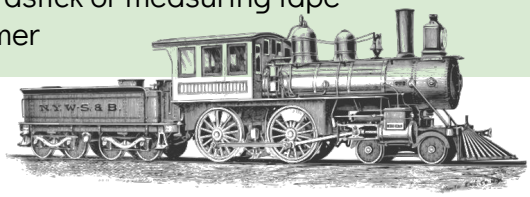
Standards Addressed:
SS5.2.2, SS.5.2.3, SS5.5.1, SS5.5.2

The Race is On!
Transcontinental Railroad Simulation (Grade 4)

Description: Students will investigate the great race of building the Transcontinental Railroad. Students will review a topographic map of the landscape and note the different challenges faced by each Railroad Company. Students will complete a simulation of building the Transcontinental Railroad and discuss the landscape impact on the building progress.

Materials:

- Topographic Map of Transcontinental Railroad
- Popsicle sticks (30 per group)
- Toothpicks (150 per group)
- Yardstick or measuring tape
- Timer



Background Information:

The Pacific Railway Act in 1862 led to an extreme change in transportation and distribution of goods in the United States. Prior to the mid-1800s, there were very few ways to travel from the East to West Coast, and those available were extremely long and expensive. President Abraham Lincoln signed the act with the aim to ease transportation difficulty and connect the two continental coasts.

The Pacific Railway Act of 1862 set aside land and money to build the railroad and appointed two railroad companies, the Central Pacific and Union Pacific railroads to lay the track.

Time was money in the building of the railroad, so the two companies were commissioned to start on opposite coasts and meet in the middle. The Central Pacific started in Sacramento, California and worked eastward. The Union Pacific began in Omaha, Nebraska and headed west. The government provided loans to each company and also awarded large parcels of land along the length of their routes, so the two companies began competing and had financial incentive to work quickly.

The Central Pacific began laying track in 1863, but the Civil War impeded the work of the Union Pacific, who was not able to begin construction until 1865. The Union Pacific was comprised of primarily Irish immigrants and former soldiers, while the Central Pacific hired primarily Chinese laborers because white workers in California did not want to do the strenuous labor.

The Union Pacific was able to lay track quickly across the flat lands of Wyoming and Nebraska, but did meet some Native American resistance. The Central Pacific was much slower in progress due to the difficult terrain of the Sierra Nevada mountain range.

The two railroads met on May 10, 1869 at Promontory Summit in northern Utah. The Central Pacific laid about 700 miles of track, and the Union Pacific laid about 1,100 miles when all was said and done.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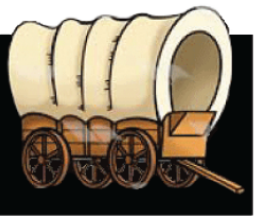

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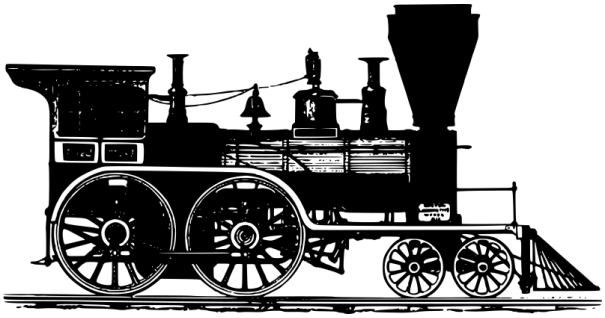
Part 1 - Map Investigation:

1. Distribute copies of the Topographical Map, or display digitally.
2. Have students discuss in pairs, different noticings about the map, paying careful attention to the length of the two routes and the landscape features indicated on the map.
3. Discuss noticings with



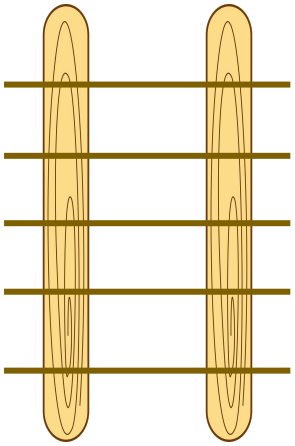
Part 2 - Track Laying Race:

1. Divide the class into groups of 4.
2. Assign groups roles as either Central Pacific or Union Pacific.
3. Designate groups to different sides of the room to build their tracks.
4. Explain building parameters to all teams. Sections of track are laid by placing two popsicle sticks as the rails and then five toothpicks as crossties.
5. Provide the Union Pacific groups with all of their building materials at their building location.
   The readily available materials models the ease of building on flat land and minimal landscape issues.
6. The Central Pacific groups will have to send a representative to collect their materials **from across the room** (eight sticks and twenty toothpicks at a time) and return to the building area to lay that section of track before collecting more materials.
   This delay is intended to model the difficulty of the terrain and increased time necessary to build.
7. Set the timer for 5 minutes.
8. At the end of 5 minutes, have each group measure the length of their completed track.
9. Reconvene as a group to discuss and reflect.

