

PURPOSE: Children will observe that the thickness of an object effects how well it holds heat.

MATERIALS:

Book topics: Insulation, measurements, temperature

2 mixing bowls

Pancake mix, milk

Stick margarine or butter (room temperature)

Two dinner plates, 1 frying pan



PROCEDURE:

1. Make up two bowls of pancake mix according to the directions.
2. Make one bowl of batter thinner by adding an additional $\frac{1}{4}$ - $\frac{1}{2}$ cups of milk
3. Pour $\frac{1}{4}$ cup of **thick batter** onto the heated frying pan.
4. Pour $\frac{1}{4}$ cup of **thin batter** onto the heater frying pan.
5. Remove the two cooked pancakes from the frying pan at the same time and place each one on a plate.
6. Cut two $\frac{1}{4}$ slices of margarine or butter.
7. Predict which pancake will melt the butter or margarine faster. Why?
8. Place one slice in the middle of each pancake. Observe.
9. Record which slice of margarine or butter melted faster.

HOW IT WORKS: Different goods cool at different rates. Toast cools quickly, but potatoes stay hot for a long time. The thickness of the food plays a part in the speed at which it cools. In the same way the thickness of insulating materials effects how well an animal's home stays warm in the winter and cool in the summer.



WRITING PROMPT

You have learned that thick insulation keeps in the heat.

Think about what clothing you would take on a trip to the North Pole.

Write a paragraph describing what items of clothing you would pack in your suitcase.

Parent Signature: _____

FAMILY SCIENCE PROJECT

Date: _____

Name: _____

Teacher: _____

Hypothesis (What do you think will happen?)

Date/Observation:

Conclusion: (What you learned or discovered):

*(*You may continue your observation on another sheet. You may want to create a graph to record your data.)*

For the reading portion of Family Science, you may choose to read a book or an article, OR you may use the Internet in order to find some background information concerning this Family Science Project. If you read a book or an article, please include the complete title and author. If instead you looked up the information on the Internet, please include the complete website.

We read the following book, **OR** researched the information on the Internet:

Book Title: _____ Author: _____

Internet-Complete Website _____

Writing Prompt (minimum 5 sentences)
