

Impacting Utah's Air

Name _____

Phenomenon: Watch the phenomenon. Ask three questions about what they see.

- 1.
- 2.
- 3.

Create Model #1

Question #1: Why do inversions happen in Valleys?

Observe demonstration of the density tank.

What evidence does the demonstration provide that we can use to improve our model? Write down observations as you watch.

- 1.
- 2.
- 3.

New improved model-Use dots to show air particles and label the layers:

A-warm air B-cold air C-denser air D-less dense air E-pollution particles

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Next Phenomenon: Watch the video clip of an inversion changing over time.

1. What new information does this provide?

1. What new questions do you have?

Explanation

Claim: Inversion in Utah Valleys is created by a combination of natural and human causes.
Evidence: 1. 2. 3.

Why should we care about our air? Watch [this](#) Video

Predict the 3 main sources of emissions in Utah valleys?

- 1.
- 2.
- 3.

Go to [this](#) website page 25, the PM 2.5 graphs and sketch the pie graph. What are the three main sources? <https://documents.deq.utah.gov/air-quality/annual-reports/DAQ-2019-000949.pdf>

- 1.
- 2.
- 3.

In groups choose one of these sources and create a plan to reduce the amount of emissions.

Source of emissions:	
Step one:	Why would this work?
Step two:	Why would this work?
Step three:	Why would this work?

Meet with another group that chose the same source. Evaluate both design solutions and create a stronger plan to decrease the emissions. Fill in the chart with your plan.

Source of emissions:	
Step one:	Why would this work?
Step two:	Why would this work?
Step three:	Why would this work?

Be ready to present your improved plan to the class.