Discussion Questions:

- What land features impacted each company on their route?
- Why was the Union Pacific able to lay more track than the Central Pacific?

Example Section of Track

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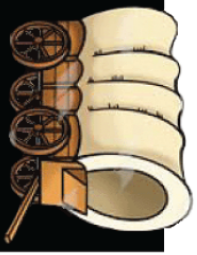

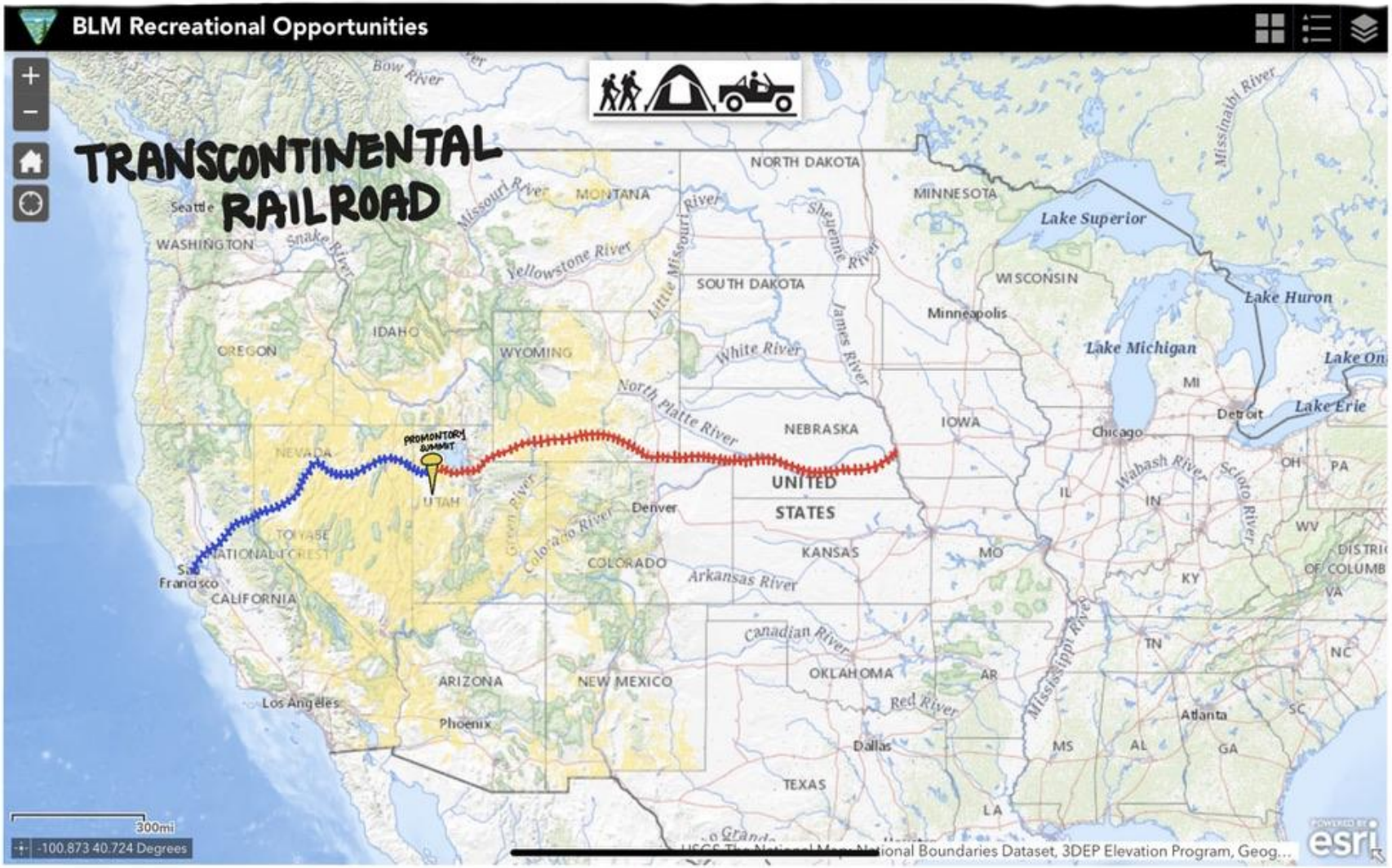

Central Pacific

Union Pacific