Demystifying and Degeekifying Computing through K-12 Outreach

Workshop #21

Introduction: Why do outreach?

Introduction: Why do outreach?

Introduction: Why do outreach?

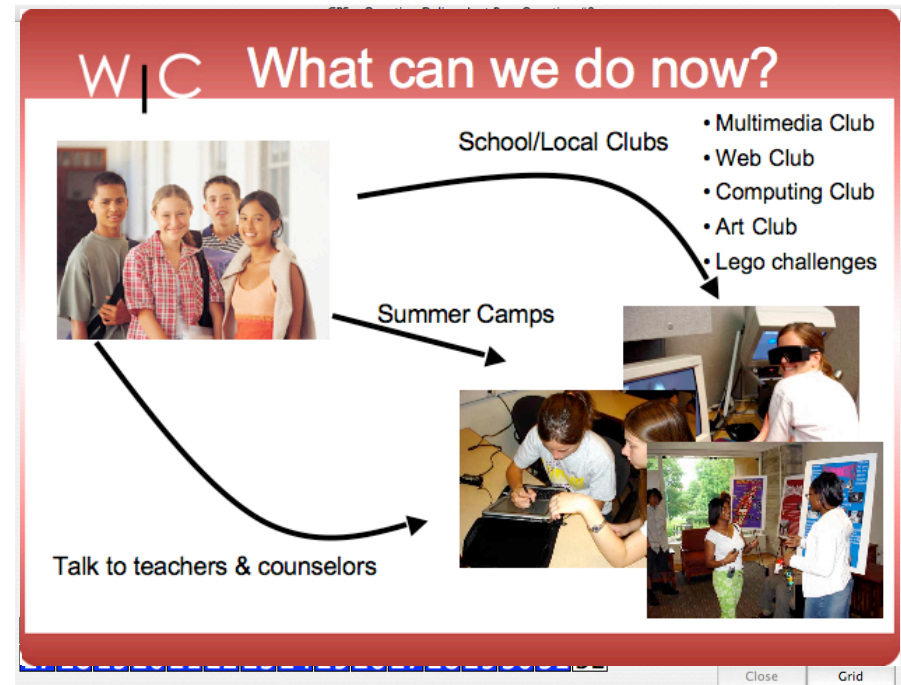# Introduction: Why do outreach?

Outreach at IU: Just Be

Our Presentation

We have 5 different types of slides:

- Personal
- Perspective
- Interaction
- Research
- Now what?

Personal Slides

Goal: We want the students to be able to relate to us.

- Story about you being "their age"
- How you got into computing
- Something you have done in computing
- What you like to do for fun

W|C   Who are we?

Perspective

Goal: Find out what the stereotypes are

- Perceptions of people in computing professions

- Perceptions of computers and computer applications

Interaction

Goal: Keep them involved and lively. We use the CPS system to dispel myths.
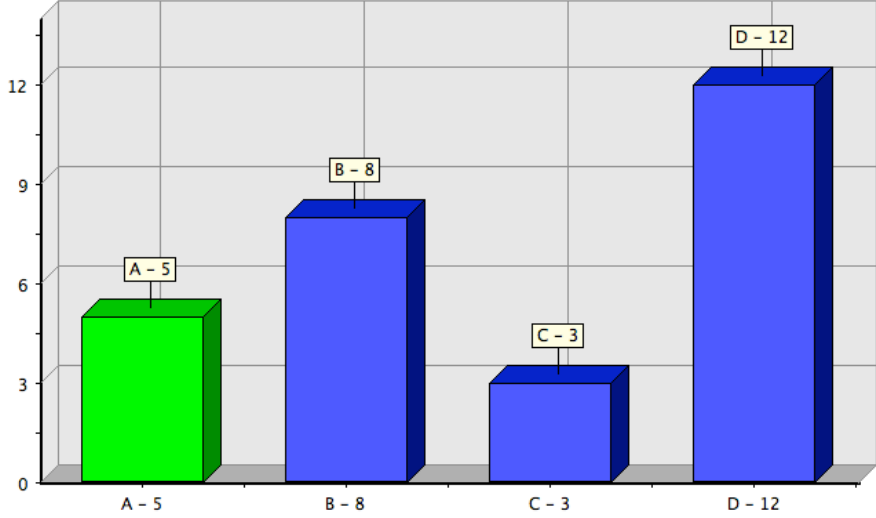
Research

