Boiling Point of Water

Summary

Students observe water as it boils. They graph their results.

Time Frame

1 class periods of 90 minutes each

Group Size

Small Groups

Materials

This lab can be done 2 ways.

CBLs
temperature probe

OR

thermometer
alcohol burners or hot plates for heat sources
goggles
wire stand
ring stand and ring
250 ml beaker
boiling chips (optional, they make the water boil more evenly)

- student sheet
(attached)

Student Prior Knowledge

Students should be aware of safety issues concerning alcohol burners and handling glassware. They should know that boiling water is a physical change involving change of state or phase.

Instructional Procedures

Students should work in groups and equipment should be planned according to group numbers.
Review safety procedures and use of equipment before starting the lab.
Students should read the entire lab before beginning.

Assessment Plan

Scoring Guide

:

Students perform experiment and collect data……10 pts
Students correctly answer analysis questions……10 pts
Answers:

1. *emperatures will vary according to your altitude.*
2. *San Diego is at sea level. Any city higher than sea level will have a lower boiling point.*
3. *Boiling is a physical change. The molecules of water do not change into something else.*
4. *Boiling is the rapid change of liquid water to water vapor.*
5. *The bubbles are made of water vapor.*

6. *The water molecules move faster when they are heated.*

Conclusion is specific, accurate and in complete sentences……..5 pts

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

Utah LessonPlans