## **Innovator Insights Junior**

### Overview

Innovator Insights Junior is a series of videos featuring elementary students from Nebraska asking questions of innovators. The goal of having students watch and interact with the videos is to help children become aware of different types of innovation, to see themselves as innovators, to enhance question development, and explore the creative process both in design and in English Language Arts. Each video in this series is accompanied by a video guide.

The toolkit is divided into three main sections. Within each section, there are subsections. There is no specific order to those sections, and allows the instructor to choose how to navigate each component in the design process..

### **Understanding and Identifying a Problem**

In this section of the unit, the students will identify a problem by observing the world around them and conducting an interview with someone in their class/school. After conducting the interview, students will create a problem statement for the problem they have identified.

### **Creative Problem Solving**

In the creative problem solving component of the lesson, students will attempt to address the problem or area for improvement by storyboarding a potential solution, and creating a prototype of their innovation. Students will also create a potential name for their business as well as create business cards that can share with others.

### **Testing and Share a Solution**

In the testing and sharing portion of the unit, students will put their innovations to the test and get feedback from others in order to make their innovation better. The final product can be shared in a variety of ways but the students will end the unit by creating a shark tank (Minnow Pond) like pitch. Students will also create a potential name for their business as well as create business cards that can share with others.



# Outcomes of The Design Process

Outlined in the table below are the student outcomes for each section of this unit and innovator insights videos recommended for each.

| Lesson                                | Design Challenge                    | Insight Video  | Objective  |
|---------------------------------------|-------------------------------------|--|--|
| Introduce                             | Innovator Collection                | Grain Weevil   | identify different types of innovation<br>and create information cards for<br>innovators from the insights video<br>and from others.   |
| Understanding and I                   |                                     |  |  |
| Empathize                             | Empathy Rapid<br>Response Interview | <ul> <li>Shemate</li> </ul>                                  | Develop questions and interview a person to gain insight and perspective about a specific part of their lives in an attempt to uncover opportunities for innovation.   |
| Define                                | Innovation Goal                     | Retail Aware   | Generate a wide range of potential solutions to a defined problem. Identify at least one potential solution and demonstrate the impact of the innovation through use of a storyboarding, digital media or written description to communicate innovation goal to greater audience |
| Ideation and Creative Problem Solving |                                     |  |  |
| Ideate                                | Brainstorming Idea<br>Board         | <ul><li>Whiteclay</li><li>Mushroom</li><li>Science</li></ul> |  |
| Prototype                             | Storyboard/Prototype                | Virtual Incision   |  |
| Testing and Sharing an Idea           |                                     |  |  |
| Test                                  | Brand, Logo                         | Opendorse  |  |
| Share                                 | Innovator Insights<br>Video Segment | American Outlaws   | Create a short sales pitch to effectively communicate the purpose and intent of the innovation   |



### Design Challenges

### **Introduction to Design Challenge**

**Design Challenge 1:** Create an Innovation Collection

In order to become an innovator it's important to start seeing the world through an innovators lens. In this design challenge, you will create a collection of innovation, both from the innovators insights videos and in the real world by documenting different characteristics of the innovations you've observed.

### **Understanding and Identifying a Problem**

In this section of the unit, the students will identify a problem by observing the world around them and conducting an interview with someone in their class/school. After conducting the interview, students will create a problem statement for the problem they have identified.

### Design Challenge 2: Conduct an Empathy Interview

In order to help others solve problems, it is important to see the world from their perspective. In this design challenge, you will conduct an empathy interview. Use this as an opportunity to gain the perspective of others and help see opportunities for innovation.

Design Challenge 3: Define a problem and create an Innovation Goal

To solve a problem, one must first clearly define what the problem is and how innovation attempts to solve that problem. In this design challenge you will identify the problem you are solving and create a goal for your solution.

### **Creative Problem Solving**

In the creative problem solving component of the unit, students will attempt to address the problem or area for improvement by storyboarding a potential solution, and creating a prototype of their innovation. Students will also create a potential name for their business as well as create business cards that can share with others.

Design Challenge 4: Ideate a Solution and Tell a Solution Story

Brainstorming is an important part of the innovative process. In this design challenge you will brainstorm many solutions to a problem and tell the story of how that problem could be solved.

Design Challenge 5: Create a Prototype!

Put your design to action by creating a prototype. A prototype is an early version of something that is meant to get better. In this design challenge you will create a working prototype of your innovation.

### **Testing and Share a Solution**

In the testing and sharing portion of the unit, students will put their innovations to the test and get feedback from others in order to make their innovation better. The final product can be shared in a variety of ways but the students will end the unit by creating a shark tank (Minnow Pond) like pitch. Students will also create a potential name for their business as well as create business cards that can share with others.

Design Challenge 6: Create Your Brand

In this design challenge, you will use the information you have gathered and the innovation you have created to create a name for your innovation, a title for your role, and a name for your company. Use this innovation

Design Challenge 7: Share your Idea

It's time to share your innovation. In this challenge you will create a thirty second sales pitch to share your idea with others. Testing how others receive your idea and the feedback they give is a great way to make your product even better!



## Nebraska English Language Art State Standards

**LA.4.W.2** Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline.

- a. Use prewriting activities and resources to plan, organize, and draft writing.
- b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity.
- **c.** Improve and clarify the content, structure, and organization of writing by revising, considering feedback from adults and peers.
- d. Improve and clarify writing by editing and proofreading, considering feedback from adults and peers.
- e. Use or decipher multiple formats of print and digital text (e.g., manuscript, cursive, font, graphics, symbols).
- f. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.

