

Players by Home State (thematic mapping)

Overview:

Using team roster data, students will review how teams from different parts of the country have rosters that reflect their location.

Connections to the Curriculum:

Geography, social studies, math

Connections to the National Geography Standards:

Standard 1: How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.

Standard 3. How to analyze the spatial organization of people, places, and environments on Earth's surface.

Standard 9. The characteristics, distribution, and migration of human populations on Earth's surface.

Connections to the Common Core State Standards:

Math Standards: histograms and mean, median & mode

Math 4.4NBT, Math 6.15P, Math 6.4SP, Math 6.5a. SP, Math 6.5c.SP, Math 7.1SP

Time: One hour

Materials Required:

- Computer with Internet access (to obtain team roster)
- State Table (available in this packet)
- U.S. base map (available in this packet)

Objectives: Students will

- focus on different teams (groups);
- brainstorm why student-athletes attend certain colleges/universities;
- divide into groups and investigate similarities and differences among team (groups);
- share their thematic maps with the class; and
- as a class, discuss the differences and similarities between these groups.

LESSON

Opening: As a class, talk about why high school students would choose a certain university. Ask the class to select one sport that they'd like to analyze.

Development: Ask students to break into small groups of three or four. Have each group select one college/university team that sponsors that sport. Have students go online, find the team roster, and print a copy of the roster. Be sure the table data includes hometowns for each player and their height and weight on the roster. Have one student in each group record and tally their findings. Create a histogram to tally and group data. Map the values from the histogram.

Closing: Have each group present their results to the entire class. Explain why they chose this particular team including some characteristics that make their team unique (the size of the university, its location, etc.). Then present their thematic map, showing where team players come from.

team name _____

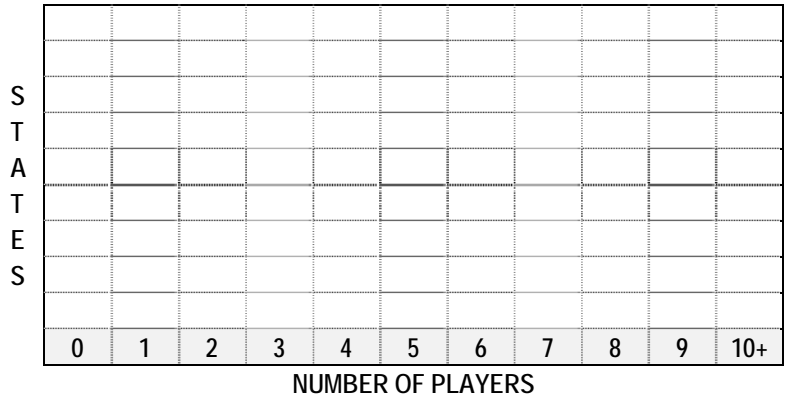
season/year _____

Players by Home State

Step 1: Tally How Many Players Come From Each State using this table:

Alabama (AL)	.....
Alaska (AK)	.....
Arizona (AZ)	.....
Arkansas (AR)	.....
California (CA)	.....
Colorado (CO)	.....
Connecticut (CT)	.....
Delaware (DE)	.....
Florida (FL)	.....
Georgia (GA)	.....
Hawaii (HI)	.....
Idaho (ID)	.....
Illinois (IL)	.....
Indiana (IN)	.....
Iowa (IA)	.....
Kansas (KS)	.....
Kentucky (KY)	.....
Louisiana (LA)	.....
Maine (ME)	.....
Maryland (MD)	.....
Massachusetts (MA)	.....
Michigan (MI)	.....
Minnesota (MN)	.....
Mississippi (MS)	.....
Missouri (MO)	.....
Montana (MT)	.....
Nebraska (NE)	.....
Nevada (NV)	.....
New Hampshire (NH)	.....
New Jersey (NJ)	.....
New Mexico (NM)	.....
New York (NY)	.....
North Carolina (NC)	.....
North Dakota (ND)	.....
Ohio (OH)	.....
Oklahoma (OK)	.....
Oregon (OR)	.....
Pennsylvania (PA)	.....
Rhode Island (RI)	.....
South Carolina (SC)	.....
South Dakota (SD)	.....
Tennessee (TN)	.....
Texas (TX)	.....
Utah (UT)	.....
Vermont (VT)	.....
Virginia (VA)	.....
Washington (WA)	.....
West Virginia (WV)	.....
Wisconsin (WI)	.....
Wyoming (WY)	.....
Other	.....

Step 2: Create a Histogram to chart the number of players from each state. A histogram is a way to graph the distribution of data. Place the state initials in the column where they belong.



Step 3: Group the State Values

A common method of grouping is to look for natural breaks in the data. For example, your first natural break would most likely fall after 0. You can use a wide range of groupings, depending on your data. Once the natural breaks have been determined, create a classification legend for your map. The legend should have symbols or patterns to represent values. Remember to establish a hierarchy (states with the most players should be shaded dark, or use a dark colored pencil, or use a heavy pattern).

