Session 6b.
Shifting Authority in APE Labels

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Some APE Label Goals

- Providing Challenge and Support
- Supporting—not Competing with—Experience
- Finding our Voice
- Promoting Social Interaction
- Behavior Goals not Content Goals
- Shift Authority from Museum to Visitor

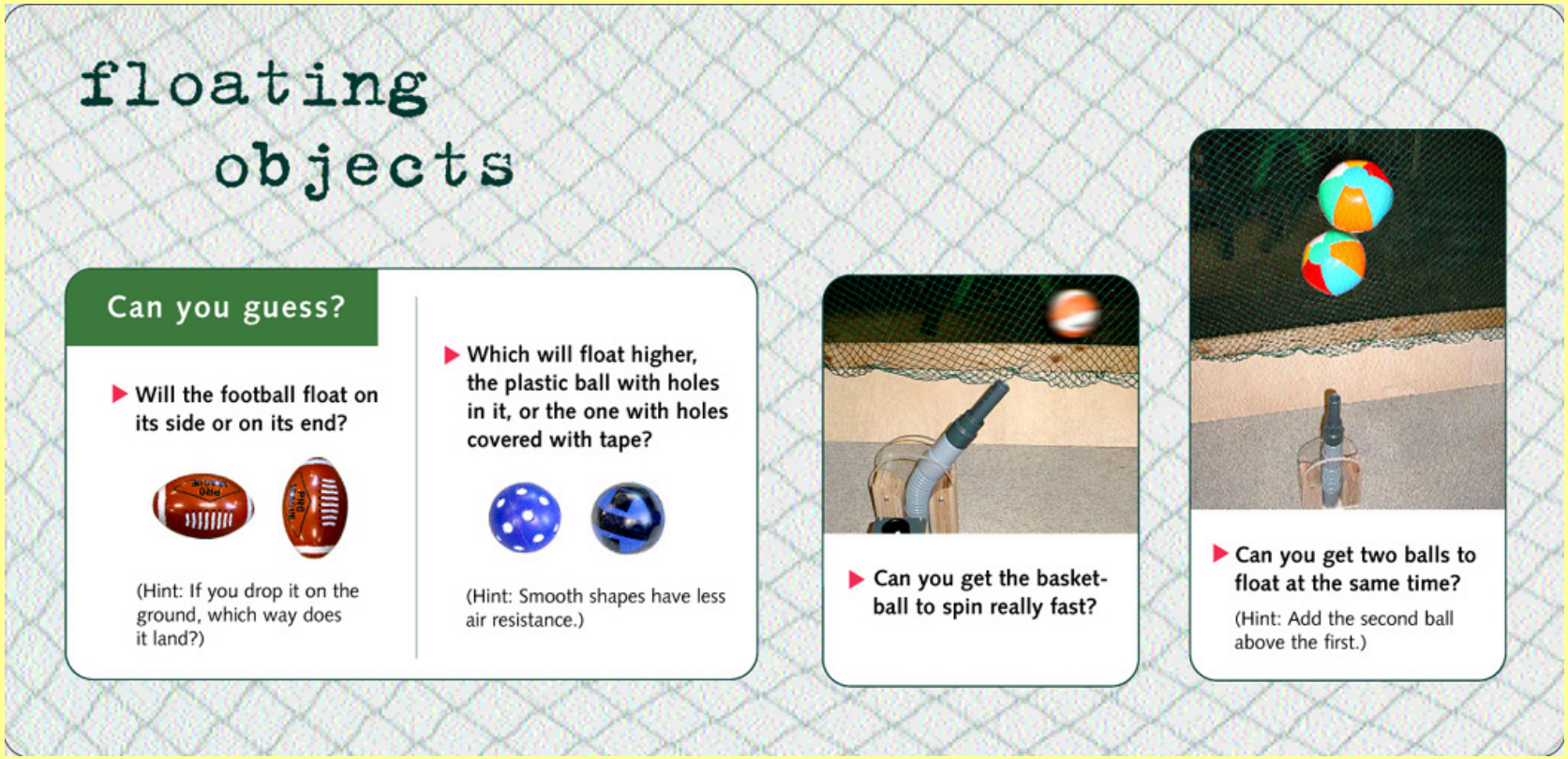
Label Strategies for Shifting Authority

- Challenges & Hints
- Casual tone of voice
- Rearranging explanation
- Removing explanation?
- Label as Affordance (Multi-Option)