Goal: Highlight exciting, accessible research being done at IU

- What the research is, who did it

- What kinds of people use it, helped to create it

- What skills are needed to do something like this

W|C   Interface Design

Project Overview

Functionality Walkthrough

DOVE
digital olympic voting environment

DOVE
team odyssey

CHI 2004 Student Design Competition
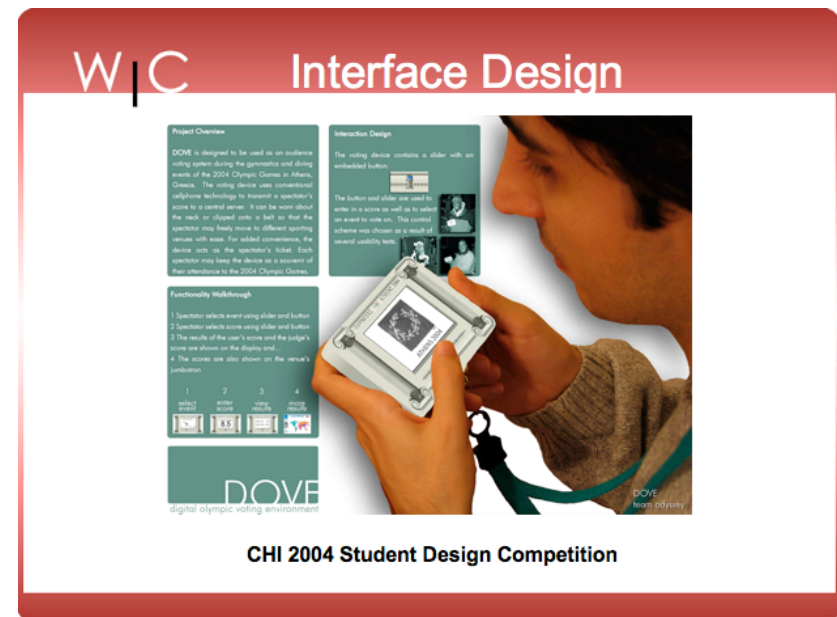
Now What?

Goal: Give them ideas about how start exploring computing now. Reemphasize that anyone can do computing, it is highly interdisciplinary and we need all kinds of people in computing.
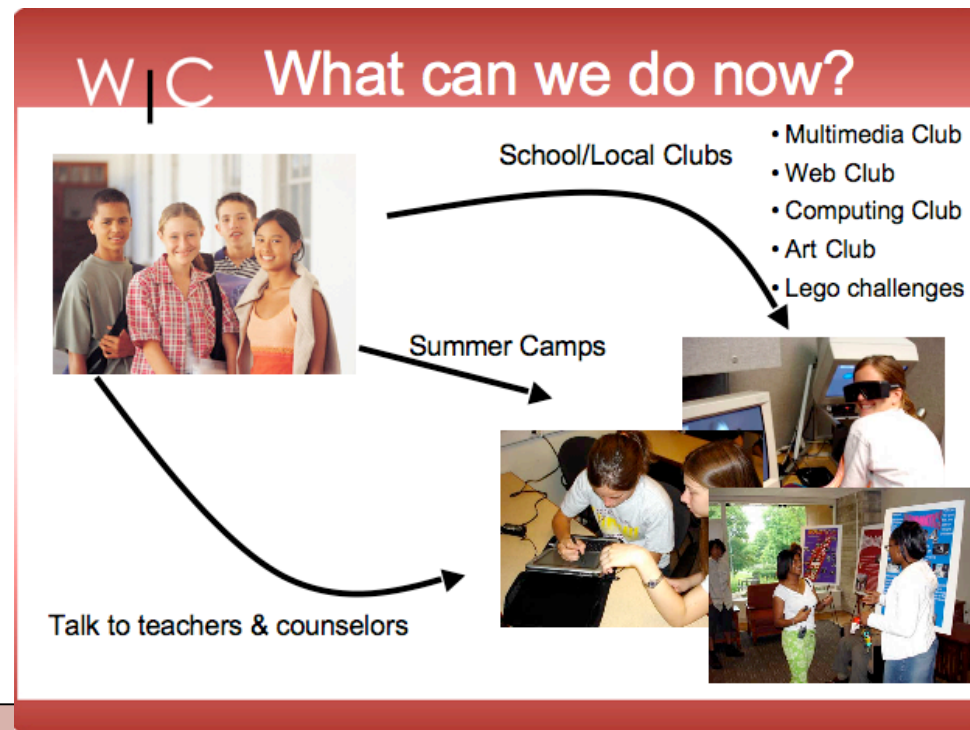
Questions?

