

### 11/14 Collapsing Bottles Activity

Hypothesize - How does heat affect an empty plastic bottle? How does cold effect it? Write a hypothesis: \_\_\_\_\_

1) Predict - How does heat affect an empty plastic bottle? What do you think will happen to a plastic bottle when it is warmed? What do you think will happen to it when it is cooled? Record your prediction. \_\_\_\_\_

2) With cap off, hold a bottle for a minute or two in a pail of hot tap water. Then screw the cap on tightly while the bottle is still sitting in the hot water.

3) Experiment - Now hold the bottle in a pail of ice water for a few minutes.

#### DRAWING CONCLUSION

4) Communicate Record your observations. \_\_\_\_\_

5) Infer: Write out an explanation of why the bottle changed as it did. Be sure to use the ideas of how molecules move at different temperatures. \_\_\_\_\_

WORD BANK: expand, contract, warmed, cooled, molecules, heat, space, air, slower, less space