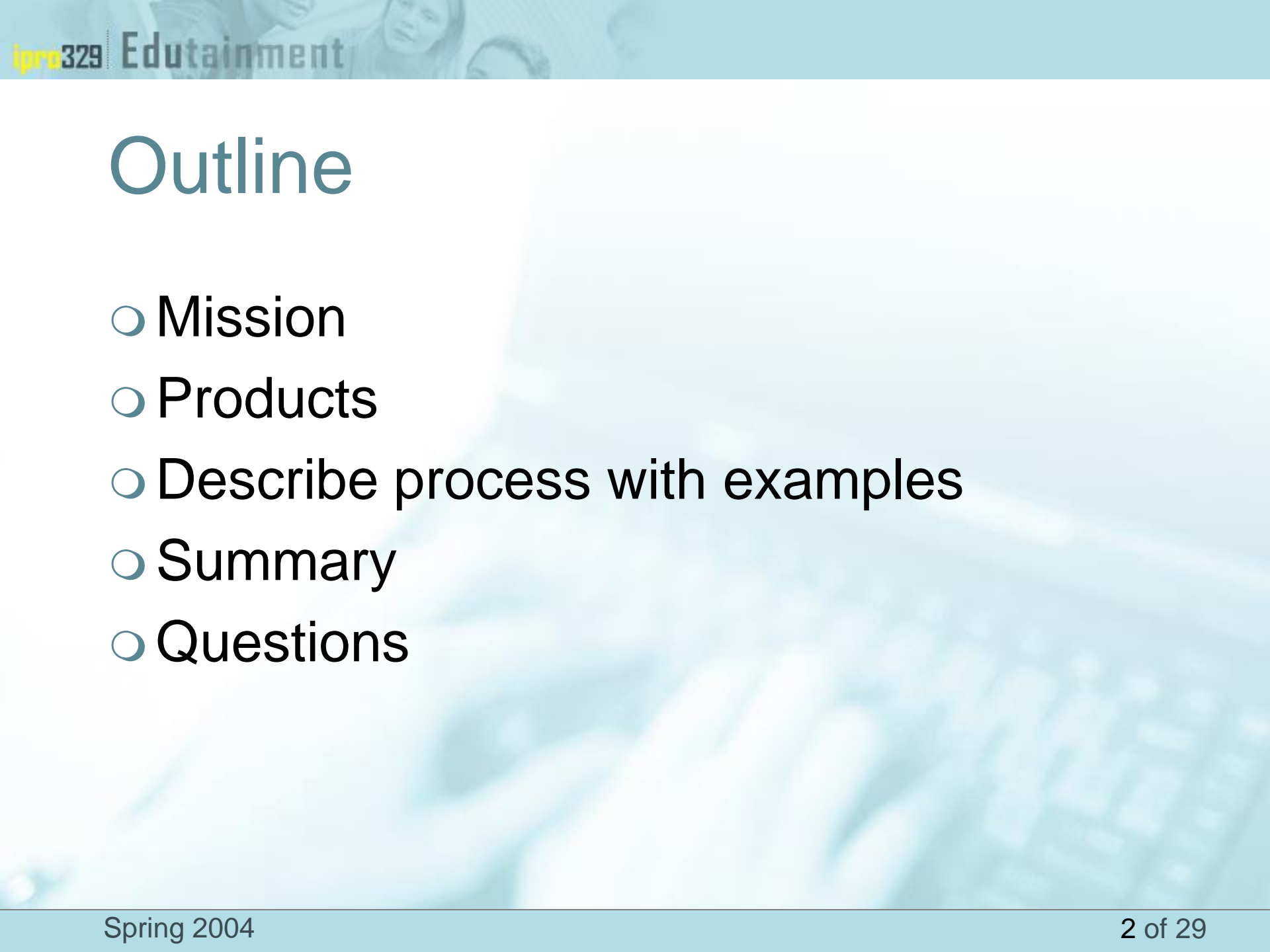# ipro329 Edutainment

Using computer games to facilitate learning...

