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Understanding Agricultural Statistics

Lesson Plans
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WANT TO KEEP COLORING AND TESTING YOUR AGRICULTURE KNOWLEDGE?

This book is NOT copyrighted and you are welcome to make copies as needed.
It is also available from our website where you can print selected pages or the entire book. Have fun!!

Maryland Agriculture is all around you. Everything you eat comes from agriculture. Agriculture is the production of food and fiber and it is caring for the land, air and water that we all enjoy so much! The seafood, meat and vegetables that you eat are all part of the agricultural world. This activity booklet will help you better understand agriculture and just how important it is to us!
Back in the old days, farmers did not have tractors or any kind of machinery. Everything was done by hand. The first tractor was not built until 1868 and that was powered by steam. Animals were used to operate any type of manual equipment they had, before the invention of tractors. Even cows were milked by hand. Can you imagine milking hundreds of cows twice a day by hand? Think about planting and harvesting without tractors. Horses pulled small implements around to do the job. That is a lot of labor and time for the farmer, especially if there were many acres of land. Today in Maryland, the average farm is nearly 170 acres. Think how long it would have taken in the old days to plant crops, when a horse was pulling a plow.

In this day and age, tractors have air conditioning, radios and high performance electronics. Farming is still a lot of hard work and takes a lot of time and patience, but the way farmers work has completely changed. Some farmers are using computers to keep their records, while others are using special programs to determine what to plant and how much to plant. Most dairy farmers no longer need to milk by hand. They now have automatic milking machines that do all of the work. It is amazing how much has changed in the last 150 years of farming!
Got Smarts? Quiz

Answer the questions to test your dairy skills. Write TRUE or FALSE in the blank.

1.) _______________ A cow has one stomach with four chambers.
2.) _______________ A brown cow makes chocolate milk.
3.) _______________ There are more than 200 breeds of cows in the world.
4.) _______________ A female cow is a bull.
5.) _______________ Cows spend up to 8 hours per day eating.
6.) _______________ Cud chewing helps cows to digest their food.
7.) _______________ Jersey cows are black and white.
8.) _______________ Milk contains lots of calcium, which will make your bones and teeth healthy and strong.

Maryland has 43,000 dairy cows throughout the state. These cows produce over 878,000,000 pounds of milk each year. Can you imagine that much milk?
The black and white Holstein cows make up more than 90 percent of the U.S. dairy herd. A cow must have a calf in order to produce milk. The best sources of calcium are milk, yogurt, cheese, and ice cream. The average body temperature of a healthy cow is 101.5 degrees Fahrenheit. Cows have 32 teeth. Cows drink about a bathtub full of water every day!
Can you Spot it?

Which milk cow is different? Circle the different cow.

COW JOKES

What is the easiest way to count a herd of cattle?
-Use a COWculator!

What kind of things does a farmer talk about when he is milking cows?
-Udder nonsense!

What do you get from a pampered cow?
-Spoiled milk!

Maryland dairy farms produce about 153 million dollars in milk sales annually.
Unscramble the words below to reveal a farm word. Use the clues to help you!

1. scpro  What is grown in the fields?  __________________________________________
2. ranb   What do the animals sleep in?  _________________________________________
3. ecfne  How do you keep the animals in the pasture?  ____________________________
4. asebnoy Type of round bean.  ________________________________________________
5. kencihc What animal lays eggs?  _____________________________________________
6. armfer  Who takes care of the animals?  ______________________________________
7. rtctaro  What do farmers ride that pulls a plow in fields?  ______________________
8. tweah  Grain-rhymes with sheet.  _____________________________________________
9. ppeal  A red colored fruit; great for eating fresh or cooking.  ____________________
10. ayh   What do horses eat?  __________________________________________________
Draw a CIRCLE around the fruits and draw a SQUARE around the vegetables.
Write the correct animal name on the line provided under each clue. Animal names may be used more than once.

1. __________________
2. __________________
3. __________________
4. __________________
5. __________________
6. __________________
7. __________________
8. __________________

I am seen in a flock.
I produce eggs.
I produce milk.
I have a snout for a nose.
I have a wooly coat.
I roll around in mud.
I gallop around in the field.
Chicken  Horse  Cow  Pig  Sheep
*Hint* A building used to house livestock or used for storage.

4.  5

3.  6

2.  7

10.  

9.  11

8.  

20.  

17.  16

13  12

1.  19

18.  15  14
Help Penny find out how many eggs she has in her basket.

