

Kitchen Lesson K6-9

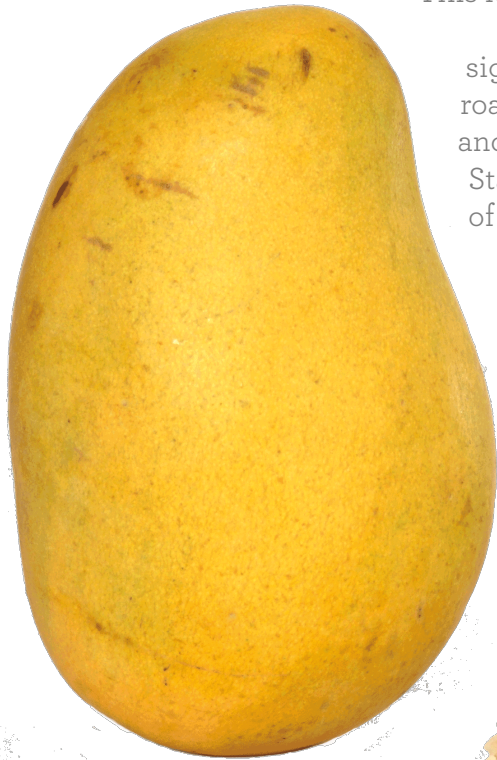
Silk Road Rice Pudding

Communication

Students negotiate trade for ingredients needed to make Rice Pudding.

Academics

This lesson fulfills History–Social Science Content Standards for citing the significance of the trans-Eurasian “silk roads” in the period of the Han Dynasty and Roman Empire; Common Core State Standards for determining the meaning of words; integrating visual information; integrating information; following a multistep procedure; integrating quantitative or technical information; collaborative discussion; interpreting information presented in diverse media; speaking and listening; language; and acquiring words and phrases.



Sustainability

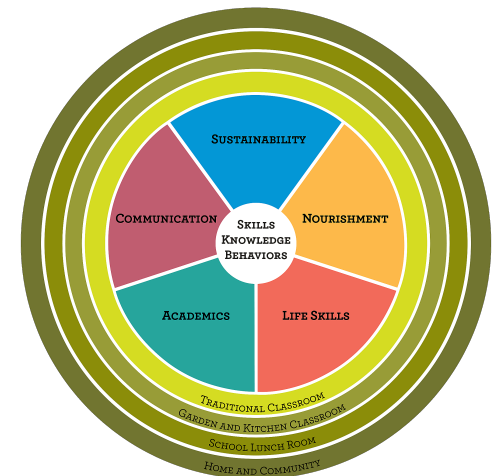
A globalized diet involves widespread environmental impact in production and transportation. Students acknowledge this as they trade for goods produced in different regions of the world.

Nourishment

Rice Pudding topped with fresh fruit is delicious, but sweets and desserts compose a small portion of ESY lessons to reflect that they should compose only a small portion of our diets.

Life Skills

Students learn that steeping spices in milk (or any liquid) can infuse the liquid with their flavor, and that egg can emulsify or thicken depending on how it is incorporated into a dish.



The Silk Road: Trading for Rice Pudding Abstract

Summary

In this 6th grade humanities lesson, students **trade** with each other to obtain all the ingredients needed to prepare Rice Pudding. This is the fourth and final Silk Road lesson.

Objectives

After this lesson, students will be able to:

- Cite the contributions of China, India and Rome to the Silk Road
- Cite the significance of the Silk Road and its influence on China, India and Rome
- Recognize the importance of **trade** along the Silk Road

Assessments

During this lesson, students will:

- Name ideas, goods and foods from China, India and Rome that were **traded** along the Silk Road
- Identify ideas, goods and foods each region gained as a result of **trade** along the Silk Road
- **Trade** goods and foods they have for goods and foods they need to prepare Rice Pudding

Communication is strengthened by negotiating **trade** for ingredients needed to make Rice Pudding. **Sustainability** is recognized by acknowledging that a globalized diet involves widespread environmental impact in production and transportation as students **trade** for goods produced in different regions of the world. **Nourishment** is acquired by eating rice pudding topped with fresh fruit and discussing that sweets and desserts compose a small portion of ESY lessons to reflect that they should compose only a small portion of our diets. **Life Skills** are sharpened as students learn that steeping spices in milk (or any liquid) can infuse the liquid with their flavor and that egg can emulsify or thicken depending on how it is incorporated into a dish.