**LA.4.W.4** Write opinion pieces that explain a perspective with supporting reasons and/or evidence.

- a. Introduce a topic or text clearly, state an opinion, and develop a structure that includes reasons and/or evidence.
- b. Use facts and details to support reasons and/or evidence.
- c. Use linking words and phrases to connect ideas.
- d. Provide a concluding statement or section related to the opinion.

Nebraska Career Readiness Standards



## Types of Innovation

**Product Innovation:** This is when someone comes up with a new thing that they make. It could be a toy, a tool, or something else you can touch and use. An example would be if someone creates a brand new kind of bicycle with special features, that's product innovation.

**Service Innovation:** Services are things people do for you, like fixing your bike or giving you a haircut. Service innovation happens when someone thinks of a new and better way to do those things. For example, if someone starts a mobile haircutting van that comes to your house, that's service innovation.

**Process Innovation:** This is about finding new ways to do things faster, easier, or better. Imagine if people figured out a new way to make cookies in a shorter time without changing how yummy they are. That's process innovation because they improved the way of making cookies.

**Technology Innovation:** Technology means fancy tools and gadgets that help us do things. When someone makes a new gadget, like a robot that can clean your room, that's technology innovation.

**Business Model Innovation:** Think of a business like a lemonade stand. Business model innovation is when someone comes up with a cool idea to run their business in a different way. For example, if they start letting customers order lemonade online and deliver it to their homes, that's business model innovation.

**Marketing Innovation:** Marketing is how companies tell people about their products or services. If a company starts using funny videos on the internet to show how good their toys are, that's marketing innovation.

**Social Innovation:** Social innovation is all about making the world a better place by coming up with new ideas that help people or the environment. For instance, if kids in your school start a club to clean up the playground and plant more trees, that's social innovation.

Remember, all these types of innovation are like using your imagination to come up with new and exciting things that can make life more interesting or solve problems! Keep in mind, because innovation can be so different, these might not be the only types of innovation. If you feel like an innovation is something different, do be afraid to classify it differently.

### Career Fields

### **Agriculture, Food, and Natural Resources:**

This is all about taking care of our environment, plants, and animals. People in this field grow food like fruits and veggies, raise animals like cows and chickens, and make sure nature stays healthy. They also help make sure we have enough food to eat.

### **Business, Marketing, and Management:**

Think of this like running a lemonade stand! People in this field know how to sell things and make money. They decide how much things should cost, how to tell others about what they're selling, and how to make sure the business runs smoothly.

### **Communication and Information Systems:**

Imagine using a walkie-talkie or a computer to talk with friends far away. People in this field help us use phones, computers, and other gadgets to talk and share information. They make sure everything works properly so we can stay connected.

#### **Health Sciences:**

Health science strives to help people stay healthy and feel better when they're sick. Doctors, nurses, and other health professionals work in this field. They take care of us when we're not feeling well and teach us how to stay strong.

#### **Human Sciences and Education:**

Like being a teacher or a helper. People in this field work in schools and teach students many things like reading, math, and science. They also help kids learn about being kind and getting along with others.

#### **Skilled and Technical Sciences:**

Think of this as being a super handy person! People in this field know how to build, fix, and create things. They might fix cars, build houses, or even design cool video games. They use their hands and their brains to make stuff.



# Innovator Insights Notes

| Name of Innovation/Innovator:      |   |
|------------------------------------|---|
| Type of Innovation:                | Product Service Process Technology Business Model Marketing Social Other  |
| Career Field Impacted:             | <ul> <li>Agriculture, Food, and Natural Resources</li> <li>Business, Marketing, and Management</li> <li>Communication and Information Systems</li> <li>Health Sciences</li> <li>Human Sciences and Education</li> <li>Skilled and Technical Sciences</li> </ul> |
| How is this innovation:            | Builds on an old idea Repurposes the way something is used or something is done Introduces a new idea or way of doing something Changes the way something is done forever and makes old way obsolete or rare  |
| Who benefits from this innovation: |   |

| Draw a picture of the innovator or innovation. | Interesting insights including key words or phrases, ideas, or statistics from the innovator |
|--|--|
|--|--|

Questions would you like to ask the innovator?



### Word Wall

Use a word wall on a bulletin board or this document to collect key vocabulary words throughout the design process. Each Innovator Insights video adds new words to the collection. Students can collect and use these words and pick one from each category to create their job title or role in the creation of their innovation. The more words you collect, the more options you have.

| Actions        | Objects   |
|----------------|-----------|
| Ex. Insightful | Innovator |
|                |           |
|                |           |
|                |           |
|                |           |
|                |           |
|                |           |
|                |           |
|                |           |
|                |           |



# Innovator Insights Collectors Cards

Use the template below or blank index card to record key ideas about the different innovators from the innovator insights video.

Sample Template

| Front | Back                        |
|-------|-----------------------------|
| ü     | Key Insights and Statistics |
|       | Vocabulary                  |
|       | The Problem                 |
|       | The Solution                |
|       | The Career Field Impacted   |
|       | Fun Fact. Did you know      |
|       |                             |
|       |                             |
|       |                             |
|       |                             |

