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Context of the Final Project:

My final project will be used for part of the celebration of Hispanic Heritage Month. My academic coach asked me to create and facilitate a cross-curricular program template for 6th grade students that focuses on Mexico's history, culture, and traditions. I am responsible for four full-day activities; thus, my final project consists of 12 plans/activities---4 activities for Language Arts, 4 activities for Science, and 4 activities for Math. I am incorporating Internet resources, existing texts, and created materials.

The program is designed so that each student will begin with informational texts in their language arts classrooms**. The students will extend their new knowledge from their language arts class into their math and science classes. My lesson plans/activities provide a format from which the teachers can see what is happening in each of the classes. If time permits, teachers are encouraged to add his/her personal supplemental materials.

**I teach 8th grade Language Arts; as a result, the starting point for the activities stem from the subject in which I am most familiar.

CANTON MIDDLE SCHOOL
LESSON PLAN

UNIT: Hispanic Heritage Month
DATE: September 20, 2004
THEME: Introduction to Mexico

GRADE: 6th

CLASSES: All

TYPE OF LESSON:

- Introductory
- Developmental
- Culminating

STANDARD:

- Students begin to explore and ask questions about the nature of culture and specific aspects of culture, such as language and beliefs, and the influence of those aspects on human behavior.

OBJECTIVES:

Students will determine and analyze important ideas and messages in the informational text by:

- synthesizing ideas from text
- analyzing purposeful use of language
- constructing a pyramid
- estimating and predicting materials
- determining percentages and probability

RESOURCES:

- Introduction to Mexico text (from Mexico Student Booklet Level C), sugar cubes, glue, flat base

REVIEW OF PREVIOUS LESSON:

Introduce Heritage Hispanic Month

LESSON DEVELOPMENT (DIRECT INSTRUCTION, GUIDED PRACTICE, & INDEPENDENT PRACTICE):

- **Language Arts**—Introduction to Mexico

As a class, students read the Introduction to Mexico text (from Mexico Student Booklet Level C). This text provides information on Mexico's landscape, cultural history, and Mayan and Aztec civilization. Emphasis is placed upon the building of pyramids.

Suggested Discussion Questions: What were the contributions of the Aztec and Mayan civilizations? What would you pack for a trip to Mexico? Review new vocabulary, plot, and themes from reading.

- **Science**—Building Pyramids

Materials Needed: Sugar cubes, glue, flat base

Directions:

1. Cut a heavy piece of cardboard for the base of your pyramid. The cardboard should be at least 6 inches by 6 inches.
2. Decide on how many cubes you want to use for the bottom square of your pyramid. You can make it using 25 squares of 36 squares. (More squares you use for your bottom will determine how high your pyramid will become.)
3. Build the first layer of the pyramid.
4. The next layer on top of the base should sit in from the outside at least a few centimeters and contain fewer cubes. This layer should also be a square but smaller than the layer before.
5. Continue building each layer until there is only one cube on top.
6. Make the pyramid permanent by slowly drizzling glue on the outside of the pyramid.

Suggested Discussion Questions: If you did not have sugar cubes, what could you use? What would happen if you use the same number of cubes on each layer? What information could be added to the directions to make the project easier?

- **Math**—Estimate and Predict (to be built upon Science activity)

Suggested Discussion Questions: Estimate the total number of cubes that the class used to build the pyramids. How would you describe a rectangular pyramid? What is the mean number of cubes that were used by all the groups? Use function tables to illustrate the relationship between the number of levels of a pyramid and the number of cubes used; from this chart, create specific percentage and probability questions.

EVALUATION/SUMMARY:

Students share their experience of making the pyramid—hard, easy, questions, challenges, etc.

ASSESSMENT:

Verbal quiz (for review), Students present their Pyramid models to the class using references from the text and from the math assignments

ACCOMMODATIONS/MODIFICATIONS:

- Allow more time
- Peer Tutoring
- Repeat Directions
- Audio Tape
- Individual Instructions
- Other_____

CANTON MIDDLE SCHOOL
LESSON PLAN

UNIT: Hispanic Heritage Month

DATE: September 21, 2004

GRADE: 6th

CLASSES: All

THEME: Introduction to Mexican Food

TYPE OF LESSON:

- Introductory
- Developmental
- Culminating

STANDARD:

- Students begin to explore and ask questions about the nature of culture and specific aspects of culture, such as language and beliefs, and the influence of those aspects on human behavior.

