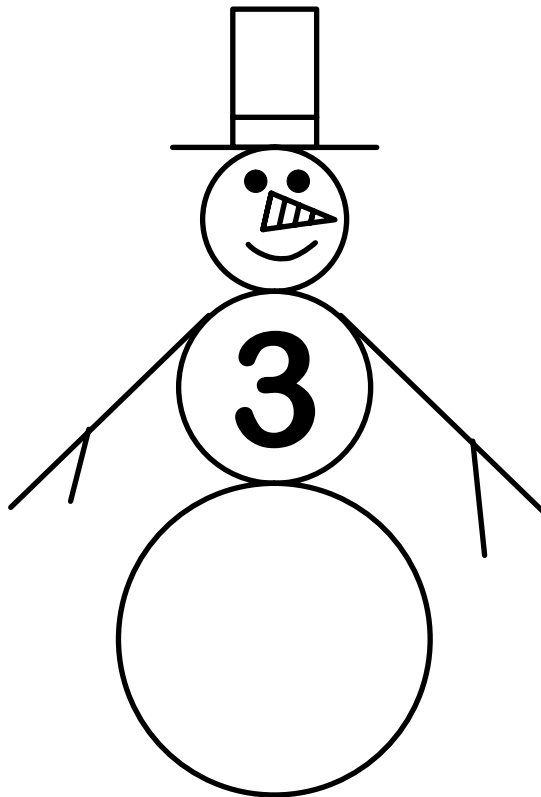


Series: 95-08

# Billy and Maria Learn About Winter Weather

Part 3 of 3

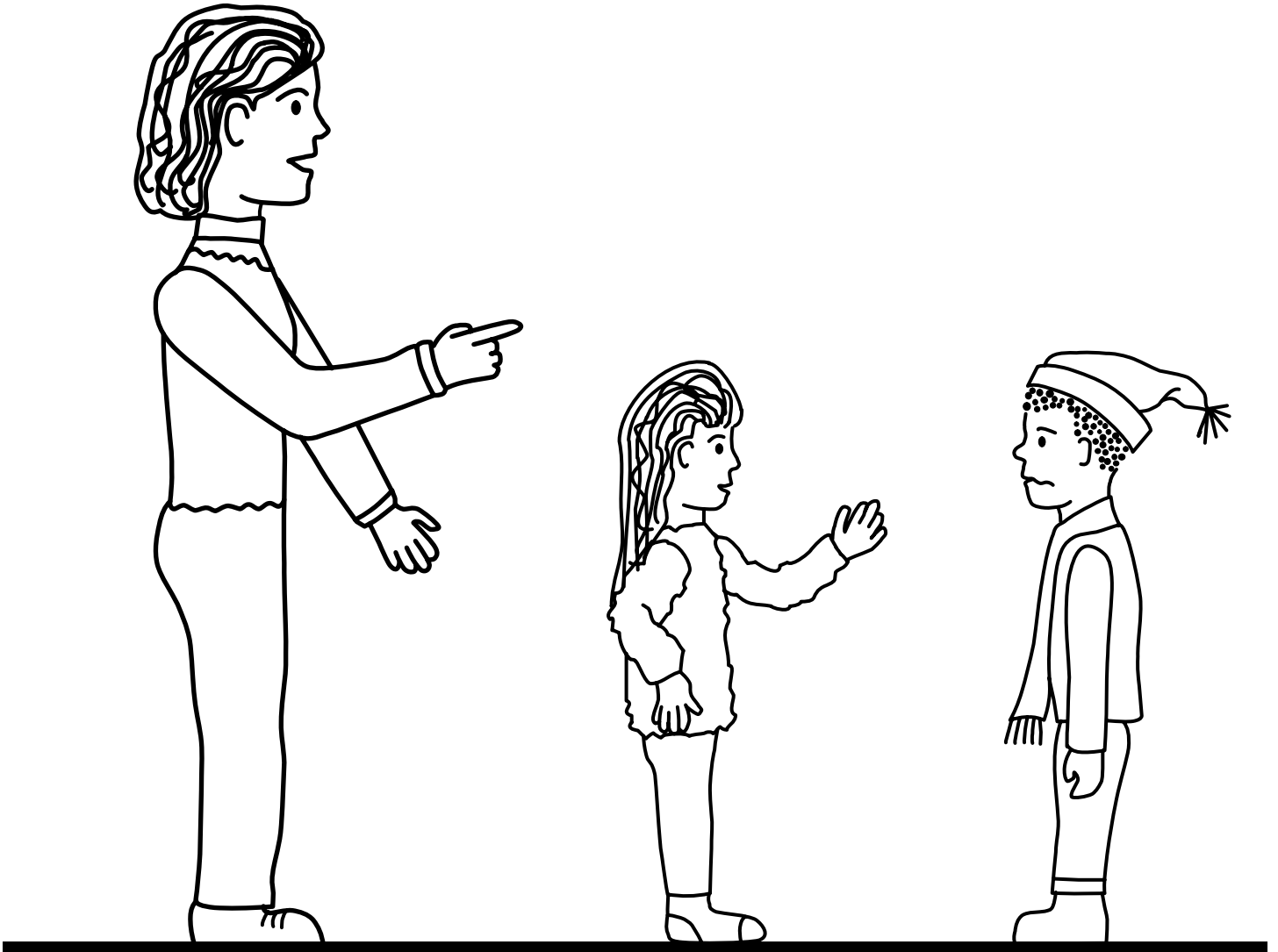


