

### Mapping Iowa Agriculture

#### **Objectives:**

- Students will identify different products that come from Iowa Agriculture that are used in their everyday lives.
- Students will locate locally grown products on a map of Iowa.
- Students will explain the ways that agriculture is connected to their everyday life, and the interdependence we have on area farmers.
- Students will connect products described in Mapping Iowa Agriculture to Norman Borlaug and describe *how* he had an impact on these products.
  - (*Looking for:* Students will be explain how milk produced in Iowa connects to Borlaug because cows produce milk, and eat straw/wheat, and Borlaug had an influence on high yields of wheat)

**Essential Question:** *Farmers are an important part of Iowa and our life every day. Without farmers what are some things we wouldn't have? What are the products we use everyday that we have thanks for Iowa farmers?*

#### **Materials:**

- 20 Cones
- Field Spray Paint
- Sticks/tape to prop up pictures
- Pictures
- Clue Cards
- Clue Card Answers

#### **Preparation:**

- Laminate all clues cards
- Location: away from other groups, as we will most likely be a distraction, need a wide open space in grass
- Spray paint the shape of Iowa in the grass (10 feet by 15 feet)
- Place 20 mini cones in the approximate places the cities are located with corresponding picture sticking out of it, and puzzle clues underneath cones

#### **Standards:**

- **SS.3–5.G.1:** Essential Concept and/or Skill: Understand the use of geographic tools to locate and analyze information about people, places, and environments.

*(Cross-curricular connection and extension: if we had access to a classroom, we would expand on directions [North, East, South, West], using a key, discussing area landscape/environments, and go into writing about why these products were able to be grown with the environments available and inferencing skills using a topographic map.*

- **SS.3–5.E.4:** Essential Concept and/or Skill: Understand factors that create patterns of interdependence in the world economy.
- **SL.5.1:** Engage effectively in a range of collaborative discussions (one–on–one, in groups, and teacher–led) with diverse partners on *grade 5 topics and texts*, building on others’ ideas and expressing their own clearly

### **Procedure:**

**Intro (2 minutes):** To begin we will start with a short discussion about Iowa farms as well some some things from Iowa farms that they may have already used today. We are in Northeast Iowa on Norman Borlaug’s farm today. This is where he grew up and learned a lot about agriculture and farming. In our activity today we will be looking at different locations in Iowa that produce different types of products.

*Guiding Question:* How many of you live on a farm now or have lived on a farm in the past? What is something that you have eaten or used today that could have come from a farm here in Iowa?

*Guiding Question:* (If needed) I will help you out, Iowa grows more corn, pigs, and eggs than any other state in the U.S. what is something that come from those plants and animals?

**Core (18 minutes):** “Yes! Those are only some of the things that Iowa’s agriculture produce, there are a lot of important things that are grown by Iowa farmers.”

*Split students up into five different groups, counting off by fives, have each group sitting around each other. We will pay attention to teachers and substitute teachers requests for possibly having some students in particular groups due to disabilities and behavioral issues.*

“Today we are going to be participating in an Iowa scavenger hunt, raise your hand if this is something you’ve heard of. Can someone explain what a scavenger hunt is like? (*Looking for: clues are given, and to find the answer we need to go looking for it.*) Thank you! Over here we have some spray paint and cones, does the shape look familiar to any of you? Move around and get a better look if you need to. (*Looking for: Iowa*) Great, yes, it’s Iowa! Can anyone take a guess at what the cones represent? (*Looking for: cities in Iowa*) We will be giving each group a different starting clue Card. It’s your group’s responsibility to read the card, and as a group

figure out what city has the item on it. When you think you have figured it out send one team member to that town on the map and look under the cone for their color card. Each group member should get a chance to run into our map of Iowa. Only one student from each group can be on the map of Iowa at a time. That students will then run back to their team with that card that has their next clue on it. When the students find all of their cards, the last card will have directions to follow to prove they finished. Pay attention to the last instructions!

***Closure (last 5 minutes):***

**Assessment:**

*Farmers are an important part of Iowa and our life every day. Without farmers what are some things we wouldn't have?*

*Farmers produced the trees that were turned into the paper you're holding, the ink that was used to print our paper on, and the food you're going to eat for lunch.*

*Different regions grow different agriculture products because the natural resources in that region are best suited for specific plants or animals. Why can't we grow oranges in Iowa? Or why is Iowa such a great place for growing corn? We also have resources in Iowa that are suited for agriculture. What might some of those resources be?*

*We saw a lot of different products that Iowa's agriculture produce. What are some of the products that we learned about today that Norman Borlaug had an impact on? How did his work influence culture around the world?*

Depending on time, students will be put into small groups mixing up their original to share some fun facts about Iowa agriculture that they learned in this activity. If there is not time, then we will have a whole group conversation about new things that they learned.

