Lesson Title: **International Pie – a Taste of the World**

**Lesson Author:** Mary Matthes ([mmatthes@cape.k12.de.us](mailto:mmatthes@cape.k12.de.us)), Cape Henlopen School District

**Lesson Description:** Based on reading the book *How to Make an Apple Pie and see the world*, the students will gain an understanding that the necessary ingredients for the pie come from places near and far. By locating these places on a map the students will create a thematic map and see one of the uses of maps. The students will later be asked to demonstrate these skills in a similar experience with the ingredients for brownies.

**Grade Level:** Third Grade

**Geography Standard:** # 1 – Maps

**End of Cluster Expectations (Benchmarks):** To understand the nature and use of maps.

**Assessment (DSTP type: 1 constructed response and 1 multiple choice)**

*(This assessment will give evidence of the student’s understanding of one of the uses of maps.)*

Constructed Response: Using this product map *(Handout 3)* and this recipe for chocolate nut brownies *(Handout 2)*, find the **shortest route** to gather all the ingredients you need to make brownies for your class. Draw lines on the map that show the route you will follow, beginning from Delaware, then describe your route being sure to name the places you need to visit and the ingredient you gather there.

Multiple Choice: Which product on this map is found in the location that is farthest from Delaware? vanilla sugar walnuts chocolate

**Objectives:** Students will -
- become familiar with the nature of a product map
- find locations on a world map
- be able to use a map to plan a route between several locations
- become familiar with location of various countries on a map
- develop an awareness of the interdependency of countries for food products
- understand that agricultural products can be made into other products
- expand the use and understanding of geographical terms

**Prior Knowledge and Skills:**
- Familiarization with location and identification of continents and oceans.
- Understanding of cardinal and/or intermediate directions on compass rose
- Understanding of symbols and map keys

**Time to Complete:** Two or three 40-minute class periods
Materials Needed:
- Copy of the book *How to Make an Apple Pie and see the world* by Marjorie Priceman (see bibliography)
- World Map (large pull down or wall size)
- Small post-it notes or sticky dots to mark the locations of the ingredients
- Classroom atlases or world desk maps
- Visual 1a - Table of ingredients for apple pie and table of ingredients for brownies
  Copy as a transparency. (Visual 1b is for teacher reference).
- Visual 2 - Copy (or hand print on bright colored paper) the map title
- Visual 3 - (transparency or poster) Map Elements (TODALS)
- Handout 1 - World outline map (one per student)
- Handout 2 – Copies of brownies recipe and ingredients chart (one per student)
- Handout 3 – World outline map (for brownie ingredients) (one per student)
- Assessments (one per student)

Procedures:
1. Ask the children if they have ever tasted an apple pie. Have the students name the ingredients that are used to make an apple pie. List the ingredients on the board. Now ask them to think about where the ingredients come from.
2. Introduce the book, *How to Make an Apple Pie and see the world*. Quickly show some of the pictures and ask if they think it will be a fun book? (Yes.). Now read the book to the class and discuss the resources and places as they are mentioned.
3. After reading discussion might include:
   a. Did she really have to go that far away to get the ingredients? (*No, some of the ingredients can be found near where we live. But, book author thought it would be more fun to go to distant places.*)
4. Display Visual 1-a (Ingredients Chart for Apple Pie) (cover the bottom section) and review with the students where the girl in the story goes for each resource. If necessary, refer back to the book. Complete the chart. Tell the students that this is geographic information and that there is another way that it can be shown to help us see where these places are. Ask for suggestions. (*Yes, we could locate the places on a map! A use of maps.*)
   Did the girl go to the places using the shortest or most direct route? Maybe we can find out when we map the information. (*No, she went back and forth. A map helps us to find the most direct route.*) Also, discuss with the children that these are not the only places where these resources can be found. Give the students an opportunity to suggest some of the other places, such as an orchard or dairy or chicken farm near their home.
5. Distribute Handout 1 – World Outline Map. Display the World Map (pull-down or wall map). Using the Ingredients Chart for Apple Pie, mark the locations on the wall map and have the students mark that location on their map (Handout 1). Students can draw an icon or symbol or use a number for the resource/ingredient to create the legend/key for their map. On the large wall map, larger icons or small sticky notes or sticky dots that have been numbered can be used.
   a. semolina wheat → flour
   b. chicken → eggs
   c. kurundu bark → cinnamon
   d. cows → milk → butter
   e. sugarcane → sugar
6. Students may need help in finding some of the locations. Classroom atlases or desk maps may be used as references.