1. Penny collected how many eggs at the coop? __________

2. Penny dropped how many eggs on her way home? __________

3. Penny’s friend gave her how many eggs? __________

4. How many TOTAL eggs does Penny have in her basket? __________
According to the 2017 Census of Agriculture, the poultry and eggs category tops the total market value in the state and ranks 7 in the nation for the number of broilers sold at 307.7 million. Nearly 48 percent of the market value of Maryland agriculture products sold comes from poultry and eggs.
According to the 2017 Census of Agriculture, the total sheep inventory including lambs was 23,399 head and the number of farms raising sheep was 925.

How many TOTAL sheep do you see?

SHEEP & PIG JOKES

What did one sheep say to the other sheep? 
-“After ewe!”

What do pigs use on their cuts? 
-OINKment!

How many TOTAL piglets do you see inside of the mommy pig? 

How many piglets are looking LEFT?

Maryland’s hog industry accounts for about $6 million in cash receipts for farmers every year. The total pig crop is nearly 40,000 head with inventory of all hogs and pigs around 18,500.
Can you find the following words in the puzzle? Circle each word that you find.

<table>
<thead>
<tr>
<th>APPLE</th>
<th>CARROT</th>
<th>CHERRY</th>
<th>CORN</th>
<th>CUCUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAPE</td>
<td>LETTUCE</td>
<td>ONION</td>
<td>PEACH</td>
<td>PEAR</td>
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<tr>
<td>PEPPER</td>
<td>POTATO</td>
<td>PUMPKIN</td>
<td>STRAWBERRY</td>
<td>TOMATO</td>
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</tbody>
</table>

According to the 2017 Census of Agriculture, Maryland vegetables total 29,339 acres in the state with sweet corn leading the way with over 8,000 acres, followed by watermelon at over 3,700 acres and snap beans at over 3,100 acres. Fruit acreage comes in at nearly 4,200 acres with apples leading the way with nearly 1,800 acres. Grape acreage has increased to nearly 1,200 in 2017 from nearly 700 acres in 2012. Maryland has almost every fruit and vegetable in the Census.
Homophones/homonyms are words that are pronounced the same as another, but are different in meaning, whether spelled the same way or not. For example *doe* (female deer) and *dough* (mixture for baking bread or cake).

Can you complete the sentences with the correct homonyms listed below? Write the word on the line provided. Each word may only be used once.

1. A fable by Aesop, The Tortoise and the ____________________.
2. ____________________ covers the human head or is the coat of most mammals.
   
   HAIR        HARE

3. What a beautiful ____________________ growing in your garden.
4. A finely ground powder of wheat or grain used in baking is ____________________.
   
   FLOUR        FLOWER

5. The horse ____________________ in the pasture; the cry of a horse.
6. A voter who is against a view usually ____________________ a vote.
   
   NEIGHS       NAYS

7. The sister of one’s father or mother is an ____________________.
8. An ____________________ is a pesky insect typically seen at a picnic.
   
   AUNT        ANT

9. Bugs Bunny is always chewing on a ____________________.
10. A unit for measuring the purity of gold is a ____________________.
    
    CARROT       KARAT

11. The cow ____________________ a deep, low sound.
12. What is the farmer’s ____________________ today?
Place in order the steps for growing a flower, by writing the correct letter on the lines provided.

1. __________ Obtain flower seeds.
2. __________ Watch your plant grow.
3. __________ Enjoy the flowers.
4. __________ Water your plant.
5. __________ Buy a flower pot or find a garden bed.
6. __________ Dig a hole and plant your seed.
7. __________ Provide sunlight for your plant.

Step 1- A
Step 2- B
Step 3- C
Step 4- D
Step 5- E
Step 6- F
Step 7- G

Maryland has proven to be a great area to grow nursery, greenhouse, floriculture, and sod, which make up over 9 percent of the total value of agriculture products sold.

Roses are red
Violets are blue
I love floriculture!
How about you?
Please write the correct farm animal name on each line provided.

1. The ________________________ says quack.

2. The ________________________ says oink.

3. The ________________________ says neigh.

4. The ________________________ says cluck.

5. The ________________________ says baa.

6. The ________________________ says gobble.

7. The ________________________ says moo.

8. The ________________________ says maa.

9. The ________________________ says honk.
Maryland Trivia Farm Quiz

Please circle the correct answer.

1. What is Maryland’s leading agricultural product?
   - Greenhouse and Nursery
   - Milk and Dairy Products
   - Broilers

2. Maryland has approximately how many farms?
   - 6,800
   - 12,000
   - 9,800

3. Approximately how many milk cows are there in Maryland?
   - 50,000
   - 45,000
   - 74,000

4. Which county in Maryland has the most corn acreage harvested for grains?
   - Worcester
   - Queen Anne’s
   - Kent

5. Of the following three crops, which has the most acreage harvested in Maryland?
   - Corn for grain
   - Wheat
   - Soybeans
**Analogies** are similarities or comparabilities between two items. For example, bird is to fly as fish is to swim. Complete each analogy by writing the correct word on the blank line.