Academics fulfill History–Social Science Content Standards for citing the significance of the trans-Eurasian “silk roads” in the period of the Han Dynasty and Roman Empire; Common Core State Standards for determining the meaning of words; integrating visual information; integrating information presented in different media or formats; following a multistep procedure;

integrating quantitative or technical information; collaborative discussion; interpreting information presented in diverse media; speaking and listening; language; and acquiring words and phrases. See **Connections to *Academic Standards*** below for details.

Edible Schoolyard curriculum emphasizes developing community and personal stewardship, along with skills that will help students navigate different situations throughout their lives; identifying **basic tools**; identifying **ingredients** by name; and making connections between the diets of **historic cultures** and foods we eat today. See **Connections to *Edible Schoolyard Standards*** below for details.

This lesson follows the BEETLES Project's *Learning Cycle* (Invitation-> Exploration -> Concept Invention -> Application -> Reflection) and uses their *Discussion Routines* (Think-Pair-Share, Whip-Around). All are highlighted in *Green** with an asterisk for easy identification. See the documents BEETLES_Discussion_Routines.pdf and BEETLES_Learning_Cycle.pdf included in **Resources** below for more information. Games and activities from other sources are also identified in *Green*, without an asterisk.

Connections to *Academic Standards*

History–Social Science Content Standards for California Public Schools, Grade 6

- 6.6.7 Cite the significance of the trans-Eurasian “silk roads” in the period of the Han Dy nasty and Roman Empire and their locations.

Common Core State Standards, English Language Arts and Literacy, Grade 6

- RH.6.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.
- RH.6.7 Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.
- RI.6.7 Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.
- RST.6.3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
- RST.6.7 Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).
- SL.6.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher- led) with diverse partners on *grade 6 topics, texts, and issues*, building on others’ ideas and expressing their own clearly.

- SL.6.1.b Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.
- SL.6.1.c Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.
- SL.6.1.d Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.
- SL.6.2 Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.
- SL.6.4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
- SL.6.6 Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grade 6 Language standards 1 and 3 on page 53 for specific expectations.)
- L.6.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
 - L.6.1.a Ensure that pronouns are in the proper case (subjective, objective, possessive).
 - L.6.1.b Use all pronouns, including intensive pronouns (e.g., *myself*, *ourselves*) correctly.
 - L.6.1.c Recognize and correct inappropriate shifts in pronoun number and person.
 - L.6.1.d Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).
- L.6.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.
 - L.6.3.a Vary sentence patterns for meaning, reader/ listener interest, and style.
 - L.6.3.b Maintain consistency in style and tone.
- L.6.6 Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Connections to *Edible Schoolyard* Standards

Edible Schoolyard 3.0

In the Edible Schoolyard Program

- 1.0: Students work with each other and teachers to develop community and personal stewardship, along with skills that will help them navigate different situations throughout their lives.
- 1.1.1 – 1.3.12: This lesson fulfills all Edible Schoolyard Program standards, numbers 1.1.1 through 1.3.12. See *The Edible Schoolyard Berkeley Standards* for details.

In the Kitchen Classroom, 6th grade

- Tools 2.1.1: Identify **basic tools** at the ESY Cooking Station and use and care for them with guidance.
- Techniques 2.2.4: Identify **ingredients** by name, and discuss them using descriptive words in conversation.
- Concepts 2.3.11: Make connections between the diets of **historic cultures** and foods we eat today.

The Silk Road: Trading for Rice Pudding Lesson

Materials

For the Chef Meeting

- K6-6 Visual Aid
- K6-7 Visual Aid
- K6-8 Visual Aid
- K6-9 Visual Aid
- Rice Pudding Recipe
- K6-9 Trading Values Sheet
- K6-9 China Worksheet
- K6-9 India Worksheet
- K6-9 Rome Worksheet
- Ingredients and tools for demonstration

Ingredients

- Rice
- Milk
- Cinnamon
- Cardamom pods
- Sugar
- Salt
- Eggs
- Raisins
- Butter
- Vanilla extract
- Oranges
- Dried apricots
- Lemon
- Mangos

Tools

- Cast iron Dutch oven
- Zester
- Wooden spoon
- Chefs' knives
- Paring knives
- Cutting boards
- Measuring cups
- Measuring spoons

Equipment

- Stove

Timeline Overview

Total Duration: 90 minutes

1. *Invitation** (5 minutes)
2. *Exploration** (15 minutes)
3. *Concept Invention** (5 minutes)
4. *Application** (60 minutes)
5. *Reflection** (5 minutes)

Before you Begin

- Create the Visual Aid
- Collect all 3 other Silk Road Visual Aids
- Copy the Rice Pudding recipe to hand out
- Copy K6-9 Trading Values Sheet, one for each table
- Copy K6-9 China Worksheet, once for the corresponding table
- Copy K6-9 India Worksheet, once for the corresponding table
- Copy K6-9 Rome Worksheet, once for the corresponding table
- Prepare the rice
- Collect all the tools and ingredients, and then distribute them to the tables

- Gather supplies for the Chef Meeting
- Conceal ingredients and tools and with a tablecloth

Procedures

Welcome

1. *Invitation**: (5 minutes)

- a. Meet the students outside and instruct them to wash their hands and go directly to their tables when they enter the kitchen.

