CENTRAL PLACE THEORY ACTIVITY

Overview: In this lesson students will apply Walter Christaller’s Central Place Theory to cities in their state. The students will also analyze data and use their analysis of this data to explain the relationship between the population of a central place and its available functions. Map reading and geospatial technology mapping skills will also be used in this lesson.

Grade Level: 9 – 12

Objective: This lesson is designed to provide students with the opportunity to apply Walter Christaller’s central place theory to cities in their state. Students will analyze the

Minnesota K-12 Academic Standards in Social Studies (3. Geography)

Sub-strand 2. Places and Regions
Standard 3
Places have physical characteristics (such as climate, topography and vegetation) and human characteristics (such as culture, population, political and economic systems).

9.3.2.3.1
Make inferences and draw conclusions about the physical and human characteristics of places based on a comparison of maps and other geographic representations and geospatial technologies.

Standard 4
People construct regions to identify, organize and interpret areas of the earth’s surface, which simplifies the earth’s complexity.

9.3.2.4.1
Apply geographic models to explain the location of economic activities and land use patterns in the United States and the world.

Sub-strand 3. Human Systems
Standard 5
The characteristics, distribution and migration of human populations on the earth’s surface influence human systems (cultural, economic and political systems).

9.3.3.5.5
Describe the factors influencing the growth and spatial distribution of large cities in the contemporary world.
map they created in Google Earth and information gathered about these cities to explain the relationship between the population of a central place and its available functions.

**Time:** 2 fifty-minute class periods

**Required Materials:**
1. Computer/internet access to access city websites such as a state map that displays cities. Listed below are some websites that may be useful in completing this activity:
   a. Center for Spatially Integrated Social Sciences – information on Walter Christaller and his hierarchical patterns of urbanization: [http://www.csiss.org/classics/content/67](http://www.csiss.org/classics/content/67)
   b. About.com article on Central Place Theory: [http://geography.about.com/od/urbaneconomicgeography/a/centralplace.htm](http://geography.about.com/od/urbaneconomicgeography/a/centralplace.htm)
2. Access to Google Earth which allows the students to see the cities they have chosen and to create their own map of the cities they selected.
3. Central Place Theory Activity Instructions
4. Central Place Theory Reflection graphic organizer

**Suggested Procedure:**
1. During this activity, the teacher may need to discuss the following vocabulary with their students:
   a. **Walter Christaller:** German geographer who recognized the economic relationship between cities and their hinterlands
   b. **Central place:** a market center for the exchange of services by people attracted from the surrounding area.
   c. **Range:** the maximum distance people are willing to travel to use a service
   d. **Threshold:** the minimum number of people needed to support the services.
   e. **Urban hierarchy:** the rank order of places: hamlet, village, town, city
2. The teacher may also need to demonstrate to his/her students how to use Google Earth. The teacher may need to create a simple activity for his/her students to complete which would provide them with the opportunity to use Google Earth, create placemarks, as well as save and print maps they created.
3. Assign the students a background reading on Walter Christaller to complete prior to beginning this lesson. Teachers may use a reading in their textbook or one of the resources listed below.
a. Center for Spatially Integrated Social Sciences – information on Walter Christaller and his hierarchical patterns of urbanization: 
http://www.csiss.org/classics/content/67
b. About.com article on Central Place Theory:  
http://geography.about.com/od/urbaneconomicgeography/a/centralplace.htm

4. Have the students complete the graphic organizer titled, Central Place Theory Reflection, while reading their assigned article. While reading their article, students should identify eight (8) main ideas or key points. Have the students write their eight (8) main ideas or key points from their reading on the lines radiating outward from the hexagon. After the graphic organizer is completed, have the students write a One (1) sentence summary of the eight (8) main ideas or key points in the middle of the hexagon.

5. After the students have completed their reading and Central Place Theory Reflection graphic organizer, have the students discuss the article, Central Place Theory and their individual summaries. The teacher could also have the students share their summaries with a partner and then share them with the entire class.