- Samantha Foley (ssfoley@indiana.edu)

- Jennifer Franko (jefranko@indiana.edu)

- WIC@IU
  http://www.cs.indiana.edu/wic/

- *Just Be*
  http://www.cs.indiana.edu/cgi-pub/wic/outreach/

- COIN
  http://www.cs.indiana.edu/cgi-pub/wic/outreach/COIN.php

- Bring IT On!
  http://www.cs.indiana.edu/bringiton/

Outreach at CU:
Beyond Computing…

About Our Presentation

- Started Fall 2006

- Diversity Task Force (3 professors)

- Presenters: 5 professors, 3 students

- Over 70% of faculty participation to help in development

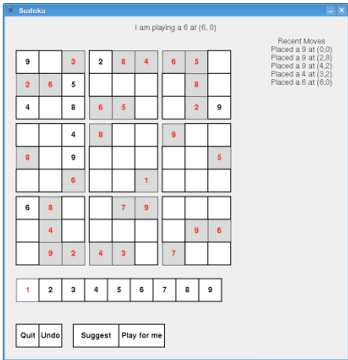- 2 professors do scheduling

- Budget $0

Connect with the students…

Tell them what they can do soon…

Tell them what they can do later…

Senior Projects: Growth
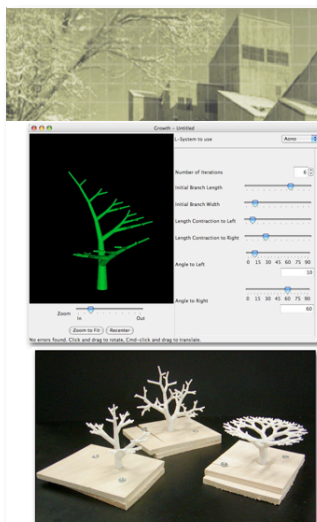
- Worked with a professor in computer science
- Creating application where students can create botanical shapes
- Create real life botanical shape with 3D printer

UNIVERSITY OF COLORADO
computerSCIENCE
AT BOULDER

Senior Projects: Forge
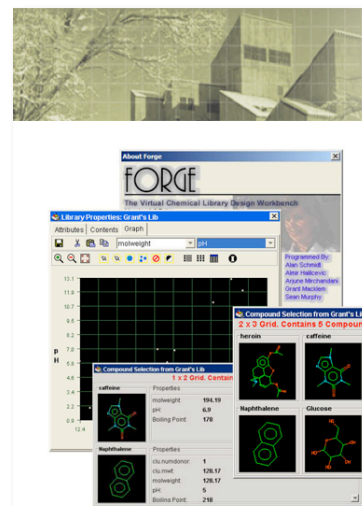
- Worked with a drug discovery company
- Creating chemical compounds in a lab is expense
- Scientists could use the application to create compounds

UNIVERSITY OF COLORADO
computerSCIENCE
AT BOULDER

Guess the CS person…low tech

Research Examples Interaction
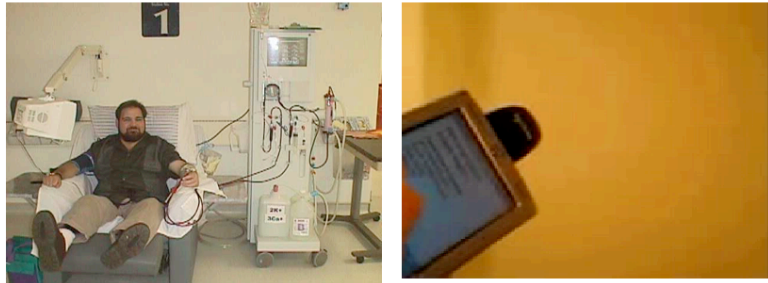
Contact Info

- Katie Siek
  - ksiek@cs.colorado.edu

- Sponsors: iClicker

Brainstorming Session

- Intended audience

- Goal of presentation

- Who are the presenters?

- Where will you present?

- How to give the presentation?

- Content of presentation

Intended Audience

- 10-12th graders science/math
- 10th grade career
- 5th grade
- Middle school minorities
- Inner-city
- Girls only
- Musicians & artists
- Science club
- Home schoolers
- Everybody in middle school
- Parents and teachers and guidance counselors and school board
- Girl scouts/ boy scouts
- Gifted and talented programs

Goals of Presentation

- ## Deliver a message
  - CS is a viable/exciting/fun career
  - Social career
  - You CAN do it!
  - Lots of jobs $$$$$
  - Variety, always changing
  - CS people are REAL and have lives
  - Broaden view

- ## Increased enrollment

Who are the Presenters?

- ACM students
- Female and minorities!
- Faculty
- Variety of students
- Students that WANT to do it
- Good communicators/presenters (funny!!!)
- Role models
- Close in age
- Hardworking students who may not be geniuses
- Knowledgeable about the process

Where will you present?

