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| <b>Lesson Plan (LP)</b> | <b>Author:</b> Hannah McTier |
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| <b>Course:</b> Basic Agricultural Science (02.47100)         |
| <b>LP Title:</b> Squash Basics                               |
| <b>Estimated Time:</b> 45 minutes                            |
| <b>Grade Level:</b> 9 <sup>th</sup> – 12 <sup>th</sup> Grade |

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| <b>Materials, Supplies, Equipment, References, and Other Resources:</b>  |
| <p><u>Materials:</u> whiteboard with dry erase markers, Smartboard with projector, student access to internet or library, poster board, markers, colored pencils, crayons, note taking materials</p> <p><u>References:</u> <a href="https://www.georgiaffa.org/curriculum2/topic.aspx?ID=6&amp;TID=4">https://www.georgiaffa.org/curriculum2/topic.aspx?ID=6&amp;TID=4</a> .</p>   |
| <b>Standards:</b>  |
| <p><b>AFNR-BAS-13</b> Explain and demonstrate basic plant science principles including plant health, growth and reproduction.</p> <p>13.1 Describe basic factors in plant growth.</p> <p>13.2 Identify plant life cycles and list examples.</p> <p>13.3 Label the major parts of the plant and explain functions of each plant part.</p>   |
| <b>Essential Questions/Objectives:</b>   |
| <p>The student will be able to...</p> <ol style="list-style-type: none"> <li>1. Describe the four basic factors in squash plant growth by participating in an interest approach activity.</li> <li>2. Identify the plant life cycle of a squash by participating in an interest approach activity.</li> <li>3. Label the major parts of the squash plant and explain the functions of each squash plant part by participating in a plant part exploration and poster creation activity.</li> </ol> |



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**GA Standards**

**45 min**

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## Accommodations

For students with disabilities, the instructor should refer to the individual student's IEP to insure the accommodations specified in the IEP are being provided within the classroom setting. Instructors should familiarize themselves with the provisions of Behavior Intervention Plans that may be part of a student's IEP. Frequent consultation with a student's special education instructor will be beneficial in providing appropriate differentiation within any given instructional activity or requirement.

## Interest Approach

**Estimated Time:** 5 minutes

Display a picture of a squash plant for the students to see. Ask the students to turn to a neighbor and write down the answers to the following two questions on a scratch sheet of paper. What four factors are the most important in the growth of a squash plant? When will the squash plant in the picture die? Give the students about 2 minutes to come up with their answers and then ask for a few volunteers to share theirs aloud with the class. The teacher should make note of these on the board and then condense the lists down to the correct answers. The four most important factors for growth are light, air, nutrients, and water. The plant will die within six months of it being planted because squash have an annual life cycle, meaning they only stay alive and reproduce for one growing season. Continue on by explaining that the students will be learning much more about squash plants today!

## Learning Activity 1

**Estimated Time:** 30 minutes

### Instructor Directions/Materials/ Teaching Procedure

### Brief Content Outline

#### *Plant Part Exploration & Poster Creation*

Separate students into groups  
Explain instructions  
Give access to technology or library for research  
Monitor tech use  
Give access to poster materials  
Have each group present  
Students in the audience should take notes as their peers present to prepare for an upcoming activity

Count the students off by 6, resulting in six groups with at least two students per group. Assign each group one of the following: root, leaf, stem, squash blossom, squash, squash seeds. It is now their job to find out as much as possible about their assigned plant part in direct relation to squash. There are many kinds of squash, so direct their exploration towards summer squash, like yellow squash, zucchini, and patty pan varieties.

Once they have gathered their data, they should create a poster about it and be prepared to orally present their findings to the class. All information gathered should be cited. Pictures should be drawn on the poster, as well, and each group member is required to contribute during the oral presentation. Everyone should take notes on the plant parts their peers researched and present so that each student has a comprehensive understanding of what all of the plant parts do.

\*if there is access to technology, like Chromebooks, then the students could create a joint flyer about their plant part on their Google Drive and submit it electronically rather than on paper



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🕒 45 min

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#ohmysquash

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| <b>Summary (Reflection)</b>  | <b>Estimated Time:</b> 5 minutes |
| <p>The teacher should have pictures pulled up on the projector of various squash plant parts. Have all of the students in the room stand. As you move through the pictures, have a student volunteer to name a fact they learned about that particular plant part during class that day. For example, if a picture of a squash stem is on the board, a student could say the stem is the method of transportation for all nutrients and water up and down the plant. Once a student has stated a correct fact, they may be seated. All students must give a fact related to a squash plant part before they can be seated. Most importantly, no facts may be repeated! If possible, only allow students to name facts about a plant part they did NOT research to make the summary activity more challenging. However, if you have students who are struggling, help them out by changing the picture to the plant part they did research or allow students to use the notes they took during the presentations of their peers' posters.</p> <p>*if time is running out, skip showing the pictures, and verbally assign a plant part or allow students to choose which plant part they are going to share a fact about</p> |                                  |

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| <b>Assessment</b>   | <b>Estimated Time:</b> 5 minutes |
| <p><b>Formative:</b> For a ticket out the door, have students write down the four most important factors for squash plant growth, the type of plant life cycle all squash have, and one new fact they learned during class about squash plants.</p> |                                  |
| <p><b>Summative:</b> N/A</p>  |                                  |

