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**Building Blocks  
of Survival**

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# Building Blocks of Survival



Project title: Building Blocks of Survival

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**Objective:** Students will explore the interdisciplinary connections between science, English, and language arts through an interactive Jenga game. This ongoing activity will include practical gardening skills, scientific observation, creative writing, and research, while embedding nutrition and the knowledge to grow and sustain a personal garden.

**Goals:** My goal is to intrigue the youth with the building blocks of survival through the diversity of plants. I aim to expose them to this knowledge in multiple ways: providing facts, teaching the art of cultivating and presenting plants, highlighting the benefits of eating them, and introducing a game designed to present the facts about various plants. These plants are easy to grow, sustain, and supply vital nutrition. By engaging with these activities, the youth can learn essential skills for survival and well-being.

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## Florida Standards

- ELA.3.V.1.1 Recognize and appropriately use vocabulary for writing and speaking
- ELA.3.C.2.1 Present information orally, using appropriate clear language
- ELA.3.AR.1.2 Read and comprehend grade-level complex context proficiently
- SC.3.L.14.1 Describe structures in plants and their roles in food production, support, water and nutrient transport and reproduction
- SC.3.L.14.2 Investigate how plants respond to stimuli(light, heat, gravity)
- SC.3.L.17.2 Recognize that plants use energy from sun, air and water to make food
- SC.3.N.1.2 Cooperate to make decisions in the natural world
- SC.3.N.1.6 Infer based on observations
- SC.3.N.3.2 Recognize that scientist use models to help understand and explain how things work

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**Course Outline:** In the beginning, I will introduce multiple fruit and vegetable seeds to provide a diverse array of specimens for our class to study and experiment with. Using search engines, YouTube, the library, and books, we will explore the process of germination and what it takes to make plants flourish. We will discuss factors such as atmosphere, climate control, and growth timelines. Studying pictures and the history of the plants will give students a deeper understanding of the intricate relationship between plants and their environment.

Each student will be assigned a fruit or vegetable and given a large Jenga piece, seeds for their plant, dirt, and a pot. They will use their research to properly plant and nurture their fruit or vegetables. Students will also decorate the Jenga piece with art and facts about their assigned plant. As they play Jenga and pull-out pieces, they must present the plant on the piece pulled, sharing the facts with their peers. This approach encourages active participation and retention of information in a playful setting.

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**Overview:** Each student's unique Jenga piece reflects their individuality and interests, fostering a sense of ownership and pride in their work. They'll also learn practical skills for nurturing and caring for plants, which can be applied both in the classroom and in real-life gardening situations. This hands-on approach to science education is not only informative but also fosters a sense of curiosity, experimentation, and appreciation for the natural world.

The workshop can be structured to include healthy competition among students, further motivating them to excel. For example, students could compete to grow their designated plants and share their progress with their classmates, fostering a sense of achievement and camaraderie. The initial steps of the workshop serve as a springboard for endless project possibilities. Teachers can expand on the concept by incorporating additional activities, such as growing plants, creating educational presentations, or organizing community events related to plant cultivation and nutrition.

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## Lesson Plan

### 1. Introduction:

- **Introduce Seeds:** Present the different fruit and vegetable seeds to the students. Explain the goal of the activity and how each seed represents a different plant species.
- **Research Phase:** Assign each student a specific fruit or vegetable. Allow them time to research their plant using various resources like search engines, YouTube, the library, and books.
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### 2. Research and Decoration:

- **Art and Facts:** Have students research and collect interesting facts about their assigned plant, including its history, growth needs, and environmental requirements. They will then use this information to decorate their Jenga piece with art and facts.

### 3. Preparation:

- **Planting Supplies:** Distribute the large Jenga pieces, seeds, dirt, and pots to each student.



- **Planting Instructions:** Provide guidelines on how to plant the seeds, including how much dirt to use and how deep to plant them. Discuss the importance of proper care.
- 4. Plant Nurturing:**
- **Daily Care:** Establish a routine for students to check on and care for their plants. They should observe and record their plant's growth over time.
- 5. Jenga Gameplay:**
- **Gameplay Instructions:** Set up the Jenga game with the decorated pieces. As students play, they will pull out pieces and share the facts about their plant associated with the piece.
  - **Sharing Knowledge:** Encourage students to engage with each other's research, ask questions, and discuss the different plants and their needs.
- 6. Reflection and Discussion:**
- **Growth Observations:** Have students share their observations about plant growth and discuss what factors influenced their plant's development.
  - **Learning Outcomes:** Reflect on what was learned about the relationship between plants and their environment, and how the activity helped them understand the concepts.

### **Additional Tips:**

- **Visual Aids:** Use charts or posters to illustrate key concepts about germination, plant growth, and environmental factors.
- **Interactive Elements:** Consider incorporating interactive elements like quizzes or group discussions to reinforce learning.
- **Documentation:** Have students keep a journal or log of their plant's progress and their own reflections on the activity.

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## Resource List

- **Classroom:**
  - Online Research:** Youth can use online databases, educational websites, and digital encyclopedias.
- **Media Center:**
  - Library Books and Articles:** Youth can access books and periodicals related to horticulture, plant biology, and environmental science. The media center may also have multimedia resources like documentaries or educational videos.
- **Reference Materials:** Utilize reference materials such as encyclopedias, specialized plant guides, and historical records about plants. Librarians can assist with finding accurate and relevant information.
- **Garden:**
  - Hands-On Observation:** If possible, visit a garden or greenhouse to observe plants in various stages of growth. This real-life observation can complement their research and provide practical insights into plant care.

Item	Link	Price
Large Jenga Pieces	<a href="https://a.co/d/5LmlRfn">https://a.co/d/5LmlRfn</a>	\$37.99
Permanent Markers 144/12 colors	<a href="https://a.co/d/50GnQgA">https://a.co/d/50GnQgA</a>	\$46.99
30 Pack Seeds	<a href="https://a.co/d/abIFk9w">https://a.co/d/abIFk9w</a>	\$26.00
Planter pots	<a href="https://a.co/d/3okbzdI">https://a.co/d/3okbzdI</a>	\$16.20
Potting Mix 2 cu.ft 2pack	<a href="https://a.co/d/cEONHX9">https://a.co/d/cEONHX9</a>	\$31.99
Metal Hand Shovel 10pack	<a href="https://a.co/d/dxWSGjt">https://a.co/d/dxWSGjt</a>	\$19.99
	Total	\$179.16

The Building Blocks of Survival can take many forms, depending on the teacher, the lesson, and the students involved. The possibilities are endless, from creating controlled atmospheres and visiting established gardens to expanding the garden or even cooking with the produce you harvest. Each scenario can utilize the concept of building blocks in relevant and engaging ways. I've provided the basics here and hope you enjoy this fun, interactive, and informative workshop.