At the Chef Meeting

2. *Exploration**: (15 minutes)

Students review the previous Silk Road lessons and try to guess the secret ingredients.

- a. Welcome students to the kitchen for the culminating lesson of their Silk Road journey.
 - i. Explain that today's recipe is a secret that will be revealed at the end of the trading.
- b. Review each stop along the Silk Road.
 - i. Ask students to recall each region they studied and what they prepared at each location.
- c. Inform the students that today each table will represent China, India or Rome.
 - i. Explain that on each table, under the tablecloth, is a set of goods and foods that is unique to each region.
- d. Invite students at each table to state their region and make educated guesses about items that might be under the tablecloth using the visual aid provided.

3. *Concept Invention**: (5 minutes)

Students learn how trading works.

- a. Explain that each table has a worksheet that provides a list of the goods and foods needed to prepare the secret recipe, and also a Trading Values Sheet, which replicates information found on the Visual Aid.
- b. Explain that students will work in pairs, and are responsible for trading their region's items in two places: once in each of the other regions.
- c. Tell students that once all groups have all of the necessary ingredients, there will be a final **trade**: information for information.
 - i. Students will explain the item they were trading and what their item was worth in the other regions.
 - ii. In return, the teachers will give them the secret recipe.

At the Table

4. *Application**: (60 minutes)

Students **trade** for ingredients and prepare Rice Pudding.

- a. Assign a scribe to use the table's region worksheet to keep track of the **trades** as they are completed.
- b. Unveil the ingredients and assign each pair of students an item to **trade**.
- c. Have students use the Trading Values Sheet to determine what goods and foods from their region they need for the recipe, so they know what remains for **trade**.
- d. Have students visit the other regions (tables) to make their **trades**. As students are trading, have the scribe keep track of the goods and foods that are coming to the table.
- e. Once all the trading is complete, have each pair of students relay what good or food they **traded** and what it was worth in the other two regions.
- f. Tell students that the secret recipe they will be preparing is Rice Pudding and give them the recipe.
- g. Go over the recipe steps and assign jobs.
- h. Prepare the recipe.
- i. Set the table; eat; clean up.

At the Closing Circle

5. *Reflection**: (5 minutes)

- a. Ask students to name one item that China, India or Roma contributed to **trade** along the Silk Road.

Vocabulary

Trade

Contributors

All lessons at the Edible Schoolyard Berkeley are developed in collaboration with the teachers and staff of the Edible Schoolyard and Martin Luther King Jr. Middle School.

Learning Cycle and Think-Pair-Share discussion routine © The Regents of the University of California. All materials created by BEETLESTM at The Lawrence Hall of Science.

Resources

K6-6_Visual_Aid.pdf (See lesson K6-6)

K6-7_Visual_Aid.pdf (See lesson K6-7)

K6-8_Visual_Aid.pdf (See lesson K6-8)

K6-9_Visual_Aid.pdf

Rice_Pudding_Recipe.pdf

K6-9_Trading_Values_Sheet.pdf

K6-9_China_Worksheet.pdf

K6-9_India_Worksheet.pdf

K6-9_Rome_Worksheet.pdf

BEETLES_Learning_Cycle.pdf (See lesson G6-0)

CHINA india ROME

1 ^{CUP} RICE = 1 CARDAMOM POD = 1 ^{CUP} MILK

1/2 ORANGE = 1 MANGO = 1 ^{TABLESPOON} BUTTER

3 ^{DRIED} APRICOTS = 1/3 ^{CUP} SUGAR = 1 EGG

1 ^{CAST IRON} POT = 1 ^{TEASPOON} VANILLA = 1/2 ^{CUP} RAISINS

1 LEMON = 1/2 ^{TEASPOON} CINNAMON = GLASSWARE



Rice Pudding

4 cups cooked rice	1/2 teaspoon salt
4 cups milk	2 eggs - beaten
1 teaspoon cinnamon	1/2 cup raisins
4 cardamom pods	2 tablespoons butter
2/3 cup sugar	1 teaspoon vanilla extract

In a heavy bottomed pot combine 4 cups cooked rice, 3 1/2 cups milk, 1 teaspoon cinnamon, 4 cardamom pods, 2/3 cup sugar and 1/2 teaspoon salt. Cook over medium heat, stirring constantly, for 15 minutes. In a small bowl combine the remaining 1/2 cup milk and the 2 beaten eggs.

