DISTANCE WITH MY MAPS LESSON PLAN

Instructor: Sonya Metzger ABE/GED Class NRS Level: 3

Identify the topic:

Finding Distances on a Digital Map, using a number line to determine time, and making connections with the distance formula.

State the objectives:

- **Solve problems using a map scale to estimate and compute lengths/distances on map using standard measurements. Use information from a digital map to solve multi-step, real-life problems efficiently.**
- **Use a number line to solve problems involving distances to measure the amount of time a trip on the map would take.**
- **Use division fluently to solve problems using distance measurements and time intervals.**
- **Make connections to evaluate the expression d=rt**
- **Demonstrate proficiency by correctly completing 85% of the lesson activities.**

Identify materials:

- **Google Maps – My Maps **(NOTE: A free Google account is required to complete this lesson)****
- **Worksheets**
  - **Google Map and Line Activity.docx**
  - **Presentation for My Maps.pptx**

Decide length of lesson: 2 hrs.

Extended Activity: 45 mins.

Identify new vocabulary to be taught:

distance, rate, destination

Identify Standards

- **Use the four operations to solve word problems involving distances, intervals of time, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent quantities using diagrams such as number line diagrams. (4.MD.2)**
- **Fluently divide multi-digit numbers using standard algorithm. (6.NS.2)**
- **Write, read, and evaluate expressions in which letters stand for numbers (6.EE.2)**
- **Solve problems involving scale drawings, including computing actual lengths. (7.G.1)**
- **Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. (RI.5.7)**
- **MP 1**

- **MP 5**

Introduction:
In this lesson students will be introduced to digitals tools – My Maps. Digital tools are an important resource for distance learning. Questions to ask students: Have you ever used Google maps or navigation to get you to a destination? Can you name some jobs or professions that may use maps? Many types of engineers must fully understand maps, map reading, and map creation. In this lesson students will use My Maps by Google to estimate and calculate distances. After completing this lesson, students will understand how to connect division and the distance formula to a real-life application. Students will need a basic understanding of maps, students will need to divide fluently, and have a basic knowledge of simple formulas.

Instructional Activities:

Students are to complete activities 1-3 in the "Google Map and Line Activity" worksheet attached in the materials section. Links and directions are given within the activities. Activity 4 can be assigned for extended learning.

Technical directions:	**Instructors can make their own copy of the map for editing. To make a copy click on the three dots in the red area of the map key. Click copy map. Instructors can make a copy of the worksheet for students and direct students on how to share or upload the completed worksheet.**
Instruction for Activities **Students will be using the map link on the worksheet to complete "Activity 1."** **Students will be using My Maps to create their own map and to complete "Activity 2"** **Students will use information from "Activity 2" to complete "Activity 3".**	**Depending on your class options you can introduce the lesson in person, phone call, video, or zoom. Ask student to open the link on the "Activity 1 "worksheet. The map for Activity 1 has pre-drawn lines and destinations for students to use for the activity. Students will be using the link on Activity 2 to use Google My Maps to create their trips for Activity 2. Students will complete Activity 3 using Question #4 from Activity 2. Please open the Google Map and Line Activity worksheets and links in the worksheet to become familiar with the lesson. There are directions and pictures throughout the activities to help students navigate Google My Maps.**
Guided Practice/Independent Practice **Activity 1**	**Students will use the Estimate column of Activity 1 to complete Questions 1-7. Students will use the Actual column to complete Questions 8-12.**
Guided Practice/Independent Practice **Activity 2**	**Students will create their own trips using Google My Maps. They will complete Questions 1-4 in this activity. They will use the number line to complete Question 4.**
Guided Practice/Independent Practice **Activity 3**	**Students will use the information from Activity 2 Question 4 to help the complete Activity 3.**
Evaluation/Assessment	**Students will have correctly completed 85% of all three activities. Students can make a copy of the map for sharing. Directions are in the PowerPoint. Students can do a save as to share completed**

	worksheet with the instructor. The instructor can give feedback and corrections to the directly to the student.
<u>Reflection</u> **Ask students to complete the reflection question worksheet.**	**Students will answer reflection questions. Instructor can review these questions to make any adjustments to the lesson for their students.**
<u>Extended Learning</u> **Students can complete "Activity 4" for extended learning.**	**This lesson can be extended to ask students to plan a vacation destination in the United States. The extended learning can be used with Activity 4. Activity 4 will introduce the distance formula.**