Keep It Cool

Student Handout

Name(s): _____________________________ Date: ________ Period: ________

Goal
Keep an ice core frozen by avoiding 1) the transfer of thermal energy to the interior of your ice core container and 2) limiting the transformation of light energy to thermal energy.

Challenge
Design and construct an ice core container by using the materials listed below. There are no limits to the size of the device. However, it should be able to independently hold the ice core and easily remove it at the conclusion.

Materials Available
Sample Vial* with Ice Core (1)   Newspaper Sheet (1)   Aluminum Foil (1)
Plastic Baggie (1)               Black Paper Sheet (1)   Fleece* (1)
Napkin (3)                      White Paper Sheet (1)   Foam* (1)
Packing Tape (0.3 meter)         Cardboard Piece(1)

*these objects must be returned without damage at the conclusion

Design Diagram for Ice Core Container with Features Labeled

List of Features with the Purpose of Each Provided
Resigned Ice Core Container with Features Labeled

List of Features with the Purpose of Each Provided