Saving exhibits from the dumpster

Refurbishing on a shoestring budget

Brought to you by the Department of Science Content and Design, and the number π
ISAAC NEWTON...

I'd bet on the CURVE Any Day!

Je parie que c'est la courbe!
STRENGTH IS NOT ALWAYS THE ANSWER
Try lifting each weight the same distance
Come inside and listen!

Entrez et ouvrez vos oreilles!
Sweeps: snapshots of exhibit usage
A total of **32 sweeps** were made starting on 2016/12/28 through until 2017/01/10. During this time **2392 visitors** were observed in the Science Arcade in direct interaction with one of the identified **57 exhibit clusters**. A total of **1470 behaviours** were identified, **97% of which fell into the 6 main expected categories** selected for this study.
*Most attended exhibits*
Least attended exhibits
Hot – Cold Map

- > 145 visitors
- 114-145
- 81-113
- 49-80
- 17-48
- < 17 visitors

Hot-Cold Map
REACTION TIME

- Reading: 24%
- Hands-on: 15%
- Bodies-on: 36%
- Talking about exhibit: 12%
- Not engaged: 12%
- Unsafe/misbehaving: 0%
- Other (see notes): 0%
WAVE EXPERIMENTS

- Reading: 25%
- Hands-on: 44%
- Bodies-on: 15%
- Talking about exhibit: 0%
- Not engaged: 0%
- Unsafe/misbehaving: 15%
- Other (see notes): 2%

- Other (see notes): 2%
LIBERTY & BELL

- Reading: 13%
- Hands-on: 40%
- Bodies-on: 13%
- Talking about exhibit: 0%
- Not engaged: 20%
- Unsafe/misbehaving: 13%
- Other (see notes): 0%
Word clouds produced from employee brainstorming sticky note answers to 4 questions:

In your opinion, what is the most important part of the science arcade?

Interactive

Science

Updated

Experience/senses

Show

Science

More

Exhibit

Lots

Hands-on

Use

Purpose

Extreme

Content

Tunnel

Assigning a working title and tag line:

Action – Reaction: explore physical principles and phenomena through play.

What is the most important thing we could have in the hall?

Interactive

Energy

Science

Babbage

Little pushing

Demo

Organisation

Different workshops

Iconic

Solve

Exhibit

running hits

Machines

Everywhere

Universal

Full

Physics

High

Body

Electricity

Body

Press

Presented

Feeling

Mystery

Theme

Doing

Vibe

Hall

Many

Unstructured

Way

Shadow

Easy

Sense

Potential

Collection

Experience

Full

High

Body

Activities

Play

More

Balls

Buttons

Experience

Space

Else

Real

Art

Virtual

Shuttle

Suspended

Room
What do you think are the best topics to use to add more exhibits to this room:

- Electricity & Magnetism
- Experiments & Scientific Tools
- Atoms & Particles
- Light, Sound & Waves or Levers, Pulleys & Gears?
What type of activities do you think are the best activities to add to this group of exhibits?

Playful
bodies-on
high tech
group activity
quiet
What do you think are the best topics to use to add more exhibits to this room?

- ELECTRICITY & MAGNETISM
- EXPERIMENTS & SCIENTIFIC TOOLS
- ATOMS & PARTICLES
- LIGHT, SOUND & WAVES
- LEVERS, PULLEYS & GEARS
So that participants unveil for themselves the **Fun** and **Joy** in science while exploring and experimenting with the fundamental ideas of:

- Atoms and Particles
- Electricity and Magnetism
- Light, Sound and Waves
- Levers, pulleys and gears
- Experiments and scientific tools,

this hall will inspire:

the **Curiosity** to question and wonder; the **Courage** to try and play; the **Confidence** to interpret and conclude; and the **Comfort** to share and listen.
In instances where the exhibits feature large format canvases (especially those with physical barriers to reading) it's important to optimize the typographic design to create visual hierarchy.

Clearly articulated typographic hierarchy attracts people to the exhibit from far away, and also breaks content into digestible portions when viewing from up close for people of all ages.

**SAMPLE TYPOGRAPHIC BREAKDOWN**

**Visual Hierarchy LEVEL 1**

**PULL**

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Action word typeset in Neogram Black, upper case.

**Visual Hierarchy LEVEL 3**

"Which weight is easiest to lift? Can you see why?"

**Visual Hierarchy LEVEL 2**

"Ready to **EXPERIMENT**?"

Tight line-spacing used to keep sentence as cohesive graphic unit.

**Visual Hierarchy LEVEL 3**

"Lift all the weights to the same height. How do the pulleys and rope lengths differ?"

Slightly looser line-spacing used to separate text block from next sequence of hierarchy.

Avoid **widows/orphans** (single-word lines) whenever possible. However, width constraints combined with font size requirements might make them necessary sometimes.
PULL each handle. What weight is easier to lift? Can you see why?

Ready to experiment? Lift all the weights to the same height. How do the pulleys and rope weigh effort?

TIREZ chaque poignée. Quel poids soulevez-vous le plus facilement? Pourquoi?

L’expérience vous tente? Lévez tous les poids à la même hauteur. À quelles longueurs tirez-vous les cordes?
STRENGTH IS NOT ALWAYS THE ANSWER
Try lifting each weight the same distance
TEST
the levers.
How do they differ?

Ready to experiment?
What's best: heavy or light?● Which test shows the best results?
Which weight moves the fastest?
Which number is the lowest?
Which point is the lowest?
Which point is the greatest?

ESSAYEZ
les leviers.
Quelles sont les différences?

L'expérience
votre tâche?
Quel levier est le mieux?
Le levier de gauche?
Quelle est la distance la plus grande?
Quelle est la distance la plus petite?
Changez-les et observez!
TEST
the levers.

How do they differ?

Ready to EXPERIMENT?
Which lever takes the most effort to lift?
Which lever takes the least effort to lift?
Which weight moves the farthest?
Which handle moves the farthest?
How does this relate to where each pivot point (fulcrum) is positioned?

ESSAYEZ
les leviers.

Quelles sont les différences?

L’EXPÉRIENCE vous tente?
Quel levier exige le plus d’effort?
Le moins d’effort?
Quel poids se déplace le plus?
Quel bras se déplace le plus?
Comment la position du pivot change-t-elle la situation?
Come inside and listen!
Entrez et ouvrez vos oreilles!
Listen to the sounds around you.

What do you hear?

Ready to experiment?
Where and why is it quietest?

Écoutez tout le bruit autour.

Vous entendez?

L'expérience vous tente?
Entrez explorer. Écoutez. Regardez.
Où se trouve le plus de silence?
Thank you for time and attention

Any questions?

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