OBJECTIVES:

Students will determine and analyze important ideas and messages in the informational text by:

- synthesizing ideas from text
- analyzing purposeful use of language
- making chocolate bars and/or tortillas
- estimating weight and cost
- determining percentages and volume

RESOURCES:

- Introduction to Mexican Food text (from Mexico Student Booklet Level C), ingredients for chocolate bars and/or tortillas

REVIEW OF PREVIOUS LESSON:

Review vocabulary, activities, and themes from yesterday's activities; review percentages and probability

LESSON DEVELOPMENT (DIRECT INSTRUCTION, GUIDED PRACTICE, & INDEPENDENT PRACTICE):

- **Language Arts**—Introduction to Mexican Food (Chocolate and Tortillas)
As a class, students read the Introduction to Mexico Food—Chocolate and Tortillas (from Mexico Student Booklet Level C). This text provides information on the history of cocoa, merchant trading, and a short story of how Cortes first ate chocolate with Montezuma and took it back to Spain. The tortilla article provides information on typical Mexican dishes that use tortillas. Information is also provided on how to make tortillas and the different regional uses of tortillas. Use a Diego Rivera picture to illustrate a woman making a tortilla.
Suggested Discussion Questions: What other uses did cocoa beans have besides drinking chocolate? After reading the text, how has your knowledge of chocolate/tortillas changed? Which food would Americans think is similar to tortillas? Discuss what is happening in Diego's painting. Review new vocabulary, plot, and themes from reading.
- **Science**—Making Chocolate bars and/or Tortillas

**This activity can be based upon student/teacher preference. Time and the availability of the Home Economics room is also a variable. I have put in a request for the Home Ec. Room, but we will need to coordinate this activity with Ms. Sonney.

Recipe for Chocolate Bars--www.thatsmyhome.com/chocolate/bars.htm

Recipe for Tortillas--www.dianaskitchen.com/page/bread/tortilla.htm

- **Math**—Percentages and Estimations (to be built upon Science activity)
Suggested Discussion Questions: What is the volume of each chocolate bar? What percent of the chocolate bar is sugar? Estimate the amount and cost of materials needed to make the chocolate/tortillas. Draw a bar graph depicting how many more boys than girls (or vice versa) like beef tacos more than chicken tacos.

EVALUATION/SUMMARY:

Students share their experience of making the tortillas/chocolate—hard, easy, questions, challenges, etc.

ASSESSMENT:

Ask students to describe the science project using examples from the text and from the math assignments; Journal—So far this week, what new information have you learned about Mexico? What information has surprised you the most? What activities have you enjoyed the most? Why?

ACCOMMODATIONS/MODIFICATIONS:

- Allow more time
- Peer Tutoring
- Repeat Directions
- Audio Tape
- Individual Instructions
- Other_____

CANTON MIDDLE SCHOOL
LESSON PLAN

UNIT: Hispanic Heritage Month

DATE: September 22, 2004

GRADE: 6th

CLASSES: All

THEME: Introduction to Mexican Folktales

TYPE OF LESSON:

- Introductory
- Developmental
- Culminating

STANDARD:

- Students begin to explore and ask questions about the nature of culture and specific aspects of culture, such as language and beliefs, and the influence of those aspects on human behavior.

OBJECTIVES:

Students will determine and analyze important ideas and messages in the informational text by:

- synthesizing ideas from text
- identifying among types of narrative texts
- understanding the cycles of the moon
- calculating surface area and equations

RESOURCES:

- Mexican folktale “The Smiling Rabbit” (from www.cantaremusic.com/stories/mayan/htm), *Earth, Moon, and Stars* booklet, models of moon and solar system

REVIEW OF PREVIOUS LESSON:

Review vocabulary, activities, and themes from yesterday’s activities; review percentages and volume

LESSON DEVELOPMENT (DIRECT INSTRUCTION, GUIDED PRACTICE, & INDEPENDENT PRACTICE):

- **Language Arts**— Mexican folktale “The Smiling Rabbit” (from www.cantaremusic.com/stories/mayan/htm)
As a class, students read the Mayan folktale, “The Smiling Rabbit.” Explain how this folktale is from the state of Yucatan, one of the places inhabited by the Mayan Indians. Explain how many Mexican children believe in the tale that there is a rabbit on the moon, much like our American tales that there is a man on the moon and/or that the moon is made out of cheese. This tale tells how the rabbit got to the moon, and how a clever rabbit outwits a jaguar.
Suggested Discussion Questions: Summarize the folktale. Why is this story considered a folktale? (Review concepts of legends and folklore) How can you tell this story is fiction? What is the purpose of this folktale in Mayan culture? Describe the character traits of the rabbit and the jaguar.
- **Science**—Understanding the Moon

Use the textbook *Earth, Moon, and Stars* as a guide to this activity. Use your solar system and moon models to illustrate the moon and its phases. Use this model to explain the moon's monthly cycle of phases and eclipses. This can also be the starting point for an on-going activity—students can observe the phases of the moon for a month. Perhaps you can take the students outside to enjoy these activities.

I know that the *Earth, Moon, and Stars* textbooks are sporadic and not equally accessible to everyone. Perhaps we can make copies as needed since they are excellent resources. If the books are inaccessible there is an excellent activity located at the following website: www.reachoutmichigan.org/funexperiments/agesubject/lessons/newton/phases.html. In addition, there is a very cool website that could accompany this activity. The site is <http://tycho.usno.navy.mil/vphase.html> and you can view the phases of the Moon for any date and time from 1800-2199 A.D! It's a virtual reality moon phase site.

