HISTORIC KITE EVENTS

Write these words for your students: "Niagara Falls, weather research, electricity, radio, photography, and airplanes." Ask them how kites played a part in each one.

1749 Alexander Wilson flew a kite train to record air temperatures at different altitudes.
1752 Ben Franklin proved there was electricity in lightning.
1804 George Cayley developed the concept of heavier-than-air flight. His glider was a modified arch top kite.
1827 George Pocock used kites to pull a horseless carriage.
1847 A kite flown by Homan Walsh, age 10, aided in the construction of a suspension bridge across the Niagara River.
1893 The Eddy Diamond and the Hargrave Box raised scientific instruments for weather research.
1899 The Wright Brothers used kites to test their theories for the first flying machine (airplane).
1900 Guglielmo Marconi used a kite to lift an antenna to make his historical radio link between America and Europe.
1901 The French Military (Conyne) kite raised military observers.
1903 The Wright Brothers flew the first manned flying machine.
1903 A kite train towed S.F. Cody across the English Channel.
1906 Kites carried a camera aloft to take aerial photographs of the damage caused by the San Francisco earthquake.
1907 Dr. Alexander Graham Bell lifted his wife off the ground using a kite made of over 3,000 tetrahedral cells.
1919 A kite train was flown in Lindenberg, Germany to an altitude of 31,955 feet.
1939-1945 The Gibson Girl Box, Garber’s Target Kite, and Saul's Barrage Kite were all used in World War II.
1948 Francis Rogallo patented his Flexi-wing kite. It was the forerunner of the hang glider and delta kite.
1964 Domina Jalbert designed the parafoil. His concepts have been adapted for parachutes and kites.
1972 Peter Powell introduced his dual line stunt kite.
1978 Kuzuhiko Asaba flew 4,128 kites on a single line.
1989 Kite flying becomes a sport with the establishment of a national stunt kite circuit. The "California Swept Wing" stunt kite has had the greatest influence on stunt flying.
WHAT IS A KITE?

Challenge your students to come up with a definition for a kite. Ask, "Class, what is a kite?"

Amazingly enough, this question will probably stump your class. Everyone knows what a kite is visually, but many have difficulty explaining it clearly and concisely in words.

You can stimulate the discussion with the question, "If you had a friend that lived on the moon, and they had never seen a kite, how would you describe it?"

<table>
<thead>
<tr>
<th>Your Students Might Say</th>
<th>You Can Ask Them</th>
</tr>
</thead>
<tbody>
<tr>
<td>It’s a toy</td>
<td>How is it different from a rubber ball?</td>
</tr>
<tr>
<td>It can fly</td>
<td>How is it different from an airplane?</td>
</tr>
<tr>
<td>It rises in the air</td>
<td>How is it different from a balloon?</td>
</tr>
<tr>
<td>It uses the wind</td>
<td>How is it different from a windmill?</td>
</tr>
<tr>
<td>It has paper or fabric</td>
<td>How is it different from your shirt?</td>
</tr>
<tr>
<td>It has sticks</td>
<td>How is it different from a fan?</td>
</tr>
<tr>
<td>It’s lightweight</td>
<td>How is it different from a feather?</td>
</tr>
</tbody>
</table>

Look for the following key ideas that usually come from different students and can stimulate additional topics for discussion:

- Kites are tethered objects using one or more lines
- Kites depend on air moving across their surfaces to fly
- Kites generate lift and have an aerodynamic shape

**Definition:**

According to the Drachen Foundation in Seattle, WA, "A kite is a heavier-than-air craft that depends on the wind to overcome gravity to fly. All kites have one or more surfaces to be acted upon by the wind, a bridle to hold the kite at an efficient angle into the wind, a flying line to keep the kite from blowing away."