. Watch the video:

“Companion Planting: Why Vegetables Need Friends”

Then read the information about Companion Planting at this site:

http://www.vegetablegardeninglife.com/companion-planting-charts.html

a. Name five benefits of companion planting (Write enough to explain what each means):

1. 
2. 
3. 
4. 
5. 

b. Scroll down to the Companion Planting Chart. Fill out the chart below for each plant listed:

<table>
<thead>
<tr>
<th>Name of Plant</th>
<th>Compatible/Companions or Grows Well With:</th>
<th>Antagonists/ Combatives or Does Not Grow Well With:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broccoli</td>
<td></td>
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<td>Lettuce</td>
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<td>Tomatoes</td>
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<td>Beans</td>
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<tr>
<td>Carrots</td>
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</tbody>
</table>

c. Why would the marigold be a good flower to plant in our garden? (Answer in a complete sentence):

____________________________________________________________________________________
____________________________________________________________________________________
7. Pollination is responsible for the reproduction of most plants. It occurs when the pollen from the stamen of a plant is transferred to the stigma of the same plant or another plant. The insects and animals that carry the pollen between plants are known as pollinators. Some plants may be self-pollinated or pollinated by the wind, but the majority of the world’s plants depend on pollinators to reproduce.

Read more at: [http://www.pollinator.org/pollination.htm](http://www.pollinator.org/pollination.htm)

a. List some animals that are pollinators:

b. Why is pollination important to us? (use complete sentences)

c. What are some things that we could do in our garden to encourage and promote pollinators? (use complete sentences)

8. Read this “Priority: Pollinators” article to find out what early bloomers we might be able to plant from seed to attract bees and butterflies: [http://www.ezfromseed.org/articles/pressrelease-spring-2013.pdf](http://www.ezfromseed.org/articles/pressrelease-spring-2013.pdf)

List three early bloomers:

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<td>2.</td>
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<td>3.</td>
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</table>
9. Read more about how to encourage pollinators and beneficial insects at the Kidsgardening.org site: 

a. In a complete sentence, explain what a “beneficial” is?

____________________________________________________________________________________
____________________________________________________________________________________

b. Name three ways to help encourage beneficials in the garden:

1. 

2. 

3. 

10. Look at this poster to help you recognize beneficials:

List three beneficials that are new to you:

1. 

2. 

3. 
11. Before we plant, we need to learn more about the environment that seeds need to germinate. Read more at this PennState site:
http://extension.psu.edu/business/start-farming/vegetables/factsheets/seed-and-seedling-biology

a. List four conditions that must be correct for seed germination:

1. 

2. 

3. 

4. 

b. Germination is not an exact science. Read about germination at:
http://www.growgreatvegetables.com/plantinggrowing/germination/

Describe several things you could do to help seeds germinate.

1. 

2. 

3. 
12. Read this quick summary about **planning a spring garden**.

13. Plan a spring garden with some vegetables and companion plants. Use the chart below to collect some information to help with your planting plan.

Some great sites to use:

6. [https://www.gurneys.com/category/vegetables/](https://www.gurneys.com/category/vegetables/)

<table>
<thead>
<tr>
<th>Name of Plant (include variety if needed)</th>
<th>Zone</th>
<th>Start seed indoors</th>
<th>Plant seed or plant outdoors</th>
<th>Distance Between Rows</th>
<th>Distance Between Plants</th>
<th>Depth of Seeding (inches)</th>
<th>Height of Plant</th>
<th>Days to Maturity</th>
<th>Sun</th>
<th>Soil</th>
<th>Water</th>
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Easy Children’s Vegetable Garden Plan

Get youngsters excited about growing their own food with this easy-growing garden filled with colorful varieties.

PLANT LIST
A. ‘Kong’ and ‘Teddy Bear’ sunflowers
B. ‘Scarlet Runner’ beans on tepee
C. ‘Early Girl’, ‘Yellow Pear’, ‘Big Beef’, and ‘Sweet 100’ tomatoes
D. ‘Green Tiger’ and ‘Scallop’ summer squashes
E. ‘Salad Bush’ cucumbers
F. ‘Gypsy’ peppers
G. ‘Super Snappy’ snap peas
H. ‘Pacman’ broccoli
I. ‘Sweet Vienna’ and ‘Purple Vienna’ kohlrabi
J. Green onions
K. ‘Royal Burgundy’, ‘Bush Blue Lake’, and ‘Mellow Yellow’ bush beans
L. ‘Salad Bowl’ leaf lettuce
M. ‘Buttercrunch’ lettuce
N. ‘Red Sails’ lettuce
O. ‘Kaleidoscope’ carrots
P. ‘Easter Egg’ radishes
Q. ‘Janie’ marigolds

EACH SQUARE = 6 INCHES
Use this simple template to plan your garden. Use each square to represent any size you designate—2 feet, for example—depending on the size of your garden. Label plants A,B,C, etc., and fill in the key below.

Date

Planning

Garden Plan Worksheet

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