- **Math**—Surface Area and Equations (to be built upon Science activity)
Suggested Discussion Questions: Draw a fictitious diagram of the rabbit's house in the story. Ask students to calculate the surface area of the house, the length of the roof and the sides of the house. Divide the class into "rabbits" and "jaguars"; give teams equations and ask them to complete the equations competitively. According to the folktale, the rabbit outwitted the jaguar—will that also happen in this competition?

EVALUATION/SUMMARY:

Students share their experience of learning about the folktale, the phases of the moon, and competing as rabbits and jaguars—hard, easy, questions, challenges, etc.

ASSESSMENT:

Students compose, share, and act out the folktale---they can modernize, dramatize, and/or sing their version of the tale. Give students the option of role-play.

ACCOMMODATIONS/MODIFICATIONS:

- Allow more time
- Peer Tutoring
- Repeat Directions
- Audio Tape
- Individual Instructions
- Other _____

CANTON MIDDLE SCHOOL
LESSON PLAN

UNIT: Hispanic Heritage Month

DATE: September 23, 2004

GRADE: 6th

CLASSES: All

THEME: Introduction to Mexican Festivities

TYPE OF LESSON:

- Introductory
- Developmental
- Culminating

STANDARD:

- Students begin to explore and ask questions about the nature of culture and specific aspects of culture, such as language and beliefs, and the influence of those aspects on human behavior.

OBJECTIVES:

Students will determine and analyze important ideas and messages in the informational text by:

- synthesizing ideas from text
- connecting text to personal experience
- making a piñata
- calculating range of mean
- creating circle graphs and bar graphs

RESOURCES:

- History of the Piñata text (from www.pinatas.com), materials for piñatas, process charts of how to make a bar graph and circle graph

REVIEW OF PREVIOUS LESSON:

Review vocabulary, activities, and themes from yesterday's activities; review surface areas and equations

LESSON DEVELOPMENT (DIRECT INSTRUCTION, GUIDED PRACTICE, & INDEPENDENT PRACTICE):

- **Language Arts**— History of the Piñata text (from www.pinatas.com)
As a class, students read the History of the Piñata.
Suggested Discussion Questions: Why did the author write the article? How do piñata ceremonies differ in Italy and Africa? Would you like to celebrate your birthday with a piñata?
- **Science**—Making a Piñata
Materials Needed: Newspapers, Paper maché glue, balloons, string, candy, paint, and masking tape

Directions:

1. Blow up the balloon.
2. Tear about five large sheets of newspaper into

strips. In a waterproof area, dip the strips of newspaper into your paper Mache glue, then lie them across the balloon. Put strips all around the balloon, both vertically and horizontally. Continue until your balloon has about three coats of newspaper all around it. Leave a small hole at the knotted end of the balloon so that you can get the balloon out later.

3. Drape a long piece of string over the top and down both sides of the balloon. Both ends of the string should extend beyond the knotted end of the balloon by about 15 inches. Drape another long piece of string over the balloon in a similar manner, but at right-angles to the first piece of string. Later, you will use these strings to hang up the piñata.

4. Put more newspaper strips over the top of the strings. Continue to place newspaper strips around the balloon until the balloon has about six layers of newspaper on it (including the three layers beneath the string).

5. Leave to dry completely. This will usually take at least 24 hours, depending on the climate where you live.

6. Pop the balloon through the hole at the base, and gently pull it out.

7. Place candies into gap in the balloon shape. Close over the hole either using masking tape or using more paper Mache newspaper strips.

8. Paint and decorate the piñata. You can hang streamers off it, or use cardboard to attach a horse's head, legs and tail to it. Whatever you like!

9. Use the strings to hang up the piñata outside. Take turns hitting the piñata with a stick or bat. When the piñata breaks, the candies will spill everywhere.

- **Math**—Graphs and Range of Mean (to be built upon Science activity)
Suggested Discussion Questions: Have students create a bar graph illustrating how many swings it took each student to break the piñata. Find the mean number of swings for each student. Ask students to create circle graphs illustrating the different amounts of items in the

piñatas. The students can then compare who has the most/least amount of candy. Ask students to explain and defend their circle graphs.

EVALUATION/SUMMARY:

Students share their experience of learning how to make a piñata—hard, easy, questions, challenges, etc.

ASSESSMENT:

Students present their circle and bar graphs to the class. On Friday, have students gather together outside around their piñatas; before hitting their piñatas, ask them to recall bits of information behind the history of the piñata.

ACCOMMODATIONS/MODIFICATIONS:

- Allow more time
- Peer Tutoring
- Repeat Directions
- Audio Tape
- Individual Instructions
- Other_____

