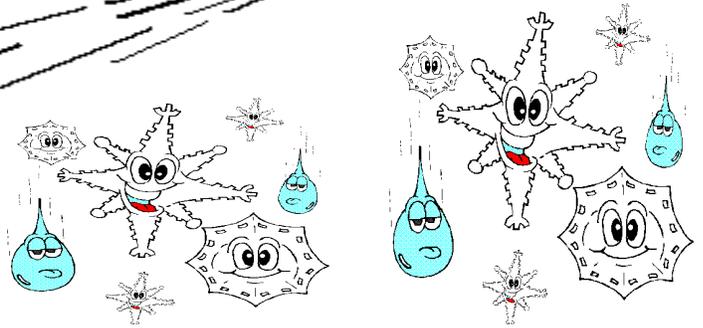
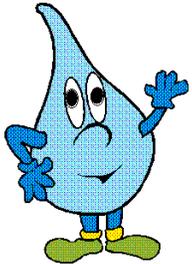


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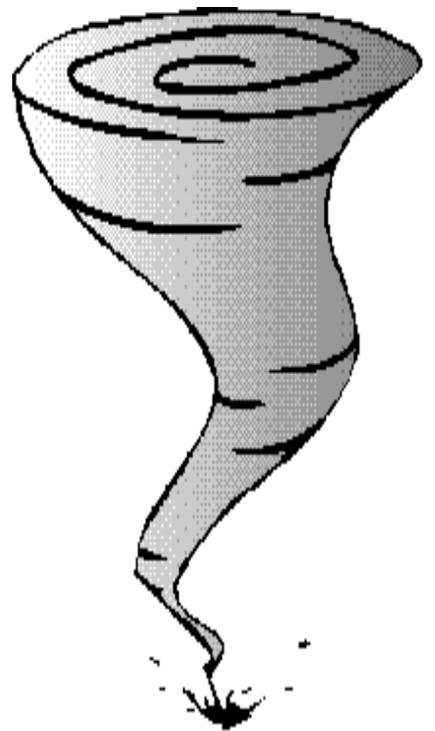
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Before the Flood:

- ❖ Keep materials on hand, such as: sandbags, plywood, plastic sheeting and lumber.
- ❖ Install check valves in building sewer traps to prevent flood water from backing up in sewer drains.
- ❖ Install sump pumps where necessary.
- ❖ Keep first aid supplies on hand.
- ❖ Keep a stock of food that requires little or no cooking or refrigeration, as electric power could be interrupted.
- ❖ Keep a portable radio, emergency cooking equipment, lights and flashlights in working order. Also keep extra batteries on hand.
- ❖ Know your elevation above flood stage.
- ❖ Know your evacuation route.



Receiving a Flood Warning:

- ❖ Store drinking water in clean bathtubs and other various containers, as water service may be interrupted.
- ❖ If forced to leave your home, and time permits,
 - Move essential items, including animals, to safe ground;
 - Fill fuel tanks to keep them from floating away;
 - Grease immovable machinery.
- ❖ Move to a safe area before access is cut off by flood water

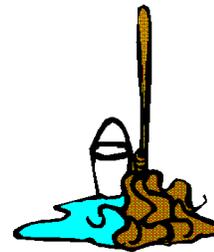


During the Flood:

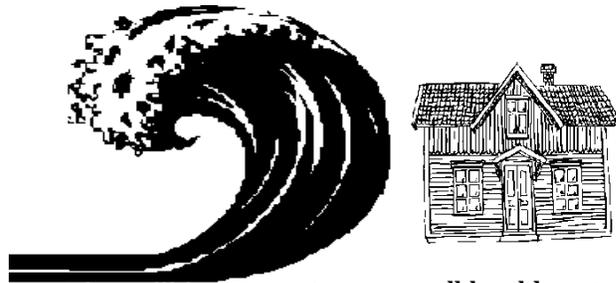
- ❖ Avoid areas subject to sudden flooding, such as: canyons, flood plains, underpasses, etc.
- ❖ Do not attempt to cross a flowing stream where water is above your knees.
- ❖ Do not attempt to drive over a flooded road—you could be stranded or trapped. (The depth of the water is not always obvious, an inch of water moving fast enough can wash your car away!)

