101 of sketching
101 of sketching
Children’s Museum Visit!

6:30 PM Friday at the Boston’s Children Museum

RSVP on the website

Play-testing and introduction to the children’s museum

Then explore!
DREAM!
Brainstorm Assignment

- fantasy
- construction
- sensory
- challenge

A. ideate as many as you can in each category in your notebook

B. research + choose one favorite idea from each of 4 categories

C. 4 legible sketches with idea name in your notebooks

D. redraw these 4 ideas (or more) on full pages with your name

Reminder: One of your team’s ideas will be the starting point for the final toy!
Brainstorm Assignment

+ More ideas leads to more creative ideas

bring both to lab!
Pull Toys!
Pull Toys!
Drawing Kits!
Sketching
Communication, not art!
Why sketch clearly?
Why sketch clearly?

- clarity
- creativity

Kudrowitz, Wallace 2010
Sketching
The language of idea generation

**Ping-Pong Ball Blaster**
A toy blaster that fires plastic ping-pong balls, stores several at once inside its shell, and automatically resets with each pull of the trigger. New balls are loaded via the port on the top, several can be loaded at a time. Pulling the trigger once fires a ball out of the front and after…
Sketching

A way of organizing your thoughts
What's the process?

Basic Skills (simple shapes)

3D Rules

Practice!
Quiz!

1. What is your name?

2. Write 5 words related to the theme

3. On the other side, sketch a picture of the side view of any car.

*use protective paper
Mental Models and Sketches
step-by-step thought process

Architecture

Proportion

Detail
What's the process?

Basic Skills (simple shapes)

3D Rules

Practice
What's the process?

Basic Skills (simple shapes)

3D Rules

Practice
Uncertainty is Visible
The Basic Skills
lines, circles, ellipse
What's the process?

Basic Skills (simple shapes)

3D Rules

Practice
What’s the process?

Basic Skills (simple shapes)

3D Rules

Practice
Rules: 3D with perspective!

1 Point

3 Point
Rules: 3D with perspective!

Vertical Lines are always vertical
Proportions
Proportions
Proportions?
The Horizon or Eye Line
The Horizon or Eye Line
The Horizon or Eye Line
The Horizon or Eye Line
The Cube

Close Vanishing Points = High Distortion
Close Up Objects
Where are the Vanishing Points?

Almost Parallel
Axonometric & Isometric

Isometric

Dimetric

Trimetric
The Cylinder
The Cylinder

ellipse minor axis inline with cylinder center axis
Cylinder on a Block
Cube on a Cube
Products of Basic Shapes
Start with physical models
Putting it Together
Practice your basics
Try using perspective sketching for idea generation
Assignment due in lab!
Bring drawings supplies to class again on Monday
Don’t forget about the children’s museum visit on Friday (6:30 PM)