Outline

○ Mission

○ Products

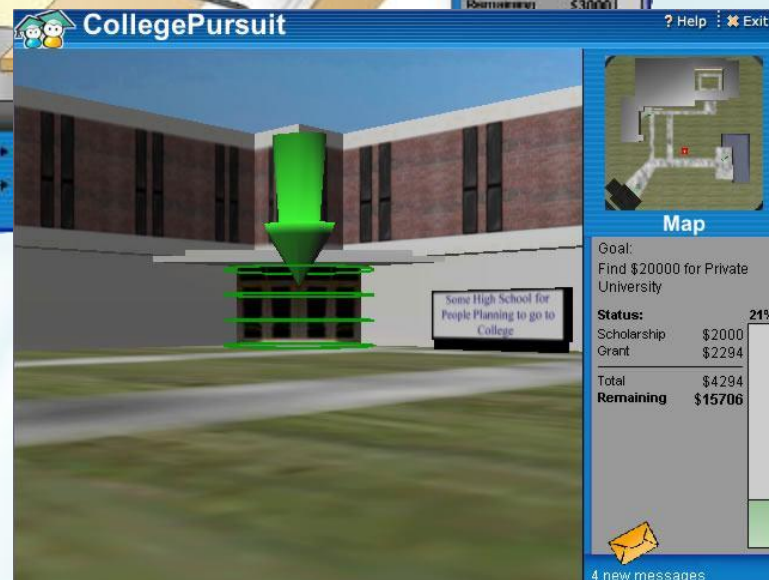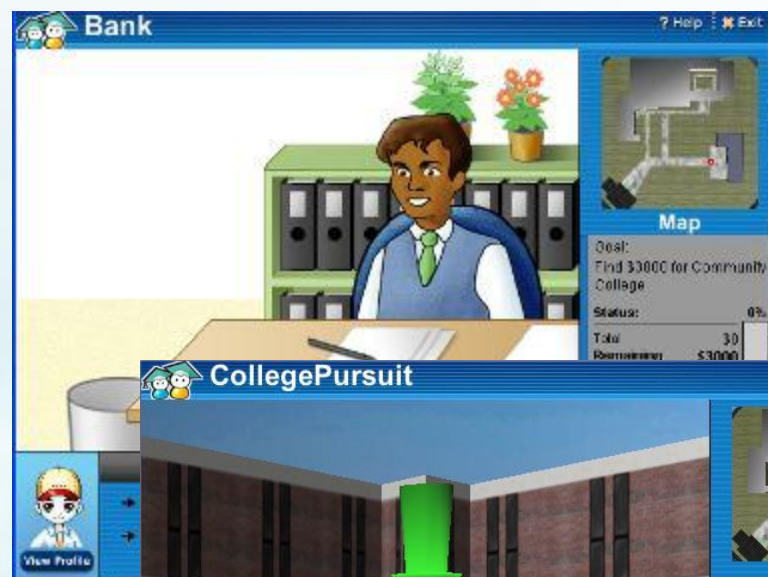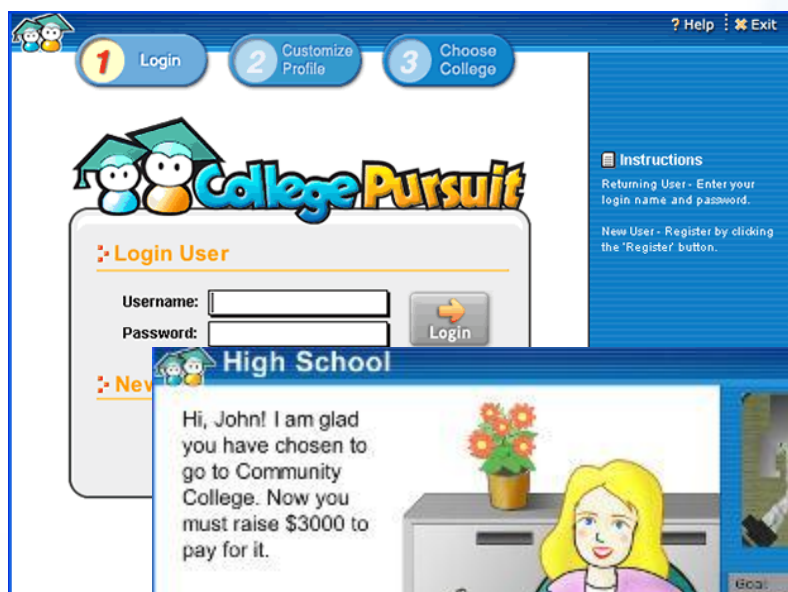○ Describe process with examples

○ Summary

○ Questions

Mission

○ Edutainment

- Educational

- Entertaining

○ Create computer games that teach

○ Facilitate learning through fun and interactive environment

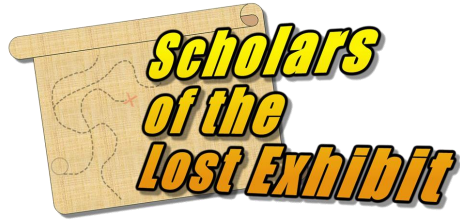The first 3D computer game about financial aid

CollegePursuit

- 2002 Harris Poll: ~**72%** of youth and parents are **not aware of** basic sources of financial aid such as **scholarships**, **loans**, and **grants**

