Kite
Super Simple Sled Kite
Cut kite skin from lightweight paper such as wrapping paper, newspaper, or copy paper. (Plastic bags work well too but when you get the kite stuck in a tree the plastic is there forever and that’s on you.) Tape straws, thin dowels/bamboo skewers, raw spaghetti, or similar lightweight sticks in place to form kite spars. Apply scotch tape at corners to strengthen. Pierce holes at corners using needle or awl. Cut a 36” piece of sewing thread and attach at corners to form bridle. Find center of bridle and tie overhand knot to form a small loop.

Any lightweight line or thread will work for flying line but to minimize frustrating tangles, nylon or waxed line is preferable (try dental floss, or run ordinary sewing thread over a block of wax). Wrap the kite line around a tin can or a toilet paper roll to keep it organized. Attach the flying line to the kite through the loop in the bridle or with a lark’s head knot if you know how.

Form kite tail from a strip of lightweight paper, or a length of ribbon, or some scrap yarn. Tape tail to trailing edge of kite. Start with a 24” tail; use longer tails in stronger winds. Kite tails work by adding stability, not weight.

Sled kites encourage experimentation—decorate it, try scaling the design, creating it in fabric, etc.—and are forgiving to fly at small size. Fly it with the spars on the front of the kite (facing you).

This kite, Joan Newcomb’s Bookmark Sled Kite, is copied from Margaret Greger’s Kites for Everyone, Dover, 2006.
Flying a kite

Most kites fly well in light-to-moderate winds (4–12 mph). Beaches are great locations for kite flying, as are desert flats, frozen lakes, open fields, large parking lots, flat rooftops, or anywhere you can find a steady, unobstructed breeze. Do not fly near power lines. Bring scotch tape and a knife or scissors with you to your flying session.

Launching the kite

Solo launch: Stand with your back to the wind and the kite in front of you. Hold the kite line at the bridle point with the reel of line on the ground next to you. Let the wind pull the kite away from your hand. Pay the line out slowly as the kite rises.

Two-person launch: If winds are light, or if you’re a newcomer to kite flying, launch your kite with help. Stand with your back to the wind. Ask your friend to take the kite and walk downwind ~50’ away from you, while you pay out the flying line as she goes. When she is at a suitable distance, put the reel down on the ground and hold the kite line firmly, taking up any slack. The line should not sag. Your friend should stand facing the wind with the kite held in front of her.

When you feel a gust of wind, signal to your helper to throw the kite straight up into the air. At the same time, you must quickly take the line in, hand over hand. This action propels the kite into the air so the wind can catch it. When you feel the kite catch the wind, stop taking in the line. Begin slowly letting out a bit of line and let the wind carry the kite aloft. Don’t let out a lot of line at once, as this will cause the kite to fall from the sky.

In light winds, it may be necessary for your helper to stand even further away from you during the launch. If winds are so light that not even 100’ distance will suffice to launch the kite, wait for better conditions.

Flying tips

No self-respecting kite flier runs with a kite to launch it.

When choosing your launch site, stay far downwind from obstructions such as buildings or trees. These
structures interfere with the wind, creating wind shadows and rotor (turbulence). As a rule, stay at least five times as far from the obstruction as the obstruction is tall (see above).

Don’t launch from the top of a hill. Instead, stand at the bottom or side of the hill on its upwind slope. The hill will channel the wind upward, maximizing lift (see opposite).

If the kite goes up a little way, but then starts to spin madly, the wind is too strong for it. Try using a longer tail for added stability. Or wait for better conditions.

Winds aloft are often stronger than those at ground level. You may find it necessary to lengthen the tail to suit strong wind aloft.

If the kite consistently pulls or leans to one side, try adjusting its balance by adding a bit of weight to the opposite wingtip.

While your instinct will be to pull in on the kite line when the kite dive-bombs precipitously, that will only make the kite dive faster. Instead, let out some line. The kite will take advantage of the slack to find the wind once more. Then take in some line once the kite goes upward.

When bringing down the kite in strong wind you may want to pull the line down hand over hand rather than putting all the line tension on the reel. No matter the wind, when you’re bringing in the kite and it comes within 20 feet of you, put down the reel, take the line in your hands and walk toward the kite while gently pulling the line down until you can pluck the kite from the air.

A paper kite skin is very strong for its weight. Pin-holes and small tears can be repaired with scotch tape or paper mending tissue on the back of the kite. Moisture weakens the paper drastically. If you fly the kite in the rain, or if it lands in water, the paper may fall to pieces. Similarly, though the straw or bamboo frame is strong and flexible, it may snap under high wind conditions or if it nosedives into a hard surface. The lightweight nature of a kite is precisely the reason it flies so well in light winds. Respect its fragility, do the best you can by it, and if it breaks, don’t cry too much—just remember the fun times you had together, and move on.

Don’t fly near power lines, in traffic, or in bird nesting sites during breeding season. If you see a thunderhead or hear thunder—even if it’s very far away—bring in the kite immediately. Never use metal kite string.

Be patient. Wear sunscreen. Let your heart fly up the line.
Why do kites fly?

Kites are heavier than air; gravity dictates that they should fall to the ground. To stay aloft, a kite counteracts gravity with lift. The kite skin creates lift by deflecting the air molecules in the oncoming wind. Air under the kite’s front is slowed and compressed, while air rushes quickly past the back side. The differential in air velocity coincides with a change in air pressure (Bernoulli’s Principle) resulting in high pressure below the kite and low pressure above. This pressure contrast creates the lift that pulls the kite upward. The kite line is also important in kite flight. Paradoxically, while the kite line tethers the aircraft, the kite cannot fly without it. The flying line provides the resistance needed to maintain the kite’s attitude and thus its forward momentum in space; while the wind pushes the kite backward, the tether pulls it forward. If the line is cut, the kite will be blown slightly backward by the wind and then will quickly fall to earth.

Further resources

Zoë Sheehan Saldaña 2016–present