

Spinning Spiral Art

Learn why hot air rises and how to harness it to create a spinning spiral art piece

Ages 10+



SCAN ME

SAFETY MOMENT

Fire

Don't play with matches or lighters.
Run extinguished matches under water before discarding.
Never leave a candle or incense burning while unattended.
Talk with your parents about fire safety and rules in your house.

Provided Materials:

Aluminum Foil
Sheet



Playdough



Wooden
Skewer



2 Tealights



You'll need to supply:

Scissors



Match/ Lighter

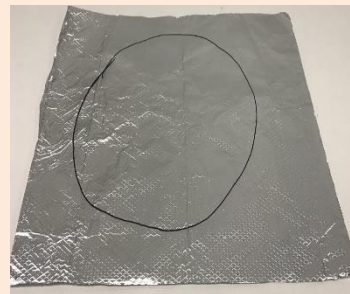


Marker



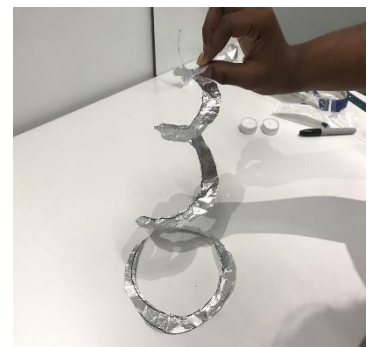
STEP 1

Flatten out the piece of aluminum foil.
Draw a large circle.
Draw a swirl inside.



STEP 2

Cut out the circle and cut along the swirl line.



STEP 3

Stick the playdough to a flat surface and insert the wooden skewer vertically with the pointed tip sticking up.

(The point of the playdough is to hold the skewer in place)



STEP 4

Extend and loop the foil swirl around the skewer. Cut it to about the same length as the skewer.

(You do not want it to drag on the table)



STEP 5

Loop the foil around the skewer and pinch the centerpiece over the top of the skewer so that it sits on top and hangs.

Make sure the skewer is running through the middle.

Use your scissors to cut extra foil so that it hangs above the surface



STEP 6

Adjust the foil to make sure it is even and not touching the skewer.

Test to make sure it rotates nice and freely. The foil should not be pinched too tightly at the top. Any additional friction will not allow the foil to spin freely. (if you blow on it, it should spin)

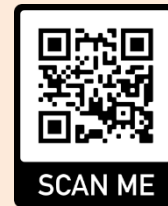


STEP 7

Place a tealight candle underneath the spiral foil, (next to the playdough) and light the tealight candle.

Your foil should begin to spin!

The flame causes the air around it to heat up. The hot air rises, causing the foil to spin like a turbine.



STEP 8

Add a second candle for a faster spin

Quick note: If you are having trouble getting the foil to spin, it is most likely not secured at the top properly. The skewer should not be poking through the foil. Make sure that the foil is bent slightly so it just sits on top and spins freely, any friction will slow it down.



HOW DOES IT WORK?

Since hot air is lighter (less dense) than cold air, the air that surrounds the candle rises and pushes on the spiral foil, causing it to spin. It's the same science behind hot air balloons.