After the Flood:

- ❖ Do not use fresh food that has come in contact with floodwaters.
- ❖ Boil drinking water before using.
- ❖ Pump out wells and test the water for purity before drinking.
- ❖ Seek necessary medical care at the nearest hospital (Food, clothing, shelter, and first aid are available at Red Cross Shelters.



- ❖ Do not visit disaster areas; your presence might hamper rescue and other emergency operations.
- ❖ Do not handle live electrical equipment in wet areas. Electrical equipment should be dried before being returned to service.
- ❖ Use flashlights, not lanterns or torches to examine buildings; flammables may be inside.
- ❖ Report broken utility lines to appropriate authorities.



FLASH FLOODS

Flash flood waters move at incredible speeds, they can roll boulders, tear out large trees, destroy buildings and bridges, and scour out new channels. Killing walls of water can reach heights of 10 to 20 feet. You won't always have a warning that these deadly, sudden floods are coming; so be prepared and watch weather conditions—especially in the high country.



FLOOD WARNINGS

Flood warnings are issued in advance notice that a flood is imminent or in progress at a certain river basin. Floods begin when soil and vegetation cannot absorb all the water from falling rain or melting snow; when water runs off the land in such quantities that it cannot be carried away quickly enough in normal stream channels; cannot be retained in natural ponds and man-made reservoirs. The National Weather Service issues flood forecasts and warnings when the rain that has fallen is enough to cause rivers to overflow their banks; and when melting snow combines with rainfall to produce similar effects.

Flood forecasts and warning, along major tributaries, can be issued hours, days or even weeks in advance, depending on the conditions. This is because smaller streams can reach the flood stage quickly while the rise on major rivers is usually more gradual.

Early flood warnings provide time for people in threatened areas to prepare and thereby lessen the damage from the flood.

Early flood warnings can provide residents of low lying areas time to move personal property, mobile equipment, and livestock to higher ground. Sometimes valuable crops can be harvested in advance of a destructive flood.

FLASH FLOOD WATCH AND WARNING



Flash Flood Watch: A flash flood watch is issued when flash flooding is possible within the designated area...so be alert.

Flash Flood Warning: A flash flood warning is issued when a slash flood has been reported or is imminent...take necessary precautions.

NO AREA IS IMMUNE TO FLASH FLOODS!

On small streams, especially near the headwaters of river basins, water levels may rise quickly in heavy rainstorms and flash floods can begin before the rain stops falling. There is little time between detection of flood conditions and the arrival of the flood crest. Swift action is essential to protect life and property.