# Billy and Maria Learn About Winter Storms

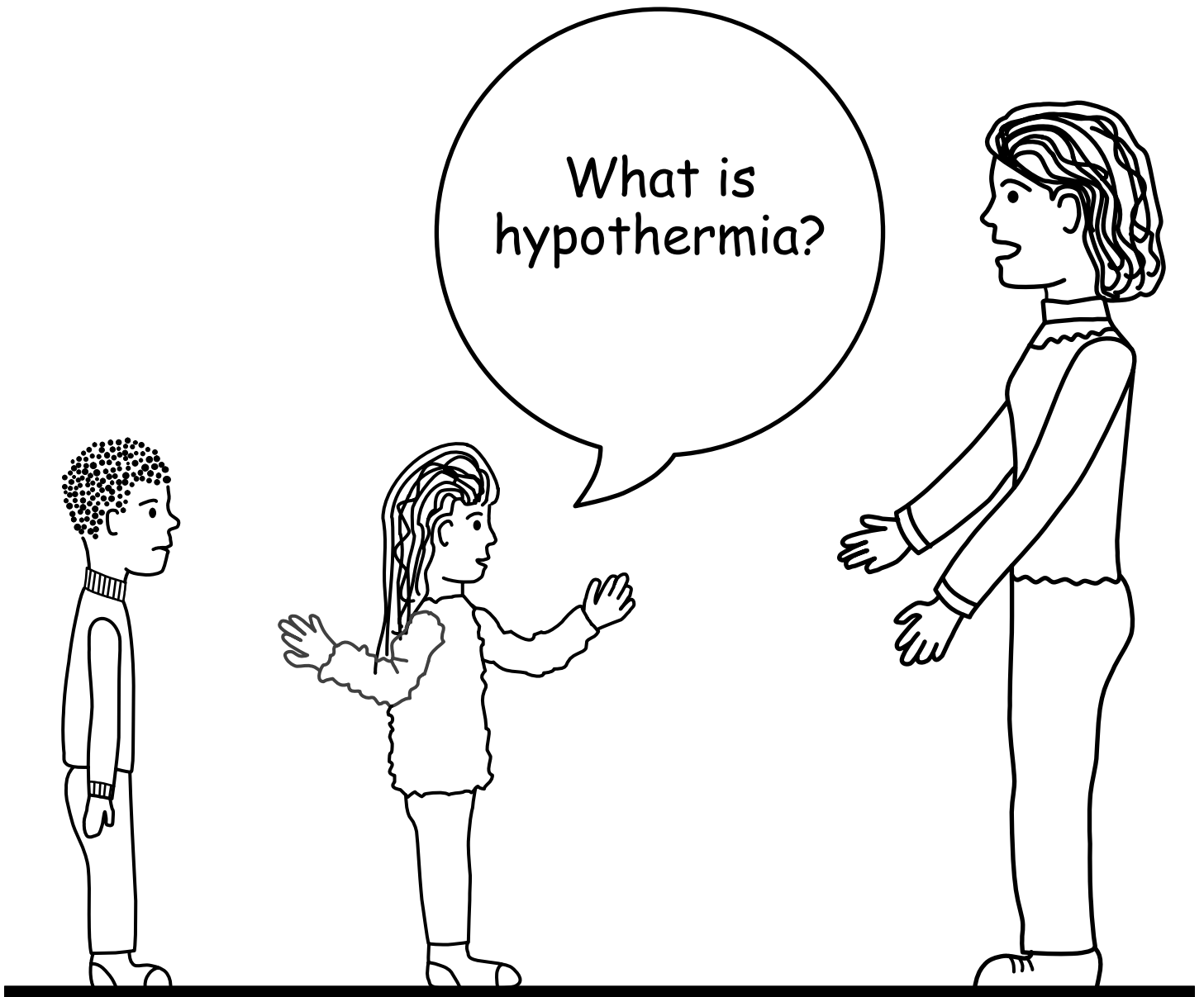




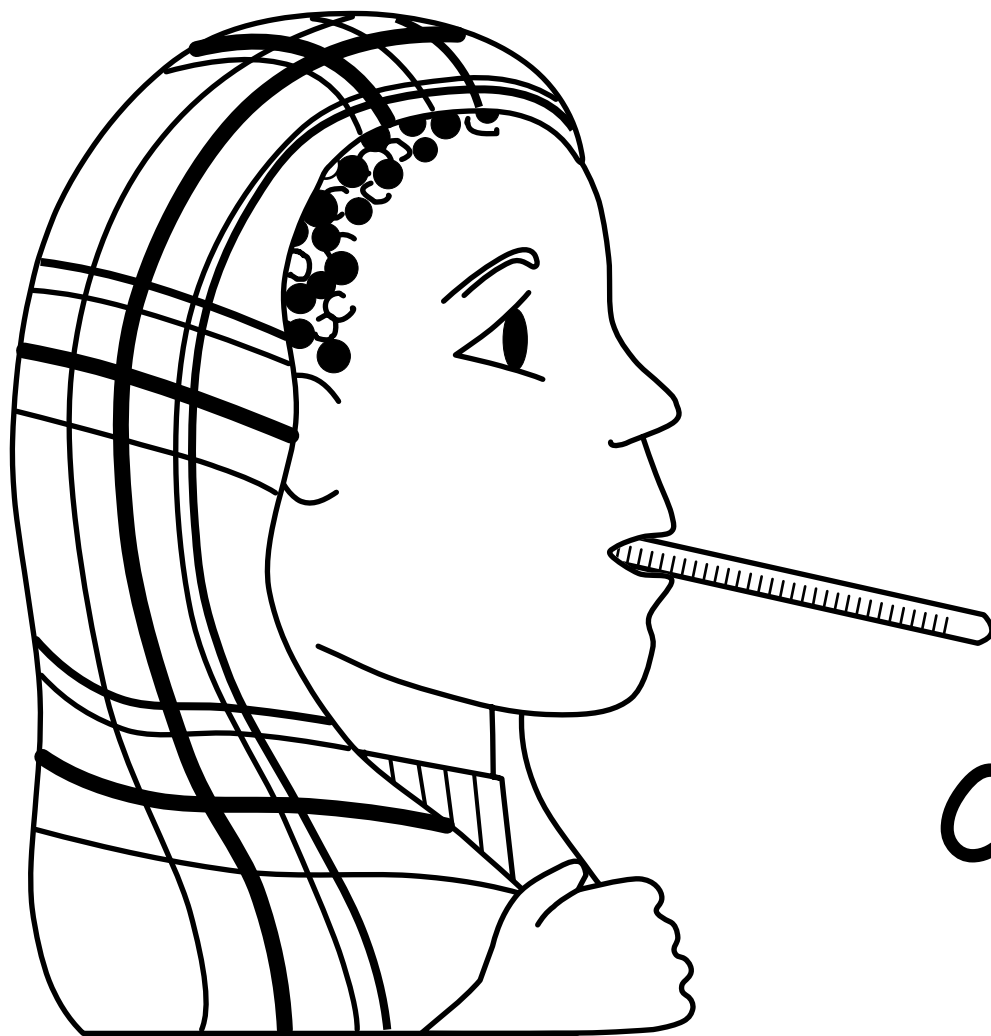
One day Billy went over to Maria's house to see if she wanted to play. It was a cold day and when he got to her house, he was freezing.



