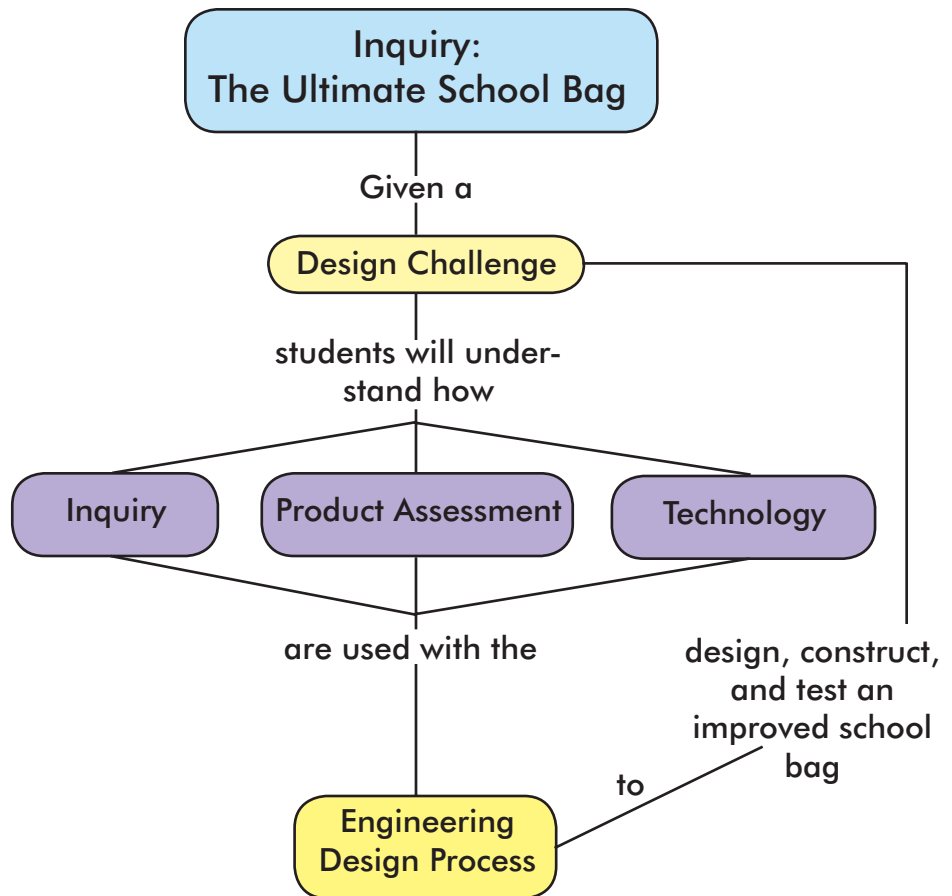


Inquiry: The Ultimate School Bag

This unit integrates the study of technology, science, language arts, and mathematics through the application of product assessment in the design and development of a school bag.



Conducting the Unit

There are three main topics in this unit. Each topic varies in length and scope depending on the schedule and length of the teaching time. Begin each topic with a quote about inquiry and thinking skills. A list is provided on page 30.

Notes:

Topic 1: Taking a Walk on the Techno Side (1-2 hours)

In this activity you will take the students on a walk during which they will identify the technology they see.

1. Ask the students what technology is.

Note: If they are stumped, tell them that technology includes everything that is made by humans. Technology can also include the way something is done or made.

Technology surrounds us, it is not just computers or electronic gadgets.

2. Before you take the students on this walk make sure you familiarize yourself with the technology students may point out. For example:
 - ✓ Is there a water or cell phone tower?
 - ✓ Is there playground equipment?
 - ✓ What material was used to make the equipment?
 - ✓ Are there unique houses (possibly with solar heating/energy panels)?
 - ✓ Is there construction taking place?

Note: You must be able to see five examples at each place you stop the students before you can expect them to give you examples. You should have as many different examples as possible so that the students realize by the end of the walk technology surrounds us and that technology is not just computers or electronic gadgets.

During inclement weather, take the students for the walk through the school. Stop at places such as the gym, cafeteria, computer lab, library, and in a classroom. If a walk is not possible, have students locate a town or city on the Internet and do a virtual tour.





Assessing a School Bag: Part IV



Step 4: Review and Conclude

When you know the true purpose behind why the school bag was developed, and what you want in a school bag, you are ready to make a decision about whether or not you want to use the school bag you are evaluating. The school bag may not be exactly what you need or want, so you may have to make a decision based on trade-offs before making a decision.

Trade-offs

If I choose this: _____

I will get: _____

If I choose this: _____

I will get: _____

So I'll go with: _____

And settle for: _____

My trade off is: _____



The "Ultimate" School Bag

Background

In the past there were not as many different school bags available as there are today.

Sensible School Supplies Inc. is a new innovative company whose goal is to stay on the cutting edge of designing products that meet the needs of today's students. The senior vice president of S.S.S. Inc. reviewed the sales report from the beginning of the previous school year. There were several products that did very well, but the sales for school bags was unusually low compared to their other products.



Which product sold the most units each year?

How many total units were sold of each product over the six year period?

Which product(s) showed steady growth in sales over the six years?

What product lost sales over the six year?

"We need to change our thinking and design a school bag that would be exactly what students need and want. We have to find the "Ultimate School Bag" design and increase our sales. What do we need to do?"

"Why don't we ask students what they need and want in the school bag they use.

"Why don't we ask students to use their inquiry skills to identify whether the school bags they use completely satisfies what they need and want?"

"After they have identified what they need and what things are not found in the design of the bags they are using, we could ask them to submit suggestions for the design of an "Ultimate School Bag."

The Challenge

Improve the design of an existing school bag to better meet the needs and wants of today's students and construct a working model of what it would look like.

Constraints

You must use the materials that are available in the Tech Center. If you would like to use other materials check with your teacher.