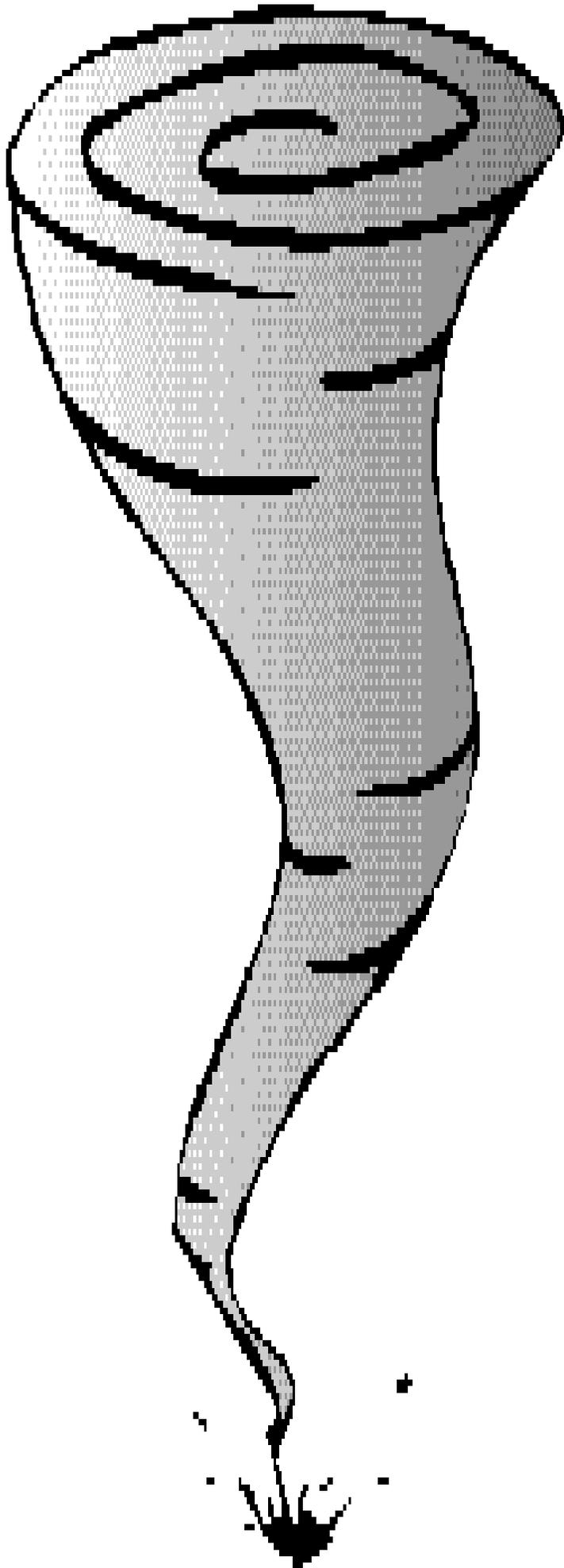
Flash floods also occur in or near mountainous areas where torrential rains can quickly change a dry watercourse or trickling little stream into raging, treacherous torrents of water. Desert washes (Arroyos), particularly near mountains, can go from dry to the flood stage within minutes—as a result of rainstorms many miles away and out of sight or hearing of the flash flood site.

Urban flooding can occur in any terrain; and is particularly aggravated by urbanization where natural cover has been roved by the construction of buildings, roads, and parking lots. City streets are also susceptible flooding when storm drains cannot handle the water runoff. Heavy rains can result in flash flooding, inundating cars and causing considerable damage to residential and industrial properties located along the stream channels. Streets can become rivers and basements become indoor swimming pools! National Weather Service flash flood or flood warnings and statements will advise you of areas where flooding is most likely to occur. Remember, safety for you family and property depends on you! Learn to recognize environmental clues and to act quickly and calmly.

When a flash flood warning is issued for your area or the moment you first realize a flash flood is imminent, **ACT QUICKLY AND CALMLY** to save yourself—you may have only seconds!

- ❖ Get out of areas subject to flooding. This includes dips, low spots, underpasses, canyons, washes, etc.
- ❖ Avoid already flooded and high velocity flow areas. Do not attempt to cross a flowing stream on foot where water is above your knees.
- ❖ If driving, know the depth of the water in a dip before crossing. Be aware the roadbed may not be intact under the water.
- ❖ If the vehicle stalls, abandon it immediately and seek higher ground—cars are replaceable, you're not! Remember, rapidly rising water may engulf the vehicle and its occupants and sweep them away.
- ❖ Be especially cautious at night when it is harder to recognize flood dangers.
- ❖ Do not camp or park your vehicle along streams and washes, particularly during threatening conditions.

During any flood emergency stay tuned to the National Oceanic and Atmospheric Agency (NOAA) weather radio, commercial radio, or television station. Information from NOAA and Civil Emergency forces may save your life.



