Interactive Website Module Design and Development for the Museum of Science and Industry
The Museum of Science and Industry would like to increase user interactivity on its website.
Goals of the Project

- We will continue to develop interactive and educational modules for an 8th grade audience.
- Each module will reflect specific scientific topics based on research and analysis.
- Modules will aid teachers, parents, and students with 8th grade curriculum topics.
Organization of the Team

Team Leader

Sub-team Leader

Designer
Developer
Content Manager

Genetics

Sub-team Leader

Designer
Developer
Content Manager

Mechanics

Sub-team Leader

Designer
Developer
Content Manager

Energy
Progress Toward Goals

Semester 1
- Research and Analysis – Textbooks, curriculum and other interactive websites
- Schematic Design – Initial nine ideas
- Design Development – Development of top three ideas: Genetics, Machines and Energy
- User Testing
- Feedback from MSI

Semester 2
- Design Development – Reflects concerns and recommendations from the museum’s feedback.
- Continue to develop three modules to the final stage
- More user testing to ensure quality
Genetics Module

Purpose
- Our purpose is to develop a genetics module that teaches 8th graders about simple hereditary and sex-linked traits.

Obstacles
- Reducing text while keeping the content informative.
- Keeping the content and complexity age appropriate.
**Old Introduction**

Task 1: Intro to Genetics

Typically the dominant alleles are written using capital letters and the non-dominant, or recessive, alleles are written in lower-case letters.

![Image showing woman with diagram of alleles AA, Aa, and aa]

**New Introduction**

Task 1: Intro to Genetics

Why do some children look like their parents? Why do other children only slightly resemble their parents? The answer lies in their genes, and you, ________, can help me figure it out.

![Image showing woman with diagram of parents and children]

**Old Task 1**

Task 2: Heredity Dominant/Recessive

See how alleles are distributed among offspring.

![Image showing Punnett square with alleles A and a]

**New Task 1**

Task 1

What do the children look like if two heterozygous parents mate? Drag the correct genotype and phenotype in the Punnett square.

![Image showing woman with correct answer displayed]
Mechanics Module

Purpose
- Educate users about physics behind simple machines through interaction with various puzzles.

Obstacles
- Completing the module by the end of the semester.
- Balancing education and entertainment.
Feedback from the sponsor showed they did not like the gnome idea.

The previous module was in its early stages, there was little work lost by creating a new story.

Expansion of initial module.
Current Module

- Point and click adventure in MSI.
- The storyline was created so the user feels more involved and is more mature and realistic.
- User stumbles upon a new exhibit under construction and decides to look around. User gets stuck inside the new exhibit and must escape by solving mechanics based puzzles.
Example Room and Puzzles
Energy Module

Purpose
- The user will experiment with powering buildings using different types of sustainable energy.
- Cost analysis, benefits and feasibility will be displayed for each type of power.
- From this information, the user will be asked to provide power for a building using the most efficient energy sources.

Obstacles
- Finding credible energy statistics for the module.
Improvements

- Redesign of the existing images
- New locations alter what power sources the user should utilize
- Only small scale energy sources are user controlled
- Better researched content
Images

Old Module

New Module
Milestones

- **Design Development – Phase 1**
  - 2.28.08 – Approval of direction and semester goals

- **Design Development – Phase 2**
  - 3.27.08 – Approval of progress

- **User Testing**
  - 4.10.08 – Haines School

- **Design Development – Phase 3**
  - 4.24.08 – Approval of final development

- **Final Submission**
  - 5.1.08
Thank you!