

ipro 329

EDUTAINMENT

educating and entertaining one game at a time

Designers of award winning



College Pursuit

Game Overview

- Student is lost at museum
- Meets Scientist and told main exhibit *Stan T-Rex* has been stolen
- Must play games in math and science wing to win bones back
- Knowledge battle after completing 3 games to attempt and win bones
- After all bones recovered, ultimate knowledge battle to save captive class

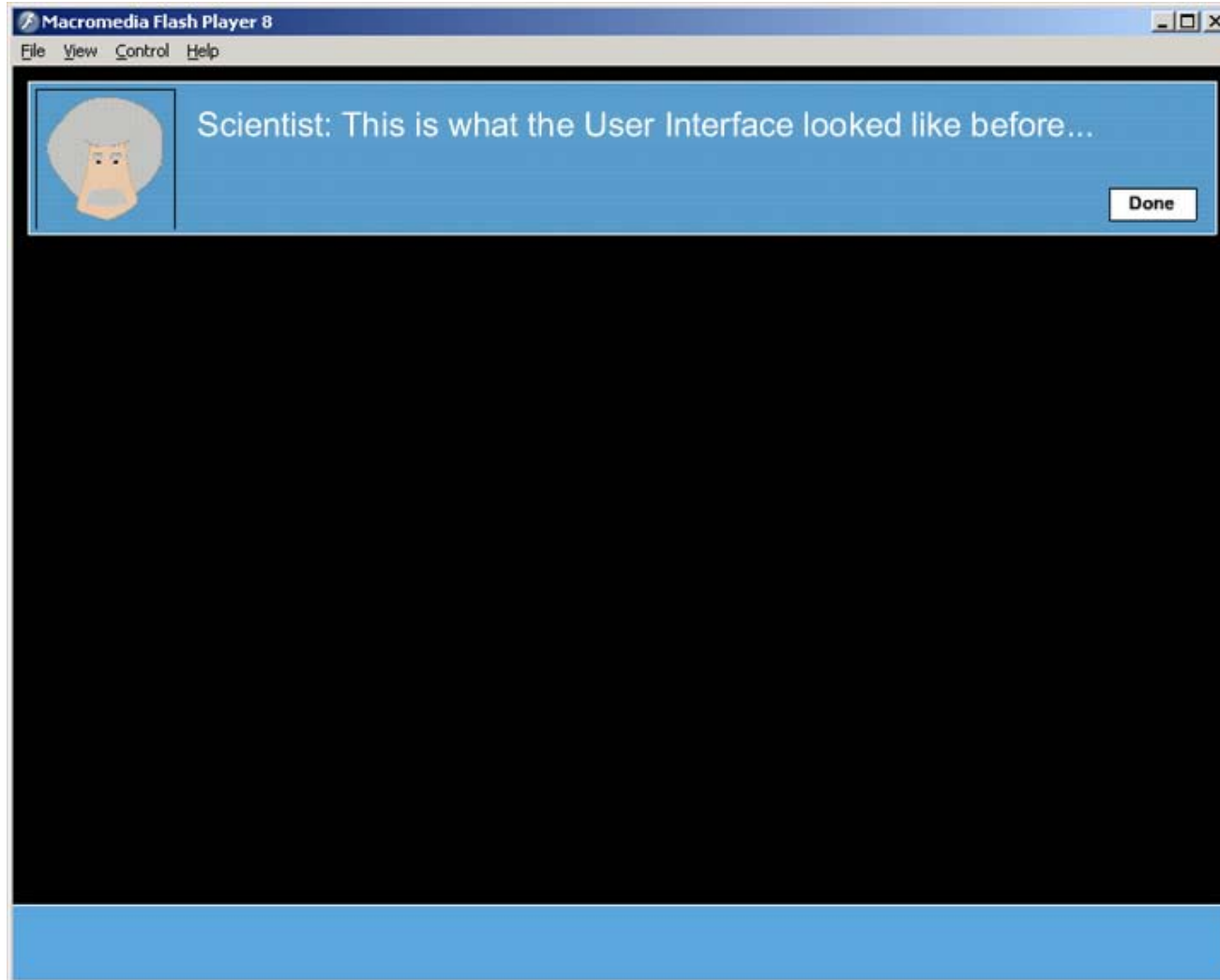
Introduction

- Character Selection/User Interface
- The Planet Game
- The Constellation Game
- The Water Cycle Game