TORNADO FACTS

THAT CAN SAVE YOUR LIFE

Tornadoes travel at an average speed of 30 miles per hour, but speeds ranging from stationary to 70 miles per hour have been reported. While most tornadoes move from the southwest to the northeast, their direction of travel can be erratic and may change suddenly—especially in this area.

In populated areas, it is very dangerous to attempt to flee to safety in an automobile. Seek or remain in a sturdy shelter, such as a house or a building. Even a ditch or ravine offers better protection than a vehicle if more substantial shelter is not available.

While hail may or may not precede a tornado, the portion of a thunderstorm adjacent to large hail is often the area where strong to violent tornadoes are most likely to occur.

Once large hail begins to fall, it is best to assume a tornado may be near by...seek appropriate shelter. Once the hail has stopped, remain in a protected area until the thunderstorm moves out of the area. This is usually 15-30 minutes after the hail ceases.

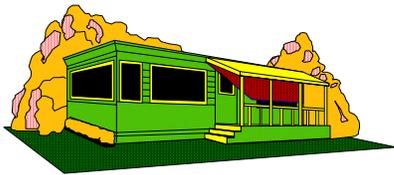
Tornado winds may produce a loud roar similar to train or airplane.

At night or during heavy rain, the only clue to the presence of a tornado may be its roar. Thunderstorms can also produce violent straight-line winds, which produce a similar sound. If any unusual roar is heard during threatening weather, it is best to take cover immediately.



The key to survival is advanced planning. All members of a household should know where the safest areas of the house are located. Identify interior bathrooms, closets, or basement shelter areas. Ensure every family member knows that they should move to those safe areas at the first signs of danger. There may be only seconds to act. Businesses should also have a tornado plan.

Encourage area schools to form a tornado plan and conduct drills. Take shelter in the interior hallways or on the lowest floor. If the building is not of reinforced construction, go to a nearby one that is, or take cover outside on low protected ground. Stay out of auditoriums, gymnasiums, and other structures with wide, free-span roofs.



Mobile home parks are particularly vulnerable and **MUST** be evacuated! Trailer parks should have a community storm shelter and a warden to monitor broadcasts throughout the emergency. If there is no shelter nearby, leave the trailer and take cover on low, protected ground.

Tornadoes occur in many parts of the world and in each of the 50 states. No area in the world is more favorable for the formation of tornadoes than the continental plains and the Gulf Coast of the United States—especially during the months of April, May, and June. Tornadoes are less frequent in the United States during the winter months, although damaging tornadoes can develop anytime of year.



At NOAA's National Weather Severe Storms Forecast Center (NSSFCC) in Kansas City, MO, National Weather Service meteorologists monitor atmospheric conditions in North America using surface weather observations from hundreds of locations, radar information, satellite photographs, temperature, moisture, and wind speeds in varying levels of the atmosphere and reports from pilots. Combining these thousands of pieces of information, NSSFCC forecasts are able to determine the current state of the atmosphere. When threatening conditions are detected the work of issuing watches and warnings begin!

THUNDERSTORM & LIGHTNING **DO'S** AND **DON'T'S**

When outdoors **DO** “keep an eye on the sky”

DO watch for signs of an impending storm:

- ❖ Towering thunderheads
- ❖ Darkening skies
- ❖ Lightning
- ❖ Increasing wind.