**Differentiation:**

- For students who have trouble focusing, they will be moving around a lot for the lesson. Proximity control will be used to assist those students if it continues to be an issue. Since our lesson has a lot of movement, an additional brain break will not be used.
- For English Language Learners, we have decided to use pictures on our answer cards on the map rather than words. This will assist ELL student who may not know the specific vocabulary, but may know what each thing looks like. While the activity is going on, a teacher will check in with this student to see monitor their understanding of the clues and the answers.
- For students with ASD who may be sensitive to certain textures (like grass) they will be able to not be the runner if that will trigger them. The student and teacher will have short conversation about what special job that student would like to have in their group.

Clue Questions

This cold, white liquid tastes great with cookies, or mixed with chocolate. It's great for your bones, full of calcium and always a choice to drink at lunch. Des Moines drinks more of this than any other city in the United States!

Map Location: Atlantic, Iowa

This yummy snack that is usually eaten at movies goes pop! Pop! Pop! In the microwave. It's great with butter, and salt. Some even mix in M&Ms!

Map Location Rockwell City

This is a berry that is new to Iowa. It can be found in juice or many health food stores.

Map Location: Missouri Valley

This corn based fuel fills up something that helps us get from one place to another. It goes vroom vroom and usually sits in a garage.

Map Location: Mason City

These can be used to make crayons, they can be found in our chocolate bars, in vegetable oil and are one of the two crops that Iowa grows more of than any other state. Still need a hint? It's a type of bean.

Map Location: Sac City, Iowa

We go oink oink, have four legs and a snout. Many people like the bacon we give them, but we also can give them so much more! Medicine, paintbrushes, even lotion and make-up!

Map Location: Wellman, Iowa

This seafood product is usually found in the ocean. It tastes great with cocktail sauce, and you normally don't eat the tail.

Map Location: Waterloo, Iowa

This is a tasty breakfast item that can be scrambled, sunny side up, in an omelet, or hard boiled. A chicken lays these – Iowa has more than any other state!

Map Location: Galt, Iowa

We like to eat these for breakfast, usually in a bowl with milk. They are crunchy and full of Iowa grown products!

Map Location: Cedar Rapids, Iowa

This is a great meal, sometimes on the grill, or sometimes gotten from a restaurant like McDonalds. Many farmers in Dallas County grow the animals that give us this tasty meat. Map Location: Adel, Iowa

It tastes great melted between two slices of bread and dunked in tomato soup, melted over broccoli, or in the form of nachos. This yellow block of food is also a great snack with crackers. Location: Hull, Iowa

Round, juicy, and many different colors – maybe green and red and the best known. You can dip its slices into caramel or peanut butter, or have it baked in a pie or \_\_\_\_\_ sauce. Map Location: Fort Dodge, Iowa

Grown on the cob, this is the kind we eat right out of the field. It's great in the summer, and can be bought from trucks on the side of the street, grocery stores, or farmers markets. If you don't want it on the cob you can always eat it out of a can or find it in the frozen section!

Location: Grimes, Iowa

Farmers use these big machines to do all of the work in their fields. They can be many different colors, but the ones made here are green and "Run like a Deere" is their slogan. Map Location: Davenport, Iowa

\_\_\_\_\_ Eat Fresh! If you buy a turkey sandwich from this place most likely you're eating turkey grown in Iowa.

Map Location: Ellsworth, Iowa

Bees buzz around producing this sweet liquid. It's great on all types of foods, but watch out for the stingers if you get too close to the hive!

Location: Perry, Iowa

Spread across toast or on that famous pb&j this local jam is better than Welches in my opinion! Location: Maxwell, Iowa

This crop is what Iowa is known for! It's made into many products and can be found in our soda, cereal, candy, and can even be made into plastic!