User Interface and Character Selection

UI - Before

- One Character
- Button-less Toolbar



UI-Focus

- Character selection
- Buttons & button events

UI - Characters

Soko



Tony



UI - Toolbar Icons



Backpack - Storage for keys, bones, and souvenirs. User can view items at any point in the game



Disk - Saves the game at any point during the game



Magnifying Glass - Gives hints for questions during mini-games and knowledge battles



Map – Shows all the wings in the museum and the character's location



Door – Exits a minigame and the game

UI - After

- Character selection
- Buttons!
- Improved Speech Interface

UI-Demonstration

Water Cycle Game

Vermont Standards

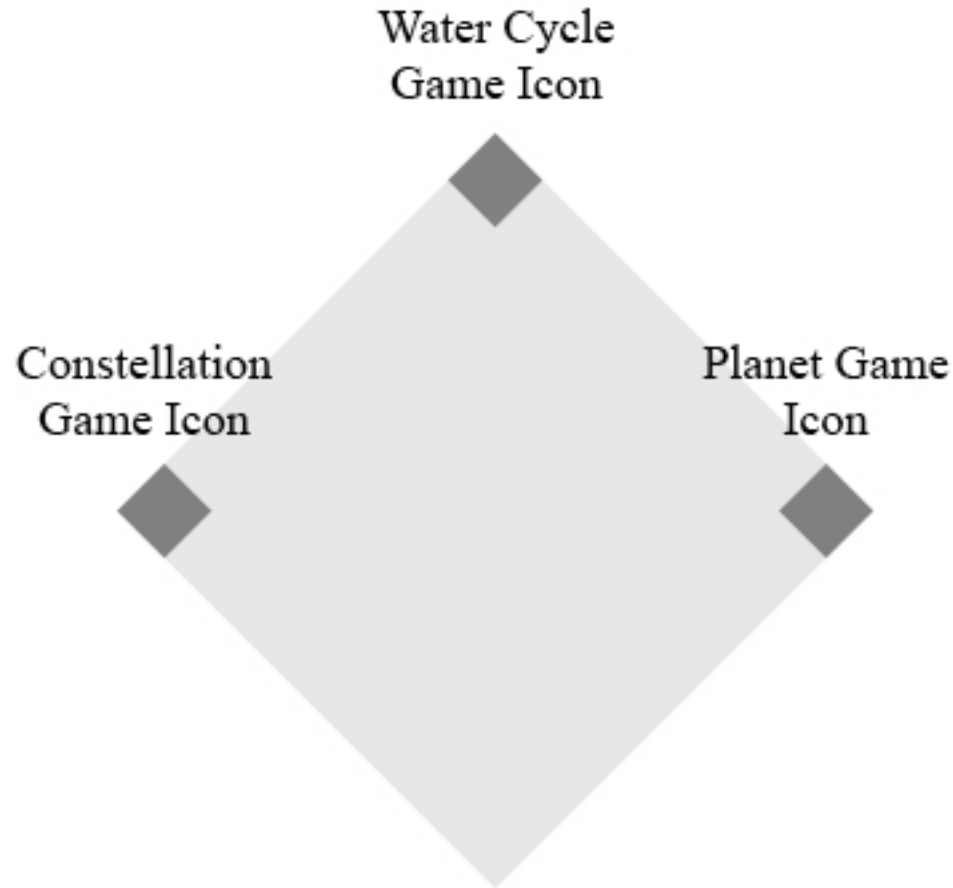
“Students should demonstrate their understanding of processes and changes over time within earth systems by...describing water as it changes into vapor...and reappears as liquid.”

