Winter Olympics

WebQuest Description: Are you "feeling very Olympic today"? If you've ever seen the movie "Cool Runnings", you might recognize this quote. This WebQuest will allow students to explore the Winter Olympics while putting their math skills to use. Students will use scores and times from the 2010 Winter Olympics to be held in Vancouver, British Columbia, Canada, and will also learn about some past Olympians & their accomplishments.
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Introduction

Every four years athletes from all over the world converge on the city that has been chosen to host the Winter Olympics to participate in sports that are held on ice or snow. Some of these sports include downhill skiing, figure skating, bobsled, luge, ice hockey, and snowboarding, an event which was added in 1998. No matter what your interests, there is something for everyone when it comes to the Winter Olympic Games! In this WebQuest you will explore some of these events, use your math skills to work with participants' scores & times, create a bar graph comparing the medals earned by all the countries, and learn a little about the history of the winter Olympic games.

Tasks

Your Olympic team, consisting of three athletes, will complete the tasks laid out for you by the Olympic Committee. Your team will perform a variety of assignments related to math, the Winter Olympics, and the history of the Winter Olympics, resulting in a portfolio of completed tasks. You will use the Internet to search for statistics, create graphs, and research the Winter Olympics. The players on your team will assume one of the following roles: Statistician: You will be consulted anytime the subject is math.Sports Reporter: Writing is your strength; you will be the recorder.Judge: You will make any final decisions necessary, & you will perform any tasks that deal with technology.

Process

First, your teacher will help you form a team of 2 or 3 players. Decide on the role you will play: statistician, sports reporter, or judge. Then read through all of the tasks before beginning your Olympic experience!
Be sure to use this page for each task. There is more information here than on your printed sheet. Also, the resources provided are exactly what you need; use them!
Task #1: Print & complete the Winter Olympics Challenge, which will introduce you to some of the terminology of the Winter Olympics. Include this page & anything else you print in your portfolio. (This may already be in your packet).
Task #2: Print & complete the Winter Olympics Word Search & include it in your portfolio. (This may already be in your packet).
Task #3: Choose a Winter Olympic sport that none of you are familiar with and become experts on it! Fill out the Winter Olympic Sports Questionnaire on your sport. Resources: Wikipedia, Olympics.org
Task #4: Choose 5 Winter Olympic sports with which you are not familiar. Research the five sports & write a short paragraph describing each one. Do not just copy down the information you find! Include these paragraphs on your Winter Olympic Sports Questionnaire.   Resources: Wikipedia, Olympics.org
Task #5: Locate the results for Downhill Alpine Skiing. Use the results for the top 10 participants. (You may choose to use the men's times or the women's times; the men's competition is on Feb. 13, & the women's competition is on Feb. 17). I would suggest converting the times to seconds by multiplying the number of minutes by 60 & then adding the remaining seconds to your product. For example, 1:10.84 = 70.84 seconds. Then find the mean, mode, median, & range of these times, putting your answers on Worksheet 1.   Resources: Olympics.org, Vancouver 2010, ESPN.com
Task #6: Listen to Al Michaels' broadcast of the end of the 1980 hockey game between the U.S. and the Soviet Union (now Russia). If you've seen the movie Miracle, you may recognize this sound bite. Be sure that you get permission from an adult to listen in study hall or in the library! Next, watch the last few minutes of the game on YouTube. (The U.S. jerseys are white, while the Soviets are in red). This was not the game for the gold medal (the U.S. won that game later), but for the U.S. team to beat the Soviet Union was an incredible upset. On Worksheet 1 record the score of this game plus the score of the gold medal game against Finland. Resource: Wikipedia
Task #7: Using Wikipedia, read about the 1980 U.S. Olympic hockey team. You are not expected to read this entire article as it is rather lengthy. However, read the first two paragraphs & make sure you read the section entitled "Do You Believe in Miracles?" Also scroll down to the very bottom where you will see a roster of the players on the team. Notice which neighboring state of Iowa's many of the players called home. Answer this question on Worksheet 1. (To further this task you could watch the movie, Miracle, at home with your family).
Task #8: Take this 2006 Winter Olympics quiz. Yes, it is four years old, but it's still kind of fun to see how you do! You should still recognize some of the names. Record your score on Worksheet 1.