Map Location: Hampton, Iowa

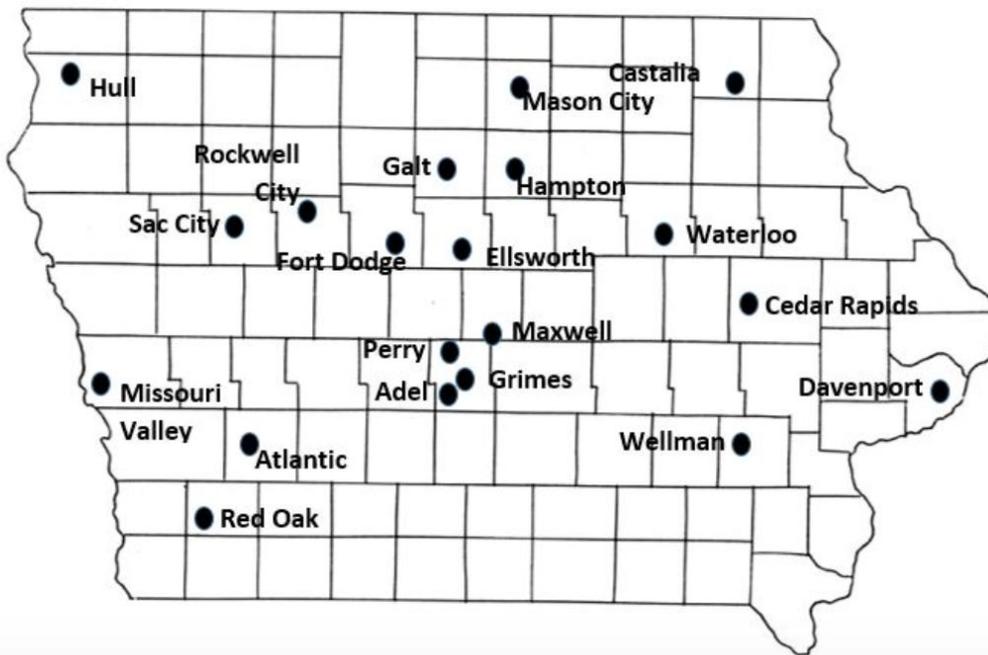
We decorate these at Christmas! Sometimes car fresheners are shaped like these.  
Mmmm, it smells like pine!

Map Location: Red Oak, Iowa

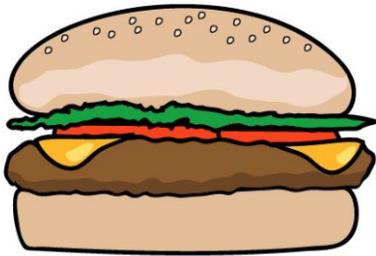
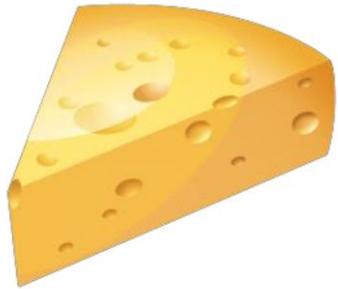
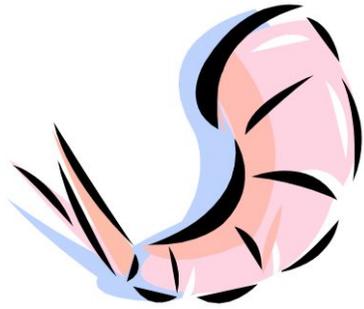
Pancakes, waffles, even drizzled over sausage, this sugary sweet breakfast condiment makes the above foods taste delicious!

Map Location: Castalia, Iowa

Locations Printed on Mystery Cards	Matching Product
Hampton, Iowa	Ear of Dent Corn
Maxwell	Jam
Ellsworth	Subway Turkey Sandwich
Perry	Honey
Grimes	Sweet corn
Davenport	John Deere Tractor
Hull	Cheese
Fort Dodge	Apples
Cedar Rapids	Corn Chex
Adel	Beef Cow
Waterloo	Shrimp
Galt	Eggs
Sac City	Soybeans
Wellman	Pig
Missouri Valley	Aronia Berry
Mason City	Car (Ethanol)
Atlantic	Milk
Castalia	Maple Syrup
Red Oak	Christmas Trees
Rockwell City	Popcorn



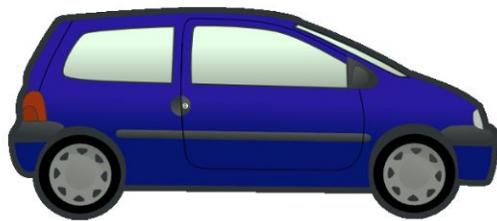
*On our life sized map, we will have a cone on each town. In the cone will be a stick with an attached card that will have the name of that place and a picture of the answer of a clue card.*



clipartSpace.com







**Resources:**

“Mapping Iowa Agriculture Lesson Plan.” Accessed April 30, 2018.

<http://www.iowaagliteracy.org/resources/lesson-plans/lesson-plans.aspx>.

Forrest and Carla,

This is a really fun idea that clearly has the students actively engaged. They will enjoy running into the map to find the various cities/products. I'm wondering if you could ask a couple higher order questions toward the beginning of the lesson? At the beginning of the lesson, you may have an opportunity to strengthen the Borlaug connection a bit as well, explaining what what grown on the farm right there and how Borlaug used his knowledge and working on farms throughout the world. Wheat can be grown in Iowa, but he also made it possible to grow wheat in Mexico, India, etc. How are you assessing that the students have met your objectives?

Creative ideas! Can't wait to see it in action!