

Why does it rain?

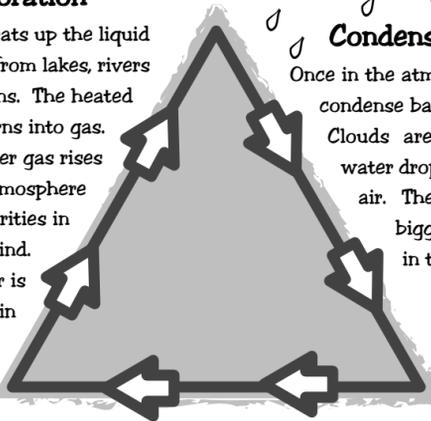
Rain is part of the process called the water cycle. The water on Earth is not new water, but is recycled through rain. The rain comes back to Earth cleaner than when it left. Our water today is the same water people used hundreds and even thousands of years ago.



Evaporation

The sun heats up the liquid water from lakes, rivers and oceans. The heated water turns into gas. The water gas rises into the atmosphere or sky. The impurities in water are left behind.

So, the water is actually cleaner in the atmosphere than it is here on Earth.



Condensation

Once in the atmosphere, the gasses condense back into liquid water. Clouds are formed when these water droplets are suspended in the air. The droplets get bigger and bigger until they can't stay in the clouds anymore.

Precipitation

When weather conditions are right, the droplets in the clouds fall to Earth. The droplets are rain, snow and ice depending on the temperature. The precipitation runs into lakes, rivers and oceans and the whole process starts all over again.

Knowledge To Go

Purdue Extension
1-888-EXT-INFO
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4-H offers hundreds of different ways to learn and do new things. Here are some activities you can do to learn about the weather.

4-H is the nation's largest youth service organization. It helps young people develop and improve life skills such as self-confidence, leadership, citizenship and communications.

Why should youth join 4-H? Through 4-H, you are exposed to fun and challenges that bring about education in numerous areas. With 4-H, you can: Have fun, make friends and go places! For information on joining Indiana 4-H, please call 1-888-EXT-INFO or visit us at www.four-h.purdue.edu.

FYI

The National Weather Service (NWS) issues watches and warnings of dangerous weather including flash floods, severe thunderstorms, tornadoes, winter storms and blizzards. In order to remain safe during emergencies, learn the difference between a watch and a warning.

A **watch** indicates that conditions are favorable for bad weather. If the NWS issues a watch in your area, periodically check the news on the television, radio or internet for updated information.

A **warning** indicates that bad weather is occurring or will be shortly. The situation is dangerous so take cover. Listen to a battery-operated radio and wait for further information.



Snowflakes are formed through a process called crystallization. When temperatures are below freezing, water molecules like to arrange themselves into hexagonal shaped snow crystals. Snowflakes are many different snow crystals all stuck together. This process is so complex that no two snowflakes are exactly alike.

Make your own snowflake!

You will need a piece of paper, a ruler, a pencil and scissors.

- Using a ruler, draw a square with 6-inch sides and cut it out.
- Fold the square in half.
- Mark the center point along the fold. Label it A.
- Along the unfolded edge, mark 1 inch from the edge on each side. Label the points B and C.
- Using a ruler, connect A with B and A with C.
- Fold the left corner at A until it matches up with line AC.
- Fold the other corner over at line AC so it overlaps your first fold.
- Measure 2.5 inches from the point on each side and mark with a pencil.
- Draw a straight line between the two points and cut.
- With the remaining triangle, cut out your snowflake design. Remember to leave some of the folded edges uncut.

Now, you have your very own 6-point snowflake. If you don't get it right the first time, try again.



Tornado Quiz

- Winds in a F5 tornado are above 260 miles per hour.
- The energy released by a tornado equals the electric energy produced by a large nuclear generating station.
- A tornado can travel 200 miles along the ground.
- A tornado can be 1.5 miles in width.
- Tornadoes occur more frequently in the afternoon and early evening.

True/False

Answers: Amazingly, all these tornado facts are true.

Word Search

There is nothing you can do to stop Mother Nature. Your family can be prepared for a disaster. Circle the words listed below to find some of the things you can include in your disaster supply kit. Words can be forward, backward or diagonal.

E Q A B M T R F E O R F L A
N M A T C H E S K P A I R G
F O D K O G W A X Z B E A Y
I Q C L C I Y L M C T N D B
R E A U S L B C N A K I T A
S V N P I H S T W N O C E T
T F N T Y S A D L O F I Q T
A L E N P A E M D P H D G E
I N D K E L V S B E R E R R
D L F O T F P G D N E M A I
K J O T B L A N K E T S D E
I G O A H O K C J R A P I S
T B D C A N D L E S W X O J
P B J P X V A H B M K N E L

batteries
blankets
bottled water
candles
canned food
can opener
first-aid-kit
flashlight
matches
medicine
radio



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