7. When students have marked all the locations, have them look at the other items on their map. *(title, date, author)* Ask why they think these items are on a map. *(To help us understand the information.)*

8. Have the students create a title for their map. Write their name on the author line and the date. Place the title on the large wall map; add the date and the legend.

9. Reflect with the students what they learned from this lesson. Did they learn some uses of maps? *(1. Location of places, 2. Routes to places.)* Did they learn about the nature of maps? *(Maps show information in a graphic/spatial format.)*

**Part 2**

*Note: Some research for information is needed for this section. The teacher could assign these tasks prior to this activity so that the information can be presented during the lesson.*

Select three students (or three pairs) to be “research ambassadors” for the class. Either using classroom or library resources or the internet, the R.A.’s will find out:

a. the resource for chocolate and its location
b. the resource for vanilla extract and its location
c. the resource for English walnuts and its location.

**Teacher: See Visual 1b (bottom section) for resources and places of origins.**

1. Review the activity the class did with the apple pie. *(Mapped the places where the resources/ingredients to make a pie are located.)* Ask if these are the only places where these resources/ingredients are located. Why do they think the author of the book used these locations? *(No, some of the resources/ingredients can be found in many places. The author probably wanted to make it more fun and interesting.)*

2. Explain that now they will do a similar activity, but with making brownies instead of an apple pie. (They will read the recipe for brownies and decide where the ingredients can be located.)

3. Distribute Handout 2 - the recipe for brownies. Compare and contrast with the recipe for the pie. Are some ingredients the same for both the pie and the brownies? *(Yes)*

4. Have the students decide which of the resources/ingredients can be located in their state or nearby states. *(milk-butter, chickens-eggs, wheat-flour)* (Since the assessment activity is based on the ingredient locations, students should use the same locations that were given in the apple chart.)

5. Display Visual 1-a (top portion) and have the students complete the chart on the bottom of Handout 2. (Ask them what items they still need information to complete. *(chocolate, vanilla extract, walnuts)*

6. Now have the Research Ambassadors present the information on the ingredients that is needed. Fill in that information and have the students complete their chart.

   a. coca beans / chocolate / Brazil, Ghana, Ivory Coast, Nigeria
   b. vanilla beans / vanilla extract / Madagascar
   c. English walnut trees / walnuts / England

7. Using the large world map, have students volunteer to mark the locations with sticky dots of those resources.

8. Discuss and generate a map legend using symbols for the brownie ingredients. Create a title *(Ex. World Wide Brownies)*. Place the title and legend on the wall map.
Culminate the activity

9. Have the students make some generalizations about the mapping activity.
   a. Maps can be used to show the locations of resources.
   b. Some resources are near and some are far away.

10. Ask the students what is the nature and some uses of maps? (To show information in a spatial format; to locate places in the world where we get resources.)

Optional – Make the brownies and serve to the class!

Administer the individual assessments.

Tips for the Teacher (Teaching tips may be emailed to the author, MMatthes@cape.k12.de.us.)

Extensions or Reinforcement Ideas:

Make the pie using the recipe given in How to Make An Apple Pie and see the world.
Ask the cafeteria staff to serve apple pie or brownies.
Have the students find other recipes at home and choose an ingredient to match with a country.
Then create another thematic map and title it “Our Favorite Foods from Around the World.”
Make a matching game with product icons on some cards and countries on others.
Have students make their own product maps using local, state, or country maps.
Make a list of geographic terms (maps, locations, directions) used as the class explores this activity. Give points for using these terms in other extension activities.

