

21st Century Classroom Lesson Plan

IDAHO STATE DEPARTMENT OF EDUCATION
DEVELOPED ACCORDING TO THE CHARLOTTE DANIELSON FRAMEWORK AND
UNIVERSAL DESIGN FOR LEARNING (UDL)

Charlotte Danielson Framework - This lesson plan incorporates all of the components found in **Domain 1: Planning and Preparation** of the Danielson Framework for Teaching; **1a: Demonstrating Knowledge of Content and Pedagogy**; **1b: Demonstrating Knowledge of Students**; **1c: Setting Instructional Goals**; **1d: Demonstrating Knowledge of Resources**; **1e: Designing Coherent Instruction**, and; **1f: Assessing Student Learning**.

UDL – This lesson plan incorporates the primary components of Universal Design for Learning (UDL) which is an educational approach with three primary principles including;

1. **Multiple means of representation**, to give diverse learners options for acquiring information and knowledge,
2. **Multiple means of action and expression**, to provide learners options for demonstrating what they know,
3. **Multiple means of engagement**, to tap into learners' interests, offer appropriate challenges, and increase motivation

Lesson plans created by educators for submission into Idaho's Learning Management System (LMS) Schoolnet must include these components. For information on Universal Design for Learning including a tutorial and model lessons access the Center for Applied Special Technology (CAST) website at <http://www.cast.org/>

Bloom's Revised Taxonomy – This lesson plan includes Bloom's Revised Taxonomy as a component.

*NOTE: Not all areas are required for every lesson. * INDICATES OPTIONAL areas to be included only if applicable to the specific content/grade level lesson. This lesson plan template is based upon the CAST UDL Lesson Plan Builder but includes extra fields specific for submission into Idaho's Schoolnet Learning Management System and must be completely filled in (unless labeled * for optional) to facilitate entry into a searchable state-wide and national online database. Educators are not limited to the space provided as the table will expand to fit the entries.

Name: SDE-Child Nutrition Programs	Email: childnutrition@sde.idaho.gov
District Name:	School Name:
District Number:	School Address:
School Phone:	Administrator Name:

Lesson Overview

Unit: Incredible Edible Idaho Farm to School Lesson Series	
Lesson Title: Idaho Wheat	
Subject: Health, ELA *Subheading: Nutrition	
Duration: 40 minutes	Grade Level(s): 3rd-5th
Course: –	
Big Idea or Focused Investigation: Idaho wheat is an important part of a healthy diet. Half of the daily grains you eat should be whole grains. Wheat is an important crop in Idaho.	
Enduring Understandings: Idaho wheat provides many nutrients that help our bodies learn, grow, and stay healthy. Wheat production is an important industry in Idaho.	
Essential Question/s: Why is wheat production important to Idaho citizens? According to My Idaho Plate, where does wheat fit into a balanced, healthy meal?	

Description

Lesson Description: Describe the primary nature (e.g. hands-on, inquiry, project based etc.), whether interdisciplinary or single-subject and how it relates to a broader unit. Being clear, descriptive, and specific will help to develop the online keyword searches within Schoolnet. Make sure you provide enough information on this lesson plan that it can be replicated.

Description: This lesson plan is designed to provide students with information on Idaho wheat from both an agricultural and a nutritional perspective. Students will learn where Idaho wheat is grown and about different types of wheat. Additionally, students will become aware of nutrition facts related to wheat, including how to add more whole grain to their meals. They will be required to read and listen to a presentation, then generate claims and gather evidence to support those claims.

Goals and Objectives

(Framework Domain 1c: Setting Instructional Goals)

Goals and Objectives: The overall goal, as well as objective, outlining the concept, knowledge, skill, or application students can demonstrate upon lesson completion. This may be the same as or very similar to the content standard; however, it could be narrower or perhaps broader. Objectives may be stated in the form of critical questions students should be able to answer.

Unit/Lesson Goal/s: Students will gain a greater appreciation for wheat production in Idaho. Students will make connections between locally grown products and healthy eating.

Lesson Objectives: Students will draw on and link their background knowledge to their learning as part of this lesson. Students will read and listen to a presentation while creating a claim and finding supporting evidence in multiple texts. They will then pose questions for additional research at the lesson's conclusion.

Standards

Standards: A lesson may address a single content standard, two or more content standards from the same subject area, or content standards from two or more subject areas and or grades. (Use the drop down menu provided for each if submitting online within Schoolnet or use the internet links provided to access, then copy and paste into the document)

Idaho State Content Standards:

3-5.H.3.1.1 Identify characteristics of valid health information, products, and services.

3-5.H.5.1.5 Choose a healthy option when making a decision.

3-5.H.7.1.1 Identify responsible personal health behaviors.

