Forestry

*Lesson Plan for Grade 6 , English Language Arts & Science*

*Prepared by NAITC*

*Modified by Mississippi State University, School of Human Sciences*

*for Mississippi Farm Bureau Federation - AITC*

# OVERVIEW & PURPOSE

In this lesson, students use the visual representation of a web to explore the role of agriculture in their daily lives and understand how most of the necessities of life can be traced back to the farm.

# EDUCATIONAL STANDARDS

**Mississippi College-and-Career Readiness Standards:**

L.6.3 Students will demonstrate an understanding of the relationships among survival, environmental changes, and diversity as they relate to the interactions of organisms, populations, and the environment.

6.NS.3 Fluentlyadd, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

RI.6.7 Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.

SL.6.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.

**NALOs:**

3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

4-ESS3-1 Obtain and combine information to describe that energy and fuels are derived from natural resources and that their uses affect the environment.

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# OBJECTIVES

* Students will identify where agriculture begins
* Students will understand there are many career options in agriculture
* Students will identify that agriculture products provide for our daily needs

# MATERIALS NEEDED

* Print and cut out the [Farm Web graphics](https://drive.google.com/file/d/17Ul1wp5NieNzyu229qqNv5x3pQb1aKRF/view?usp=share_link)
* 5 Sheets of chart paper or room for 5 groups on a white board
* 30 pieces of yarn
* Or purchase the [My Farm Web](https://agclassroomstore.com/my-farm-web/)

Optional

* [Heartland by Diane Siebert](https://agclassroom.org/matrix/resource/7/)
* [Harvest Year by Cris Peterson](https://agclassroom.org/matrix/resource/98/)
* [How Did That Get in My Lunchbox? By Chris Butterworth](https://agclassroom.org/matrix/resource/194/)

# Lesson Set Up:

1. The teacher will need to print all attachments.
2. Prepare the room to be able to have plenty of space for groups to spread out.

# VOCABULARY

**agriculture:** the science, art, or practice of cultivating the soil, producing crops, and raising livestock and in varying degrees the preparation and marketing of the resulting products

**fabric:** cloth or other material produced by weaving or knitting fibers

**farming:** the activity or business of growing crops and raising livestock

**flower:** the part of a plant that contains reproductive parts and attracts pollinators

**forestry:** the science of caring for or cultivating forests, and the management of growing timber

# Ag Facts:

* Timber is the 2nd most valuable commodity in Mississippi
* The total value of timber harvest in 2017 was $1.39 billion
* There are 19.7 million acres of forest lands in Mississippi
* Timber is the leading agricultural crop in 40 of the state’s counties

# Background information for teachers:

Mississippi forests provide recreational opportunities, encourage tourism, and create environmental benefits such as excellent water quality, cleaner air, improved wildlife habitat and the storage of atmospheric carbon. Sixty-five percent of Mississippi’s land is in forests, and 70% of that land is owned by private, nonindustrial landowners (individuals and families). Our landowners care deeply for our state’s forest resources, and they are responsible for managing their lands in a sustainable manner to benefit future generations. This is demonstrated by the fact that Mississippi ranks number one in the nation in the number of Certified Tree Farms with more than 3,200.

Our forest landowners know that promoting sustainable forest management, reforestation after harvest, and keeping our forests productive have strategic long-term economic benefits for Mississippi, as well. Timber is a very important commodity in Mississippi. The total value of Mississippi’s timber harvest is well over $1 billion per year. Forestry and forestry-related employment accounts for 8.5% of all jobs in Mississippi (totaling over 123,000 jobs) and pays out $4.4 billion in wages, annually.

Every year, our forest landowners plant and grow more trees than are actually harvested. Mississippi has 19.7 million acres of forestland. That is 1.1 million more acres than in 1992 and 3.6 million more than in 1934. Contrary to popular belief, this acreage is not all pine plantations. The majority of our state’s forestlands (46%) are hardwood, and 15% are mixed oak and pine.

Mississippi is a forestry leader. The first ever comprehensive state-sponsored forest resources inventory began in 2004. Mississippi was also the first state in the nation to establish a reforestation tax credit, helping landowners with expenses associated with the stewardship of forestland and encouraging them to replant after harvest.

For more information about forestry in Mississippi, visit the [Mississippi Forestry Association.](http://www.msforestry.net/)

# LEARNING PROCEDURES

Interest Approach:

1. Ask the students, "What kinds of things do you use every day?" (*You should get answers like food, clothes, books, paper, computers, balls, water, TV, etc.*)
2. Discuss with the students that the items we use every day are either grown or mined (with a few exceptions, like the sun!). If the item is grown specifically for people, it is a product of agriculture.
3. Ask the students "Where do we get the things we use every day?"Most students will say, “at the grocery store!” Some might say, “a factory.” Tell the students that the store is a distribution center where we buy things and that the factory is a place where “raw” ingredients, grown for us (wheat for bread) or provided by nature (petroleum for fuel or plastic), are put together to make a product that ends up in the store.
4. Ask your students, "What is agriculture?" Have the students offer their answers and use the information found in the *Background Agricultural Connections* and the *Vocabulary* sections of this lesson to define the word "agriculture." Help the students identify their connection to agriculture by recognizing that food, fabric, flowers, and forestry (wood) comes from agriculture.