Maria's mom saw Billy shivering and told him he should stay inside for a while until he warmed himself up. "You wouldn't want to get hypothermia," she said.

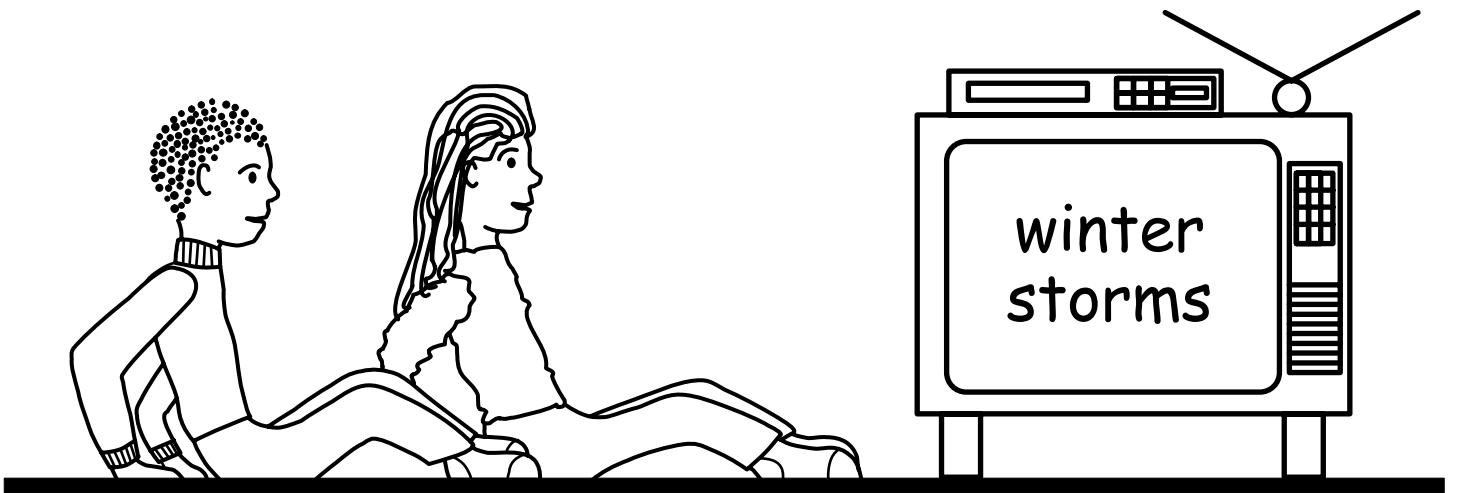


Since Billy was still shivering, Maria asked "What is hypothermia?". "It is when a person gets too cold. When this happens, the body shivers a lot, there is memory loss, slurred speech, and drowsiness," her mom said.