Challenges & Hints

- Challenges + hints

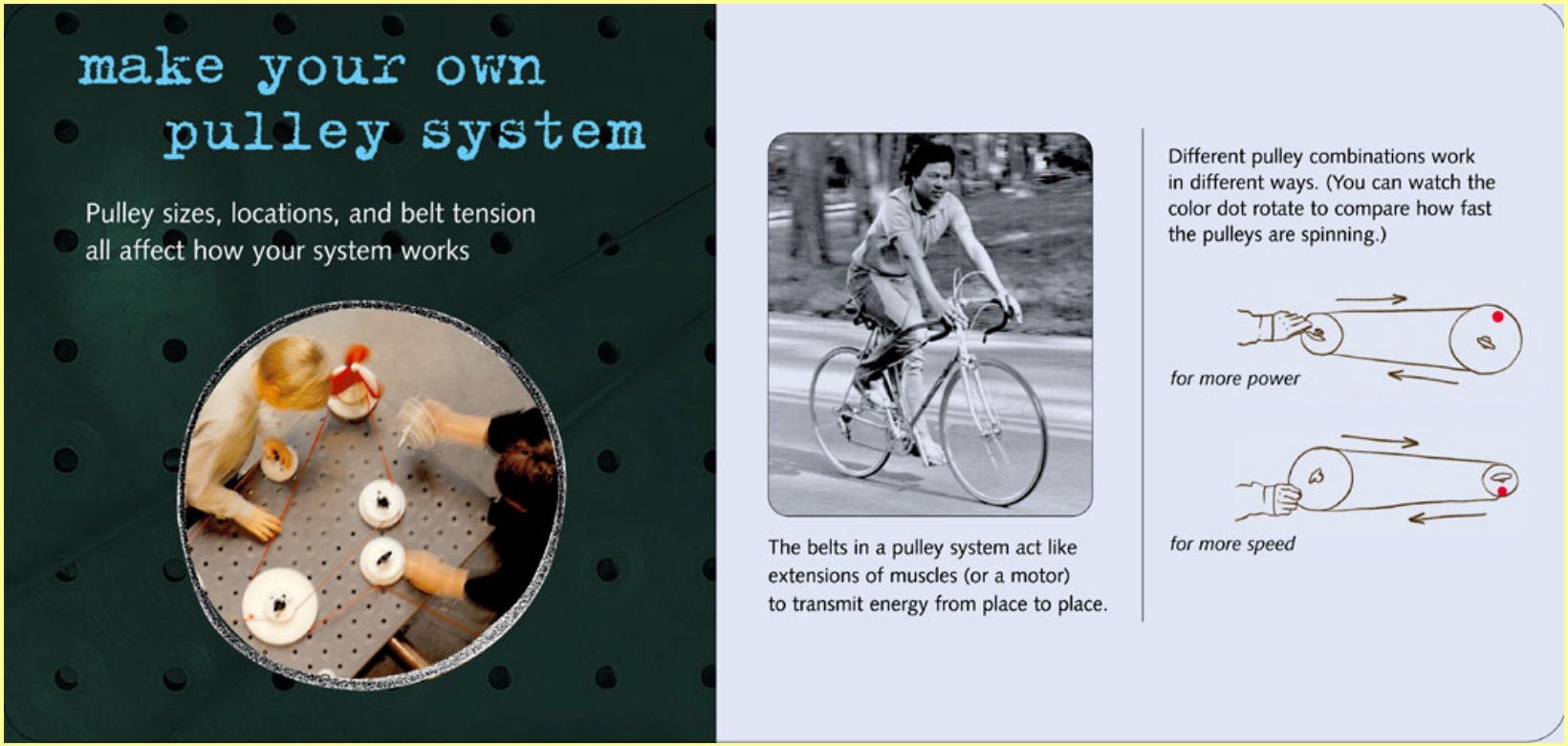
Floating Objects



Challenges & Hints

- Challenge + hint
- Free standing hints

Pulley Table



Challenges & Hints

- Challenge + hint
- Free standing hints
- Progressive Challenges + hints

Visible Vibrations

Casual Tone of Voice

- Titles

Watch Water Freeze

Casual Tone of Voice

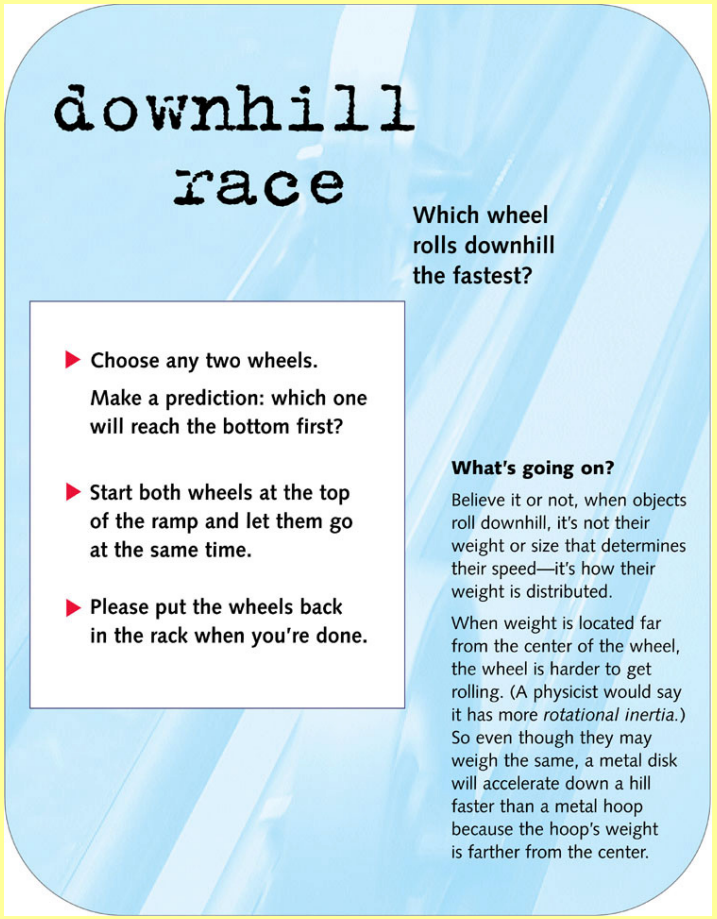
- Titles
- Informality

Watch Water Freeze

Casual Tone of Voice

- Titles
- Informality
- Technical talk

Downhill Race



Rearranging Explanation

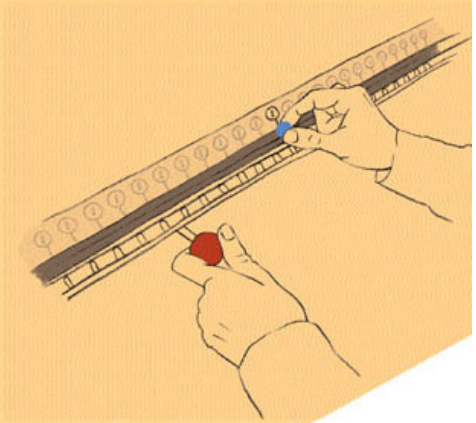
- Alternating between active text and hinting at content

Gravity Powered Calculator

gravity-powered calculator

Believe it or not, this contraption does math.

1. Lift the red lever.
2. Place a ball on the black ramp, next to a number. (Try 16.) The magnets will hold it there.
3. Lower the red lever to release the ball and see where it lands.



▶ Can you hit all 6 of the brass targets?

(Hint: Look for a relationship between the number a ball starts at and the number it lands on.)

