Weather Inversions

The Treasure Valley is known for its wintertime temperature inversions. Normally air gets colder as altitude increases. That's why it feels so nice in the mountains on a hot summer day. However, during a temperature inversion, cold air gets trapped underneath a layer of warmer air. So sometimes the valley floor can be much colder than the air in the surrounding mountains. Moisture in the air is also trapped and builds up near the ground. The added humidity leads to the dense fog and gray, sunless days that we can get in the winter.

This phenomenon can lead to causation questions related to weather patterns. How do the mountains and wind patterns affect the weather? Do inversions also happen in the summer? Students can also track the pollution index to determine relationships.

Performance Standards:

Kindergarten	3rd Grade	Middle School
K-ESS-1.1. Use and share observations of local weather conditions to describe patterns over time, which includes the 4 seasons.	3-ESS-1.1. Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.	MS-ESS-2.5. Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.