95°F  
is  
too  
**COLD!!!**

Maria's mom then said, "Normal body temperature is 98.6 degrees Farenheit. If you take a person's temperature and it is below 95 degrees, you should get that person to a doctor quickly. Start to warm the person slowly by covering him or her with a blanket. You want to be sure to cover the head and neck."

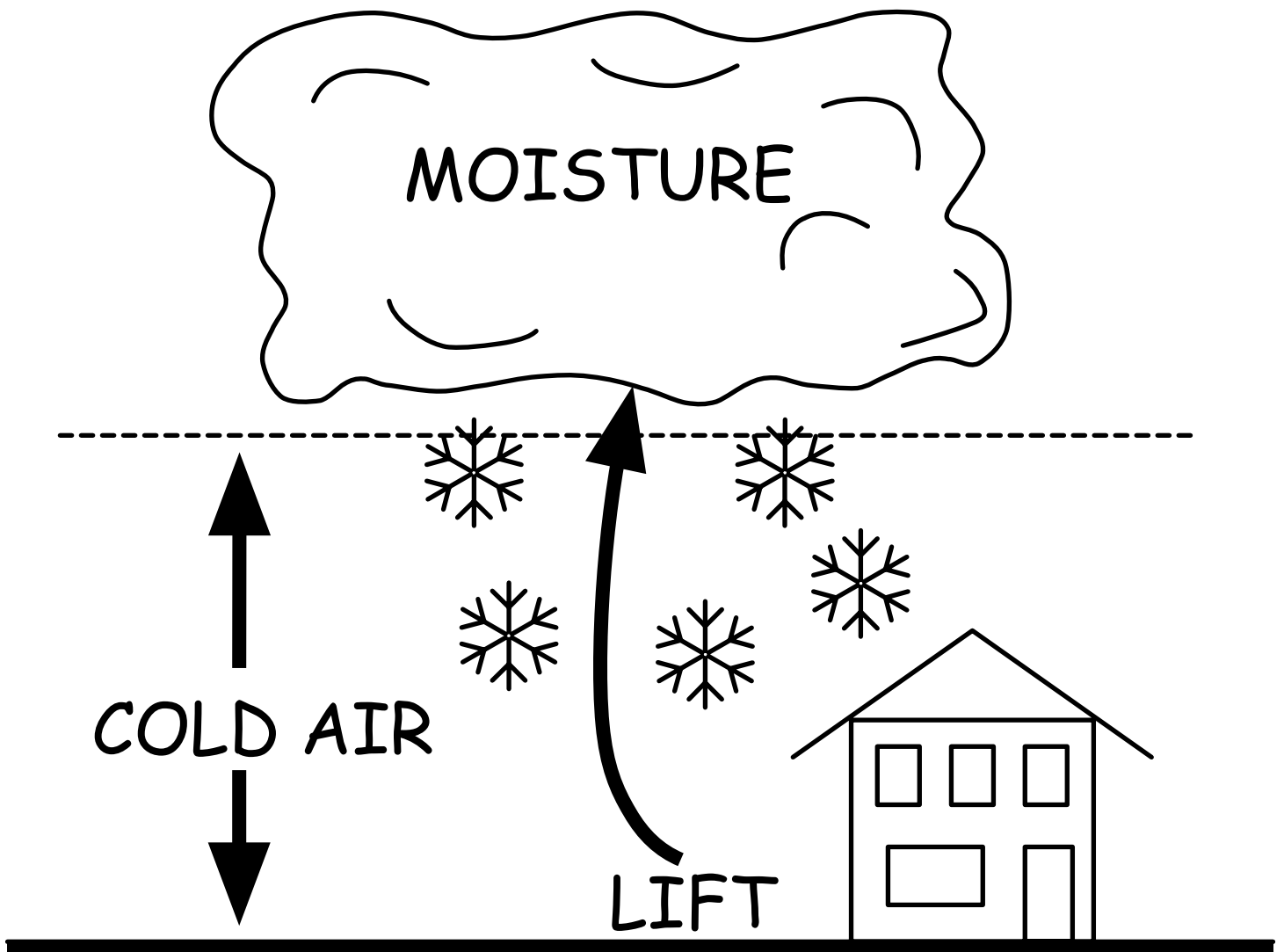


After drinking some hot chocolate, Billy was fine. He and Maria decided to stay inside and watch television. They turned the TV to the science channel to see what was on. There was a program about winter storms starting on this channel.