Idaho Core Standards (CCSS):

RI.4.2 Determine the main idea of a text and explain how it is supported by key details; summarize the text.

RI.4.9 Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

SL.4.3 Identify the reasons and evidence a speaker provides to support particular points.

SL.4.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.

SL.4.1.a Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.

SL.4.1.d Review the key ideas expressed and explain their own ideas and understanding in light of the discussion

*National Education Technology Standards:
*Professional Technical Standards
*English Language Development (ELD) Standards:
Idaho Extended Content Objectives: (Standards for Students With Significant Cognitive Disabilities)

Learning Outcomes – Begin with the end in mind

(Framework Domain 1e: Designing Coherent Instruction)

Learning Outcomes: How does this lesson support the unit goals / enduring understandings? How does this lesson build on the previous lesson in this instructional sequence? How does this lesson support the next lesson in this instructional sequence?

Create, Present, Perform, Exhibit, Report, Respond/Reflect. Students will be able to:

Learning Outcome: Students will draw on and link their background knowledge to their learning as part of this lesson. Students will read and listen to a presentation while creating a claim and finding supporting evidence in multiple texts. They will then pose questions for additional research at the lesson’s conclusion.
*Learning Outcome: —
Checking for Understanding Questions: Why is wheat production important to Idaho’s citizens? Why is it recommended that half of a person’s daily grain intake consist of whole grain? How do I know if my bread is whole grain? How is Idaho wheat part of a healthy meal?

Bloom’s Revised Taxonomy

Which levels of Bloom’s Revised Taxonomy are targeted? Check one or more.

(Use drop down online within Schoolnet or checkbox)

X	Remembering	X	Analyzing
X	Understanding	X	Evaluating
X	Applying		Creating

Methods and Instructional Strategies

(Framework Domain 1a: Demonstrating Knowledge of Content and Pedagogy)

Vocabulary: List all key vocabulary words necessary for students to understand the concepts as well as meet the standards, goals and objectives of the lesson.

Kernel – the whole seed grain
Bran – seed coat, the outer covering
Endosperm – the starchy inner core
Germ – the part of the seed that grows, “baby plant”
Export – products grown in one part of the world and shipped to another part
Production – growing or making a product
Claim – to state something as a fact
Evidence - proof used to support facts

Introduction/Anticipatory Set:

Before you begin the lesson, make sure you prepare materials. You will need to:

- Read the PowerPoint presentation and print out all slides, including notes. The notes will not be visible when you are viewing the PowerPoint, so it is important to print them out beforehand. To print the slides WITH notes, select “Print,” then under the print menu, select the dropdown menu labeled “Print What.” Select “Notes Pages.” When you print, it will print each slide, along with the notes at the bottom.
- Discussion information for each PowerPoint slide is contained below the slide within the presentation.
- Italicized instructor cues include questions for the class.
- Hang up “Incredible Edible Idaho: Wheat” poster in the front of the class to use as a visual aid.
- Make enough copies of Idaho Wheat Take Home Handout and the Wheat KLEW Chart Handout for each student in your class.

To begin the lesson:

Slide 1: Introduce the content of the lesson: Today we are going to be learning about Wheat, one crop grown in our great state of Idaho.

Introduce the ELA learning target: Today’s lesson will require you to gather evidence to support a main idea. I need you to really listen to the facts I’m going to be sharing with you. We are going to learn facts about wheat in Idaho, the different varieties of wheat grown in Idaho, and nutritional facts about wheat.

Introduce the KLEW learning strategy: What are the two main ideas that we are going to be supporting with evidence today? Please fill out the first column, the ‘know’ column. What do you already know about wheat? What do you already know about how wheat is part of a healthy meal?

Teacher Notes: Before moving on to Slide 2, preview the Wheat KLEW chart with students to set a purpose for reading and listening. Provide students with time to complete the first column in their KLEW charts. This column asks students to activate background knowledge by recording facts they think they know. If time allows, encourage students to share what they think they know about Idaho wheat before continuing.

Instructional Strategies: Gradual release of responsibility

Build, Apply Knowledge:

Slide 2-3: Remind students to collect evidence that supports this main idea: Wheat production is important to Idaho's citizens. Model your thinking aloud as necessary: I see the word Idaho on this slide, so I am going to really begin hunting for evidence.

Slide 4: Ask Students: What evidence do we need to include to support our main idea from this slide?

Model Using the wheat KLEW chart.

- Learn Column Example: Almost every county in Idaho grows wheat.
- Evidence Column Example: Only 2 counties don't grow wheat: Boise County and Shoshone County.

Slide 5-9: Read the slide and give the extra information contained in the notes.

