

## Using Radar to Forecast Weather

One of the most important instruments used to forecast weather is radar. Signals are sent out and bounce off precipitation and return to the radar site. From this, you will be able to tell how far away the precipitation is; how intense it is; as well as the speed and direction of the precipitation. Let's take a look at some radar sites available and see which one you would like to use during upcoming storms.

- Let's try this radar site first. Visit [Penn State Meteorology](http://www.meteo.psu.edu/fg1/WXTYPE/loop25ne.html).(<http://www.meteo.psu.edu/fg1/WXTYPE/loop25ne.html>)
- If you want the precipitation to move, click on (ANIMATION CONTROLS IN UPPER LEFT CORNER of the radar map..
- If you want to "zero in" on a particular part of the United States, simply click on a section of the country located in the extreme left of the frame.
- During the cold weather season, RAIN shows up as GREEN. Moderate rain shows up as Yellow while heavy rain is indicated as orange or red. FREEZING RAIN OR ICE PELLETS show up as a PINK color while SNOW appears WHITE. As a result of these different colors on this radar display, it is possible to see where it is raining, how hard, where the rain is turning to sleet and freezing rain and where it is remaining all snow. This is very important when making a forecast.

Give them an assignment for home. See if they can find some precipitation on the map. Where was it and in which direction was it moving? Is it rain, snow or sleet and/or freezing rain? Is it light rain, moderate rain or heavy rain? Have each student introduce the radar to his/her parents. Have them explain to the parents how it works. It could be very important if some day severe weather is approaching. It could save lives!