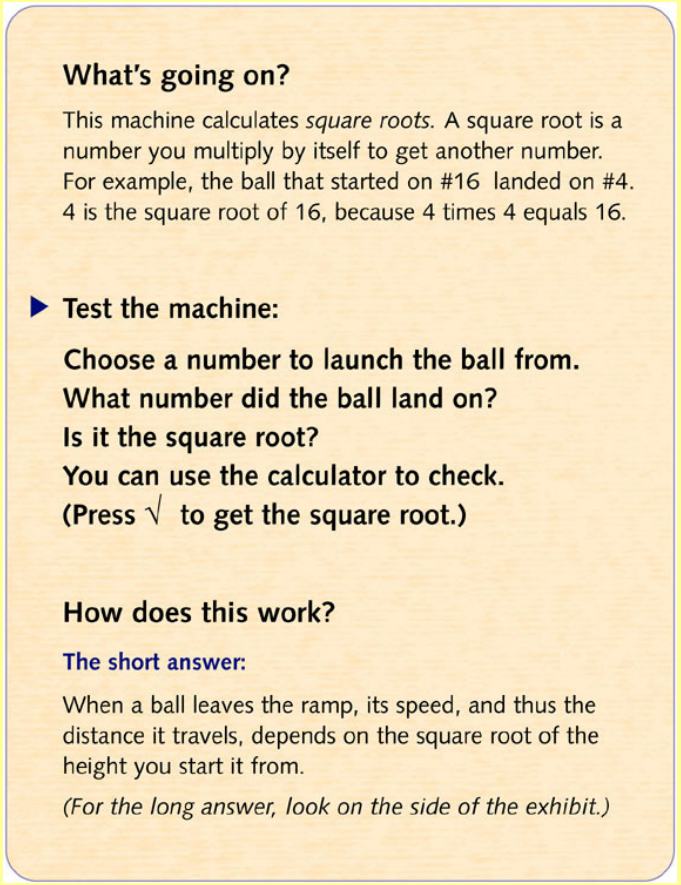
What's going o

This machine calcula
number you multipl
For example, the ba

Rearranging Explanation

- Alternating between active text and hinting at content
- Active content and Unfolding explanation

Gravity Powered Calculator



What's going on?

This machine calculates *square roots.* A square root is a number you multiply by itself to get another number. For example, the ball that started on #16 landed on #4. 4 is the square root of 16, because 4 times 4 equals 16.

▶ **Test the machine:**

Choose a number to launch the ball from.
What number did the ball land on?
Is it the square root?
You can use the calculator to check.
(Press √ to get the square root.)

How does this work?

The short answer:

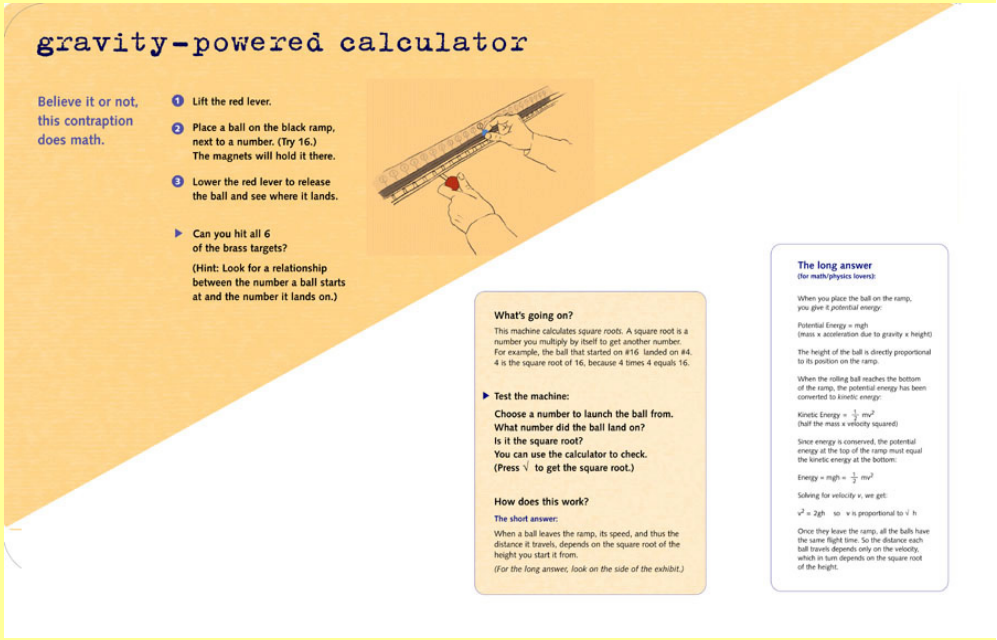
When a ball leaves the ramp, its speed, and thus the distance it travels, depends on the square root of the height you start it from.