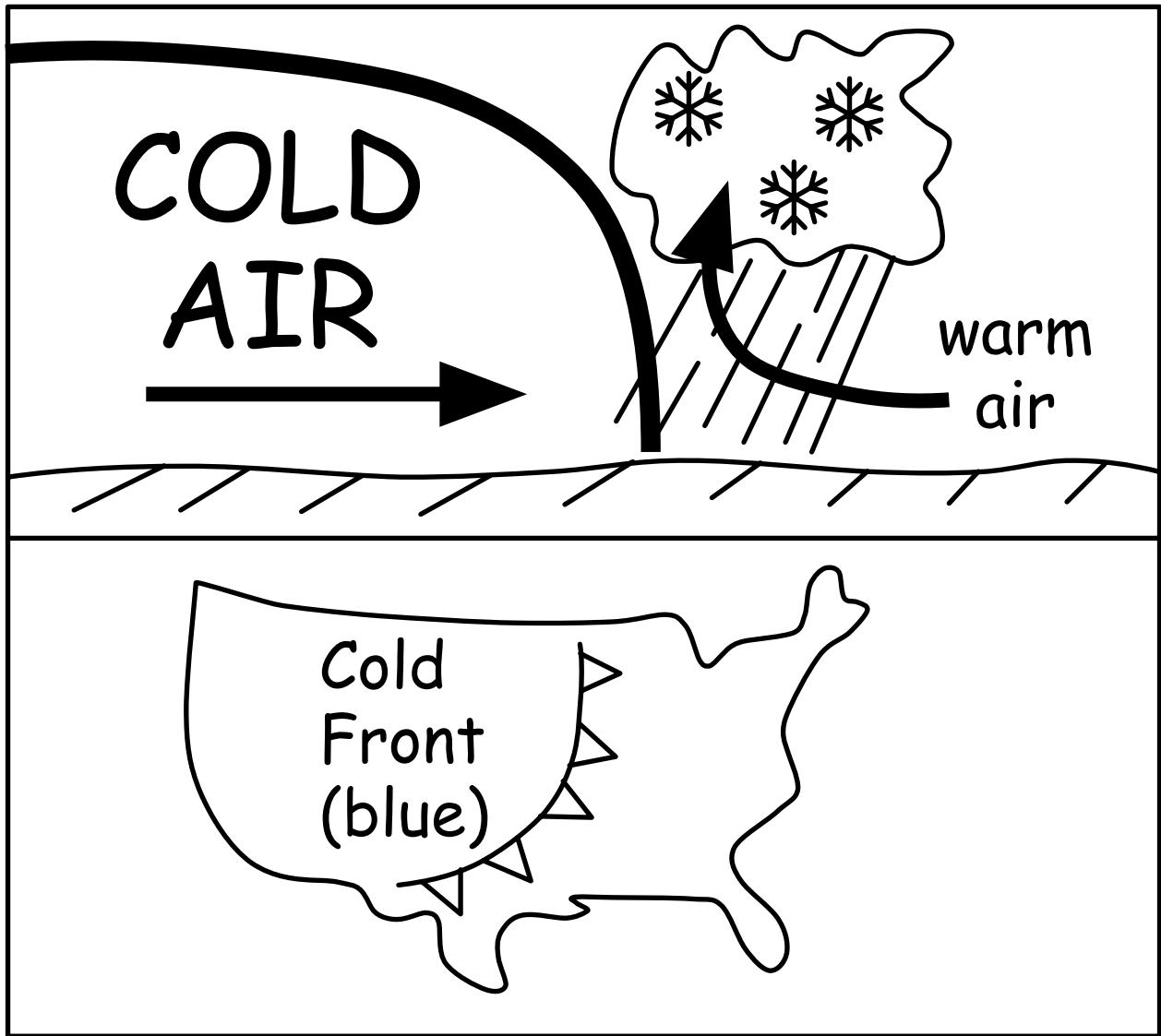


From watching the show, Billy and Maria learned about winter storms. They found out that there are three main things needed to make a winter storm. These are cold air, moisture, and lift.

