**Lesson**: Edible Resource Maps                    **Length**: 45 minutes
**Age or Grade Intended:** 3rd Grade

**Academic Standard(s):**

3.3.3   Explain that regions are areas that have similar physical and cultural characteristics* and locate the local community in a specific region.

3.3.6   Construct maps and graphs that show aspects of human/environment interaction in the local community.

**Performing Objectives:**

After identifying major resources from each region of the United States through research, students will work in groups to create an edible resource maps showing locations of at least 5 resources in the United States.

**Advanced Preparation/Materials:** The teacher will have introduced the idea of resources in different regions of the United States in earlier lessons.  Students will have researched different regions and the resources that are found in those areas in the computer lab or through their text books.  The teacher will need to supply a large sugar cookie relatively shaped like the United States, a paper outline of the United States and different regions discussed, and materials to represent resources. Each group will need; dark and white frosting, chocolate chips (coal), white chocolate chips (dairy), goldfish (sea food), popcorn (corn), chocolate syrup (oil) and any other things the teacher or class can come up with.  Groups also need 3 x 5 index cards to create their map key.  Also have paper towels to put the cookies on and for clean up.  The teacher should also have an example of a resource map to show the class.

**Introduction/Motivation:**  Now that you have all been researching resources around the United States, what are some common resources that you have found?  Where have you found some resources?  (Bloom's knowledge) Well today you are all going to create a resource map to show where these resources can be found.  This is a special job because not only are you map makers but you are cooks as well and you will all be able to eat a piece of your map when you are done.

**Step-by-Step Plan:**

1.  Show students an example of a resource map. Discuss the different parts of the map and what it shows.
2.  Students share their researched information, write a list of resources on the board and where they can be found. (Bloom's knowledge, Gardner's interpersonal linguistic)
3.  Explain that students are going to make edible cookie resource maps.  They will work in groups and create a blue print of what the map should look like, then they will determine what types of food will represent each resource and use index cards to create their map key. (show an example)  Then students will use the frosting to attach "resources" to their proper places on the cookie.
4.  Next put students in groups of 3 or 4 and pass out paper maps of the United States with the regions already mapped out.  Instruct students to make a blueprint of their cookie showing where each resource should go using their research and class discussions. (Bloom's application, Gardner's visual)

5. Pass out "resources" and students will determine which food will represent each resource and make a map key by gluing one food item to each card and writing next to it the natural resource that it represents. Ex: chocolate chip-coal. (Bloom's analysis and application, Gardner's bodily, visual)
6. Next pass out the cookies. They will use white frosting as glue and dark frosting to outline the different regions. Then they will create their cookie resource map using the blueprint maps as a guide, by gluing resources in their appropriate regions. (Gardner's bodily/kinesthetic and visual)

**Closure:** Once groups are done with their maps they will present them to the class. After each group presents discuss some of the ways that they were similar or different. Point out areas where there seemed to be more resources than others and why do the students think that is. (Bloom's synthesis and evaluation, Gardner's linguistic, logical and linguistic). Then have groups evenly divide the cookies or help them divide the cookies, eat, enjoy and clean up.

**Adaptations/Enrichment:** Students with LD, ED and ADHD will enjoy this hands on visual experience. They might have difficulty relating their research to the actual resource map. It might be helpful to provide them with a list of each resource and where it was found and then have them place these objects on the map. They might benefit from working with a partner rather than a group so that their ideas are not overlooked as much. Enrichment: Students could go on further to research world resources and create detailed paper map of the world resources. They could also study a common resource in Indiana and give a report on where that resource is found, its uses and why it is so important to Indiana.

**Assessment: -**Use a check list when observing each group's cookie.


**Edible Cookie Resource Map Check List:** Each one is worth 5 points for 40 points total.

~Each student had individual research on natural resources ____
~Each student actively participated in the group activity____
~The group created a paper blue print of the cookie____
~The cookie blue print was properly labeled____
~Students made a map key/legend by using examples and labeling note cards____
~Students show at least 5 resources on their map____
~Students have resources in each region____
~The cookie map shows information parallel to student research___