(For the long answer, look on the side of the exhibit.)

Rearranging Explanation

- Alternating between active text and hinting at content
- Active content and Unfolding explanation
- Physical placement

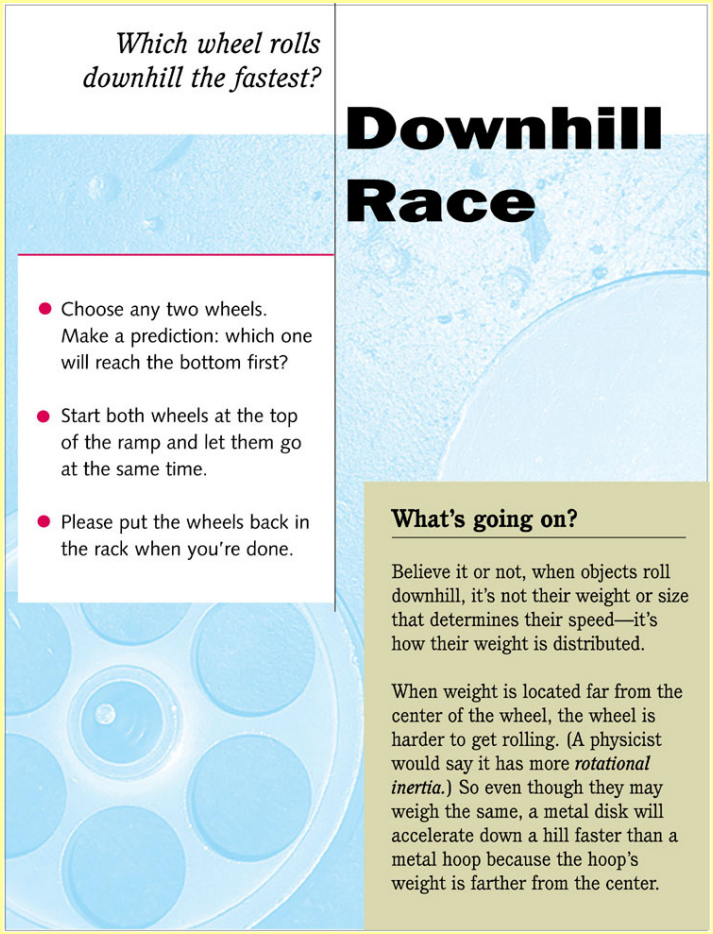
Gravity Powered Calcula



Removing Explanation?

- Standard "Try This" & Explanation

Downhill Race



Which wheel rolls downhill the fastest?

Downhill Race

- Choose any two wheels. Make a prediction: which one will reach the bottom first?
- Start both wheels at the top of the ramp and let them go at the same time.
- Please put the wheels back in the rack when you're done.

What's going on?

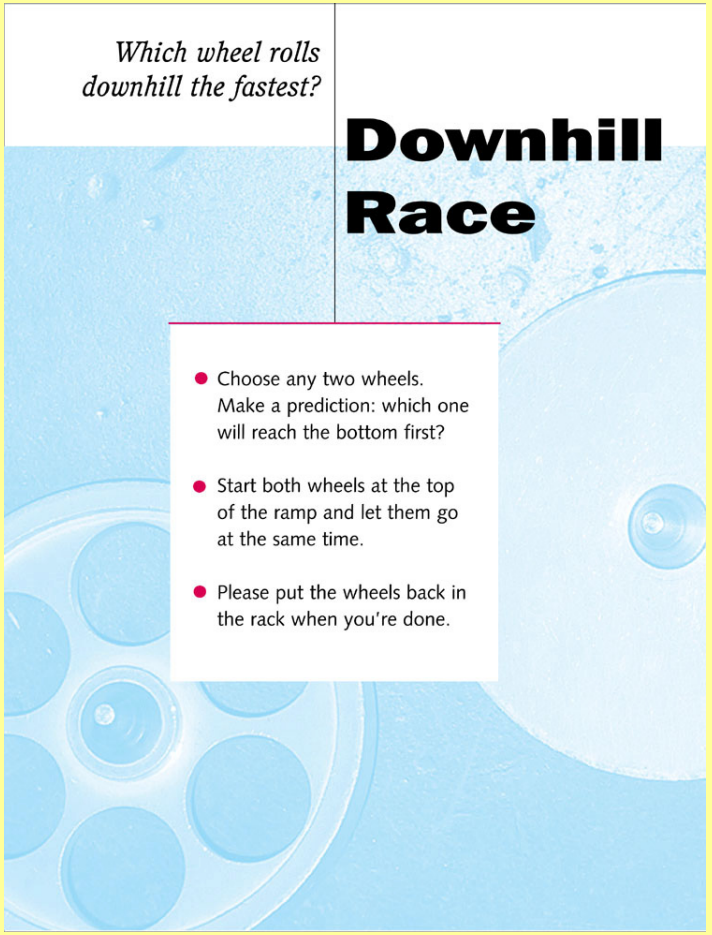
Believe it or not, when objects roll downhill, it's not their weight or size that determines their speed—it's how their weight is distributed.

