Grade 7 Science Structures <b>Pr</b>	oducts - Design, Manufacturing and Sales
Name:	Class: Date:
What are Products?	
Products are things that are	e created and that people use.
What are some products th	nat you use every day?
	cooters, cars, books, pencils, backpacks, chairs (furniture), plates, Air fryer, food, television, phones, streaming devices, internet,
How did you get them?	
Mostly purchased – few act	tually made from local materials.
Where did they get made?	How can you find out?
All over the world. Canada'	s top trading partners are United States, Europe, and China
Read the article posted on information in the article.	the blog. Make notes on the following topics based on the
Design Factors	
	ngs for the section on Design Factors, write at least one question od one and add at least one of your own that would help in the
Individual Users:	
Should we create a one-size	e-fits-all backpack or a backpack with adjustable features?
Answers will vary	

# Society:

Do customers care if we transport raw materials and finished products all over the world, using valuable resources for shipping?

Answers will vary

#### The economy:

Should the backpack components be made in Canada, or should we reduce costs by using overseas manufacturing?

Answers will vary

#### The environment:

How do we make as many components as possible recyclable?

Answers will vary

## Safety and Health:

How can we make sure that the packs are the best size and weight to prevent back and shoulder problems?

Answers will vary

## **Legal Aspects:**

Do we need to worry about lawsuits?

Answers will vary

2. Why does the company do Market research after all their brainstorming?

After discussing these questions, the company begins market research to determine what features customers want in a backpack. Then, the company can decide what improvements to make.

# **Manufacturing Factors**

1. For each of the four headings for the section on Manufacturing Factors, write at least one question that you thought was a good one and add at least one of your own that would help in the design of a product.

#### **Suitability of Materials:**

Should materials be waterproof?

What materials should be used?

Answers will vary

## Availability and cost of material:

Are the required materials and labour force for manufacturing available in Canada at a reasonable cost?

Answers will vary

## **Shipping Costs:**

How can shipping costs be kept as low as possible?

Answers will vary

#### Disposal:

Should we make backpacks to last, or should they break down so that we can make more money selling replacements.

Answers will vary

\*We will not be doing the "TRY THIS" activity but you can read through it to get an idea of the process.\*

# **Sales Factors**

3. For each of the four headings for the section on Sales Factors, write at least one question that you thought was a good one and add at least one of your own that would help in the design of a product.

# Packaging design, displays and labeling:

What packaging and displays make backpacks more attractive to customers?

Answers will vary

## Sale price:

What is a reasonable price for a backpack?

Answers will vary

## Advertising:

How should backpack companies advertise?

Answers will vary

## **Customer Support:**

What form of customer support should companies provide?

Answers will vary