-Vermont Department of Education

Sample Content and Questions

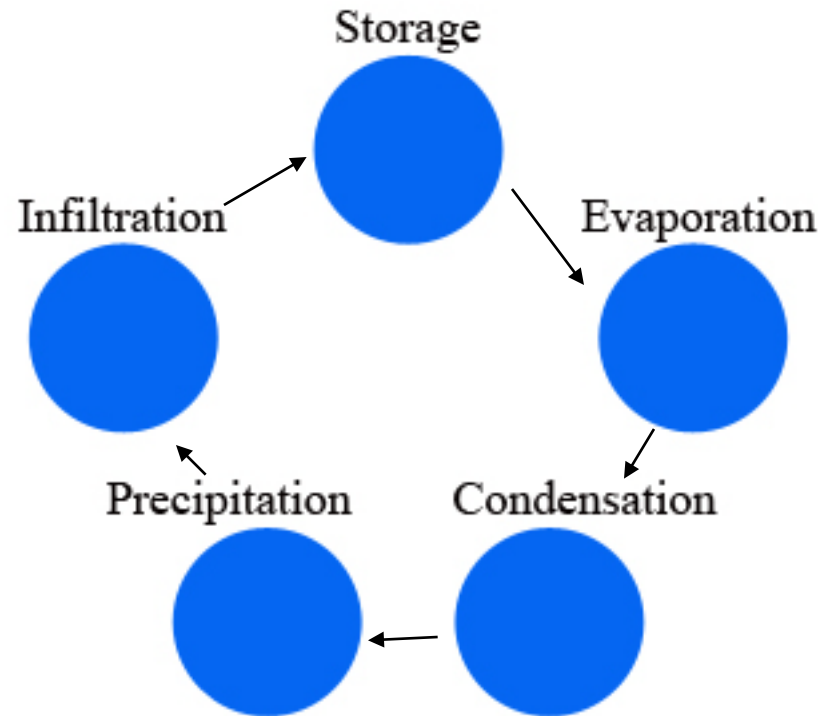
- When there is dust, salt, or smoke in the air, water forms into drops. Millions of these drops then form clouds in the air.
- What are clouds made of?
 - a) millions of drops of water***
 - b) smoke from burning fires
 - c) dirt from the surface of the earth
 - d) none of the above

Science Wing

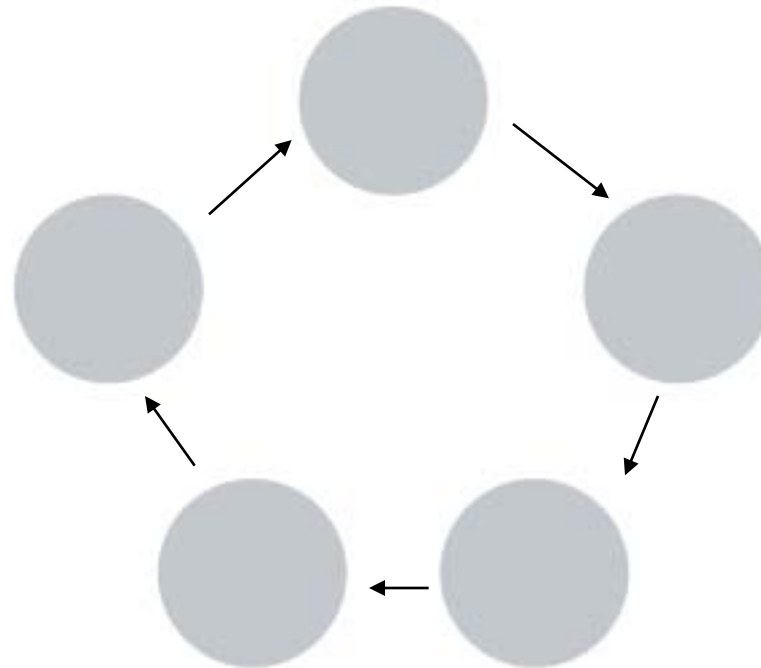


QuickTime™ and a
decompressor
are needed to see this picture.

