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Lesson Information		
Lesson Title:	Dates: Delicatessen, Daily Foodstuff or Something More Essential?	
Course:	The Use and Role of Dates in Oman, the Middle East & Worldwide: 4-6 th Grades	
	LP	
Lesson	David J. Cedor	
Designer:		

Desired Results

Lesson Objective(s):

Students will be exposed to how dates produced in the Persian/Arabian Gulf Region have played an essential role in regional and international production and consumption patterns. They will reflect on how Middle Eastern/Omani dates have nourished and sustained pious Moslems during the fasting period associated with the Holy Month of Ramadan. They will infer that trading dates- before, during, and after the European "Age of Discovery"- played a critical role in Indian Ocean and East African trade networks.

Essential Questions: What does international mean? Are there things that we just would not have available for us to consume if we did not import them from other countries/regions of the world? Since international trade in goods like bananas or dates increases the food choices available to us during all four seasons of the year, are our lives better with or without an internationally connected economy and global trade networks? Why? / Why Not? Please cite concrete examples to support your opinion.

Background Standards (especially related to 4th Grade)

Geography Standard 11

The patterns and networks of economic interdependence on Earth's surface

The geographically informed person must understand the spatial organization of the economic, transportation, and communication systems that support networks of trade in raw materials, manufactured goods, capital (human and monetary), ideas, and services. Resources are unevenly distributed on Earth, and no

- **A.** Student will describe different ways in which people can earn a living by being able to:
- Identify and describe examples of jobs that produce goods in the local community (e.g., farming, food processing, dairies, etc.).

country has all of the resources it needs to survive and grow independently. Thus, people must trade with others in increasingly complex global networks. 1. People engage in economic activities, such as producing goods and offering services, in order to earn a living	Identify and describe examples of jobs that provide services in the local community (e.g., merchants/store owners, banks, hair salons, etc.).
2. Some locations are better suited than others to provide certain goods and services	B. Analyze and explain why some goods and services are produced in certain places by being able to: Analyze the connection between areas producing fresh fruits / vegetables and the area's growing conditions and seasons (e.g., desert fruits like dates thriving in hot temperatures, but requiring consistent water availability via traditional or modern irrigation systems.
3. People and countries trade locally produced goods and services for goods and services that are produced in other places	Student will identify items produced locally for consumption elsewhere and items produced elsewhere that are consumed locally by being able to: • Identify items produced in the local region for consumption in another location (e.g., raw and processed agricultural products like cotton, etc. • Identify the types of products that were historically produced in a region and the places to which these products were shipped (e.g., citrus

- being shipped all over the US).
- Identify items produced in foreign countries and shipped into the local region (e.g., bananas from Central and South America).

Standards

ELA: 5.R.RI.01 - I can accurately quote evidence when drawing inferences from the text.

ELA: 5.R.RI.06 - I can analyze multiple sources of the same event or topic, noting important similarities and differences in the point of view they represent, and evaluate the effectiveness of the accounts.

ELL Connections:

<u>II-R-4:HI-6</u>--making connections to text (i.e., text-to-text and text-to-self).

<u>V-R-4:HI-7</u>--explaining connections made to text while reading. (text-to-text, text-to-self, and text-to-world)

I can closely read two articles about the role of dates in human society and compare and contrast the viewpoints presented by both texts.

I can use a Venn Diagram or similar organizational format to summarize the similarities and differences of these articles.

I can compose and edit written responses to two questions and cite specific evidence from the texts to support my inferences/conclusions:

(A) What are some of the similarities of the viewpoint of both of these texts? Provide examples from

both articles to support your answer.

(B) What are some of the differences of the viewpoints of these articles? Provide examples from both texts to support your answer.

Two 60 minute sessions

Anticipatory Set:

Teacher will make a KWL Chart on the topic of dates as a type of fruit and present this, reviewing the components of KWL:

K: What you know (or think you know)

W: What you want to know or wonder about

L: What you have learned (incl. correcting misconceptions)

- 1. Let students fill out the K & W sections individually.
- 2. Then have them partner up with a "study-buddy" to compare their charts.
- 3. Have students volunteer to add information to the classroom chart
- 4. Give students time to add to their individual charts, which will be handed in.

Guided Practice:

The teacher and students will number each paragraph in the first article.

Teacher will read aloud the first article while students follow along with their fingers.

Students will reread this first text aloud with their teacher, taking short breaks between sentences and paragraphs.

The teacher and students will number each paragraph in the second article.

Teacher will read aloud the second article while students follow along with their fingers.

