

Forms of Thermal Energy Workshop

Workshop Name:

Forms of Thermal Energy

Workshop Content/Objective(s):

Students will learn about methods of thermal energy transfer, including conduction, convection, and radiation.

Learning Standard Addressed (TEK):

Students will be able to investigate all forms of thermal energy including conduction, convection and radiation

Needed Supplies:

- Bags of Popcorn
- Hot Plate
- Popcorn Air Popper
- Microwave Oven
- Workshop worksheet

Small Entry Event (like the 5e Engage):

Popping popcorn in 3 different ways to reflect each thermal energy type

Knows/Need2Knows:

- Definition of conduction
- Definition of convection
- Definition of radiation

Student Take-Away Mechanism:

Conduction, Convection, and Radiation Worksheet

Additional Notes:

Students will be called up by roles. The workshop will be run three times and a schedule has already been created.

Instruction

Who needs to attend?

- Everyone will be attending but in a scheduled session.

Workshop Activities (like the 5e Explore/Explain/Elaborate):

- Popcorn will be popped in a microwave to demonstrate radiation.
- One popcorn kernel will be popped on the hot plate to demonstrate conduction.
- Popcorn will be popped in the air popper to demonstrate convection.

Evaluation/Assessment Measures (like the 5e Evaluation):

- Students will complete the conduction, convection, and radiation worksheet.

DIY Schedule	
Session 1	Material Manager
Session 2	Communication Manager
Session 3	Workshop Manager
Session 4	Project Leader