Mapping the Legacy: Heroes, Scales, and Compass Roses

Materials Needed

- Globes or large atlases (physical or digital display)
- Rulers and pencils
- Blank sheets of paper (11x17 preferred, but standard letter size works)
- Pre-printed simple map examples (e.g., a park map, a state map, or a classroom layout map with a scale)
- Access to research materials (books or safe internet access) about historical heroes
- Colored pencils or markers (optional, for map design)

Learning Objectives (Tell them what you'll teach)

By the end of this lesson, you will be able to:

1. Identify and define the four essential elements of a functional map (Title, Scale, Legend, Compass Rose).
2. Use a map scale to calculate simple distances between two points.
3. Design a detailed geographic map that illustrates the journey or location of a historical hero.

Success Criteria

You have successfully completed this lesson if your "Hero Map" project includes:

- A clear title and the name of the hero.
- A working map scale (e.g., 1 inch = 10 miles).
- A complete legend (key) that explains all symbols used.
- An accurate Compass Rose showing North, South, East, and West.

Lesson Introduction (10 minutes)

Hook: Heroes and the Unknown

Educator Prompt: Imagine Amelia Earhart flying across the ocean, or Harriet Tubman guiding people through the woods at night. How did these heroes navigate the world? They didn't have GPS or phones! They relied on the incredible power of maps. A good map isn't just a picture of a place; it’s a tool for success, exploration, and sometimes, survival.

Activating Prior Knowledge (Discussion)

Q&A: What is the most important thing you look for when you see a map? (Possible answers: names of cities, rivers, mountains.)

Transition: Maps have rules, just like games. Today, we are going to learn the four most important rules—the elements that make a map useful—and then we’ll use them to chart the journeys of heroes!

Lesson Body: The Anatomy of a Map

Phase 1: I DO (Modeling the Essential Elements - 15 minutes)

Educator Instruction: I will now show you four critical components that every successful map must have. Watch carefully as I point these out on a sample map (use a globe, atlas, or digital map projection).

1. **Title:** Tells you *what* the map is showing (e.g., "The Mississippi River" or "Wyatt's Backyard").
2. **Compass Rose:** Shows you *direction* (North, South, East, West). This is vital for navigation.
3. **Legend (Key):** Explains the *symbols* used on the map (e.g., a star means "capital city," a squiggly line means "river").
4. **Scale:** Shows you the relationship between distance on the map and distance in the *real world* (e.g., 1 inch on the map equals 100 miles in real life).

Modeling Scale: (Demonstrate using a ruler on the sample map). If our map scale says 1 inch = 5 miles, and the distance between point A and point B on the map is 3 inches, the real distance is 15 miles. (Show the simple multiplication: 3 x 5 = 15).

Phase 2: WE DO (Guided Practice and Calculation - 20 minutes)

Activity: Map Scavenger Hunt

Materials Used: Pre-printed simple map examples (local park, neighborhood map).

1. **Legend Check:** Use the sample map. "Let's find the Legend. What symbol does this map use for a restroom? What symbol means 'trailhead'?" (Learners locate and identify symbols.)
2. **Direction Drill:** If we are standing at the Entrance and the Playground is North of us, what direction is the Parking Lot? (Use the Compass Rose to answer.)
3. **Scale Practice (Think-Pair-Share):** Look at the map scale. Let's say the scale is 1 cm = 50 meters. Use your ruler to measure the distance between the starting point and the fountain. (If learners are in a group, have them pair up. If homeschooling, discuss the measurement and calculation with the educator.)
    - *Measurement Example:* If the ruler shows 4 cm, the real distance is 4 x 50 = 200 meters.

Formative Assessment Check: Ask three learners (or Wyatt) to briefly explain in their own words what a map scale does.

Phase 3: YOU DO (Independent Application - The Hero Map Project - 30 minutes)

Project: Mapping a Hero's Legacy

Goal: Create a map that represents a key location or journey of a historical figure. Learners must integrate all four map elements.

1. **Hero Selection (Choice & Autonomy):** Choose a hero you admire. (Examples: George Washington, Mae C. Jemison, Ruby Bridges, Marco Polo, Sacagawea, or a local community hero.)
2. **Planning & Research:** Determine the geographic area (a route, a battlefield, a state, a city). Decide what specific items need to be marked on the map (e.g., specific houses, important

events, rivers crossed).
3. **Drafting the Map:** Draw the basic layout on your paper.
4. **Integrating the Elements:**
    - **Title:** Name the map (e.g., "The Route of Harriet Tubman").
    - **Legend:** Create symbols for important spots (e.g., a star for a safe house, a triangle for a river).
    - **Compass Rose:** Draw and label the directions.
    - **Scale:** Create a simple scale and label it (e.g., 1 inch = 5 miles, or 1 square = 2 blocks). Use this scale to roughly place your key locations.

Lesson Conclusion (15 minutes)

Closure and Recap (Tell them what you taught)

Review: Let’s quickly name the four essential tools we must have on any map. (Title, Compass Rose, Legend, Scale.)

Exit Ticket Question: Why is the map scale perhaps the most important element for someone trying to plan a trip?

Summative Assessment: Hero Map Showcase

Activity: Have learners (or Wyatt) present their Hero Map to the group/educator.

Presentation Guidelines:

1. Introduce your hero and the area your map covers.
2. Point out your Compass Rose and demonstrate direction.
3. Explain at least two symbols from your Legend.
4. Demonstrate how the map scale works by measuring the distance between two marked points (e.g., "My hero traveled from here to here, which is 5 inches on my map, so the real distance was 25 miles").

Educator Feedback: Provide specific feedback aligned with the Success Criteria (Did the map include all four elements? Was the scale calculation accurate?).

Differentiation and Adaptability

Scaffolding (For learners needing extra support or time)

- **Simplifying Scale:** Use a very simple, grid-based map where the scale is 1 box = 1 mile. This eliminates the need for precise ruler measurement.
- **Pre-selection:** Provide two pre-researched heroes and associated major locations to reduce research time and focus solely on the map elements.
- **Partial Templates:** Provide a paper template with the Compass Rose and Title box already drawn, so the learner focuses only on the Legend, Scale, and the drawing.

Extension (For advanced learners or those seeking deeper challenge)

- **Coordinate Systems:** Introduce simple latitude and longitude concepts. Require the learner to place their hero's key locations using approximate coordinates.
- **Scale Conversion:** Ask the learner to convert their map scale (e.g., if 1 inch = 10 miles, convert that into kilometers, requiring an extra math step).
- **Historical Navigation:** Research and include a historical element in the map, such as drawing a magnetic north line that differs from true north, or adding symbols for celestial navigation points relevant to the hero's time period.