1. Cow is to milk as egg is to _____________
2. Carrot is to vegetable as apple is to _____________
3. Ketchup is to tomato as peanut butter is to _____________
4. Raisins are to grapes as pickles are to _____________
5. Steak is to cow as bacon is to _____________
6. Cheese is to milk as bread is to _____________
7. Popcorn is to corn as chips is to _____________
8. Ham is to pig as roast beef is to _____________
9. Pear is to fruit as carrot is to _____________
10. Wine is to grape as juice is to _____________

**pig apple potato cucumbers wheat chicken fruit vegetable peanut cow**
Unscramble the letters to make a word.

- LRAEBY
- EBATEGVSL
- IUFETLURCROL
- RIDYA
- OTAPETOS
- TALCET
- YABESOSN
- LORBIERS

Take all the letters in the black boxes and unscramble them to determine where everything you eat comes from.
Across
4. The cultivation of aquatic animals and plants; underwater agriculture
5. Laid by females; this can be scrambled, hard-boiled, or pickled
7. Fermented hay or feed
9. Fowl valued for their meat and eggs, such as chickens, turkeys, ducks, and geese
10. A green or purple fruit that grows in clusters, eaten raw or used for making jam, juice, jelly, wine, etc.
12. __________ on the cob

Down
1. Mary had a little __________
2. Vegetable looks similar to broccoli, but has a whitish head; eaten raw or cooked
3. Temperature controlled structure where flowers and plants grow
6. Bred for their meat, wool, and milk; related to sheep, but has a beard and straight horns
8. A mature female __________ produces milk and has a hide pattern that is black and white
11. A common name for large plant seeds, edible, typically kidney-shaped
AGRICULTURE WORD SUDOKU

Complete the grid so that every row, column, and 3x3 box contains the letters: A E F G I M N R S in some order. Once the grid is complete, there will be a 7-letter word in a row or column. Can you find it?

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Once the grid is complete, there will be a 7-letter word in a row or column. Can you find it?
Match the animal definition in column 1 with the animal in column 2. The items in column 2 may NOT be used more than once.

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
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<tbody>
<tr>
<td>1. young male horse</td>
<td>a. rooster</td>
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<tr>
<td>2. adult female chicken</td>
<td>b. stallion</td>
</tr>
<tr>
<td>3. adult female cow</td>
<td>c. ewe</td>
</tr>
<tr>
<td>4. young female horse</td>
<td>d. sow</td>
</tr>
<tr>
<td>5. adult male sheep</td>
<td>e. ram</td>
</tr>
<tr>
<td>6. adult female pig</td>
<td>f. mare</td>
</tr>
<tr>
<td>7. young cow or bull</td>
<td>g. colt</td>
</tr>
<tr>
<td>8. adult female horse</td>
<td>h. calf</td>
</tr>
<tr>
<td>9. adult male chicken</td>
<td>i. piglet</td>
</tr>
<tr>
<td>10. young pig</td>
<td>j. heifer</td>
</tr>
<tr>
<td>11. adult male horse</td>
<td>k. filly</td>
</tr>
<tr>
<td>12. adult female sheep</td>
<td>l. hen</td>
</tr>
</tbody>
</table>
There are 24 different words hidden in this word search puzzle that have something to do with fairs. They can be read up, down, forwards, backwards, or diagonally. Circle each word that you find.

Barn  Chicken  Competitions  Cow  Crafts  Duck
Entertainment  Exhibits  Fence  FFA  Flowers  Goat
Hay  Honey  Horse  Jam  Llama  Pie
Prizes  Rabbit  Rides  Sheep  Tractor  Turkey
The Maryland Agricultural Statistics Service counts livestock and crops. Can you count the animals and crops on the map? Write the correct number on the lines provided below.