Task #9: Read this article on trading Olympic pins. Then find photos of the 2010 pins, right-click on the photos of 2 different pins & save them to your server. Your next job is to insert the images into an email & send the email to me at lschwien@rvcsd.org. We'll see how good you are at using technology!
Resource: Vancouver 2010
Task #10: Research the city of Vancouver and answer the related questions on Worksheet 1. Notice the table of information on the left side of the web page!   Resource: Wikipedia
Task#11: Find the answers to the Winter Olympic Trivia questions Worksheet 1 & record them. Be sure to find Winter Olympic answers, not Summer Olympic answers. Resources: Wikipedia, Ask.com, Wikianswers.com
Task #12: Use Fantes.com & the table on Worksheet 1 to find out how many yards are in one meter. The web site is easy to use: Fill in the number of yards you want & then click on yards in the first row & meters in the second row. Then click the button to make the conversion. Fill in the entire table.
Task #13: Find the results of the 2010 4-Man Bobsleigh. Using just the top three times, find their mean (average). Convert the times to seconds like you did in Task #5. Enter your answers on Worksheet 1. Resources: Olympics.org, Vancouver 2010, ESPN.com
Task #14: Print a map of Canada at eduplace.com. Hi-lite Vancouver on the map. Find a city in the U.S. that is directly south of Vancouver & mark it on the map also. Remember finding the latitude & longitude for Vancouver in Task #10? Include this map in your portfolio.
Task #15: Where will the 2014 Winter Olympics be held? Email your answer to me at lschwien@rvcsd.org
Resources: Olympics.org, Vancouver 2010, ESPN.com
Task #16: Find an evening when your entire team can get together at one member's home. Include at least one of that member's parents. Watch the Olympic events for a couple of hours; catch the Olympic spirit! Answer the questions pertaining to this task on Worksheet 1.
Task #17: When the 2010 Winter Olympics are complete, find a table that shows the medal count for all the competing countries. Using the total number of medal (not gold medals, etc.) make a bar graph at Kids Zone showing the countries & the number of medals won, in order from greatest number of medals won to least number of medals won. Be sure to check your spelling & capitalization before printing your graph. Label the graph correctly. Include your graph in your portfolio. Did the U.S. win the most medals? Answer one more question on Worksheet 1.   Resource: Vancouver 2010

Evaluation

Category and Score	Beginning 1	Developing 2	Very Good 3	Exemplary 4	Score
Portfolio	Portfolio is not complete, & less than 90% of the answers are correct.	Portfolio is 95% complete, & 90% of the answers are correct.	Entire portfolio is complete, & 95% of the answers are correct.	Entire portfolio, except WS 1, is complete & all answers are correct.	%25
Bar Graph & Worksheet 1	Both the bar graph & Worksheet 1 have many errors or are not correctly completed.	One of the assignments is 100% correct, but the other has many errors.	One of the assignments is 100% correct, but the other has a few errors.	Bar graph is entirely correct with no spelling or grammatical errors, & Worksheet 1 is completed with 100% efficiency.	%25
Electronic Submissions & Night Together Watching the Olympics	Neither of the emails were received, & 1 or more team members did not attend the team's viewing of the Olympics.	One of the emails was received, & 1 of the team members did not attend the team's viewing of the Olympics.	Emails #1 & #2 were correctly done & received, but 1 of the team members did not attend the team's viewing of the Olympics.	Emails #1 & #2 were correctly done & received, & all team members gathered to watch a night of Olympics.	%25
Teamwork	The workload was not divided, or some team members are viewed as not doing their fair share of the work.	The workload was divided, but one team member is viewed as not doing his/her fair share of the work.	The workload is divided & shared fairly by all team members, but workloads may vary from member to member.	The workload is divided and shared equally by all team members.	%25
				Total Score	%100

Conclusion

Congratulations! You have completed your 2010 Winter Olympics experience! I hope you have gained some background knowledge on the Winter Olympics & have caught the Olympic spirit! I also hope you have enjoyed the tasks you have completed during this Olympic experience. The following is the Olympic creed: "The most important thing in the Olympic Games is not to win but to take part, just as the most important thing in life is not the triumph but the struggle. The essential thing is not to have conquered but to have fought well." Hopefully, you have performed your tasks to the best of your ability & have worked together as a team. After all, the symbol that you see at the top of this page, the five intertwined rings, represent the unity of the five inhabited continents.

Teacher Page

Focus: This WebQuest focuses on the 2010 Winter Olympics and involves students in many math-related tasks as well as some geography, history of the Olympic games, and technology. The objective of this WebQuest is to use math skills in a fun & interesting way and to hook students on the excitement of the Olympic Games.Objectives/Goals:I would suggest starting this WebQuest sometime before February 12, 2010, the date of the opening ceremonies for the Vancouver Olympics. The first events will be held on February 13. The students should already possess the mathematic skills necessary to complete the WebQuest and can focus on enjoying the process. In this WebQuest: Students will use the Internet for research and to find results from the 2010 Winter Olympics. Students will create a bar graph comparing the medals won by participating countries. Students will become knowledgeable on five Olympic sports with which they were not previously familiar. Students, using downhill skiing results, will find the mean, mode, median, and range of those scores. Students will research some prominent Olympic figures from the past. Students will have fun with math! Students will work as a team toward a common goal. Students will become caught up in the excitement of the Olympic Games! Resources:Prerequisite skills: ability to use the Internet and electronic mailTime required: 1-2 days of classroom time, plus students' study hall time; the games last until February 28, & one of the tasks will have to be completed after all of the events are completed.Technology and Materials Needed: computer access Credits:All of the links used in this WebQuest are external links, without whose expertise this WebQuest would not be possible!

Standards

Credits

Other