Basic Demonstration



Drag and Drop Into The Correct Position



Evaporation



Precipitation



Infiltration



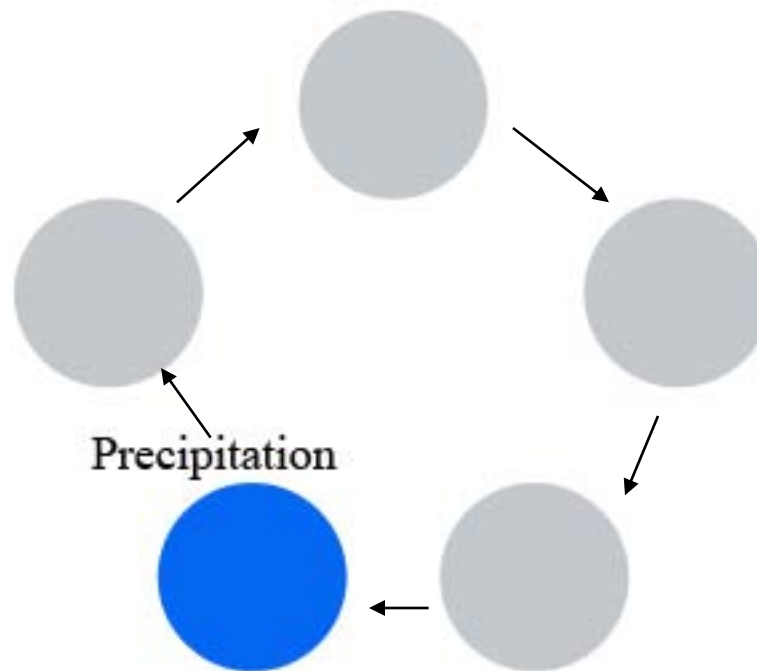
Storage



Condensation



Drag and Drop Into The Correct Position



Evaporation



Precipitation



Infiltration



Storage



Condensation



Planet Game

Planet Game Content

- Mercury is the closest planet to sun and was named after the Roman messenger of the gods. Mercury is home to the largest crater in the Solar System named Beethoven....

Readability Statistics	
Counts	
Words	999
Characters	4473
Paragraphs	196
Sentences	71
Averages	
Sentences per Paragraph	1.7
Words per Sentence	10.5
Characters per Word	4.1
Readability	
Passive Sentences	15%
Flesch Reading Ease	80.8
Flesch-Kincaid Grade Level	4.5

OK

Usability Testing

- What is Usability Testing
 - Testing individual aspects of a product on consumers before its release
- Why User Test Products?
 - Determine usefulness
 - Avoid user confusion
 - Allow designs to be improved

Chicago Children's Museum

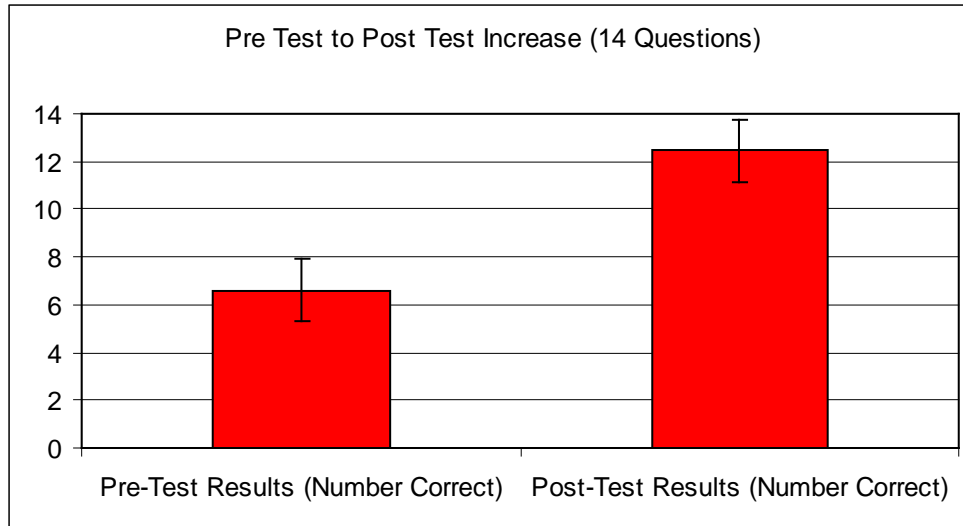
- Building a Partnership
 - Summer IPRO
- IRB