Slide 10: Ask students to think about all of the information that we just learned about the varieties of wheat grown in Idaho. Which main idea does this information support? How could you summarize that learning in the second column?

Turn to a neighbor and talk about what claims you can make so far. These claims go in the "learn" column. What is your evidence to support the claim you made in the "learn" column? Record these facts in the third column, "evidence."

Model examples for column 2 (if needed):

- Learn Column: Idaho grows a lot of wheat.
- Evidence Column: Wheat is grown in almost every county in Idaho.

- Learn Column: Idaho can grow many types of wheat.
- Evidence Column: All 5 types of wheat are grown here.

- Learn Column: Wheat is an important ingredient in bread.
- Evidence Column: Different types of wheat make different types of food.

Slide 11: Read the slide and give the extra information contained in the notes.

Model your thinking aloud as needed: I notice that the topic seems to change. What were we talking about? (varieties of wheat, wheat in Idaho) What are we talking about now? (nutrition facts) Maybe now there will be more evidence to support the second main idea: Idaho wheat is an important part of a healthy meal.

Slide 12: Read the slide. Give students an opportunity to answer the question on the slide (Why should half of the grains you eat every day be whole grains?) based on what they learn while carefully reading the diagram. Give the extra information contained in the notes. Give students an opportunity to add to their answer based on what they learned from careful listening. Offer students an opportunity to pair-share their ideas.

Model your thinking: I notice that the bran and the germ have vitamins and nutrients that I think my body needs to learn, play, and grow. The slide tells me that when whole wheat flour is milled all of those parts are used. However, I notice the slide also tells me that 'white' or 'refined' flour only uses the endosperm. It seems like I wouldn't get as many vitamins, if that is the only part in 'white' or 'refined' flour.

How can we capture our learning on our wheat KLEW chart? What claim did we make based on the evidence presented in this slide? Remember the claim goes in the 'learn' column, but the evidence that supports your learning goes in the 'evidence' column.

- Learn Column Example: Whole grain contains more vitamins and nutrients – or - Half of the grains I eat every day should be whole grains.
- Evidence Column Example: Whole grain includes the bran which has fiber and protein that is good for our bodies.

Slide 13: Work together as a class to understand what this diagram is telling you.

Model your thinking: If a product is 100% whole wheat, the only grain ingredient listed will be whole wheat. If a product has other grain ingredients, like "Enriched wheat flour", it isn't 100% whole wheat. If whole wheat is the first grain ingredient, but it contains other non-whole grain ingredients, like enriched wheat flour, it is "whole grain rich" (USDA terminology). Ingredients on the label must be listed in order by weight.

Optional: Examine a few bread labels to determine whether the bread is whole grain or not. Discuss if the packaging is honest or misleading.

Slide14: Read the slide and give the extra information contained in the notes.

***Higher Order Thinking Questions:** How can we teach others about the importance of making half of their grains whole grains? What tweaks can you make to your current favorite meals to make sure that you eat enough whole grains?

***Provide Guided Practice:**

Slide 15: Ask students how we can capture our learning about wheat's nutritional benefits on our wheat KLEW chart. What claims did we make based on the evidence presented in these slides? Remember the claims goes in the 'learn' column, but the evidence that supports your learning can go in the 'evidence' column. Allow students to discuss their process as they work through this portion without modeling from you. Discuss some of their ideas as a whole group, allowing students to model their thinking for each other.

- Learn Column Example: It is easy to eat more whole grains. – or - Wheat includes many nutrients we need.
- Evidence Column Example: Check the label for whole grains as the first ingredient – or - Carbohydrates from wheat provide the energy you need to play, learn, and keep your body running. (Slide 13) – or - 1 serving of grain is equal to 1 oz. of whole grain ready-to-eat cereal. (Slide 15)

***Provide Independent Practice:**

Slide 16: Pass out printed copies or project the "Incredible Edible Idaho: Wheat" poster, a portion of it is included on this slide. Give students additional time to practice adding to their wheat KLEW chart independently.

Wrap Up/Synthesis/Closure:

After PowerPoint: Provide time for students to complete the fourth column 'Wonder'.

Share out and compare thinking recorded in the wheat KLEW charts in small groups or as a class using a document projector.

Materials

(Framework Domain 1d: Demonstrating Knowledge of Resources)

*Digital eLearning Materials: URL (Web Site Link/s) to online digital text or materials, games, activities, programs, tools or video – List as many as necessary.

Title: Idaho Wheat PowerPoint Presentation

URL: <http://www.sde.idaho.gov/site/cnp/farmToSchool/lessonPlans>

Annotation: This PowerPoint provides students with the background information about wheat production in Idaho, varieties of wheat grown in Idaho, and wheat's role in a healthy meal.