Students will reread this second text aloud with their teacher, taking short breaks between sentences and paragraphs.

Differentiation: Front-load key vocabulary/terminology for ELLs in mini-lessons!

E.g.: 1st Text
"blankets the coast"
staple food
fronds
Qur'an = Koran
nomad / nomadic
itinerant lifestyle
bacteria / bacterial
durable
connoisseur(s)
pollen / pollination
souk = traditional
marketplace
mechanical shakers

E.g.: 2nd Text

"dusted with ...sugar"

supply...exhausted
instinct / instinctively

"walked back upsteam"

luscious

Independent Practice:

Students will reread the articles on their own and make annotations.

Students will complete their Venn Diagrams that compare and contrast the 2 articles.

Students will compose and edit their responses to the two questions regarding (A) similarities and (B) differences in the articles while citing specific evidence from the texts.

Closure: Refer back to the Class' Completed KWL & have students Think-Pair-Share what they've learned.

cultivated / cultivation

"easy portability"
labor-intensive
royalty / royal (Sp: real)
nicknames
confection
caveat = warning

Materials Needed:

Large Chart Paper for KWL Chart for Teacher Markers

Paper for Students to create their own KWL Charts

Copies of Two Articles:

The Date Palm: Tree of Life

https://www.roughguides.com/destinations/middleeast/oman/al-batinah-al-dhahirah/sohar/date-palm-tree-life/

<u>Medjool: A Date to Remember</u> by Susan Russo, NPR http://www.npr.org/templates/story/story.php?storyId=15282847

Paper for students' "Venn Diagram"

Lined paper for students written responses to questions (A) & (B)

Pencils with erasers

Extension: Internet research and inquiry-based learning whereby student groups can, inter alia, research the environmental impact of intensive cultivation or create math problems based on articles such as: https://www.scribd.com/document/3830002/Biodiversity-of-Date-Palm-in-the-Sultanate-of-Oman

Note:

Student-friendly adaptations of the above-referenced articles are available below.

https://www.roughguides.com/destinations/middle-east/oman/al-batinah-al-dhahirah/sohar/date-palm-tree-life/

The Date Palm: Tree of Life

NOTE: Adapted for classroom usage

There are an estimated eight million date palms (*Phoenix dactylifera*; in Arabic, *nakhl*) in Oman, and travelling around the Batinah Region you'll rarely be out of sight of the endless plantations which blanket the coast. Dates have been a staple food in the Middle East for thousands of years. The wood of the date palm also provides an important source of building material, while leaves and fronds are used to make baskets, ropes, and even medicines. Thus, the remarkable variety of uses has led to the date palm's popular description as the "tree of life."

The date palm is one of the oldest cultivated fruit trees in the world. They are believed to have been grown since ancient times, possibly from as early as 6000 BC. In ancient civilizations- from Mesopotamia to prehistoric Egypt—the growing of dates represents one of the first human efforts at systematic agricultural cultivation. Significantly, the date palm is mentioned in both the Bible and the Qur'an. In fact, Mohammed urged his followers to "cherish ...the palm tree", and Muslims still traditionally break their Ramadan fast each night by eating dates.

Dates also underpinned the traditional nomadic lifestyle of the Omani interior, providing a small, light, concentrated and long-lasting source of nutrition. As such, this desert fruit was perfectly adapted for the Bedouin's itinerant lifestyle as a nomad. Dates are something of a self-contained nutritional super-fruit, and an excellent source of protein, vitamins and minerals. Their high sugar content (40–80 percent) also protects them against bacterial contamination and makes them extremely durable, Dried dates can last for years! They can also be pressed for their juice or used to make syrup and vinegar. In earlier times, boiling hot date syrup was even used as an offensive weapon and poured onto attackers below fort walls.

Cultivation

According to a traditional saying, the date palm "needs its feet in water and its head in fire", a combination provided in Oman by intensive *falaj* (traditional Omani-engineered canal) irrigation and the country's burning hot summer temperatures. Date palms grow rapidly, up to 40 cm (about 16 inches) per year, reaching heights of up to around 30 m (approximately 98 feet). Trees can live for around 150 years, each producing over 100 kg (220 pounds) of dates annually. Over forty varieties of dates are grown in Oman, with over 150,000 tons of fruit produced annually. Dates are easily the largest agricultural crop in the country. Therefore, until the discovery of oil in Oman, producing dates was essential for the Omani economy.

