

Evaluation of Digital Globe Programs
For K-12 Educational Purposes

Prepared for

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Tables

	Google Earth	Google Earth Plus	Google Earth Pro
License	Home/Personal Use	Home/Personal Use	Professional Use
Price	Free	\$20 per year	\$400 per year
Imagery Database	Primary	Primary	Primary
Performance		Enhanced	Fastest
Search Feature	x	x	x
Directions	x	x	x
Fly/Tilt/Rotate	x	x	x
Printing	1000 pixels	1400 pixels	4800 pixels
Saving Images	1000 pixels	1000 pixels	4800 pixels
Drawing Tools	x	x	x
GPS Import		x	x
Spreadsheet Import		100 Points	2500 Points
Advertisements	x	Optional	Optional
Support	Website Only	Website/Email	Website/Email/Chat
Advanced Tools			x

Source: Google Earth – Product Comparison

Table 1. A comparison of Google Earth versions.

Executive Summary

Educators are looking for a digital globe program to integrate geographic learning into K-12 classrooms. The measured student failings with regards to geographic knowledge have facilitated the need for this learning tool.

Google Earth is a free program which is easy to navigate and supports basic geographic exploration for younger students while providing additional interest content for older students. It has restricted terms of use which could keep it out of the classroom. It provides the most current and uniform view of the earth, but only in one image set. It is supported by the commercial Google Inc. and fosters a wide user community.

World Wind is also a free program, but it navigates the globe more slowly than Google Earth. It is an open source program with no legal restrictions to keep it out of the classroom. It also supports activities of younger students, but shines as it provides a wealth of activities for older students. Its view of the earth is not the most current or uniform, but it provides over 43 images sets. It is supported by the government agency NASA as well as a deeply involved user community.

In spite of Google Earth's more complete and timely imagery, World Wind provides better compatibility with all educational age groups, superior views of the earth, all in a legal manner for the classroom.

Introduction and Problem Statement

While the Iraq war has been raging since 2003, six in 10 young Americans cannot find that country on a map of the Middle East (2006 National Geographic Roper). The astounding geographic failings of American young people have rendered many K-12 teachers eager to remedy this geographic illiteracy. These educators recognize the importance of geographic knowledge, a sentiment John Fahey, National Geographic president and CEO echoed recently.

Geographic illiteracy impacts our economic well being, our relationships with other nations and the environment, and isolates us from our worlds. Geography is what helps us make sense of our world by showing the connections between people and places. Without geography, our young people are not ready to face the challenges of the increasingly interconnected and competitive world of the 21st century. (National Geographic Society Press Room)

Educators are eager to prepare their students for this globally-connected world, and are searching for ways to relate geographic learning to the curriculum, without sapping the budget or taking time-off for training. The advent of accessible digital globe technology, like Google Earth and NASA's World Wind, may be useful weapons for the attack on geographic illiteracy, but teachers must first decide which of these two programs will best suit their educational environments before choosing one to implement in their classroom.

Purpose, Scope and Methodology

The purpose of this project is to help educators process a large amount of information in light of a rapidly changing technology while also identifying the best program for their individual needs. While both of these programs can be utilized to expand geographic knowledge, the type and extent of learning is highly variable due to the different natures of the programs. This same dilemma can be seen with any Mac vs. PC debate; both have a similar purpose, but manual operations and machine capabilities can be very different from one another.