Title: Wheat KLEW Chart

URL: <http://www.sde.idaho.gov/site/cnp/farmToSchool/lessonPlans>

Annotation: This worksheet provides students with a place to record their learning throughout the Idaho Wheat lesson. The KLEW is used to help students activate prior knowledge before reading, make claims about the text, gather evidence from the text that supports their claim, and pose further questions to be answered through continued reading or research.

Title: Incredible Edible Idaho Wheat Poster

URL: <http://www.sde.idaho.gov/site/cnp/farmToSchool/lessonPlans>

Annotation: This link provides the poster referred to in slide 15 of the lesson. The State Department of Education, Child Nutrition Programs and the Idaho Department of Agriculture support Farm to School activities in the state of Idaho. Several Idaho schools have introduced Farm to School activities in their classrooms and cafeterias.

***Technology Tools and Equipment (Including UDL-Assistive Technology Software and Hardware):** Examples of technology tools might include hardware as well as software; e.g. document camera, digital camera, tablet, iPad, iPod, Interactive Board, calculator, geotracking, etc. Examples of UDL -assistive technology; e.g. text to speech, speech to text, switch or adapted keyboard, screen reader or word prediction etc. (List as many as necessary)

1. Computer with PowerPoint and Internet Connection
2. LCD Projector

***Other Materials:** Those required by teacher and/or students, include preparation or other special instructions; e.g. paper based materials such as text books, science equipment or supplies, art materials or equipment. (List technology items in the previous field.) (List as many as necessary)

1. "Wheat Klew chart," 1 per student
 2. Print the teaching notes included in the PowerPoint slides
 3. "Incredible Edible Idaho: Wheat" poster, 1 per student
- Optional: bread labels for practice identifying whole wheat products on slide 12.

***Safety Considerations** (e.g. for Science and Professional Technical Education Plans)

UDL - Differentiation According to Student Needs

(Framework Domain 1b: Demonstrating Knowledge of Students)

Differentiation of curriculum, instruction and assessment using (UDL) Universal Design for Learning

Principles to address diverse student needs including students with an IEP or 504, cultural linguistic needs e.g., (ELL, SIOP) as well as providing opportunities for extension and remediation if indicated.

UDL: Multiple means of;

- **Action and Expression:** Students will have an opportunity to share information with others in a variety of ways: pairs, small group, and whole group discussion.
- **Engagement:** Students are asked to draw on and link their background knowledge to their learning as part of this lesson. They are also asked to pose questions for additional research at the lesson's conclusion.
- **Representation:** Students are required to read and listen to a presentation while creating a claim and finding supporting evidence in multiple texts.

ELL, SIOP: (Modifications to Instruction) –

***Other Means of Differentiation:** Focus on difficult vocabulary to help students who are ELL. Make sure ELL students have strong English speaking students in their group to help them as needed.

Extension: Modifications for students who already know or can do the primary learning objective, e.g. activities that apply the concept to new content or extend opportunities for further research and exploration.

***1. Extension:** Allow students to research the ideas included in their 'wonder' column of the "Wheat KLEW chart."

Remediation: Explain what may be done for students who need extra preparation or assistance before, during, or after the lesson.

***1. Remediation:** You may choose to support students through careful grouping. Students can then provide support for each other during pair-share and group work. You may choose to complete slide 15 in small groups rather than independently.

Assessment

(Framework Domain 1f: Assessing Student Learning)

Assessment: (Optional) May indicate the type of assessment most appropriate, or it may provide sample questions, entire tests, portfolio guidelines or rubrics if available submitted along with the lesson plan as attachments.

***Formative/Ongoing Assessment:** Teacher observation will be the primary means of determining how much to release responsibility to small groups, partners, or independent work. Cold calling will allow teachers the opportunity to check for understanding from those students who don't always raise their hand to be chosen to share. Monitor the students' understanding using the "Wheat KLEW chart" as their work will help teachers modify the strategy they choose to deliver content.

***Summative/End Of Lesson Assessment:** Slide 15 provides an opportunity for summative assessment as it prompts students to independently continue the same process that has been explicitly taught using the "Incredible Edible Idaho: Wheat" poster. The "Wheat KLEW Chart" provides tangible evidence of each student's thinking and understanding during this lesson.

Educator Self-Reflection

Please use this area to self-reflect on the successes and areas of improvement for your own planning purposes. (You may use this area then delete for submission online as the contents of the self-reflection section is not intended to be shared.)

*Self-Reflection – Successes and Areas of Improvement
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The State Department of Education- Child Nutrition Programs thanks Jill Diamond of the Lewiston School District #1, Leah Clark from the Idaho Department of Agriculture, and Tracy Son for their efforts to create this lesson.

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