DO seek shelter inside a home or large building

DO put down the golf clubs and take off the golf shoes

DO NOT stand under a tall isolated tree, if necessary seek shelter under a thick growth of small trees

DO NOT stand in a group, spread out, keeping people several yards apart

DON'T be the tallest object in the area, try to find a ravine or gully

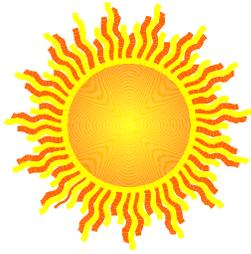
DON'T stand on or near

- ❖ Open water
- ❖ Tractors or other farm equipment
- ❖ Bicycles, motorbikes, golf carts
- ❖ Wire fences, clotheslines, metal pipes and rails



And if you **DO** feel your hair start to stand on end or your skin starts to tingle, drop to your knees

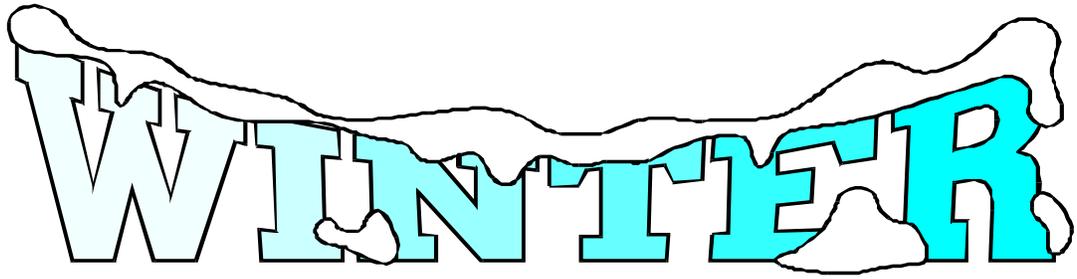
and bend forward, putting your hands on your knees. **DO NOT** lie flat on the ground!



HEAT STRESS

Many people look forward to the summer heat. But it can be a deceptive killer, especially for the very young and very old. The trick is simply to stay as cool as possible.

- ❖ Make sure air conditioning and/or fans are in good working order
- ❖ Go to an air conditioned building, such as a theater or shopping mall
- ❖ Slow down on the amount of exercise
- ❖ Don't exercise during the heat of the day
- ❖ Drink plenty of fluids
- ❖ Eat light, protein foods actually raise the metabolic heat inside your body
- ❖ Close up windows and shades in the early morning—locking in the cooler air
- ❖ If you feel sick from the heat—seek medical attention



WINTER STORMS

Wind, Cold, Blowing Snow, Rain, Ice...BRRRRRRRRRRRRR! They all combine to create that other season known as winter. Living near the Rocky Mountains creates a whole new set of problems in forecasting the weather. Winter storms are generated by a wide variety of atmospheric conditions. Regardless of their origin, they share a common feature: the ability to completely immobilize large areas and isolate people. Winter storms can bring extreme cold, days of heavy snow—sometimes all it takes is a few hours, blizzard conditions, economic loss, and sometimes--personal tragedy. The following are some safety tips:

- ❖ Listen to the latest weather warnings to keep ahead of the storm.
- ❖ Check battery powered equipment (flashlights cooking facilities, etc.), before an emergency.
- ❖ Check the heating fuel supply, refill if necessary.
- ❖ Keep non-perishable food supplies on hand, something that requires no heating or refrigeration, in case of power failure.
- ❖ Watch out for fire hazards due to overheated stoves, fireplaces, heaters or furnaces.
- ❖ Stay indoors during storms, out of extreme cold and severe weather.
- ❖ Don't over do the snow shoveling—moderation is the key. Overexertion and exhaustion can bring on a heart attack, which is a major cause of death during and after a winter storm.
- ❖ Wear loose-fitting, lightweight, warm clothing in several layers. Outer garments should be tightly woven, water repellent, and hooded to protect your face and keep the heat from escaping from your head. The hood should also cover your mouth to ensure warm breathing and protect your lungs from the extremely cold air. Mittens, snug at the wrist, are better than fingered gloves.
- ❖ Winterize your vehicle. Check all systems and keep the gas tank full as possible.
- ❖ Carry a winter storm kit in the car, including: blankets, matches, candles, extra clothing, high-calorie non-perishable food, compass, maps, knife, first-aid kit, flashlight, tire chains, etc.
- ❖ Don't travel in a storm unless absolutely necessary. Let others know your destination, route, alternate route, and expected time of arrival.
- ❖ Stay with your car—Don't walk in the storm.
- ❖ Keep fresh air coming into the car. Run the motor and heater sparingly, only with the downwind window open for ventilation.
- ❖ Clear snow away from exhaust pipe periodically; to avoid carbon monoxide poisoning.
- ❖ Exercise by clapping hands and moving arms and legs.
- ❖ Turn on dome light at night and tie brightly colored cloth to antenna to make your car visible to road crews.
- ❖ Keep watch. Don't let all occupants of the car sleep at the same time.