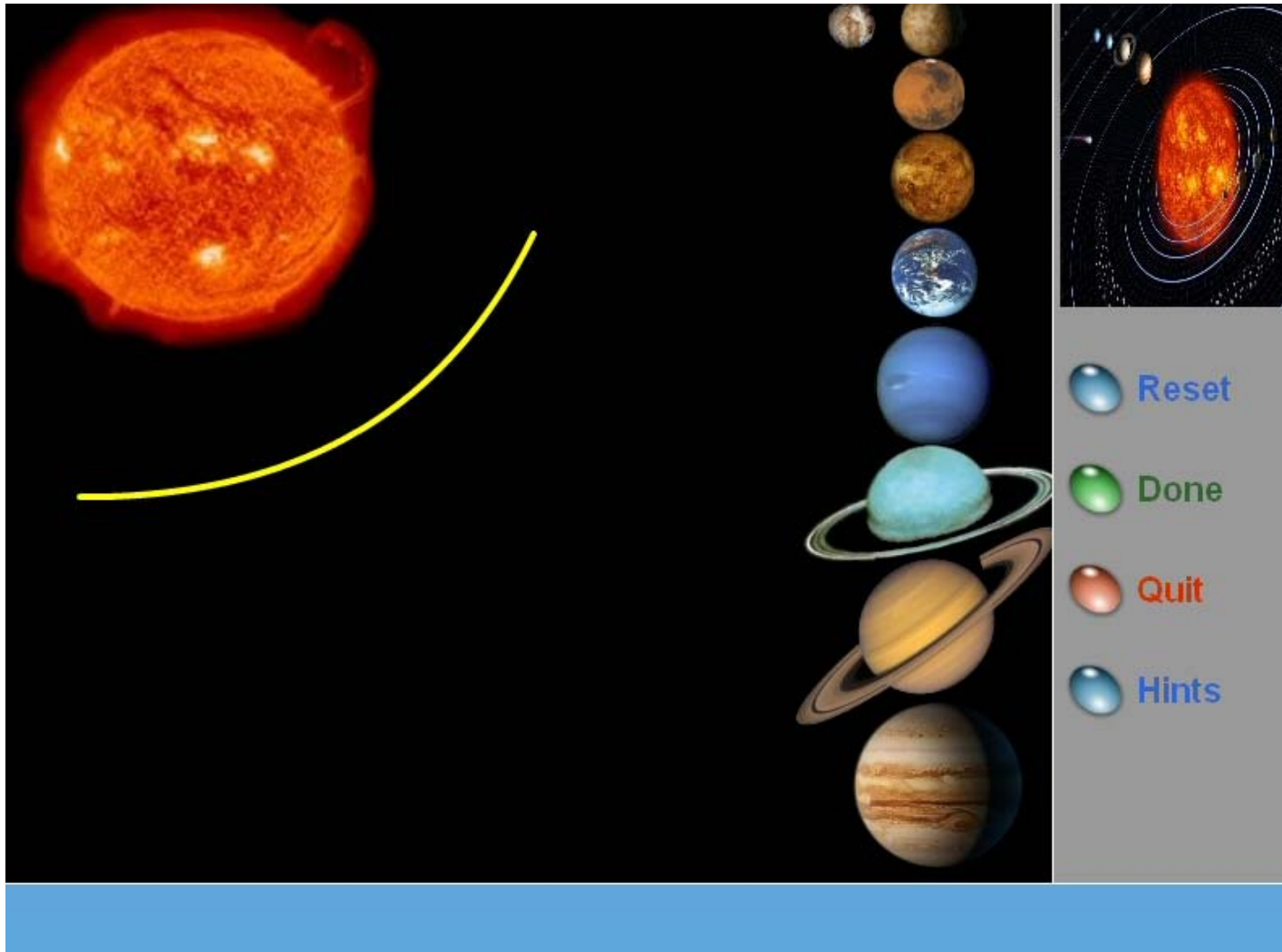
User Testing

- Constructive Learning
- Levels 1, 2, and 3 of Learning

Results of User Testing



- Pre-Test and Post-Test improvements based on content
- Scores – Statistically Significant increase



Planet Game Demonstration

Constellation Game

Content Before

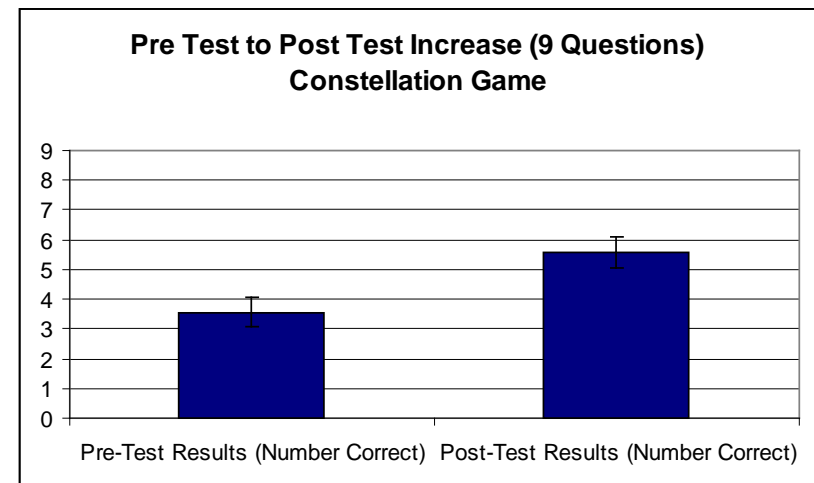
- Students are given an introduction to constellations
- Students then highlight four constellations: Cassiopeia, Orion, Ursa Major, Ursa Minor
- Students then are given information of the mythology behind the constellations
- Students are expected to memorize the constellation and pick it out in a group of stars

User Testing

- Hypothesis Testing
- Audio vs. No-Audio
- Verification of Constructive Learning and the three levels of learning

User Testing Results

- Pre to Post Test Scores showed significant increase
- There was no significant difference in audio vs. no-audio
- Many navigations issues were recorded and forwarded to the Design and Development Teams



Content After

- Content was cut down
- Content was placed at a 5.4 grade level
- Content is relevant to what is being tested
- Inconsistencies in the game were corrected
- Aesthetics were corrected

Macromedia Flash Player 7

File View Control Help

Orion is made of 16 stars and looks like a hunter in the sky. There are there are 3 stars in the middle that make up Orion's Belt.

