

Heat: An Agent of Change

EXPANSION AND CONTRACTION

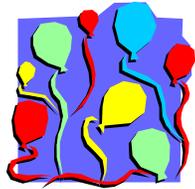
STUDENT ACTIVITY

PROBLEM

How can we explain the behavior of substances when they are heated?

PROCEDURE

Watch your teacher doing demonstrations of follow the directions for each activity. Record your predictions and findings in the charts below.



1. Balloons in a Sunny Window or Out in the Cold

	Starting circumference	Starting temperature (room temperature)	Prediction of change	Ending circumference	Ending temperature
Balloon in warm place					
Balloon in cool place					

2. Dancing Penny

What is being heated	Prediction of what will happen	Observation of what happened

3. Air Moves Out of the Bottle (need a better title)

What is being heated	Prediction of what will happen	Observation of what happened

4. Popcorn

What is being heated	Prediction of what will happen	Observation of what happened

5. Steam Cannon

What is being heated	Prediction of what will happen	Observation of what happened

6. Ball and Ring

What is being heated	Prediction of what will happen	Observation of what happened

7. Rubber Bands and Scissors

What is being heated	Prediction of what will happen	Observation of what happened

CONCLUSION

- In your Laboratory Notebook, write the general rule describing the changes caused by heating a substance. Name a material that is an exception to this rule.
- Write a paragraph explaining why this rule is important for Genesis engineers to take into consideration when designing the spacecraft.