When weight is located far from the center of the wheel, the wheel is harder to get rolling. (A physicist would say it has more ***rotational inertia.***) So even though they may weigh the same, a metal disk will accelerate down a hill faster than a metal hoop because the hoop's weight is farther from the center.

Removing Explanation?

- Standard "Try This" & Explanation
- No Explanation

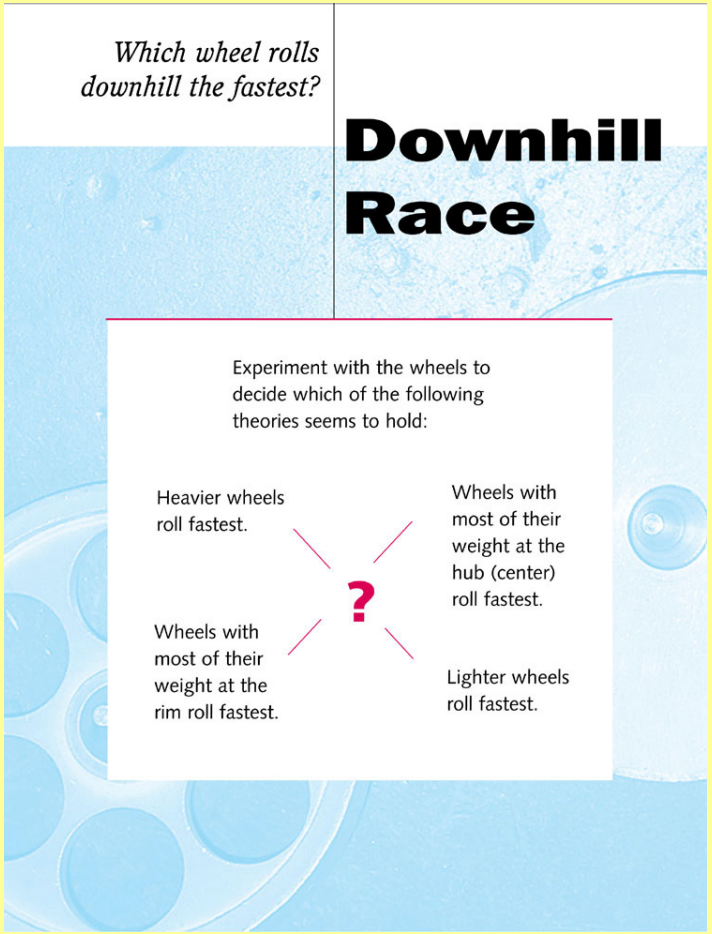
Downhill Race



Removing Explanation?

- Standard "Try This" & Explanation
- No Explanation
- Multiple Choice Explanation

Downhill Race



Removing Explanation?

- No Explanation label
  - Longest Holding time
  - Run the most races
  - Most intellectual engagement
  - Problem: Some visitors frustrated
- Multiple Choice label
  - Visitors talk the least about the content
  - Might have felt test-taking anxiety

Label as Affordance (Multi-Option)

- 3D Shapes

Limitations

- Table-top design arena
- Open space
- Behavior not content

Hopes for the future

- Expand design arena
- Apply what we've learned to content-based projects

Expand APE design arena

Apply APE to content