Add milk/egg mixture to the pot along with 1/2 cup raisins and cook 2 more minutes, stirring constantly. Remove the pot from the heat and stir in the 2 tablespoons butter and 1 teaspoon vanilla extract. Serve warm.

Variations: Top pudding with lemon or orange zest, dried apricots or fresh mango.

Trading Values

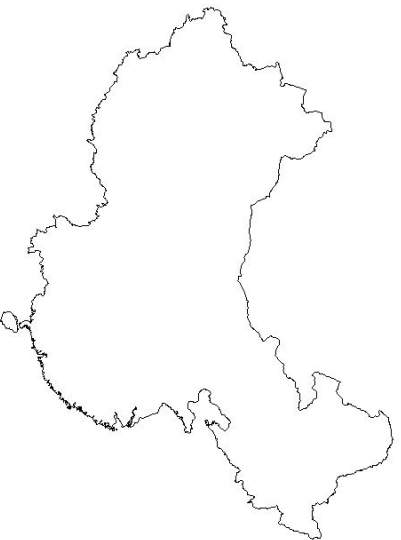
1 cup Rice	=	1 Cardamom Pod	=	1 cup Milk
½ Orange	=	1 Mango	=	1 tablespoon Butter
3 Dried Apricots	=	1/3 cup Sugar	=	1 Egg
1 Cast Iron Pot	=	1 teaspoon Vanilla Extract	=	1/2 cup Raisins
1 Lemon	=	1/2 teaspoon Cinnamon	=	Glassware: (6 Cups , 1 Water Pitcher)



C H I N A

WHAT WE HAVE:

- 12 cups Rice
- 3 Oranges
- 3 Cast Iron Pots
- 18 Dried Apricots
- 6 Lemons



WHAT WE NEED to begin:

- 4 cups Rice
- 4 cups Milk
- 2/3 cup Sugar
- 2 Eggs
- 1/2 cup Raisins
- 6 Dried Apricots
- 4 Cardamom Pods
- 1 teaspoon Cinnamon
- 1 Orange
- 2 Lemons
- 2 Mangos
- 1 teaspoon Vanilla Extract
- 2 tablespoons Butter
- 1 Cast Iron Pot
- Glassware
- (12 cups, 2 water pitchers)

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WHAT WE HAVE:

Vanilla Extract

Cinnamon

12 Cardamom Pods

6 Mangos

2 cups Sugar



WHAT WE NEED to begin:

4 cups Rice

4 cups Milk

2/3 cup Sugar

2 Eggs

1/2 cup Raisins

6 Dried Apricots

4 Cardamom Pods

1 teaspoon Cinnamon

1 Orange

2 Lemons

2 Mangos

1 teaspoon Vanilla Extract

2 tablespoons Butter

1 Cast Iron Pot

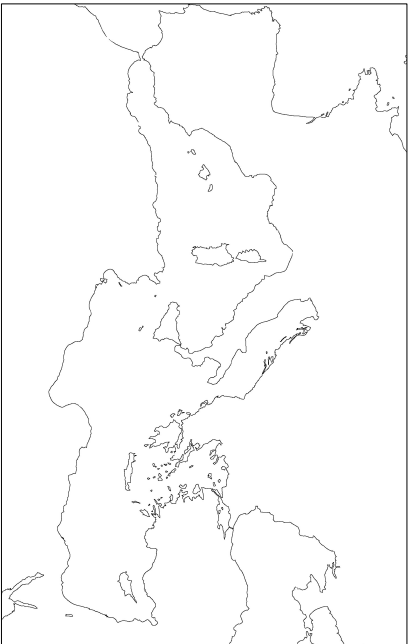
Glassware

(12 cups, 2 water pitchers)

R O N E

WHAT WE HAVE:

- 1 1/2 cups Raisins
- 4 cups Milk
- 6 Eggs
- 6 tablespoons Butter
- Glassware



WHAT WE NEED to begin:

- 4 cups Rice
- 4 cups Milk
- 2/3 cup Sugar
- 2 Eggs
- 1/2 cup Raisins
- 6 Dried Apricots
- 4 Cardamom Pods
- 1 teaspoon Cinnamon
- 1 Orange
- 2 Lemons
- 2 Mangos
- 1 teaspoon Vanilla Extract
- 2 tablespoons Butter
- 1 Cast Iron Pot
- Glassware
- (12 cups, 2 water pitchers)