

Ames Public Library @HOME Activities

Kites!

A kite is a heavier-than-air object that flies; in fact the airplane is a development of the kite. Kites are fun to put together and fly. They have been used in wars to send signals, to drop letters and newspapers, and to celebrate the arrival of warm weather after a long and cold winter. To learn more see a related video on the Library's YouTube Channel at <http://bit.ly/APLvideos>.

Books and Media:

Title	Author / Performer	Call Number
<i>Kites: Twelve Easy-to-make High Fliers</i>	Dixon, Norma	J 796.158 DIX
<i>Catch the Wind! All About Kites</i>	Gibbons, Gail	J 796.158 GIB
<i>Making Kites</i>	Michael, David	J 796.158 MIC
<i>The Ultimate Kite Book</i>	Morgan, Paul	J 796.158 MOR
<i>Red Kite, Blue Kite</i>	Jiang, Ji-li	E JIA

Websites:

URL	Notes
https://airandspace.si.edu/stories/editorial/how-kites-fly#:~:text=The%20four%20forces%20of%20flight,the%20body%20of%20the%20kite	This webpage has great information on the science behind kites.

Take Away Kit: Kites

Bag Contents:

- 1 – Kite kit (kite body, spine, 2 spars, ring, connector, handle, small string (the bridle), the tail, and the instruction sheet). If you are missing any of the parts listed please ask at the youth desk for a replacement kite.

Kites are great fun to play with. To learn how to put together your kite watch the @Home Activity video on the Library's YouTube Channel at <http://bit.ly/APLvideos>.

Always fly your kite with the help of a grown-up.

Open your kite kit and gently take out the parts; be extra careful with the small plastic ring and the connector.

Slide the connector and the tail on to the spine (the long plastic rod) and then connect the spine to the top and the bottom of the kite.

Slide the connector up and connect the two spars (shorter plastic rods) into the connector and to the side slots of the kite.

Insert the bridle (the small string) into the holes on the kite. Thread the ring onto the string (do not tie it to the ring), the ring should be on the front of the kite. Tie the two ends of the bridle string together.

Look at the instruction sheet to see how the front and the back of the kite look.

Tie the string from the handle onto the ring. Your kite is now ready to fly!

Flying a kite is great fun, however you do need to follow some safety precautions to be safe when doing it:

- If a storm comes up, bring your kite down immediately. Don't launch your kite at all if it's a stormy day.
- Choose a nice open area to launch and fly your kite. Avoid places that have trees, electric poles and other hazards that could snag your kite.
- If your kite does not fly well, make some adjustments and try again!

Vocabulary

Bridle – This is the harness, it's the loop of string that goes between the kite and the control line. The bridle and the control line help control the kite.

Control line – This is the tether, the string that is connected to the kite by the bridle. The kite moves, dives and pivots from where the bridle connects to the control line.

Drag – Is the backward force that acts opposite to the direction of motion.

Gravity – The force that pulls objects to the center of Earth.

Kite body – The kite body is made of a framework and an outer covering. The framework is usually made out of lightweight material like wood or plastic. Over this framework an outer covering made of paper, fabric or plastic is stretched.

Kite tail – The tails create a downward drag that which helps with the stability of the kite.

Lift – Is the upward force that pushes a kite into the air.

Thrust – Is the forward force that propels a kite.

Weight – Is the downward force generated by Earth's gravity on the kite.

Spar – This is the name for any of the sticks which act as the "skeleton" of the kite. The cross-spar is the spar that runs from wingtip to wingtip. The vertical spar is the stick that goes from the nose-end to the tail-end of a kite, this is also called the spine.

Source: Weather: How kites fly by Mike Hulslander. <https://airandspace.si.edu/stories/editorial/how-kites-fly#:~:text=The%20four%20forces%20of%20flight,the%20body%20of%20the%20kite>