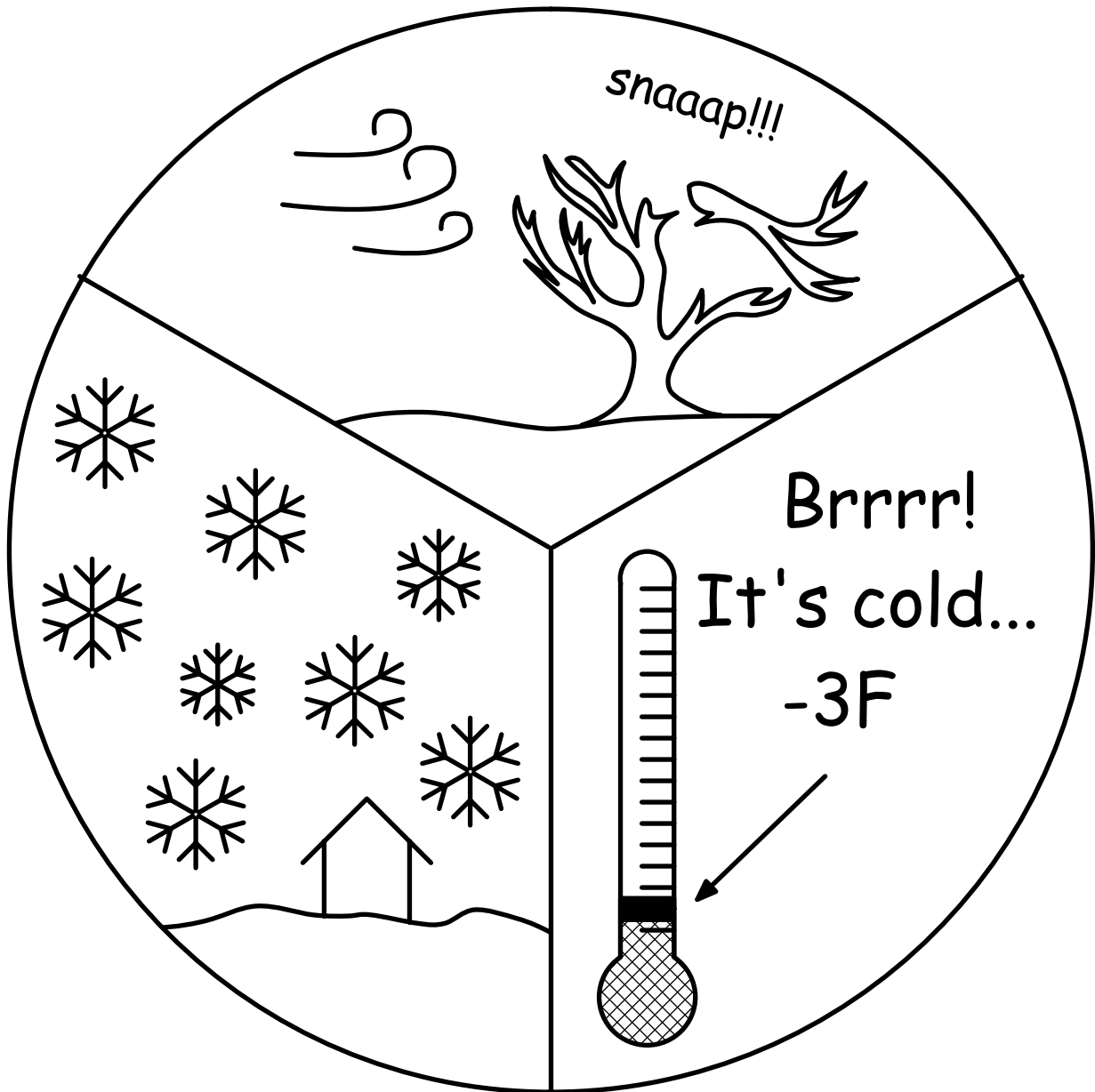




The cold air helps there to be freezing temperatures in the clouds and near the ground to make snow and ice. The moisture helps make clouds and snow. Lift is what raises the moist air to make clouds and snow.



A front is the area that separates cold and warm air. A cold front shows up when cold air is pushing the warm air away. The symbol for a cold front is a blue line with blue triangles pointing to where the cold air is going.



Billy and Maria learned that winter storms form along cold fronts and can cause lots of snow, strong winds, and very cold temperatures. They decided to watch the weather on TV to find cold fronts and winter storms.

## NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

The National Oceanic and Atmospheric Administration was established as part of the Department of Commerce on October 3, 1970. NOAA Mission responsibilities are to assess the socioeconomic impact of natural and technological changes in the environment and to monitor and predict the state of the solid Earth, the oceans and their living resources, the atmosphere, and the space environment of the Earth.

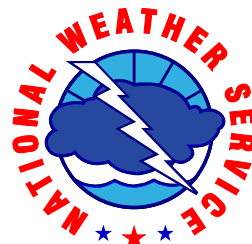
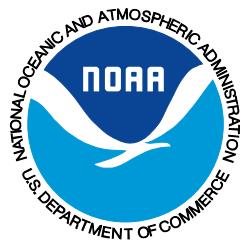
## NATIONAL WEATHER SERVICE

An 1870 act of Congress created the U.S. Weather Bureau under the U.S. Army Signal Corps. Subsequent Congressional action in October 1890 placed the Weather Bureau under the Department of Agriculture. The Weather Bureau was transferred to the Department of Commerce in 1940. In 1965, the Environmental Science Services Administration (ESSA), which included the Weather Bureau, was created under the Department of Commerce. Still operating under ESSA, the Weather Bureau was renamed the National Weather Service in 1967. ESSA became the National Oceanic and Atmospheric Administration in 1970.