6. Hand out the Central Place Theory Activity Directions to your students and discuss the directions for the activity with the students. The teacher may have their students work on this assignment individually or with a partner.

7. Have the students access websites to assist them in identifying cities for this activity and information about these cities. Have the students access Google Earth so that they can create a map of the cities they selected.

8. Have students gather information about the cities they select and complete the table based on information gathered about these cities. Have the students create and print a Google map that displays the cities they selected.

9. Have the students completed the reflection questions provided based on the information they gathered and the map they created.

Assessment:
1. Central Place Theory Reflection Graphic Organizer
2. Central Place Theory Activity Chart and Reflection Questions
3. Printed Google Map
Central Place Theory Activity

**In order to complete this activity, you will need to do the following:**

1. You will need to use the Internet to locate a map that shows your state and the cities located in it. You may also want to locate a chart or information that shows the population of cities in your state.


2. From the map and information you looked at, you will need to identify a city in your state that has a population between 25,000 and 50,000 and is at least 75 miles away from a major metropolitan area. (You will need to refer to the scale on your map and use it to determine this distance on your map.)

3. Write the name of this city in the chart provided under the column labeled: “Central Place A.”

4. You will need to access Google Earth and create a new map on which you are to locate the city you selected as “Central Place A.” You will need to create a placemark on a Google map where this city is located in your state and label it as “Central Place A.”

5. From the map and information you looked at, you will need to identify the city nearest “Central Place A” with a population between 7,500 and 15,000. This city will become “Central Place B.”

6. Write the name of this city in the chart provided under the column labeled: “Central Place B.”

7. In Google Earth, you will need to create a placemark on your Google map where this city is located in your state and label it as “Central Place B.”

8. From the map and information you looked at, you will need to identify a third city nearby with a population between 2,500 and 5,000. This city will become “Central Place C.”

9. Write the name of this city in the chart provided under the column labeled: “Central Place C.”
10. In Google Earth, you will need to create a placemark on your Google map where this city is located in your state and label it “Central Place C.”

11. From the map and information you looked at, you will need to identify a fourth city nearby the other cities with a population of 1,000 or less. This city will become “Central Place D.”

12. Write down the name of this city in the chart provided under the column labeled: “Central Place D.”

13. In Google Earth, you will need to create a placemark on your Google map where this city is located in your state and label it “Central Place D.”

REMEMBER to print your map and attach it to the chart and questions listed below.

14. In the chart below, write the name of each central place you identified on your map (Central Place A, Central Place B, etc.) and the population for each central place.

15. Using one of the following website(s), http://www.superpages.com/, http://www.yellowpages.com/, or a similar website, identify the number of each type of service found in each of the central places. Write in the number of each type of service found in each central place (A, B, C, and D) in the chart below. It may be easier to do a search on Google or Yahoo for the city name and if the service is provided in that city.

<table>
<thead>
<tr>
<th>Services</th>
<th>Central Place A</th>
<th>Central Place B</th>
<th>Central Place C</th>
<th>Central Place D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Stations</td>
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<tr>
<td>Churches</td>
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<td>Hospitals</td>
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<tr>
<td>Radio Stations</td>
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<tr>
<td>Movie Theaters</td>
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<tr>
<td>McDonalds</td>
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<tr>
<td>Wal-Mart</td>
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<tr>
<td>New Car Dealerships</td>
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<tr>
<td>Orthopedists</td>
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<tr>
<td>General Practitioners (Physicians)</td>
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</tbody>
</table>
Questions for Reflection:

1. What is the relationship between the population of a central place and the number of services it offers?

2. Compare your map to a diagram of Walter Christaller’s Central Place Theory. Does the map you created with your four (4) central place cities follow Christaller’s theory about central places? Explain your answer.

3. Is Christaller’s Theory still applicable in our world today? Explain your answer.
Central Place Theory Reflection

Directions: While reading your article, identify the eight (8) main ideas or key points from the article. Write these eight (8) main ideas or key points on the lines radiating outward from the hexagon. Then write a One (1) sentence summary of the eight (8) main ideas or key points in the middle of the hexagon.