

Lesson 20: How can we improve our design plan?

Think about the prototype test and the phase change material activity. Using a different color pencil or pen, make modifications to your first draft drawing of your incubator based on your new understandings. You may also choose to create a new design, if needed.

Complete the chart below to explain how data from the prototype tests informed your design changes.

Modification	Data to support change	Design criteria addressed

Complete a purchase order and building plan for the final build day.

Make a list of items that must be completed in order to modify your incubator. For instance, do you need to cut cardboard or foam? Then assign each task to a group member. Remember that you only have one class period to build, so each person must be actively building.

[illegible]

Purchase Order - Day 2

Complete the chart below by listing the item, quantity, and justification for your purchase.

Item	Quantity	Price Per Unit	Total Price	Justification for item (What are you going to use it for?)

TOTAL COST: _____

Building Material Price List

Things to remember:

The materials may be “out of stock”.

This is your last building session, so you need to be very efficient!

Price List

Cardboard -\$15, no larger than 30 X 30cm pieces (\$10 - bring your own cardboard/shoe box)

Scotch Tape (30 cm) \$5

Duct Tape (30 cm) \$7

Glue Gun- \$5 rental per day

Glue Stick- \$2 each

Foam Plate - \$5

Packing Peanuts - \$10 for 10

Pink Foam Board (20cm x 20cm) \$15/piece

Cotton Balls - \$10 for 10

Green Foam (10cm x 10cm) \$25/piece

Aluminum foil (20cm x 20cm) \$10/piece

Plastic Wrap (20cm x 20cm) \$15/piece

Bubble Wrap (20cm x 20cm) \$20/piece

Straws - \$2 each

Craft Sticks - \$2 each

Chemical/Heat packs - \$10 each

Phase material - \$15