- Educate players about various forms of aid

- Simulate real world situations

- Interactive 3D world
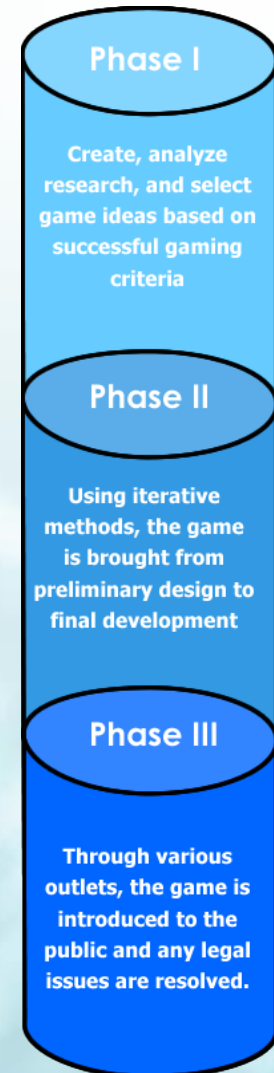
Scholars of the Lost Exhibit
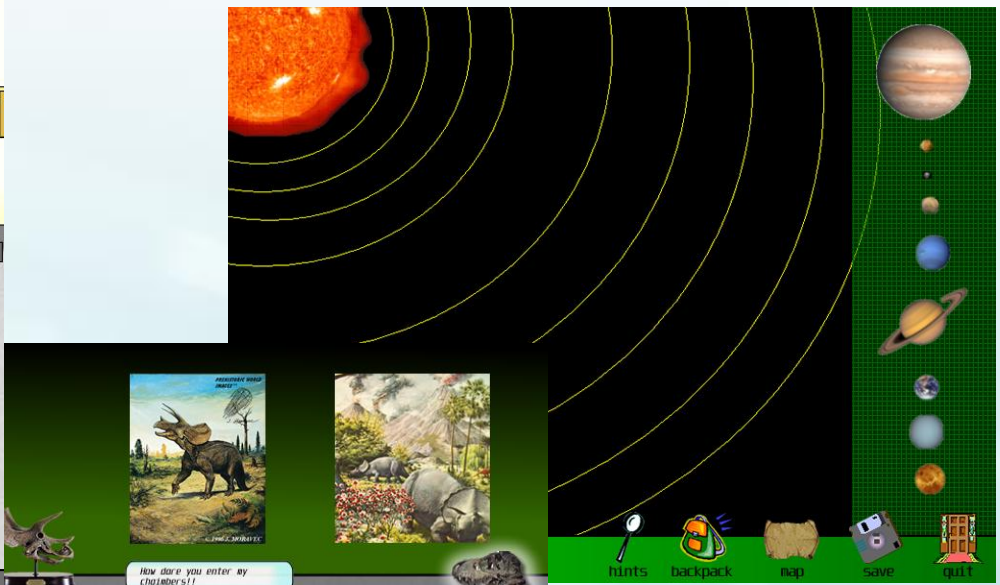
- 2003 state by state assessment of 4th graders
  - 38% of students below basic reading standards
  - 24% of students below basic math standards
- Multi-subject game with a museum theme
- Teach and reinforce concepts in a student's curriculum
- In-depth storyline

Pipeline Process

○ Business-like approach

○ Use a pipeline model

Phase I

Create, analyze research, and select game ideas based on successful gaming criteria

Phase II

Using iterative methods, the game is brought from preliminary design to final development

Phase III

Through various outlets, the game is introduced to the public and any legal issues are resolved.

Phase I

○ Criteria

○ Brainstorm

○ Selection

○ Research

Phase I

Create, analyze research, and select game ideas based on successful gaming criteria

Phase II

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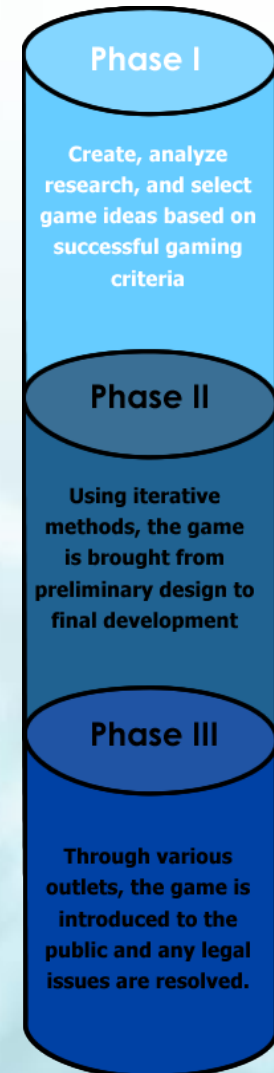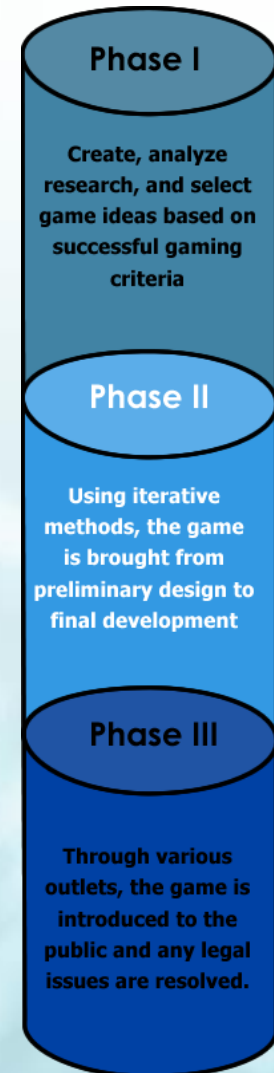
Phase I – Criteria Example

- ○ Overlapping criteria create a marketable product

Phase II

- **Design**
- Development
- Testing

Phase I

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Phase II

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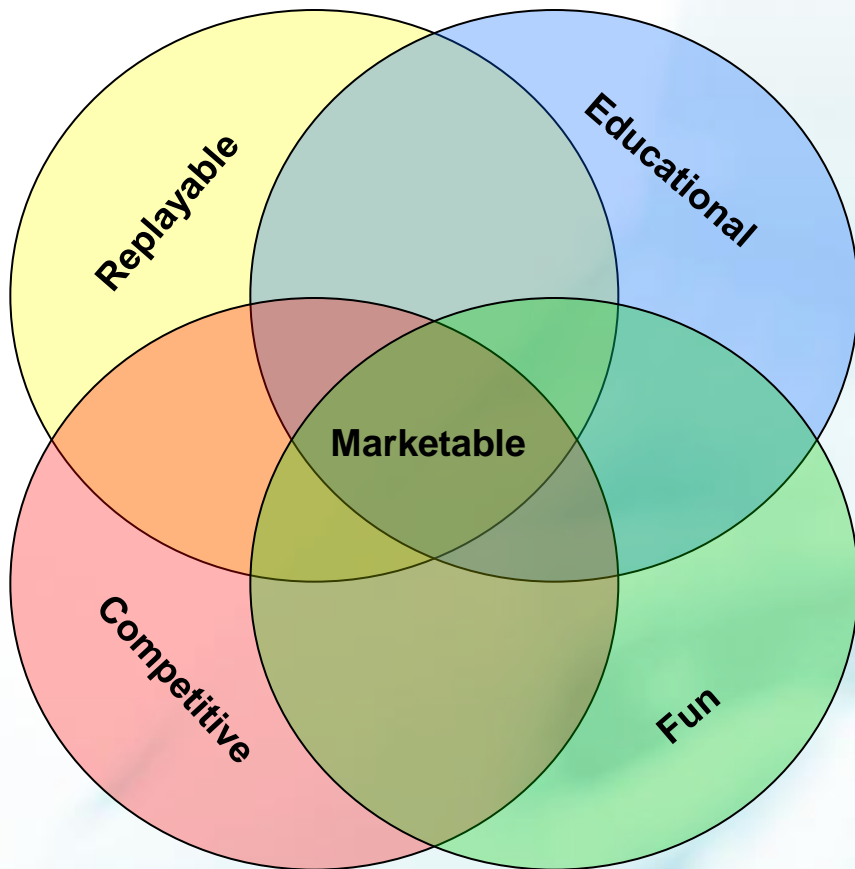
Phase II – High Level Design

```
Intro Animation
(Bus Scene)
      ↓
Login Screen
      ↓
Museum Lobby
(Beginning of Game)
      ↓
Corridor
(Enter)
      ↓
User enters 1 of 4 wings
```

```
Corridor
(Exit)
      ↓
Museum Lobby
(End of Game)
      ↓
Exit Animation
(Classmate Liberation Scene)
```
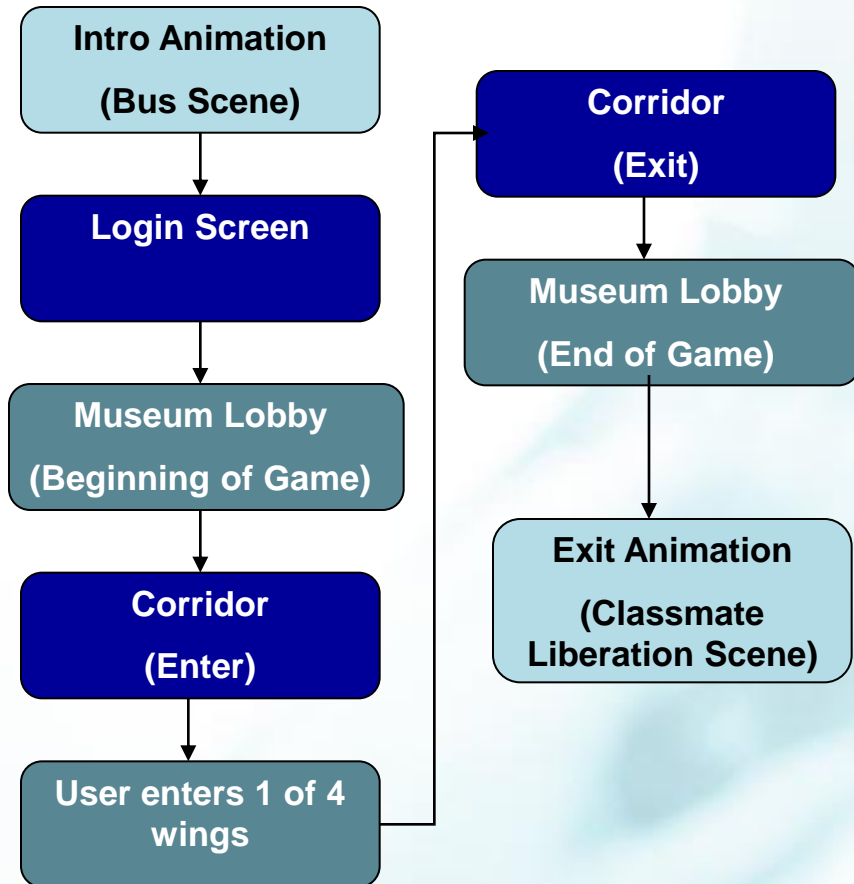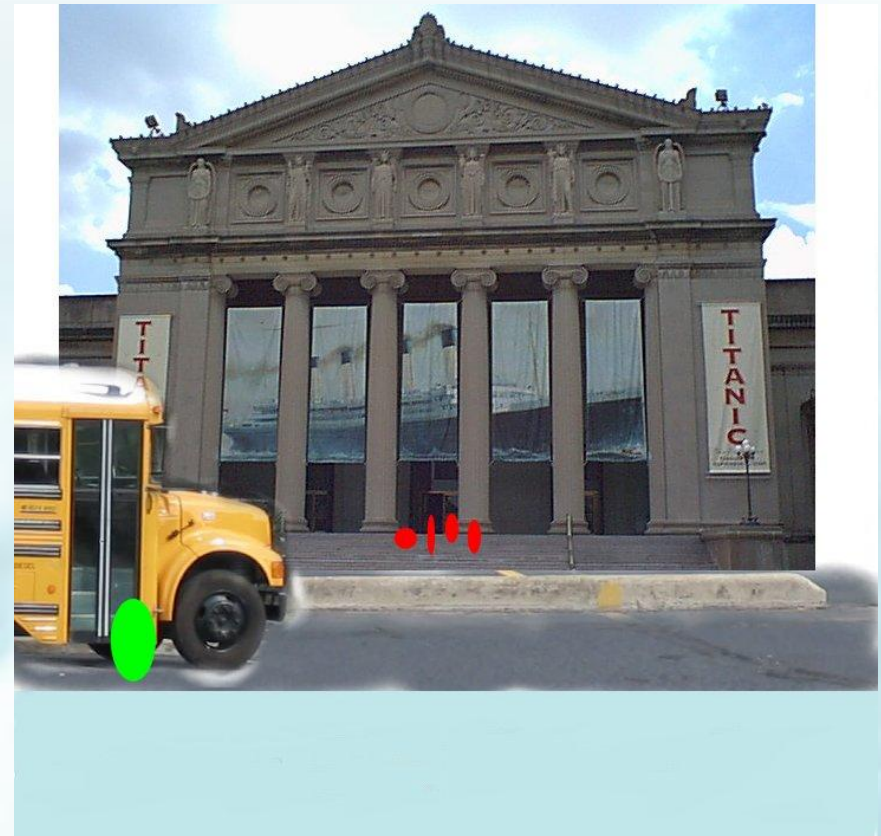
○ Provides foundation for lower level design and development
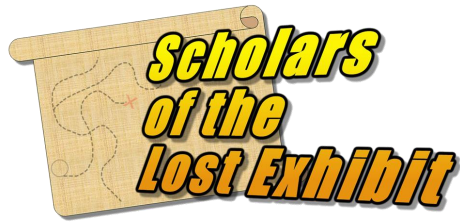
Setting: Museum Field Trip

○ Class field trip to museum
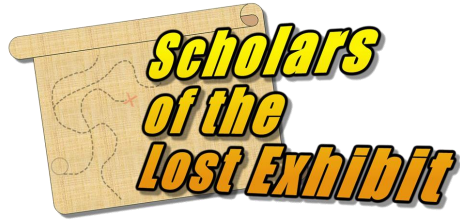
○ Player gets separated from their class
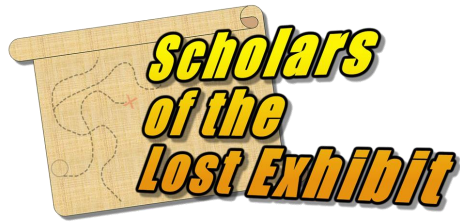
Main Hall

