

**Lesson Plan**  
**Title: Walk and Bike Across America**

**Grade level:** 4-12

**Subject Areas:** Geography, Health, Math, Physical Education, Computer Science, Social Studies.

**Skill Set:** Mapping, Nutrition and Physical Activity, American History

**Introduction:** This is a class project that combines physical activity with computer-based learning of America's rich cultural heritage. Students learn how to use maps, compute mileage, and be physically active, while exploring America's national parks, historical heritage, and nutritional information via key agricultural sites.

**Objective:** Students will gather the miles that the class (or the whole school) walks and bikes and will use those miles to virtually travel a computerized map of the United States visiting 85 sites across the country.

**Set Up:** Post the hard copy of the map on the wall in a prominent location. If gathering miles school-wide, place the map in a central location in the school.

**Materials:**

Map (provided)  
Digital Spreadsheets for tracking individual miles (provided)  
Digital Spreadsheet for adding individual miles together (provided)  
Computer  
Push pins and colored string

**Preparation:** Distribute individual spreadsheets to each student for tracking individual miles within their class, or if you are tracking mileage for the whole school then distribute tracking sheets school wide to each class).

**Instruction/Modeling/Discussion:**

**Step one** – Each student receives a mileage tracker spreadsheet to keep track of the number of times he or she walks or bikes to school. (To determine his or her distance from school the student can use any map program found on the web such as MapQuest or Yahoo Maps. Enter the student's address as one point and the school address as the second point. The program will give you the miles. Younger students will need parental assistance for this process.)

**Step two** – Each week, students turn in their mileage tracker spreadsheet to be entered onto the class mileage tracker. This spreadsheet will calculate the total miles for the week. (If the whole school is playing then the totals from each class tracker should be added together.)

**Step Three** – Enter the total miles for the week on the web site. Students will then know how many miles they have to travel to reach their chosen destination. Have the class vote for their preferred travel direction and first destination and start traveling. The map will show you how far you have gone this week.

**Step Four** – When the collective mileage allows students to reach one of the destination points on the map they can virtually visit that site. They'll find out more about the United States and the wonderful treasures it has to offer.

**Step Five** – Mark the progress on the physical map using pushpins to designate sites visited, and tying string to the pins to show the path taken. (Note, while it is possible to draw directly on the map, it could potentially damage the map and does not allow re-use. We suggest you have your map laminated so it can be used repeatedly over time.

Options:

*For students who ride the bus:*

If a student takes the bus to school and walks to the bus stop, calculate the miles from the student's home to the bus stop and use those miles.

*For students who carpool:*

If a student carools to school, then that student offers one bonus mile a day toward their class total for each time they carpool to or from school. Note, a carpool is defined as two or more families who share driving to school. Large families are NOT a carpool. A carpool must eliminate at least one car trip.

**Make the game interesting:**

Assign students to write essays about the places that they visit. They can be asked to do further research on that site by exploring more related websites. Publish the best essays in the school newspaper or in a local newspaper.

Focus on Nutrition – Specifically visit the agricultural sites. Introduce class discussions on the importance of fruits and vegetables as part of a balanced diet. Assign essays to augment the information found on the sites.

Challenge other classes – Ask each class to track their own miles and see which class can visit the most points on the map.

Award the winning class with a special treat.

Challenge other schools – Challenge a neighboring school to compete in determining which school can visit the most points on the map. Reward the winning school with a cash prize or other incentive.

Arrange for a class trip to actually visit the nearest point on the map. In a class competition, the winning class gets to make the trip.

**Discussion:** This activity can continue over a period of weeks or even months. Discuss the various sites visited. What does each site contribute to America's cultural heritage? Why are physical activity and good nutrition important? How does walking and biking to school contribute to the health and safety of the student and the school? (Less traffic, less pollution, more exercise, it's fun, etc. ).

**Assessment:** Were the students able to accurately calculate the mileage? How many miles were traveled and how many sites were visited? Have the students increased their knowledge of key cultural and historic sites in the United States? Did the students learn important nutritional information?