

# THE HISTORY AND GEOMETRY OF KITES

## AND WHY IT IS IMPORTANT TO KITE FLYING

Grade Level: 9-12

Subject Level: GEOMETRY

Overview:

Students will study the kite and how it influenced other countries, inventors, war, and recreation. Kites have been used to predict the weather, chase away enemies, lift loads, and entertain children and adults in one fashion or another over the course of 3000 years. This study will allow students the opportunity to find out how the kite has influenced the world and actually build a kite and apply geometric principles during the process and actually fly the completed project.

Purpose:

To expose each student to the first aircraft known simply as the kite and how it influenced our world and to understand that balance is everything in aviation.

Themes used:

People and Country, Inventors, Wars, Recreation, Geometry

Resources/Materials:

1. 60  $\frac{1}{4}$ " sticks for 30 diamond shaped kites, 30 at 36" and 30 at 48"
2. Sail made of bulletin board paper. Rolls of paper provided
3. Kite nylon string in florescent colors on string holders provided 110lb catfish line
4. Markers of different colors provided
5. Torn up teem shirts for kite tails
6. Several rolls of clear tape, one glue gun, fuzzy pipe cleaners, and several glue sticks
7. Power point and books about kites provided and also read on your own.
8. Kite anatomy sheets

Objectives:

1. The student will learn about the history of kites by watching a power point presentation and noting the anatomy of real kites tool note why they are important to one of the following:  
Peoples and Countries, Inventors, War, and Recreation.
2. The Geometry of Kites will be observed and Congruency by noting how well each kite flies.

## Procedures:

1. Students will come to the library and watch a power point on kite history and applications. Students will also participate in a kite anatomy drill by identifying the parts of single line kites and dual line stunt kites. The teacher will show the class some completed kites to examine to use as a guide for building kites.
2. Pass around some pictures of kites from different countries, inventors, wars, and Recreation from a book or books about kites.
3. Point to kite anatomy sheet and show students the parts of a kite.
4. Ask students to identify the parts of a kite when you point to them.
5. Each student group will build their own kite according to the plans provided on the by the instructor.
6. Each kite will be built as close to the original design as possible.
7. Students will receive instruction on how a kite flies and answer questions by the instructor.
8. Students will demonstrate balance and congruency by taking their built kites outside to fly and talk about what they learned from the class experience.

## Evaluation:

The participation by students will be noted by the instructor concerning watching the power point, answering questions asked of them, building the kite with congruency and showing how well the kite is balanced by flying the kite successfully of handouts, kite, and successful flying of the kite determines success.



# KITE WEB ADDRESSES

## HISTORY OF KITES:

[http://coda.co.za/kites\\_and\\_kite\\_flying/history.htm](http://coda.co.za/kites_and_kite_flying/history.htm)  
[http://www.aka.org.au/kites\\_in\\_the\\_classroom/history.htm](http://www.aka.org.au/kites_in_the_classroom/history.htm)  
<http://www.nationalkitemonth.org/history/kitehistory.shtml>  
<http://www.buzzle.com/editorials/5-21-2004-54470.asp>

## HOW TO MAKE KITES:

<http://www.inquiry.net/outdoor/spring/kites/making.htm>  
[http://www.pbs.org/benfranklin/exp\\_kite.html](http://www.pbs.org/benfranklin/exp_kite.html)  
[http://www.coolumkitefestival.com/view\\_content.asp?ctn\\_id=28](http://www.coolumkitefestival.com/view_content.asp?ctn_id=28)  
[http://www.hcsv.org/O\\_page/hcsvkids/build\\_a\\_kite.htm](http://www.hcsv.org/O_page/hcsvkids/build_a_kite.htm)  
<http://plans.easy.kitez.com/>  
<http://www.kitez.com/>

## HOW TO FLY KITES:

<http://www.gombergkites.com/howgen.html>  
[http://coda.co.za/kites\\_and\\_kite\\_flying/flying.htm](http://coda.co.za/kites_and_kite_flying/flying.htm)  
<http://www.thekitesociety.org.uk/KiteRegs.htm>  
<http://www.grc.nasa.gov/WWW/K-12/InteractProgs/>