Step 4: Map Your Values

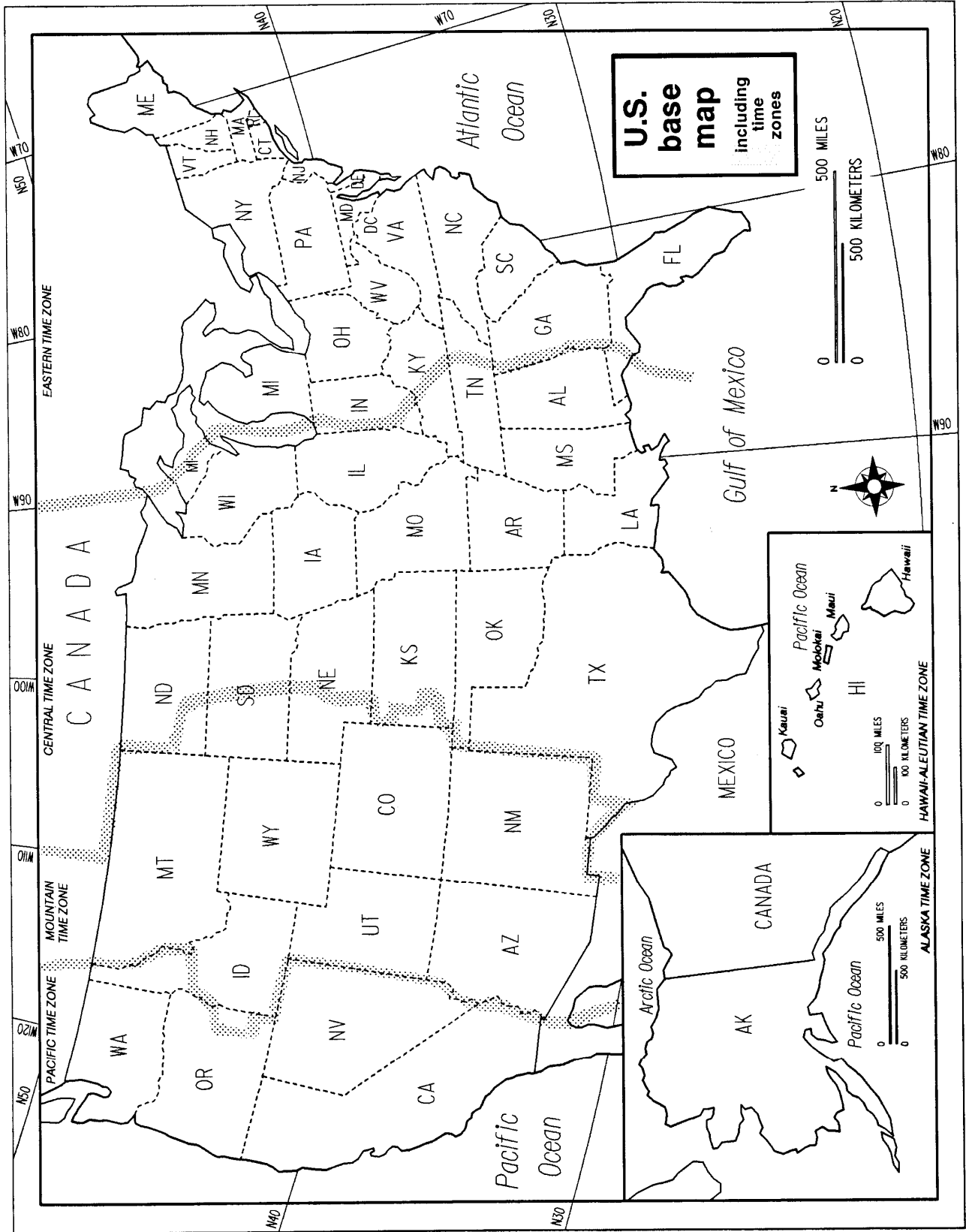
Now you are ready to make a thematic map, using the statistical information you started with and a U.S. base map. Using your groupings, shade or color each state as it should be represented. *If there are international players, you can create a symbol for them at the edge of the map, or you can add them to a b/w outline map of the World (not provided in this packet).*

Step 5: Small Group Discussion

Discuss the results of your thematic map. Which stands out? Can you explain why so many players come from certain states? *For international players, read their stats on line and see if there are any clues as to why they chose playing for this team.*

Extend the lesson: find the Mean, Median and Mode

Since you have a copy of the roster, let's work with some of the data available, such as player height and weight. In college and professional sports, the size of the athlete is important. Let's determine the mean, median and mode of the team's height or weight. If time allows, get a copy of your local high school's roster, find the mean, median and mode for that team and compare it to your data from the college team.



If needed, a b/w reproducible World Map can be found at www.nationalgeographic.com under the education tab.