

Plant Oils

Which oil freezes at a higher temperature?

Objective: to determine which oil would freeze at a higher temperature. Students will determine which oil would be healthier to ingest based on their findings.

Middle School students – 6, 7, 8 grades



Materials:

1. corn oil
2. sunflower oil
3. vegetable oil
4. palm oil
5. coconut oil
6. five test tubes
7. container with ice
8. thermometer
9. sheet to record results

Procedure:

1. Gather all materials
2. place 5 milliliters of oil in test tube
3. repeat this procedure for each type of oil
4. fill container with ice
5. take the temperature of the ice and record
6. place each tube of oil in the container
7. every five minutes remove test tube – observe if a change has taken place. Record observations on the sheet
8. continue this procedure for 20 minutes
9. write a conclusion for what you observed

Questions to be answered:

1. Which oils thickened during this experiment?
2. Can you give an explanation why these oils became thicker?
3. We are concerned about our health. Our goal is always to eat heart friendly foods. Discuss with your group what do you think these oils would do to our arteries?

Evaluation:

Students will be evaluated on completed this activity.

Rubric:

	4	3	2	1
Was the student an active participant in the group?				
Did the student contribute to the group discussion				
Was the activity completed correctly?				

Data Sheet:

Name _____

Which oil would freeze at a higher temperature?

Time	Observations
5 minutes	
10 minutes	
15 minutes	
20 minutes	

Conclusion: