

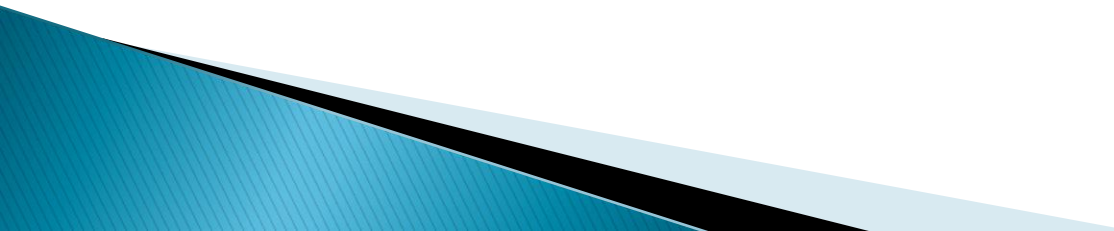
# **I PRO 333**

Interactive Website Module  
Design and Development for the  
Museum of Science and Industry

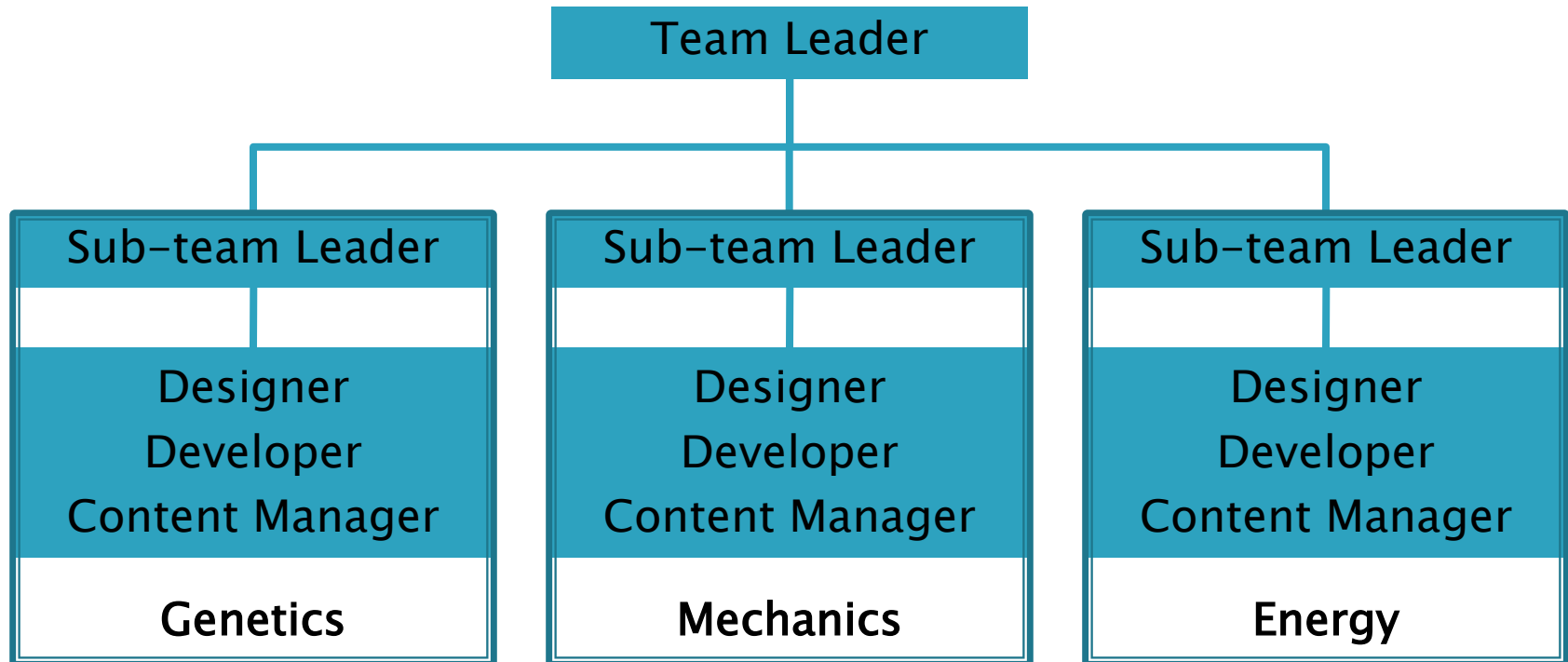
# Statement of the Problem

- ▶ 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 8<sup>th</sup> grade audience.
  - ▶ Each module will reflect specific scientific topics based on research and analysis.
  - ▶ Modules will aid teachers, parents, and students with 8<sup>th</sup> grade curriculum topics.
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# Organization of the Team

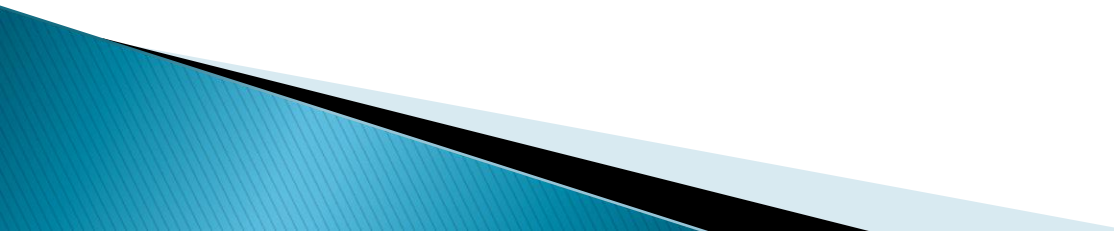


# Progress Toward Goals

## ▶ 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

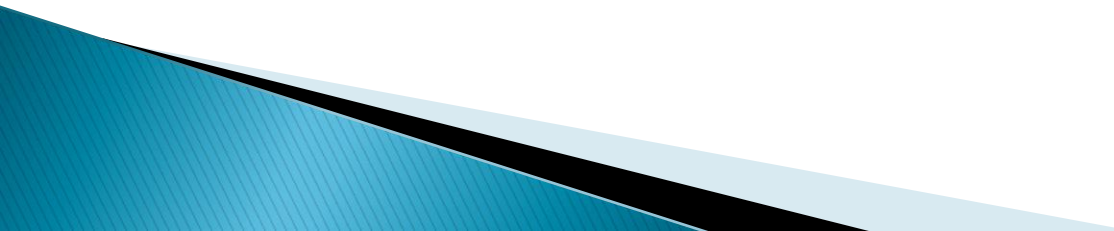
- Design Development – Reflects concerns and recommendations from the museum's feedback.
  - Continue to develop three modules to the final stage
  - More user testing to ensure quality
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# Genetics Module

## ▶ Purpose

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

## ▶ Obstacles

- Reducing text while keeping the content informative.
  - Keeping the content and complexity age appropriate.
- 



