# **bESTology**

Friends of BEST in Alabama, Inc. BEST Robotics, Inc.



Image: aces.edu

## The Germination of Agriculture and Farming

More than 10,000 years ago, the transition was made from hunters and gatherers to sowers and harvesters. This evolution allowed the formation of societies, property ownership, political structures, systems of knowledge (writing) and architecture.

From the Mesopotamia where the calendar and wheel were invented, to Europe where the seed drill and crop rotation were implemented, to America where land grant programs and agricultural experimentations began, bESTology will take us back through history so we can appreciate the advancements moving forward of today and tomorrow.

#### Resources

Birth of Farming – The History Channel

Mesopotamia: From Nomads to Farmers – Discovery Education

The Industrial and Agricultural Revolutions

Growing a Nation (America)

Mind Map - Wikipedia

Popplet - Mind Mapping

**Robot Locomotion** 

**Robot Locomotion and Kinematics** 

**Antique Farm Tools** 

<u>Iowa Pathways</u> – A look at early farm machinery

Beef Basics – Free Online Course – Alabama Cooperative Extension Service

#### **Grainstorming**

The "S" in BEST stands for Science. Create a Mind Map to assist in a grainstorming session. View and/or read the above resources and create a bubble for each scientific advancement or decision that was made. For example, during the 1700's crop rotation was introduced to nourish the soil. Make a bubble on your Mind Map that says "crop rotation." Next, refer to last week's Silo activity and list words that can be associated with each bubble. Find a senor citizen in your community to show and discuss your Mind Map. Ask them to share their gardening or farming memories with you.

## **BEST Farm Journal**

10-10-10. A farmer would associate this number pattern with the N-P-K of fertilizer (nitrogen, phosphorus and potassium), but we are eager to read, document and share 10 agricultural advancements of a 10 year period in 10 minutes. 10-10-10!

Referencing the above resource, *Growing a Nation*, choose one 10 year period and plow into the history. Using your BEST Farm Journal, write the 10 most interesting facts or advancements during that period. You have 10 minutes to accomplish this task. Ready, set, plow!

#### **BEST Connection**

Reflect on the question: What would a BEST competition be like if the wheel was not invented or allowed? Using the Internet, research and analyze modes of movement for industrial robots other than wheels. Select the most viable one and build a prototype out of cardboard and other miscellaneous materials. Present your idea to your BEST team members. Compare and contrast your prototype with others on your team.

### **Community Connection**

Choose one of the following to learn more about farming and agriculture advancements in your local community:

- Identify a local farmer or Cooperative Extension Agent who has more than 25 years of agricultural experience and invite them to visit your classroom. Prepare questions prior to their visit and inquire about the technological and agricultural advancements over those years.
- Visit a local history museum and search for mentions of tools and artifacts of farming and agriculture from that community or region in the past.
- Locate the nearest farm equipment manufacturing or sales company. Plan a field trip to tour the facility or business. Ask for a presentation of the advancements in equipment over the life span of their company.

### **Enrichment (Fertilizer for the Brain):**

Interested in learning more about the cattle business? Enroll in the **Beef Basics Online Course** to learn more about management strategies.

The **Beef Basics Online Course** is divided into individual learning modules that guide you through management practices when getting started on a beef cattle operation. The learning modules contain PowerPoint presentations with audio lecture provided by Alabama Extension specialists and regional agents. After you have completed all of the learning modules, you will be prompted to complete a

short survey at the end and will receive a certificate of completion for eight hours of training credit in the area of beef cattle management systems.

Ask your local BEST Hub Director to recognize you on game day for your completion of this course!

NOTE: This online course requires a computer, a reliable high-speed Internet connection, and basic computer skills. No age requirement.

**Bloom's Taxonomy:** analyze, ask, associate, build, choose, compare, contrast, create, document, enroll, identify, invite, list, locate, plan, prepare, present, read, refer, reflect, research, search, select, share, use, view, visit, write

**Workforce Skills:** reading comprehension, active listening, critical thinking, speaking, active learning, writing, systems analysis, equipment selection, systems evaluation, science

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