Dates take around seven months to mature. Unripe dates range in color from green through to red or yellow, becoming darker and sweeter as they ripen. Worldwide, there are hundreds of different varieties, ranging widely in size and color — the best are highly prized by local connoisseurs, much as fine wines are in France. There are three basic types: soft (such as the popular Medjool variety), semi-dry (such as Deglet Noor) and dry. Only the female date palm produces fruit, however. In the wild, trees are entirely wind-pollinated, and yield little fruit. Cultivated date palms are pollinated by hand, with flowers from male date palms being sold in local souks and then strategically placed in the branches of female trees (although wind machines to blow pollen onto the female flowers are also sometimes used). So, generally speaking, the cultivation of dates is labor-intensive, requiring many workers for pollinating trees by hand. Most fruits are harvested between August and December. In many places, dates are still handpicked, although mechanical shakers may be used in larger plantations.

http://www.npr.org/templates/story/story.php?storyId=15282847

Medjool: A Date to Remember by Susan Russo, NPR

NOTE: Adapted for classroom usage

I used to think of dates as Christmas food, stuffed with walnuts and dusted with confectioners' sugar. They were good, but I would only turn to them once the supply of Christmas cookies was exhausted.

That changed on October 6, 2004 — the day that date samples were available at the farmers' market in Santa Monica. Walking by the table, I instinctively took a piece and walked on. I took one bite, turned around and walked back upstream to buy a two-pound box of the biggest, softest dates I had ever seen: Medjools, for which the season starts in September and continues through November.

Medjool dates are deep amber-brown and have a slightly crinkly skin that shimmers from natural sugar crystals. Bite into one, and your teeth sink into satisfyingly sticky flesh that tastes of rich caramel, hints of wild honey and a touch of cinnamon. Melt-in-your-mouth Medjools are so luscious they taste as if they have been warmed in an oven.

Dates are considered the oldest cultivated fruit in the world: Fossils show date palm trees thrived 50 million years ago. The fruit of the date palm was eaten as far back as 5,000-6,000 B.C.E., and they've been cultivated for about 6,000 years in the Middle East. Ancient cultures called the date palm "the tree of life," and used all parts of the tree, from the trunk to the leaves. Dates are still a staple source of nutrition for nomadic peoples because of their high carbohydrate content, high potassium levels and easy portability.

Hundreds of varieties of dates are grown throughout the world, about 12 of which can be found in the United States. They are classified as soft, semidry or dry. Soft dates such as the Medjool, Khadrawy, Halawy and Barhi have a sweet, creamy flesh because of their high moisture content. Semidry dates such as Deglet Noor and Zahidi have less moisture, sweetness and chewiness. Dry dates such as the Thoory, which is called the "bread" date, have rather hard, dry skin and very little moisture

Most U.S. dates — 95 percent — are grown in California's Coachella Valley, a two-hour drive northeast of San Diego. Dates grow well there and in parts of southwestern Arizona because they like hot heads and wet feet. That is, they grow best in areas with high heat, low humidity and an abundant supply of groundwater. Dates have been in California since the 18th century, when Spanish missionaries planted date palms around their missions. It wasn't until 1927, however, that Medjools arrived. That year, disease was destroying Morocco's Medjool crop. Walter Swingle, an American horticulturalist, brought 11 Medjool offshoots back to California from Morocco. Nine of the eleven survived and have become the source of the millions of Medjool dates grown today.

Among the Medjool's many nicknames, "king of dates" is most fitting. Once reserved for Moroccan royalty and their guests, they were a precious confection and remain so today. Like many delicacies, Medjools are pricey because their cultivation is a complex and labor-intensive process. Although date palms are naturally pollinated by wind, growers must hand-pollinate each tree to ensure adequate yield. A worker climbs the same 40- to 50-foot-high tree many times during the Medjool season. First, he trims the tree's dangerously sharp 4- to 5-inch-long thorns. Then he removes most of the dates to increase the air circulation and sunlight they need to reach optimum size. When the remaining dates reach their full size, he will protect them from birds, insects and occasional rain by covering them with burlap bags or nylon netting. Since dates do not ripen simultaneously, he must climb the tree several more times to harvest them. Soft dates such as the Medjool are so delicate that most are picked individually by hand rather than in large clusters. I try to remember this when I'm shelling out \$10 a pound for Medjools at the farmers' market.

There is one caveat regarding Medjool dates: They are addictive. So I offer you the following three suggestions: **1.** Pace yourself. **2.** Leave the pits in full view so you can keep count of how many you've eaten. **3.** Ask somebody else in your house to find a good hiding place for the remaining dates and swear not to tell you.