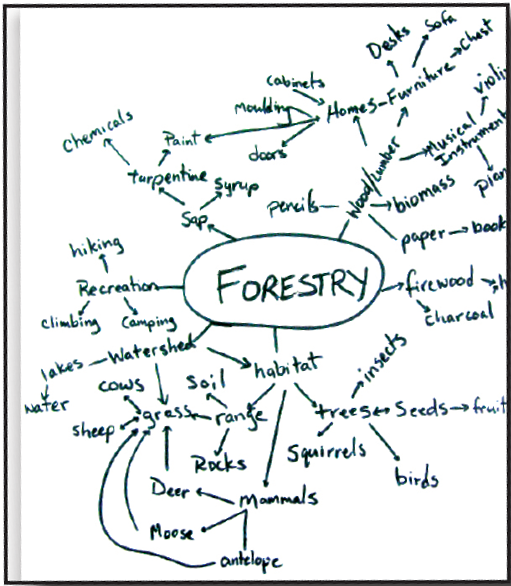
Activity 1:

1. Ask the students, "Where does agriculture begin?" (*On a farm.*)
2. Guide the students to understand that agriculture begins on a farm and there all kinds of farms. Cattle ranches for beef and leather; dairy farms for milk and all the products made from milk; orchards that grow apples to make juice and apple pies; pig farms for pepperoni, bacon, and ham; grain farms that grow corn for fuel or corn syrup for soda, and wheat for bread; cotton farms for blue jeans; and tree farms for paper and landscaping. In fact, there is a different kind of farm for nearly every type of product. Farms specialize in what they grow based upon their location (climate and soil), and farmers choose only a few crops because the type of equipment used to plant and harvest each crop is very specific and expensive.
3. Inform students they are now going to create a “farm web” to help them understand agriculture and where the items they use every day come from.
4. Have students move to the area where they will build the farm web.
5. Place the farm picture in the center of the floor. Mix up the remaining pictures and either put them in a pile or pass a picture to each student.
6. Ask the students, “Which pictures will go closest to the farm picture?” (*The pictures of plants or animals that are grown or raised on a farm go closest.*)
7. Students with products made from ingredients produced on a farm should place their pictures onto the web after the farm-raised item is placed.
8. As each picture is placed, ask the students to use a linking phrase such as *dairy cows make milk* (the word *make* is the linking word) to describe how their items connect to the web. Discuss each new connection as the pictures are placed.
9. When all the pictures have been correctly placed, review the linking phrases and ask students if they think other pictures could be added to the web.
10. As a conclusion to the activity, read aloud one or more of the recommended books and ask students where the products mentioned in the books would fit into their farm web.



Activity 2:

1. Extend the first activity by further defining agriculture using the 5-Fs of agriculture (see *Vocabulary*).
2. To make sure students understand concept maps and the content, ask students to create a concept web with words on paper or on a whiteboard.
3. Divide the students into five groups. Give each group a sheet of chart paper or disperse them along the whiteboard (draw a large rectangle, the size of the chart paper, on the whiteboard for each group); write one of the 5-F words (farm, food, fabric, forestry, flowers) in the center of each paper or rectangle. For a large class, make two more groups and add the words “fuel” and “fish.”
4. Ask students to create a concept map around their group’s word by thinking about products they can associate with the word. Give them about 5 minutes. Next, ask them to create linking phrases.
5. Ask each group to share and explain their concept web with the class. (Paper maps should be posted on the wall.)
6. Conclude the instruction by announcing that the students have visually created a definition of agriculture.



# Additional Learning Procedures

To help students review and elaborate more about forestry, try using the “[I used to think.. Now I think…”](https://drive.google.com/file/d/1rrdetU1u4iNGIh6tG9SL6jXVnMy8eu10/view?usp=share_link) method to allow students to think deeper and make new connections.

Additional Things to Include:

[How Drones are Helping to Plant Trees](https://agclassroom.org/matrix/resource/955/)

[At Grandpa's Sugar Bush](https://agclassroom.org/matrix/resource/909/)

[The Tree Farmer](https://agclassroom.org/matrix/resource/81/)



Source: https://agclassroom.org/matrix/lesson/298/

*For more information and additional lessons visit*

*https://msfb.org/ag-in-the-classroom/lesson-plans/.*