

My Kentucky Farm – Create a Farm Activity

Teacher Information

This project-based learning activity will be a fun addition to the **Kentucky Farms Feed Me Virtual Field Trips Series**. Before assigning this activity, have students watch the farm field trips to know the different crops and livestock raised on farms.



1. Provide students with the farm template (represents 100 acres) and two pages of stamps. Feel free to copy more stamps if students want to add more of a particular item. However, they do not need to use all the stamps provided.
2. Students can also draw in their crops, animals, or trees/forests (not provided) to encourage creativity. However, this may be more time-consuming.
3. Encourage students to work together to decide how to use their land best. For example, could one student operate a dairy and another grow the hay and grains they need to feed their cows?
4. Once students have completed their farms, ask them to describe their farms on the back of their template folder. Please encourage them to explain how their farm businesses and products will help their communities.
5. Have students complete the companion math activities appropriate for their grade level. We are looking for additional ideas – contact us at info@teachkyag.org if you would like to assist us in this process.

Notes:

Each block is 1 acre 165 ft x 264 ft or 43,560 ft².

The following are ways to introduce the concept of carrying capacity, the number of living organisms or crops a region can support without environmental degradation. The suggestions for land needs are based on typical Kentucky conditions. For example, areas with low rainfall and poor soil have a much smaller carrying capacity for grazing animals.

- **Beef Cattle and Horses** – experts suggest that farmers provide about **two acres per cow or horse** to ensure they have enough pasture or grass to eat throughout the year. Their diet can be supplemented with hay and grains during winter or when they need extra nutrition. Cows and horses are also herd animals, preferring company. Students need at least two of each.
- **Dairy Cattle** – experts suggest farmers have at least 2 acres per dairy cow. This includes the land used to grow their supplemental feed, which high-producing dairy cows need. Therefore, we placed 12 dairy cows on 4 acres, assuming 20 additional acres would be dedicated to their feed.
- **Sheep and Goats** – experts suggest that one acre of land will support at least five sheep or goats.
- **Pigs** – Pigs are omnivores and do not require the same space as grazing animals. We chose ten pigs per acre, but farm systems can accommodate more pigs with less land depending on housing types.
- **Chickens** – 50 animals per acre is a standard recommendation for chickens with access to pasture. However, we also have the option for students to place more chickens (1000) in an open-floor house; they are fed corn, soybeans, and other feedstuffs throughout the day.
- **Corn & Hay** are at least 10 acres due to the expensive equipment needed to plant and harvest efficiently. **Wheat and Soybeans** are combined on 10 acres, as wheat is planted in the fall and harvested in June, and soybeans are then planted and harvested in October. These acres are often rotated with corn, but it isn't easy to show that in this activity.

See Extensions on the reverse side.

Math Extensions

- Have students count the number of crops and animals they have included in their farm OR ask students to include a specific number of crops or animals.
- Count and write the number in each of the acre blocks.
- Ask students to write operation sentences to add various crops and animals.
- Tally Charts and Graphing – We have an entire lesson and worksheets available from Kentucky teacher Amanda O'Bryan. [View the lesson](#)
- Create greater than/less than sentences.
- Coordinate planes – ask students to create a coordinate plane by writing letters and numbers across the X and Y axes. Ask them to place certain farm items on specific coordinates or ask them to report the coordinates where they placed particular objects.
- Fractions and ratios of crops and animals, such as what is the ratio of animals to crops? What portion of your farm is in crops? What percentage of your farm is not dedicated to raising a crop or animal?
- Calculate the perimeter and area of different fields.
- Calculate the cost of materials, such as fencing around the cow area. You may want to contact a fencing company to provide a price per foot.

Economics/PBL Extensions

- Intermediate and Secondary – after completing the “The Kentucky Farm as an Ecosystem and Economic Engine – My Kentucky Home Provides What I Need” lesson, provide students with unique scenarios regarding their geographic region, physical properties of the land, and available markets. Have the students present why they chose different farm enterprises. [View the scenarios](#)
- Provide students with a budget to kick-start their farm. Allow students to contact service providers to determine the cost of building their farm, which may require a loan. This would lead to business plan creation.