Citations for Graphics, Information, Adapted Lesson, etc.


Brownie recipe (adapted) http://www.recipesource.com/text./baked-goods/desserts/brownies/recipe311.txt
<table>
<thead>
<tr>
<th>RESOURCES</th>
<th>Ingredients Chart for APPLE PIE</th>
<th>PLACE OF ORIGIN (in the book)</th>
</tr>
</thead>
<tbody>
<tr>
<td>semolina wheat</td>
<td>flour</td>
<td></td>
</tr>
<tr>
<td>chickens</td>
<td>eggs</td>
<td></td>
</tr>
<tr>
<td>kurundu bark</td>
<td>cinnamon</td>
<td></td>
</tr>
<tr>
<td>cows</td>
<td>milk → butter</td>
<td></td>
</tr>
<tr>
<td>sugar cane</td>
<td>Sugar</td>
<td></td>
</tr>
<tr>
<td>seawater</td>
<td>Salt</td>
<td></td>
</tr>
<tr>
<td>apples</td>
<td>apple slices</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>RESOURCES</th>
<th>INGREDIENTS</th>
<th>PLACE OF ORIGIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>cocoa beans</td>
<td>chocolate</td>
<td></td>
</tr>
<tr>
<td>cows</td>
<td>milk → butter</td>
<td></td>
</tr>
<tr>
<td>sugar cane</td>
<td>Sugar</td>
<td></td>
</tr>
<tr>
<td>chickens</td>
<td>Eggs</td>
<td></td>
</tr>
<tr>
<td>vanilla beans</td>
<td>vanilla extract</td>
<td></td>
</tr>
<tr>
<td>wheat</td>
<td>Flour</td>
<td></td>
</tr>
<tr>
<td>English walnut trees</td>
<td>Walnuts</td>
<td></td>
</tr>
</tbody>
</table>
### Ingredients Chart for **APPLE PIE**

<table>
<thead>
<tr>
<th>RESOURCES</th>
<th>INGREDIENTS</th>
<th>PLACE OF ORIGIN (in the book)</th>
</tr>
</thead>
<tbody>
<tr>
<td>semolina wheat</td>
<td>Flour</td>
<td>Italy</td>
</tr>
<tr>
<td>chickens</td>
<td>eggs</td>
<td>France</td>
</tr>
<tr>
<td>kurundu bark</td>
<td>cinnamon</td>
<td>Sri Lanka</td>
</tr>
<tr>
<td>cows</td>
<td>milk → butter</td>
<td>England</td>
</tr>
<tr>
<td>sugar cane</td>
<td>sugar</td>
<td>Jamaica</td>
</tr>
<tr>
<td>seawater</td>
<td>salt</td>
<td>sea (ocean)</td>
</tr>
<tr>
<td>apple trees</td>
<td>apples / apple slices</td>
<td>Vermont</td>
</tr>
</tbody>
</table>

### Ingredients Chart for **BROWNIES**

<table>
<thead>
<tr>
<th>RESOURCES</th>
<th>INGREDIENTS</th>
<th>PLACE OF ORIGIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>cocoa beans</td>
<td>chocolate</td>
<td>Brazil, Ghana, Ivory Coast, Nigeria</td>
</tr>
<tr>
<td>cows</td>
<td>milk → butter</td>
<td></td>
</tr>
<tr>
<td>sugar cane</td>
<td>sugar</td>
<td>Jamaica</td>
</tr>
<tr>
<td>chickens</td>
<td>eggs</td>
<td></td>
</tr>
<tr>
<td>vanilla beans</td>
<td>vanilla extract</td>
<td>Madagascar</td>
</tr>
<tr>
<td>wheat</td>
<td>flour</td>
<td></td>
</tr>
<tr>
<td>English walnut trees</td>
<td>walnuts</td>
<td></td>
</tr>
</tbody>
</table>
International Pie
By
Marjorie Priceman