Done

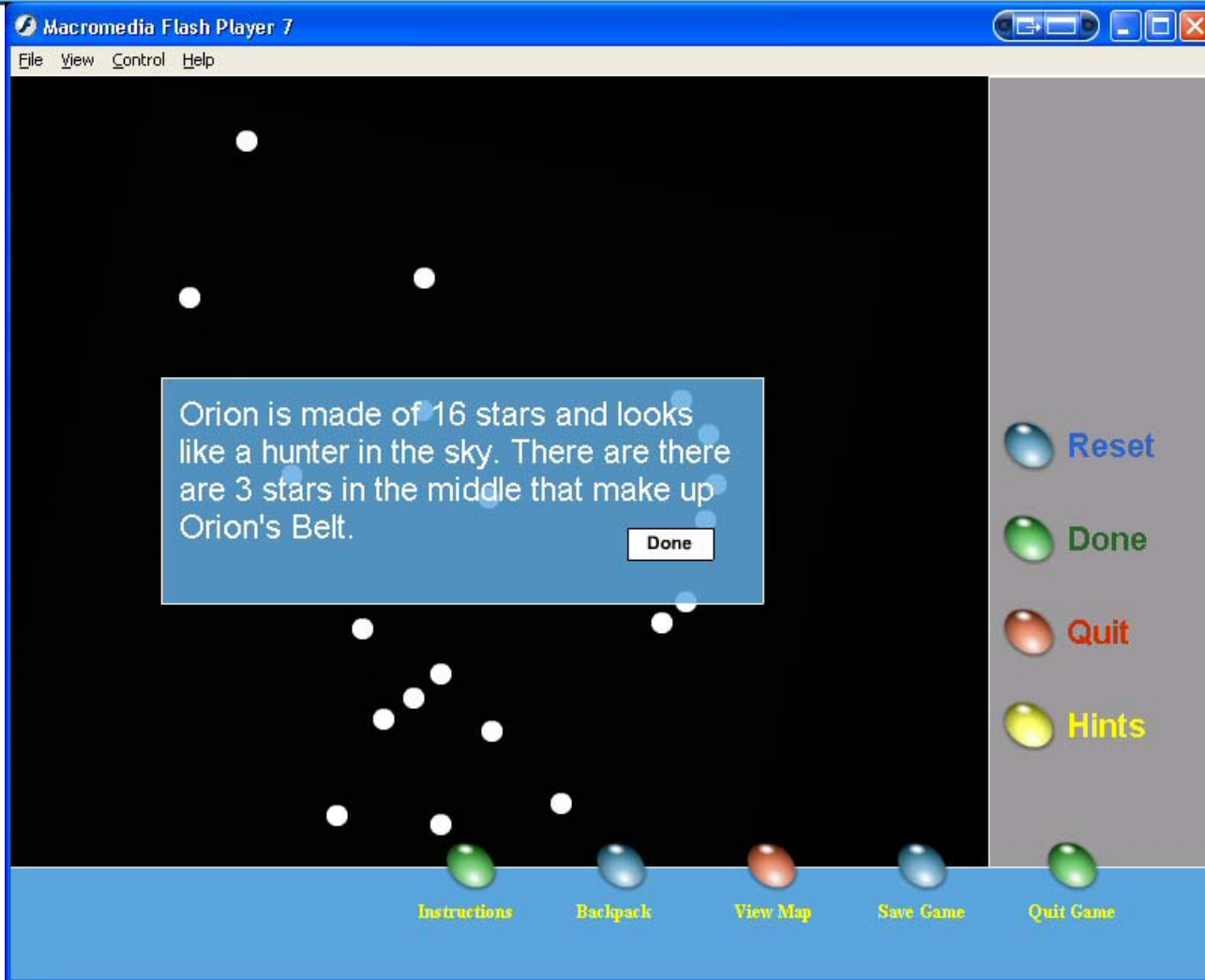
Reset

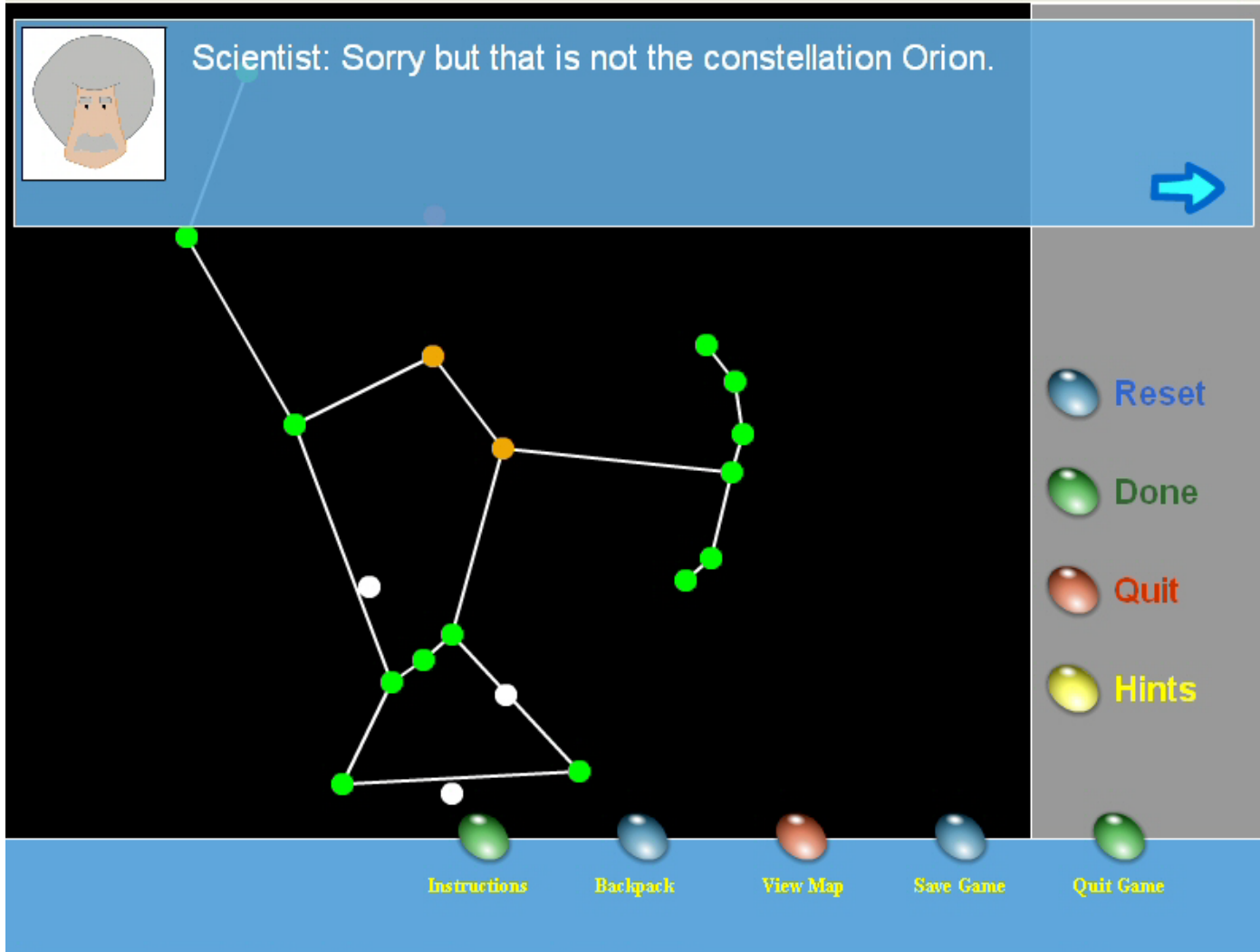
Done

Quit

Hints

Instructions Backpack View Map Save Game Quit Game





Scientist: Sorry but that is not the constellation Orion.

Reset

Done

Quit

Hints

Instructions Backpack View Map Save Game Quit Game

Constellation Game Demonstration

Conclusion

Next Semester

- Enter science games to competition
- Collaborate with the Chicago Children's Museum
- Finish development on Science Wing
- Initiate development on Math Wing

Acknowledgements

- Mrs. Susan Moy
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- All of you our guests today

Questions