

What are adiabatic processes?

What is an Inversion (layer)? What causes inversions?

What is stability? Instability? Conditional (in) stability?

What type of weather is associated with each?

What is the relative humidity? What is it relative to? Why is it a poor way to measure atmospheric moisture from a scientific point of view? Why is it still the most common way to measure humidity?

What is saturation? How does the saturation value change with air temp? How is saturation used in the calculation of relative humidity?

What is absolute humidity? What happens when absolute humidity decreases? How is it used in calculation of relative humidity?

What is the lifted index? What info do you need to calculate it?

Be sure you can read and interpret an adiabatic chart (graph) Note: These can have different forms depending on the type of info portrayed.

Be sure you can calculate temperature changes as a parcel (of air) rises up one side at a mountain and then descends down the opposite side.

Be sure you understand the dynamics of the flow of the westerlies and how that relates to weather patterns at the surface. Be prepared to analyze both upper air and surface charts (maps). You have to read a station model to do that.

Be sure you understand energy transfer and the radiation balance. Know and understand the equation to calculate a simple energy balance.