1. How many apples do you see? ____________________
2. How many chickens do you see? ____________________
3. How many ears of corn do you see? ____________________
4. How many cows do you see? ____________________
5. How many horses do you see? ____________________
6. How many peaches do you see? ____________________
7. How many soybeans do you see? ____________________
8. How many barns do you see? ____________________
Did you know that Maryland has agriculture in ALL 23 counties. The leading county in corn and soybean production is Queen Anne’s. Kent County is ranked first in wheat production and Barley production is ranked first in Caroline County. The leading county in milk production and Maryland’s all hay production is Frederick County.
**ANSWER KEY:**

*Got Smarts?: Quiz*

1.) True  5.) True
2.) False  6.) True
3.) True  7.) False
4.) False  8.) True

*Word Search*

```
N C R E T T U B  
I A  
E L  
T C A Y R S H I R E  
S I  
L U D U C  
O M  
H Y E S R E J I  
Y R I A D S E E S  
O  
C W  
O A U D D E R E  
R W L A U  
B F M  
```

*Can You Spot it?: Which cow is different?*

Row 3, 3rd cow

*Farm Scramble*

1.) crops  6.) farmer
2.) barn    7.) tractor
3.) fence   8.) wheat
4.) soybean 9.) apple
5.) chicken 10.) hay

*Fruit or Vegetable?*

Circle: strawberry, apple, pumpkin, grapes, tomato, eggplant, pears, peach, cherries, peppers

Square: carrots, potato, lettuce, broccoli, onions, radishes

*Who Am I?*

1.) pig  5.) sheep
2.) sheep  6.) horse
3.) pig  7.) chicken
4.) cow

*Connect the Dots*

A barn

*Egg-xiting Problem Solving*

1.) 7  2.) 3  3.) 6  4.) 10

*“Chick” this out!: Which chicken is different?*

Row 3, 9th chicken

*Counting*

Sheep: Pig

4 - total  10 - total & 6 - looking left

*Fruit and Vegetable Word Search*

```
+ N O I N O T A T O P  
+ + + + I + + + + +  
+ + + + K E + + + H +  
+ + + + P + + C C Y +  
+ + + A M + + A R R +  
+ R U + E R + R +  
+ G P E P E R + E +  
+ + + + B + O + H R +  
+ + + W + + T + C E  
+ + A + + + + O + B  
+ R P + T + M +  
+ T R A E P A + + + U  
S + + + + M L N R O C  
+ + O + + E + + U  
+ L E T T U C E + + C  
```

*Homophones*

1.) hare  2.) hair  3.) flower  4.) flour
5.) neighs  6.) nays  7.) aunt  8.) ant
9.) carrot  10.) karat  11.) mooed  12.) mood
### Grow a Flower!
1.) B  
2.) F  
3.) G  
4.) D  
5.) A  
6.) C  
7.) E  
8.) H  
9.) E  

### Barn Animals Talk
1.) duck  
2.) pig  
3.) horse  
4.) chicken  
5.) sheep  
6.) turkey  
7.) cow  
8.) goat  
9.) goose  

### Maryland Trivia Farm Quiz
1.) broilers  
2.) 12,000  
3.) 45,000  
4.) Queen Anne’s  
5.) Corn for Grain  

### Let’s Picnic with Analogies!
1.) chicken  
2.) fruit  
3.) peanut  
4.) cucumbers  
5.) pig  
6.) wheat  
7.) potatoes  
8.) cow  
9.) vegetable  
10.) apple  

### Secret Scramble
barley, vegetables, floriculture, dairy, potatoes, cattle, soybeans, broilers, agriculture

### Agriculture Word Puzzle

<table>
<thead>
<tr>
<th>A B C D E</th>
<th>F G H I J</th>
<th>K L M N</th>
<th>O P Q R S</th>
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### Agriculture Word Sudoku

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<td>S G N M E I A R F</td>
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### Welcome to the fair!

### Matching Animals
1.) g  
2.) l  
3.) j  
4.) k  
5.) e  
6.) d  
7.) h  
8.) f  
9.) a  
10.) i  
11.) b  
12.) c  

### Taking A Survey
1.) 3  
2.) 7  
3.) 6  
4.) 8  
5.) 3  
6.) 1  
7.) 6  
8.) 4  

---

ANSWER KEY

(continued)
We hope you enjoyed the Farm Fun Activity workbook. We are proud of Maryland’s agriculture. We are grateful to our Maryland farmers and their families for the food they produce. They provide delicious meats, fresh fruits and vegetables, and wholesome milk for us to enjoy every day!

We are also grateful to them for completing our surveys throughout the year. This is how we gather our information and statistics about agriculture. Many people learn from the important statistics like......

THE FARMERS, THEMSELVES

MAGAZINES, NEWSPAPERS AND RADIO

FARM BUSINESSES

FARM ASSOCIATIONS

BANKS AND LENDERS

SCHOOLS AND UNIVERSITIES

FARM COOPERATIVES

GOVERNMENT AGENCIES

LEGISLATURES

We hope you have learned a lot about agriculture and all it has to offer. Maryland agriculture is a very important part of our daily lives!