Map Elements

T = title
O = orientation
D = date
A = author
L = legend
S = scale
Mrs. M's Brownies

<table>
<thead>
<tr>
<th>Amount</th>
<th>Measure</th>
<th>Ingredient</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>squares</td>
<td>unsweetened baking chocolate</td>
</tr>
<tr>
<td>½</td>
<td>pound</td>
<td>butter</td>
</tr>
<tr>
<td>2</td>
<td>cups</td>
<td>sugar</td>
</tr>
<tr>
<td>4</td>
<td>large</td>
<td>eggs</td>
</tr>
<tr>
<td>1</td>
<td>teaspoon</td>
<td>vanilla extract</td>
</tr>
<tr>
<td>1 1/3</td>
<td>cups</td>
<td>flour</td>
</tr>
<tr>
<td>1</td>
<td>cup</td>
<td>chopped English walnuts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>powdered sugar</td>
</tr>
</tbody>
</table>

Pre-heat oven at 400°F. Melt chocolate with butter in top of double boiler or in a microwave oven. Remove and add sugar. Let the mixture cool and add well-beaten eggs, vanilla extract, flour and walnuts. Mix well.

Grease two 8"X 8" baking pans. Pour one-half of the batter into each pan. Place in the oven and bake for approximately 18 minutes.

Remove from the oven; cut the brownies into equal portions and immediately sprinkle with powdered sugar. Store in a covered container OR have the students determine how to divide the brownies so that each student (and teacher) gets an equal share.

<table>
<thead>
<tr>
<th>Resources</th>
<th>Ingredients</th>
<th>Place of Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>chocolate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>milk → butter</td>
<td></td>
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</tr>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>eggs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>vanilla extract</td>
<td></td>
<td></td>
</tr>
<tr>
<td>flour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>walnuts</td>
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</tr>
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</table>
SSCD Assessments        Geog. 1, Cluster K-3

Name___________________________________ Grade_______ Date______________________

**Constructed Response Assessment**

Using this product map (Handout 3) and this recipe for chocolate nut brownies (Handout 2) find the **shortest route** to gather all the ingredients you need to make brownies for your class. Draw lines on the map that show the route you will follow, beginning from Delaware, then describe your route being sure to name the places you need to visit and the ingredient you gather there.

______________________________________________________________________________

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**Multiple Choice Assessment**

Circle the product on this map that is found in the location that is farthest from Delaware?

vanilla    sugar    walnuts    chocolate

rubric

2 - The response gives a valid answer with an accurate and relevant explanation.
1 - This response gives a valid answer with an inaccurate, irrelevant, or no explanation.
0 - Inaccurate response.
SSCD Assessments (Key)        Geog. 1, Cluster K-3

Name___________________________________ Grade_______ Date______________________

Constructed Response Assessment

Using this product map (Handout 3) and this recipe for chocolate nut brownies (Handout 2) find the shortest route to gather all the ingredients you need to make brownies for your class. Draw lines on the map that show the route you will follow, beginning from Delaware, then describe your route being sure to name the places you need to visit and the ingredient you gather there.

I would leave Delaware and go to Jamaica to get the sugarcane for the sugar. Then I would go to Brazil to get the cocoa beans for the chocolate. Then I would fly to France for the eggs and then north to England for the milk to make the butter and I would buy some English walnuts in England. Next I would fly to Italy to get the wheat and grind it into flour. Then I would fly to Madagascar to get the vanilla extract. From there I would fly straight home to Delaware.

Multiple Choice Assessment

Circle the product on this map that is found in the location that is farthest from Delaware?

vanilla  sugar  walnuts  chocolate

Rubric

2 - The response gives a valid answer with an accurate and relevant explanation.
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