- Try to find class
- Meet variety of characters
- Explore four wings of the museum
  - Math
  - Science
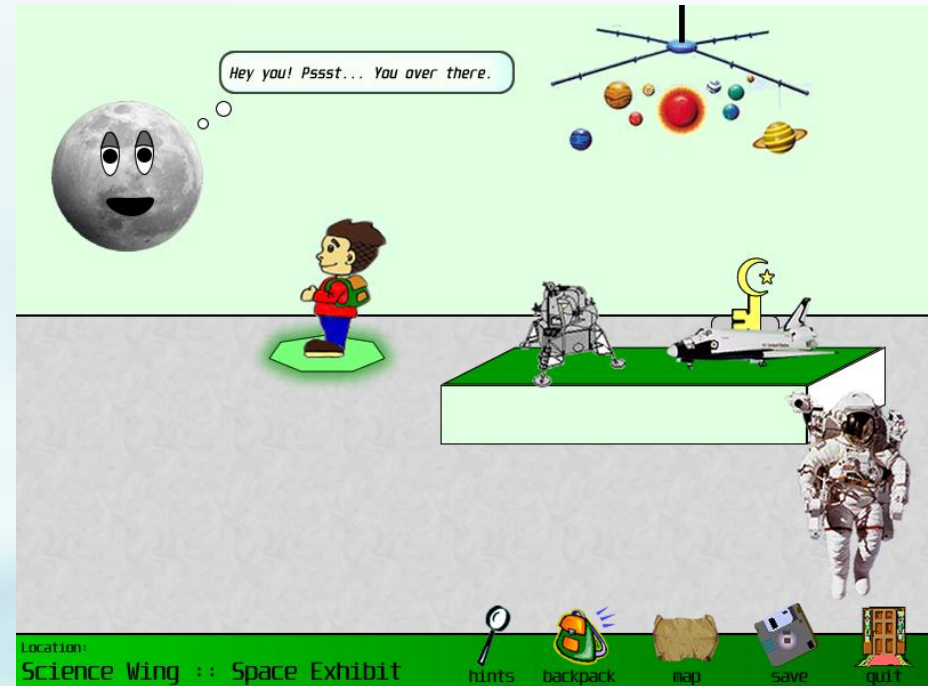 - Language Arts
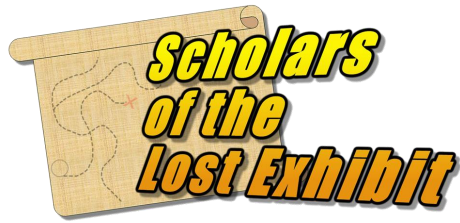 - Social Studies

Museum Wing

- Meet a boneless dinosaur
- Agree to help recover his bones
- Explore the exhibits

Exhibit

- Exhibit filled with artifacts and inanimate objects
- Teaches material
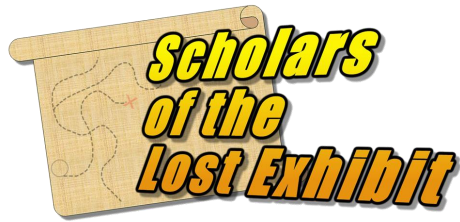- Games and activities reinforce material
- Receive Key

Entering Sibling's Den

- All keys of a wing are used together to enter the evil Sibling's Den
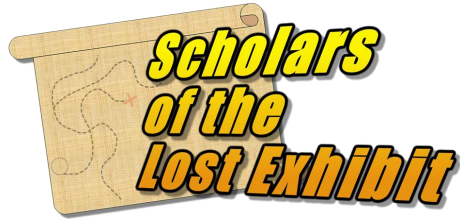
Sibling's Den

