Transportation Pringle Challenge

Grade Level(s)

4th grade

Estimated Time

40 minutes

Purpose

The supply chain, while once not a concern, is now affecting communities around the

world due to COVID-19 disruptions. Students will explore the importance of different

modes of agriculture transportation and packaging through a "Protect the Pringle Chip"

Challenge and virtual resources

Materials

Key Links:

Website: [www.riverbendaitc.com/january](http://www.riverbendaitc.com/january)

Intro video:

Supplies:

▪ Pringles

▪ Card stock

▪ Cardboard

▪ Tape

▪ Scissors

▪ Rubber bands

▪ Cotton

Vocabulary

**Transportation**: the movement of people or goods from one place to another

**Cargo**: goods carried on a ship, plane, or vehicle

**Processing**: in agriculture, the alteration or modification, for the purpose of

storage, transport, or sale, of an agricultural product

**Export**: to send goods or materials to another country

**Import**: to receive goods or materials from another country

Interest Approach – Engagement

Read one of the supply chain blog posts together as a class or split the class up into

small group and have each group read a different blog post. Hold a classroom

discussion. What did you learn in the article? What are the challenges? Have you

thought about the supply chain before?

▪Supply chain blog post:

▪ Plenty of pigs on the farm and meat shortages at the grocery store.

<https://www.iowafarmbureau.com/Article/Plenty-of-pigs-on-farms-and-meatshortages-at-the-grocery-store-how-does-that-happen>

▪ The raw story <https://www.rawstory.com/2020/04/here-is-why-dairy-farmersare-dumping-milk-even-as-americans-are-going-hungry/>

▪ Dumping milk <https://www.cnn.com/2020/04/15/business/milk-dumpingcoronavirus/index.html>

▪ Closing of meat processing plants

<https://www.cnn.com/2020/04/26/business/meat-processing-plantscoronavirus/index.html>

Background - Agricultural Connections

Agricultural commodities are transported in a variety of different ways. Transportation is

the movement of people or goods from one place to another and in this lesson, students

will explore how our food gets from the farm to the grocery store. Agricultural

commodities can be transported by land, sea and air. Farmers, transporters and

agribusiness personnel must consider packaging and how the products will safely arrive

at their next destination. Students will design their own package for a pringle chip. They

will use the engineering process to build and test different designs for their durability and

protection.

Procedures

1. Watch intro video with the class available on our website

2. Show one of the local transportations FarmChat video- Day in the Life of a SemiDriver or Lock and Dam 10.

• Day in the life of a semi driver

<https://www.youtube.com/watch?v=bK3wnovsgwY&t=55s>

• Lock and Dam 10 <https://www.youtube.com/watch?v=syiXbYTwmx0&t=300s>

3.. Instruct the students to think about how packages are made. How do packages look

different at the grocery store? Why are there different packaging designs? Are goods

transported the same in each mode of transportation? Why is grain hauled loosely

while cereal is packaged in bags, boxes and on pallets?

4. **PRINGLE STEM CHALLENGE**: Instruct the students to create a Pringle package. The

goal is to protect the pringle through transportation. Pass out the following materials:

pringle, card stock, tape, cotton, scissors, etc. Give the students 10-15 minutes to build

a pringle package.

5. If time- test the packages.

1. Drop from top of a chair

2. Drop an object on the package

6. How many pieces is your pringle in?

7. What are your thoughts? Lead a class discussion about transportation and packaging.

Additional resources/ activities

FarmChat®s:

▪ Banana video <https://www.youtube.com/watch?v=sqHMKj04WQ0>

▪ CGB Grain <https://www.youtube.com/watch?v=CBwpqc-ifSw>

▪ Milk to store <https://www.youtube.com/watch?v=1LEGl6SF4Jc>

Organization Affiliation

Morgan Hibbs, Linn County Farm Bureau

Iowa/ Common Core Standards

English Language Arts:

W.4.7: Conduct short research projects that build knowledge through investigation of different aspects of a topic

Social Studies:

SS.4.12. Using historical and/or local examples, explain how competition has influenced the production of goods and services.

SS.4.14. Explain the reasons why the costs of goods and services rise and fall.