Old Laboratory

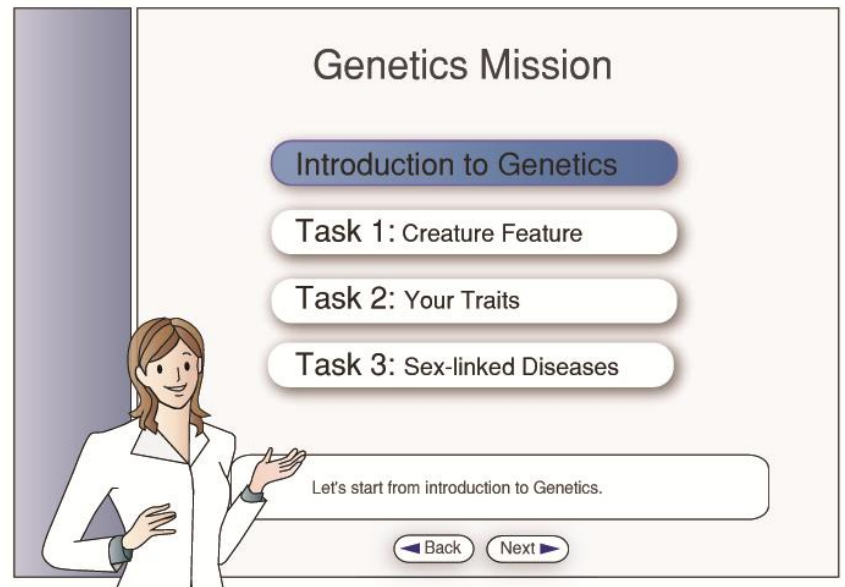


New Laboratory

Old Menu



New Menu



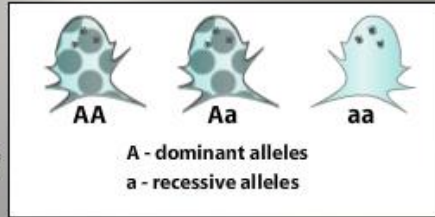


## Task 1: Intro to Genetics



Menu

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



Back Next

Old Introduction

Old Task 1

## Task 2: Heredity Dominant/Recessive

See how alleles are distributed among offspring



Menu



	A	A
a	Aa	Aa
a	Aa	Aa

Back Next

### Introduction to Genetics

Intro  
Task1  
Task2  
Survey

Back to Lab  
Help ?

Parents

Children

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.

Back Next

New Introduction

New Task 1

### Task 1

Intro  
Task1  
Task2  
Survey

Back to Lab  
Help ?

	A	a
A	AA	
a		

Genotype

AA

Aa

aa

Phenotype

Correct!

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

Back Next

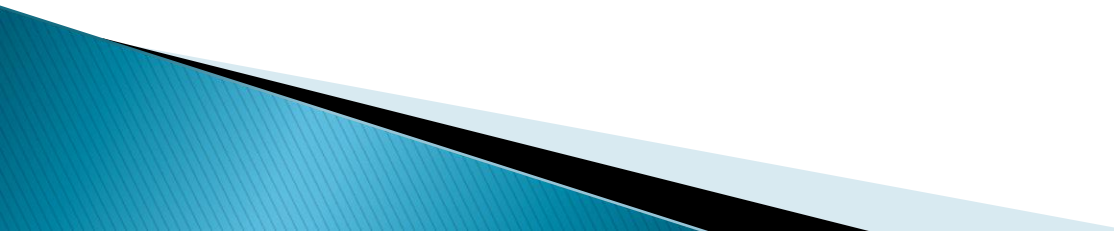


# Mechanics Module

## ▶ Purpose

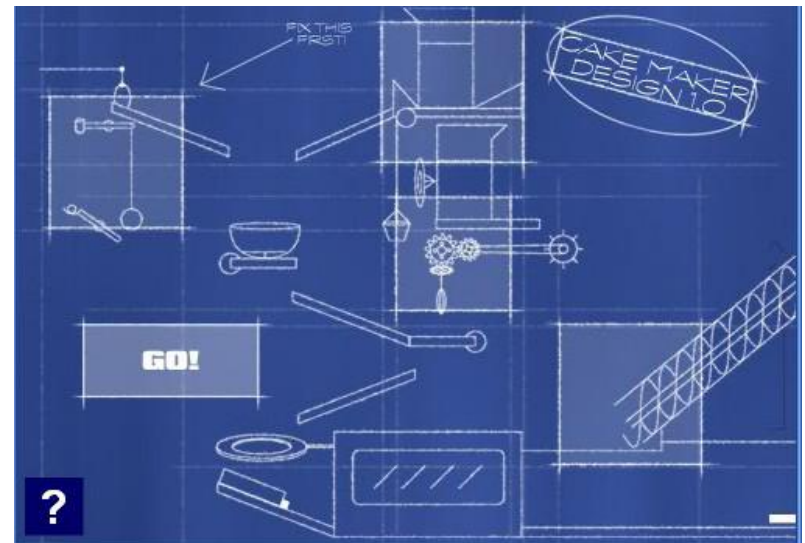
- Educate users about physics behind simple machines through interaction with various puzzles.

