

# Hot Air Balloons & Their Inventors

## Teacher & Student Resources



### Lesson Overview

In this fun one-day activity, students learn about the invention and physics of hot air balloons, along with more information about their inventors, as they complete a WebQuest (Internet Scavenger Hunt) to answer questions about the topic. A complete answer key is provided for easy grading, along with resources for both teachers and students. Students can be provided with the sites that have the answers (below in Student Resources) or directed to search the Internet on their own. Two versions of the WebQuest are included to let teachers print the questions or to provide them digitally as an interactive page in an editable Microsoft PowerPoint file. Additionally, a word search puzzle with answer key is included, perfect for early finishers or to use as a part of the lesson.

This lesson was designed for middle school (grades 6-8) but could be used in upper elementary as well. Great for use with a sub too!

### Materials Required:

- Computers with Internet access for each student (or pair of students)
- Software such as Microsoft PowerPoint or Google Slides (for digital version)



### Files included:

- Teacher & Student Resources
- Learning about Hot Air Balloons & Their Inventors WebQuest Activity in two versions: print (non-editable .pdf) and editable MS PowerPoint interactive digital version
- Learning about Hot Air Balloons & Their Inventors WebQuest Answer Key (.pdf)
- Word Search Puzzle with Answer Key

### Approximate Lesson Duration:

- 1 (50 minute) class period

## Teacher Resources

### Introduction to the Lesson

- Hot Air Balloons – the Montgolfier Brothers (video: 14:35): <https://youtu.be/I80hTsRAo3g>
- How Do Hot Air Balloons Work? (video: 3:49): <https://www.youtube.com/watch?v=ABsVP41-EeY>

### Additional Material & Extension Lesson Resources

- Balloon Race Around the World (Nova): <http://www.pbs.org/wgbh/nova/balloon/>
- Make a Hot Air Balloon: <https://www.homesciencetools.com/a/make-a-hot-air-balloon>
- The History of Hot Air Balloons Documentary (video: 26:32): <https://youtu.be/XyNAhV1mnPo>

## Student Resources

### Suggested Sites for Student Research

- First Hot Air Balloon- Great Moments in Flight: <https://www.space.com/16595-montgolfiers-first-balloon-flight.html>
- This Month in Physics History – Hot Air Balloons: <https://www.aps.org/publications/apsnews/200611/history.cfm>
- Hot Air Balloons and the Montgolfier Brothers: <http://www.blimpinfo.com/wp-content/uploads/2012/06/Hot-Air-Balloons-and-the-Montgolfier.pdf>
- Famous Inventors – the Montgolfier Brothers: <http://www.famousinventors.org/montgolfier-brothers>
- History of Balloons: <http://www.historyofballoons.com/balloon-history/montgolfier-brothers/>
- The Montgolfier Brothers: <https://www.museumofflight.org/Exhibits/montgolfier-brothers-balloon>
- Hot Air Balloon Physics: <http://www.real-world-physics-problems.com/hot-air-balloon-physics.html>
- A Short History of Ballooning: <http://www.pbs.org/wgbh/nova/space/short-history-of-ballooning.html>



*Note: All links were working and student appropriate at the time of publication. However, the Internet changes frequently and it is best to re-check sites prior to recommending them to students.*