



The Storm Book

A booklet of Early Childhood
Thunderstorm Activities

Books about Thunderstorms

(suitable for Early Childhood)

1. *Like a Hundred Drums*
by Annette Griessman
2. *The Rain Came Down*
by David Shannon
3. *Franklin And The Thunderstorm (Franklin)*
by Paulette Bourgeois
4. *Rumble, Boom!: A Book About Thunderstorms (Amazing Science)*
by Rick Thomas
5. *Just a Thunderstorm (Look-Look)*
by Gina Mayer, Mercer Mayer
6. *Thunder Doesn't Scare Me! (Rookie Readers, Level B)*
by Lynea Bowdish
7. *I Can Read About Thunder and Lightning (I Can Read About)*
by Cutts
8. *Flash, Crash, Rumble, and Roll*
by Franklyn M. Branley
9. *The Way the Storm Stops*
by Michelle Meadows

Crafts

Pet rain cloud craft

Materials:

- blue and gray construction paper
- silver tinsel
- Scotch tape
- rainbow-colored yarn

Directions: For each rain cloud, cut out two identical cloud shapes from blue construction paper. Take silver tinsel (sold at gift stores for filling baskets and bags) and Scotch tape a row of tinsel across the middle of one of the blue clouds. Glue the second blue cloud on top, to hide where you taped down the tinsel. The silver tinsel should be hanging down from the bottom of the cloud, like rain. Punch a hole on the east and west ends of the cloud, and string with rainbow-colored yarn. Now you have a "pet cloud" that can be carried around with you like a purse!

Source: <http://www.planetesme.com/rainyday.html>

Thunder cloud

Materials:

- Two aluminum pie plates
- Beads

Directions: Take two aluminum pie plates and put beads in one and the other one on top. Staple the sides together. You can put tinsel in between the pie plates to make it look like a rain cloud. Shake it to make thunder and you can use it during the reading of a book to have sound effects.

Songs

Whistling Wind - Song - Sung to If You're Happy And You Know It

If you hear the whistling wind cup your ears
If you hear the whistling wind cup your ears
 If you hear it in the trees
 Making music with the leaves
If you hear the whistling wind cup your ears

If you feel the blustery wind whirl around
If you feel the blustery wind whirl around
 If you feel it lift your hair
 Like a kite up in the air
If you feel the blustery wind whirl around

I See The Wind - Fingerplay

I see the wind when the leaves dance by (dance hands around)
 I see the wind when the clothes wave, "Hi!" (wave hand)
I see the wind when the trees bend low (bend arms over and down)
 I see the wind when the flags all blow (wave arms high)
 I see the wind when the kites fly high (raise arms high)
I see the wind when the clouds float by (wave hand gently)
I see the wind when it blows my hair (lift hair with hands)
I see the wind 'most everywhere (hold hands out, palms up)

Experiment Ideas

MAKE LIGHTNING

MATERIALS:

- aluminum pie pan
- small piece of wool fabric
- Styrofoam plate
- pencil with a new eraser
- thumbtack

PROCESS:

Push the thumbtack through the center of the aluminum pie pan from the bottom

Push the eraser end of the pencil into the thumbtack.

Put the Styrofoam plate upside-down on a table. Quickly, rub the underneath of the plate with the wool for a couple of minutes.

Pick up the aluminum pie pan using the pencil as a handle and place it on top of the upside-down Styrofoam plate that you were just rubbing with the wool.

Touch the aluminum pie pan with your finger. You should feel a shock. If you don't feel anything, try rubbing the Styrofoam plate again.

Once you feel the shock, try turning the lights out before you touch the pan again. Check out what you see! You should see a spark!!

EXPLANATION:

Why does this happen? It's all about static electricity. Lightning happens when the negative charges, which are called electrons, in the bottom of the cloud or in this experiment your finger are attracted to the positive charges, which are called protons, in the ground or in this experiment the aluminum pie pan. The resulting spark is like a mini lightning bolt.

<http://www.weatherwizkids.com/lightning.htm>

CLOUD IN A BOTTLE

MATERIALS:

- 2-liter clear plastic pop bottle
- matches (children will need adult assistance to light matches)
- warm water

PROCESS:

Fill the clear plastic 2-liter bottle one-third full of warm water and place the cap on. As warm water evaporates, it adds water vapor to the air inside the bottle. This is the first ingredient to make a cloud.

Squeeze and release the bottle and observe what happens. You'll notice that nothing happens. Why? The squeeze represents the warming that occurs in the atmosphere. The release represents the cooling that occurs in the atmosphere. If the inside of the bottle becomes covered with condensation or water droplets, just shake the bottle to get rid of them.

Take the cap off the bottle. Carefully light a match and hold the match near the opening of the bottle.

Then drop the match in the bottle and quickly put on the cap, trapping the smoke inside. Dust, smoke or other particles in the air is the second ingredient to make a cloud.

Once again, slowly squeeze the bottle hard and release. What happens? A cloud appears when you release and disappears when you squeeze. The third ingredient in clouds is a drop in air pressure.

EXPLANATION:

Water vapor, water in its invisible gaseous state, can be made to condense into the form of small cloud droplets. By adding particles such as the smoke enhances the process of water condensation and by squeezing the bottle causes the air pressure to drop. This creates a cloud!

<http://www.weatherwizkids.com/cloud1.htm>

MAKE A RAINBOW

MATERIALS:

- glass of water
- sheet of white paper
- the sun

PROCESS:

Fill the glass all the way to the top with water.

Put the glass of water on a table so that it is half on the table and half off of the table. Be careful that the glass doesn't fall.

Then, make sure that the sun can shine through the glass of water.

After you do that, place the white sheet of paper on the floor.

Adjust the piece of white paper and the glass of water until a rainbow forms on the paper.

EXPLANATION:

Why does this happen? Light is made up of a lot of colors. Specifically, the colors are red, orange, yellow, green, blue, indigo and violet. When light passes through the water, it is broken up into the colors seen in a rainbow.

<http://www.weatherwizkids.com/rainbow.htm>

MAKE THUNDER

MATERIALS:

- brown paper lunch bag

PROCESS:

Fill the brown paper lunch bag by blowing into it

Twist the open end and close with your hand

Quickly hit the bag with your free hand

EXPLANATION:

Hitting the bag causes the air inside the bag to compress so quickly that the pressure breaks the bag. The air rushes out and pushes the air outside away from the bag. The air continues to move forward in a wave. When the moving air reaches your ear, you hear a sound. Thunder is produced in a similar way. As lightning strikes, energy is given off that heats the air through which it passes. This heated air quickly expands producing energetic waves of air resulting in a sound called thunder.

<http://www.weatherwizkids.com/thunder.htm>

MAKE A THUNDERSTORM

MATERIALS:

- clear, plastic container (size of shoebox)
- red food coloring
- ice cubes made with blue food coloring

PROCESS:

Fill the plastic container two-thirds full with lukewarm water

Let the water sit for one minute.

Place a blue ice cube at one end of the plastic container.

Add three drops of red food coloring to the water at the other end of the plastic container.

Watch what happens.

EXPLANATION:

The blue and cold water sinks while the red and warm water rises. This happens because of convection. The blue water represents the cold air mass and the red water represents the warm, unstable air mass. A thunderstorm is caused by unstable air and convection plays an important part. A body of warm air is forced to rise by an approaching cold front therefore thunderstorm's form.

<http://www.weatherwizkids.com/tstorm2.htm>