## ▶ Obstacles

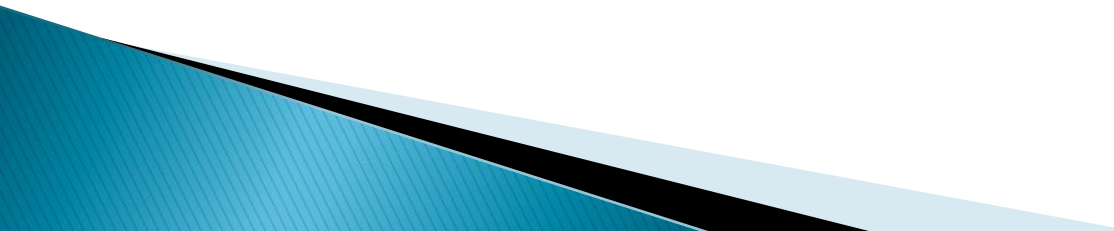
- Completing the module by the end of the semester.
  - Balancing education and entertainment.
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# Improvements

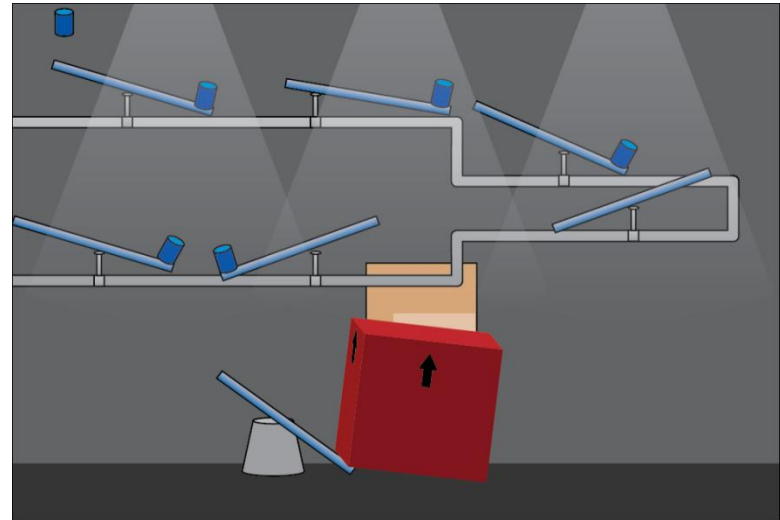
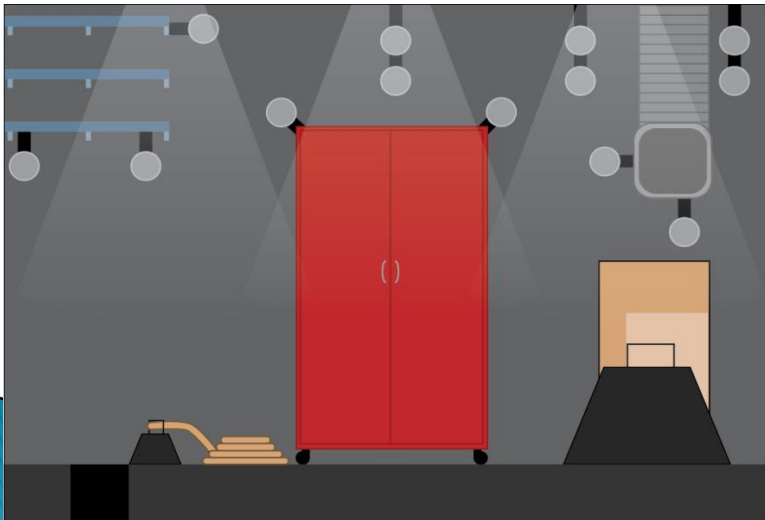
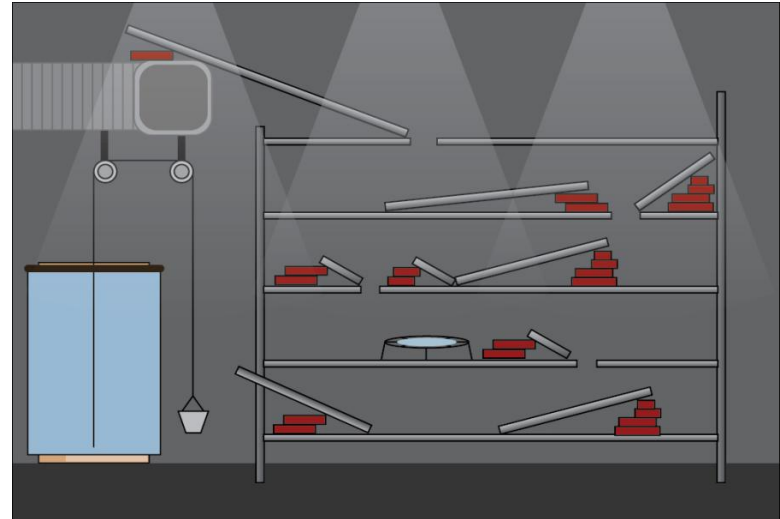
- ▶ Feedback from the sponsor showed they did not like the gnome idea.
- ▶ The previous module was in its early stages, there was little work lost by creating a new story.
- ▶ Expansion of initial module.