○ Challenges player to battle of knowledge

○ Tests all knowledge learned from exhibits

○ Incorporate all games in the wing
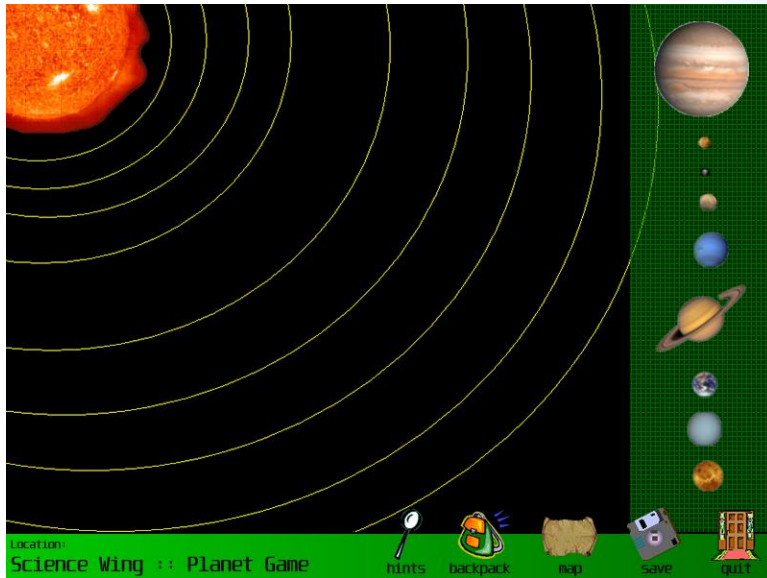
○ Failure to win results in losing keys

Saving the class

○ Complete all four wings

○ Recover all bones of the dinosaur

○ Four siblings have captured the class

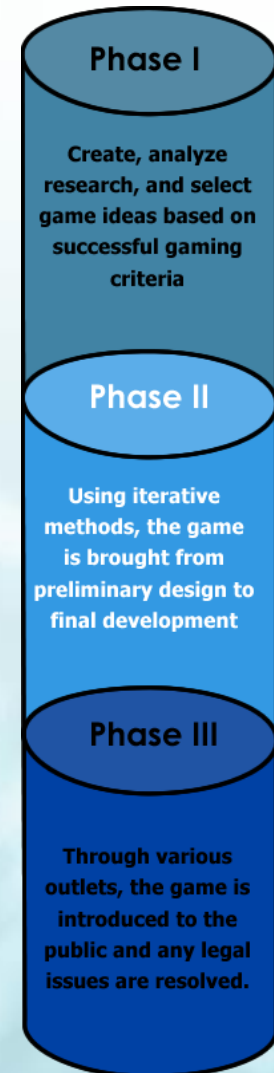○ Must pass the final challenge in order to save the class and be the hero

Phase II – Storyboarding

○ Storyboarding and screenshots evolve into paper prototypes.

Phase II

○ Design
○ **Development**
○ **Testing**

Phase I

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Phase II

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Phase III

Through various outlets, the game is introduced to the public and any legal issues are resolved.

Phase III

○ Marketing

○ Rollout

Phase I

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Phase II

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Phase III

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Phase III – Marketing & Rollout

○ Published Website

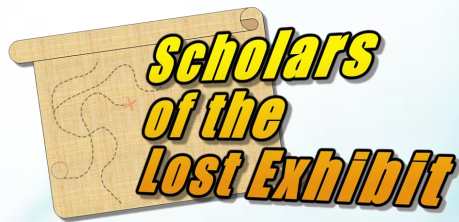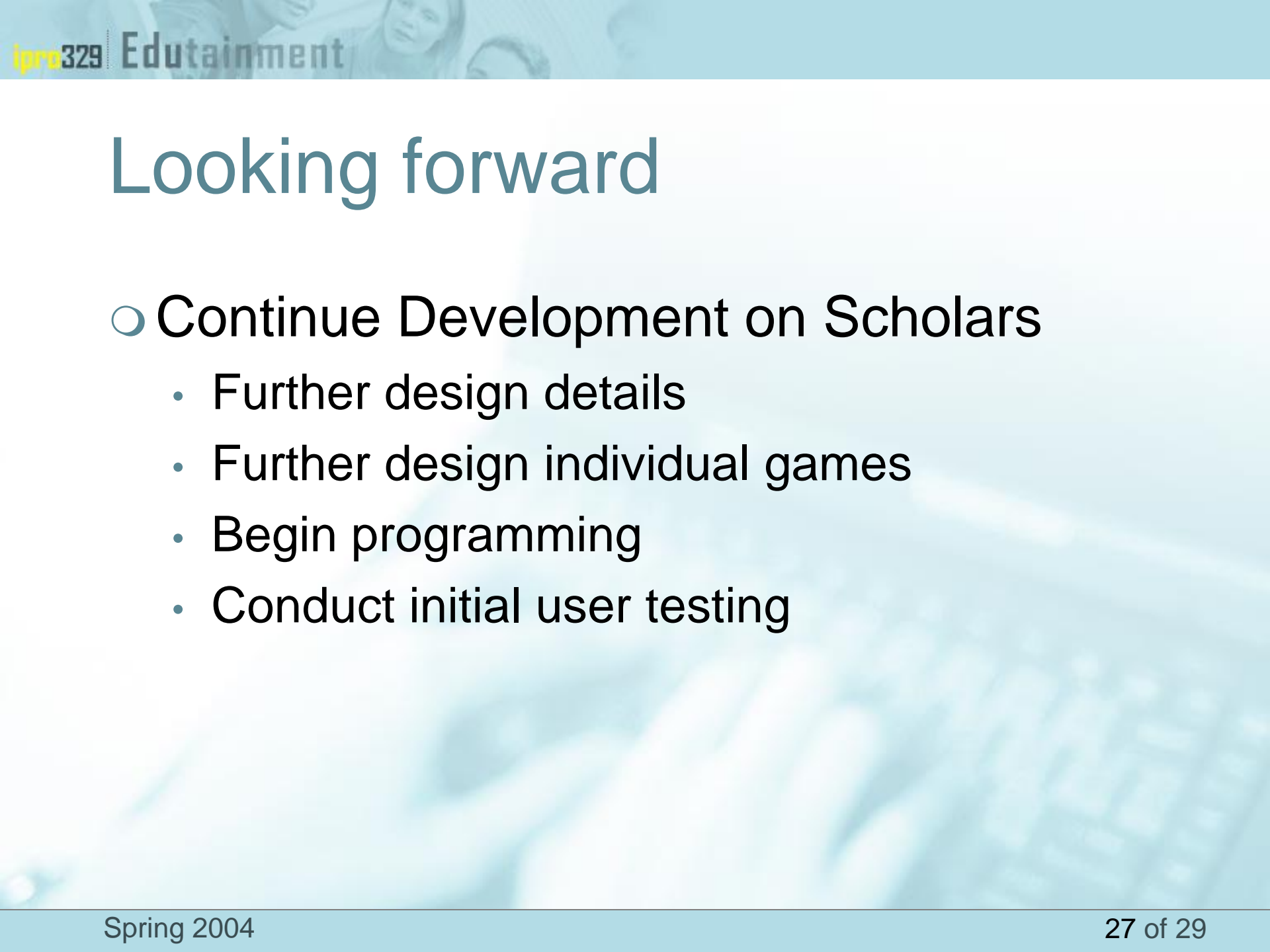○ Trademark