INDIVIDUAL AND COMMUNITY ACTIONS

The burden of heeding warnings and taking proper action rests with the individual communities and citizens. It is in your best interest to support local civil defense or emergency management agencies in their effort to develop effective community warning signals. Furthermore, you should ensure that business and school systems have plans of action and conduct drills for severe weather emergencies. Advance planning is the key to survival.

At the very minimum, you should ensure all your family member understand the following terms and practice the proper safety precautions.

WEATHER DEFINITIONS

BLIZZARD WARNING: Considerable falling and/or blowing snow and sustained winds of at least 35 miles per hour for several hours

BLOWING SNOW: Snow lifted from the surface by the wind and blown about to such a degree that horizontal visibility is greatly reduced.

DAMAGING WINDS: Can cause tornado like damage. Mobile home occupants should seek sturdy shelter.

DRIFTING SNOW: Indicates that strong winds will blow falling snow or loose snow on the ground into significant drifts.

FREEZING RAIN/DRIZZLE: Rain and drizzle when surface temperature is below freezing. The moisture falls in liquid form but freezes on contact, resulting in a glaze of ice on all surfaces. All roadways will be extremely slick and dangerous. Travel should be restricted to emergencies only.

HEAVY RAINS: May result in flash flooding. Do not drive across flowing waters. Do not let children play near drainage ditches or streams.

HEAVY SNOW WARNING: A snowfall of at least 4 inches in 12 hours or of 6 inches in 24 hours.

LARGE HAIL: Can cause serious injury. Stay indoors.

LIGHTENING: Kills more people each year than tornadoes or hurricanes. Stay indoors and away from high or conductive objects.

TORNADOES: Requires immediate action! Stay away from windows, doors and outside walls. Protect your head. In homes and small buildings, go to the basement or to an interior part of the lowest level—if an underground shelter is not available. Closets, bathrooms, and interior halls offer the best protection in many cases. Get under something sturdy. In schools, nursing homes, hospitals, factories, and shopping centers, to pre-designated shelter areas. Interior hallways on lowest level are usually the best. In high-rise buildings, go to interior small rooms or hallways on as low a floor as possible. In mobile home or vehicles, leave and take shelter in a substantial structure. If there is no nearby shelter lie flat in the nearest ditch or ravine, shielding your head with your hands.

TORNADO/SEVERE THUNDERSTORM WATCH: Tornadoes and/or severe thunderstorms are possible. (The National Weather Service defines a severe thunderstorm as having winds of 58 mph or more, or hail $\frac{3}{4}$ of an inch in diameter or larger.)

TORNADO/SEVERE THUNDERSTORM WARNING: Tornadoes and/or severe thunderstorms are occurring.

WIND CHILL FACTOR: The combined effects of wind and temperature expressed as an equivalent calm-air temperature. The factor describes the cooling power of the wind on exposed skin.

WINTER STORM WARNING: Severe winter weather conditions are imminent. (The storm is about to start in your area.)

WINTER STORM WATCH: Severe winter weather conditions may affect your area. Freezing rain, sleet, or heavy snow may occur separately or in combination. (The conditions are right for a storm to occur.)

ALWAYS STAY INFORMED: Listen to NOAA Weather Radio, television and commercial radio for the latest National Weather Service watches, warnings and statements.