# 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.
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# Example Room and Puzzles



# Energy Module

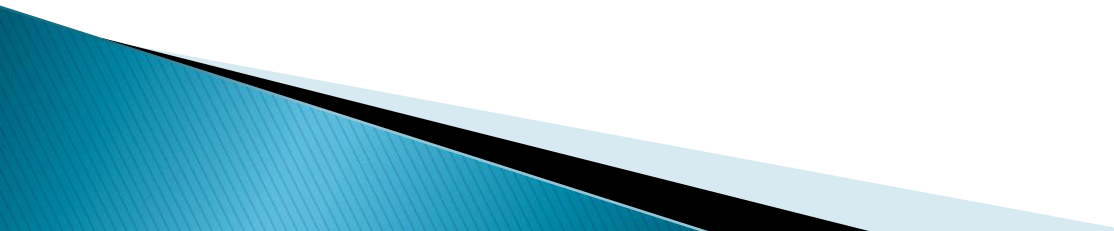
## ▶ Purpose

- 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
- 



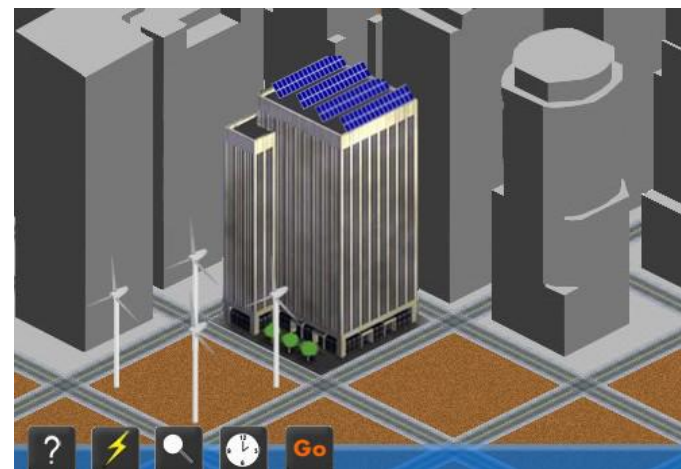
# Images



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!