

# EXPERIMENT

WATER

CYCLE

IN

A

BAG

## SUPPLIES:

- PLASTIC ZIPLOCK BAG
- SHARPIE (TO DRAW CLOUDS AND WAVES)
- ¼ CUP OF WATER
- BLUE FOOD COLORING



## DIRECTIONS:



1. DRAW CLOUDS AROUND THE TOP AND WATER AROUND THE BOTTOM OF YOUR PLASTIC BAG. THIS WILL SERVE AS A VISUAL AID OF THE WATER CYCLE AND HOW IT WORKS.
- FILL YOUR PLASTIC BAG WITH ¼ CUP OF WATER, AND ADD ABOUT 4 DROPS OF FOOD COLORING.
3. SEAL YOUR BAG SHUT, AND HANG IT IN A WINDOW USING PAINTER'S TAPE SO IT IS EASY TO REMOVE.
4. LET NATURE RUN ITS COURSE! CHECK ON YOUR BAG PERIODICALLY AND NOTICE HOW MUCH CONDENSATION YOUR BAGGIE COLLECTS OVER TIME.

THE SCIENCE OF THIS EXPERIMENT, IS THAT IN NATURE, THE WATER FROM STREAMS, LAKES, RIVERS, AND OCEANS EVAPORATES BECAUSE OF THE SUN'S HEAT. AS THE WATER VAPOR RISES AND REACHES COOLER AIR, IT CONDENSES TO FORM CLOUDS. WHEN THE CLOUDS ARE FULL OF WATER, OR SATURATED, THEY RELEASE SOME OF THE WATER AS RAIN, AND THE CYCLE STARTS OVER AGAIN.

THE SAME PRINCIPLE CAN BE APPLIED TO YOUR EXPERIMENT. OVER THE NEXT FEW DAYS, YOU WILL SEE THAT THE WATER HAS WARMED IN THE SUNLIGHT AND EVAPORATED (TURNED INTO VAPOR). AS THAT VAPOR COOLED IT BEGAN CHANGING BACK INTO LIQUID, JUST LIKE A CLOUD. WHEN ENOUGH WATER CONDENSED, THE AIR COULDN'T HOLD IT ANYMORE AND THE WATER FELL DOWN IN THE FORM OF PRECIPITATION.

REMEMBER, IT IS IMPORTANT TO NOTE THAT AN EXPERIMENT USES A VARIABLE (SOMETHING THAT CHANGES) TO ANSWER A QUESTION. TO TURN THIS DEMONSTRATION INTO AN EXPERIMENT, YOU HAVE TO CHANGE SOMETHING!

### CHECK OUT THESE QUESTIONS TO GET YOU STARTED.

- DOES THE BAGS LOCATION HAVE ANY IMPACT ON THE CYCLE? (NORTH, SOUTH, PARTIAL SHADE, FULL SUN, ETC)
- DOES THE AMOUNT OF FOOD COLORING USED IMPACT YOUR RESULTS ?
- IS THE EXPERIMENT IMPACTED BY THE TEMPERATURE OUTSIDE ?

