

Winter Road Safety Experiments

Students will be testing substances that highway departments use to treat the roads with during winter storm events.



Materials:

3 cups

3 Different substances, (examples salt, sawdust, sand, beet juice)

Graduated Cylinders



Name: _____

What substance melts ice the fastest?

During the winter months, roads can become slick and dangerous to drive on. Highway and road crews spend many hours clearing and treating the roads. You are going to test several different substances to determine how fast they melt ice?

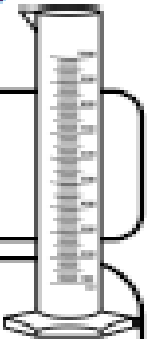
Predictions/ Hypothesis

What substance do you think would melt ice the quickest?

Experiment/Test

Materials: 3 cups, salt, 2 other substances, graduated cylinder

Experiment: Place ice cubes into 3 different cups. Label each pan and place a different substance over the ice in each cup. After 10 minutes drain off the water that has melted. Measure the melted water of each pan and record it. Continue to drain melted water, then measure, and add previous water amounts to the next columns.



| Pans | Water melted in 10 minutes | Water melted in 30 minutes | Water melted in 45 minutes | Water melted in 1 hour | Water melted in 2 hours |
|----------------|----------------------------|----------------------------|----------------------------|------------------------|-------------------------|
| Cup #1 Salt | | | | | |
| Cup #2 | | | | | |
| Cup #3 | | | | | |

Results: _____



