

Techniques /Skills:

Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.

Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.

Skills: Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail.

Evaluate their products carrying out appropriate tests.

Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

Use simple graphical communication techniques.

Pupils will generate ideas, considering the purposes for which they are designing. Make labelled drawings from different views showing specific features.

Key Vocabulary	
Word/ term	definition
junior hacksaw	A tool used to cut through certain materials.
dowel	Wood cut into a cylindrical shape, suitable for axles and simple frame structures.
bench hook	Enables a piece of wood to be held firmly when being cut.
structure	A framework or shell made to contain or support something.
kite	a toy consisting of a light frame with thin material stretched over it, flown in the wind at the end of a long string.

Key People / information

Children work with Parkside to research different kites and then make their own.

There are instructions below. The children will cut their own wood to a suitable size.

Find out a little about the history of kite making.
https://www.youtube.com/watch?v=L_KPO8iwgbw

Prior Knowledge Recap Retrieval

N-Balloon car
R-Lunar Buggy
1-Slider, lever
2-vehicle- wheels


Discuss knowledge about movement and forces.


How can we make things move?
How can we strengthen structures?


Resources: Books, internet sites and places to visit


Web sites and books:


Peter Lynn Kite range
<http://www.peterlynnkites.com/>


Custom Kites


Octopus


Colour Your Own Diamond Kite


Koru Delta



You Will Need:

1. An A4 piece of paper. Any paper works but thicker paper or card makes the kite sturdier.
2. A wooden skewer. A straight drinking straw works too.
3. Kite string. If not, almost any strong but light string would work, such as fishing line.
4. Ribbon. Most wide ribbon would work fine. Flagging tape is also good because it's made of plastic, which is lighter for a longer tail and durable. It also comes in bright fluorescent colours.
5. Scissors or a hole punch.
6. Sticky tape.



Step 1

Start with your piece of paper and fold it in half.



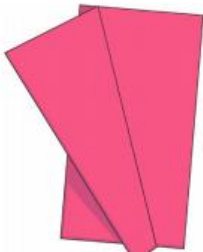
Step 2

Mark a point on the top of the paper about 2.5 cm from the fold. Mark a point on the bottom of the paper about 2.5 cm from the open side. Imagine, or draw, a line connecting these two dots.



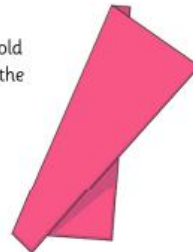
Step 3

Fold the top corner of the paper down along the line that you've just created.



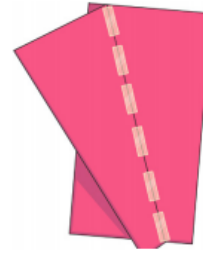
Step 4

Next, flip the paper over and fold the other side down to match the side you just folded.



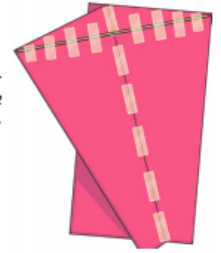
Step 5

Flip the paper back over so that it looks the way it did in Step 3. Tape along the middle seam.



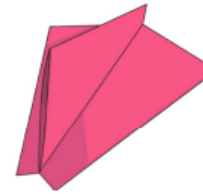
Step 6

Lay a skewer across the kite, as shown, and tape it in place. You'll probably have to cut the skewer down to size with your scissors.



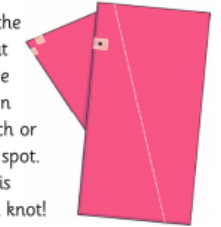
Step 7

Turn the kite back over and straighten the keel.



Step 8

Mark a spot about a third of the way down the spine and about 1.5 cm from the edge. Put tape over this mark to reinforce it on both sides. Use your hole punch or scissors to make a hole in this spot. Tie your kite string through this hole. Make sure to use a good knot!



Step 9

Tape a length of ribbon to the back of the kite, at the bottom.

If you use light ribbon like flagging tape, the tail can be 180 to 300 cm long. Heavier ribbon should be shorter. You can experiment with the length; if it seems the kite can't hold up your ribbon as it flies, just trim it shorter.



Step 10

Your kite is ready to fly! These kites don't need very much wind to get lift, and are better for use on days with only a light wind. A nice steady breeze is all it needs. Remember, sometimes it takes practice to learn to fly a kite. Just remember to reel it in a little if it looks like it's falling, and let out more string if it starts to tug hard. Make sure that middle "spine" is straight before the kite goes up.

Good luck!