○ STC Competition
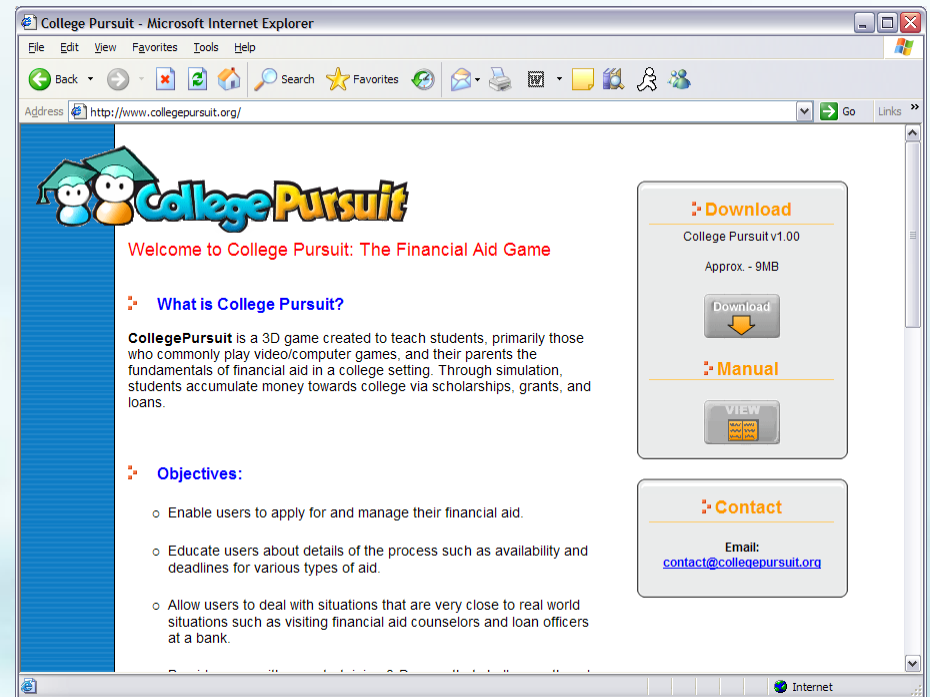
Demo

IPRO Experience

○ Operate like a business

○ Time management

○ Responsibility

○ Utilize team member and resources

- Effectively
- Efficiently

Summary

○ Pipeline process allowed us to work on two products at once

○ Completed and published CollegePursuit

○ Laid the foundation for next term

Looking forward

○ Continue Development on Scholars

- Further design details

- Further design individual games

- Begin programming

- Conduct initial user testing

Acknowledgements

Dr. Susan Feinberg (Faculty Advisor)

Marketing & Usability Testing

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IIT IPRO Program

All our guests today…

Development

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PJ Swesey

Steve Pfisterer

Wojciech Sierka

Design

Chris Coats

Hosain Manesh

Lauren Joyce

Tony Pacheco

Questions?

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