Engineering Virtual Learning

HS Intro to Engineering Design Lesson #21

May 4, 2020

Objective/Learning Target:
Students will work with
Visual Design Principles and Elements.
(Day 1 of a 2 Day activity)

Bell-Work:

What makes something appealing and makes you want to buy it?

Watch this video about basketball shoes that are not "basketball" shoes, but a designer fashion statement.
https://www.youtube.com/watch?v=cXeQJBghvRw

Did you notice that the change in the "NEW" shoe was just the color?
"people saw and wanted it more than any other shoe"

Think about this:
Do you think the Michael Jordan shoes would have been so popular if Michael Jordan had not been one of the greatest players in history?
(reflect on these questions in you engineers notebook)

Visual Design Elements Introduction (read this!!)

Using the design process is an important step-by-step framework that needs to be followed during product design, but it does not guarantee an awe-inspiring product. Using a blend of visual design principles and elements can greatly enhance your product's functionality, appearance, feel, and overall effectiveness.

What besides function, makes you really like a product? Is it the color? Is it the form or shape? Maybe it's the rhythm in its appearance. Maybe it's the product's proportion. Then again, maybe it's the formal balance of its design that grabs your attention. With some insight into these visual design principles and elements, you will be able to create products that capture the attention and imagination of the buyer. Artists, graphic designers, architects, and industrial designers make up only a handful of the professionals that utilize the vocabulary of visual design principles and elements on a daily basis.

You will need a Pen, Pencil, Colors and your Engineers Notebook to complete today's activity.

Learning Practice: Visual Design Elements

The purpose of this activity is to identify the Visual Design Elements that appear in your environment and then identify the Visual Design Principles by which they were arranged.

Step 1: Copy the visual design elements and principles into your engineers notebook. These are listed on page 6 and in the videos in the resources link page 8.

Step 2: Locate five man-made items at home or elsewhere in your environment that are visually interesting. Sketch the item in your engineers notebook. You may also shade it with colors or colored pencils to closely represent the object.

Step 3: **After watching the videos about visual design on the learning resources links;** Document your visual analysis in your engineer's notebook. Each image should include: the name of the product, and the visual design principles and elements that are evident in that product. [Also note and explain any obvious disregard for a principle of design. For example, if a design appears chaotic and lacks unity or is colorless, note this and explain why you think it is chaotic.]
[Check your work with the example on page 7]

Visual Principles and Design Elements:

Visual Design Elements:
    Eight integral components used in the creation of a design
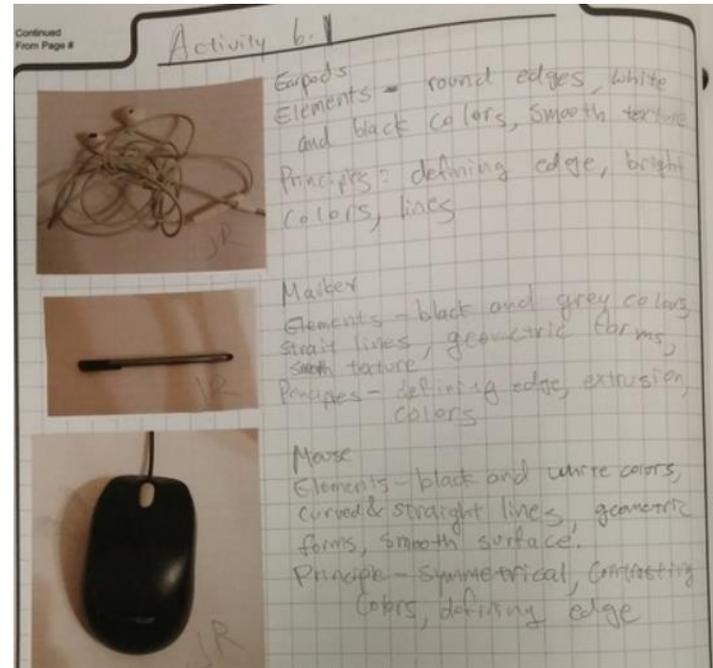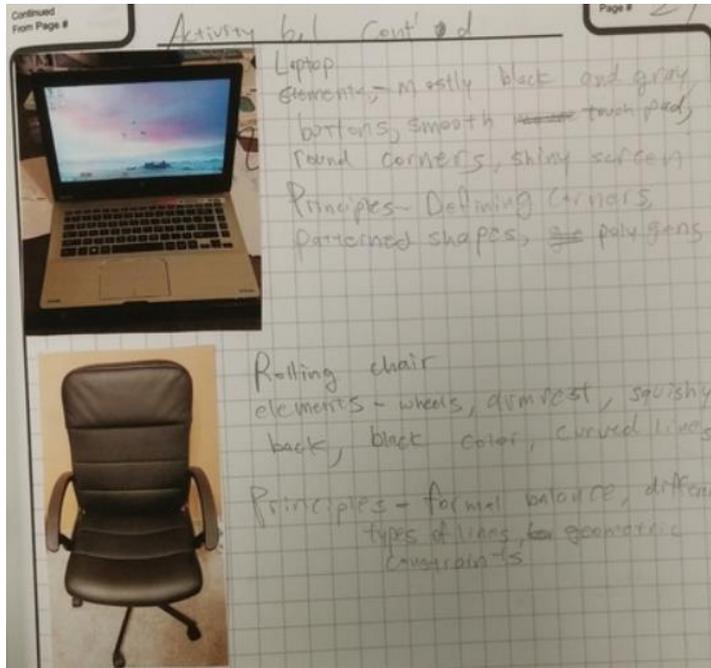
Point,   Line,   Color,   Value,   Shape,   Form,   Space,   Texture,

Principles of Design: Many principles add to an interesting design

Balance,   Emphasis,   Contrast,   Rhythm,   Proportion,   Unity,   Economy

Check for Understanding:

I would prefer that you sketch the items, but you can print them off if needed.

Learning Resource Links:

Design Elements:

      https://www.youtube.com/watch?v=JfViOv77pfQ (PLTW)

      https://www.youtube.com/watch?v=JZD_3zp7v2A