" The National Weather Service (NWS) provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy. NWS data and products form a national information data base which can be used by other governmental agencies and the private sector. "

## NATIONAL SEVERE STORMS LABORATORY

"The National Severe Storms Laboratory, in partnership with the National Weather Service, enhances NOAA's mission through a balanced program of research to advance the understanding of weather processes, research to improve forecasting and warning techniques, development of operational applications, and transfer of understanding, techniques, and applications to the National Weather Service and other public and private sector agencies."



## BILLY AND MARIA SERIES INDEX OF TITLES

- 95-01 **Billy and Maria Visit the National Weather Service**, by Daphne G. Thompson, DOC, NOAA, NWS Central Region Headquarters, Scientific Services Division, Kansas City, Missouri, March 1995.
- 95-02 **Billy, Maria and the Thunderstorm**, by Daphne G. Thompson, DOC, NOAA, NWS Central Region Headquarters, Scientific Services Division, Kansas City, Missouri, March 1995.
- 95-03 **Billy and Maria Learn About Tornado Safety- Part 1**, by Daphne G. Thompson, DOC, NOAA, NWS Central Region Headquarters, Scientific Services Division, Kansas City, Missouri, April 1995.
- 95-04 **Billy and Maria Learn About Tornado Safety- Part 2**, by Daphne G. Thompson, DOC, NOAA, NWS Central Region Headquarters, Scientific Services Division, Kansas City, Missouri, April 1995.
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- 95-08 **Billy and Maria Learn About Winter Weather- Part 3**, by Daphne G. Thompson, DOC, NOAA, NWS Central Region Headquarters, Scientific Services Division, Kansas City, Missouri, August 1995.