How to give presentation
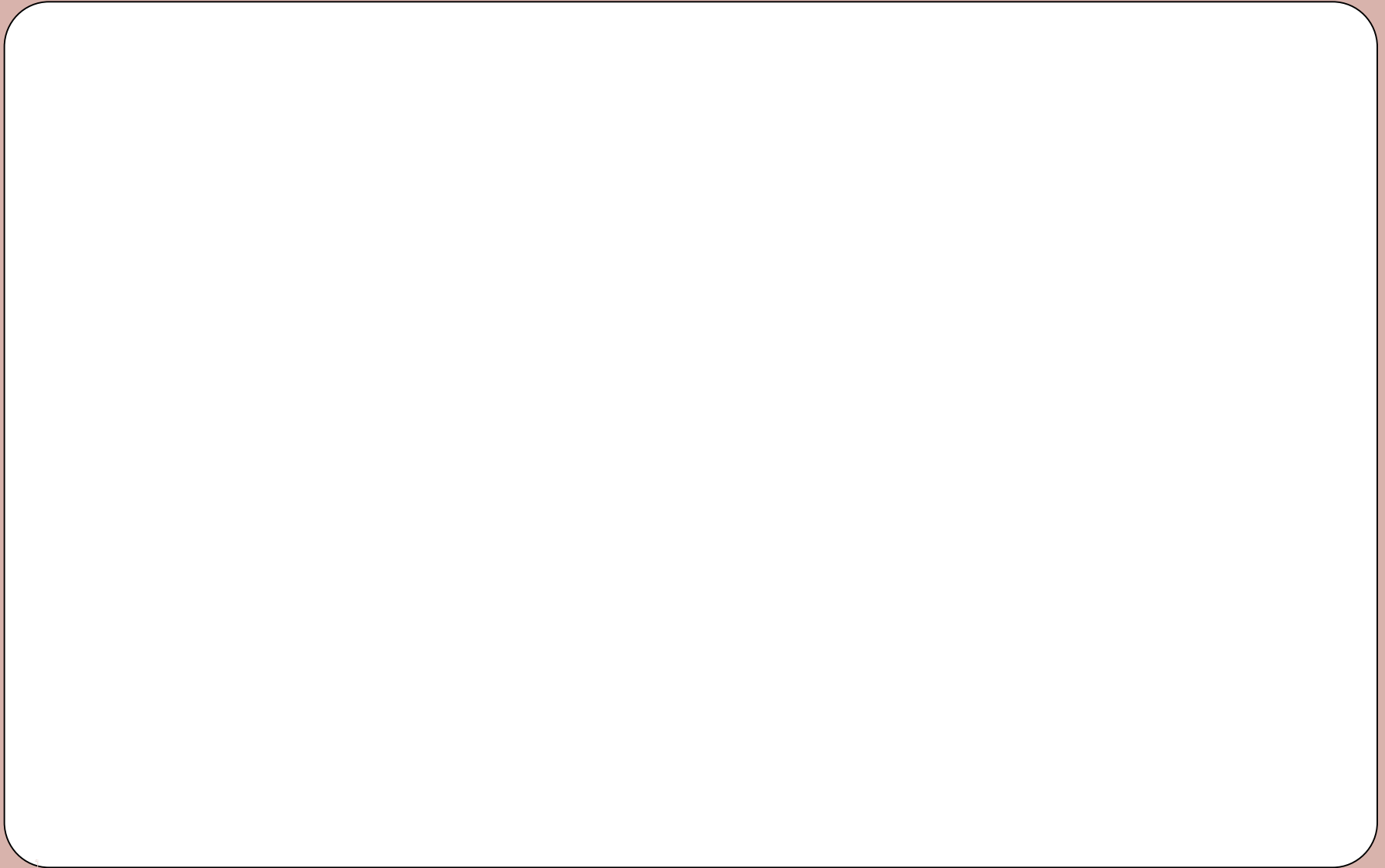
Content of Presentation

- How it makes the things they think are cool possible (rendering, graphics, video games, computational science, myspace………)
- Student projects (flashy GUIs, esp. freshmen)
- Multimedia highlighting CS fields + music (make sure it is cool/interesting)
- Eye candy <-- ask a teenager!!!
- Low tech, problem solving
- Personal statements
- Watch out for terms… try computing or IT

Create Your Own!

Grab a template here:

http://www.cs.indiana.edu/~menzel/SIGCSE2007/

Your Catchy Title Here

Subtitle if you would like
or insert a picture/school logo/mascot

About Us
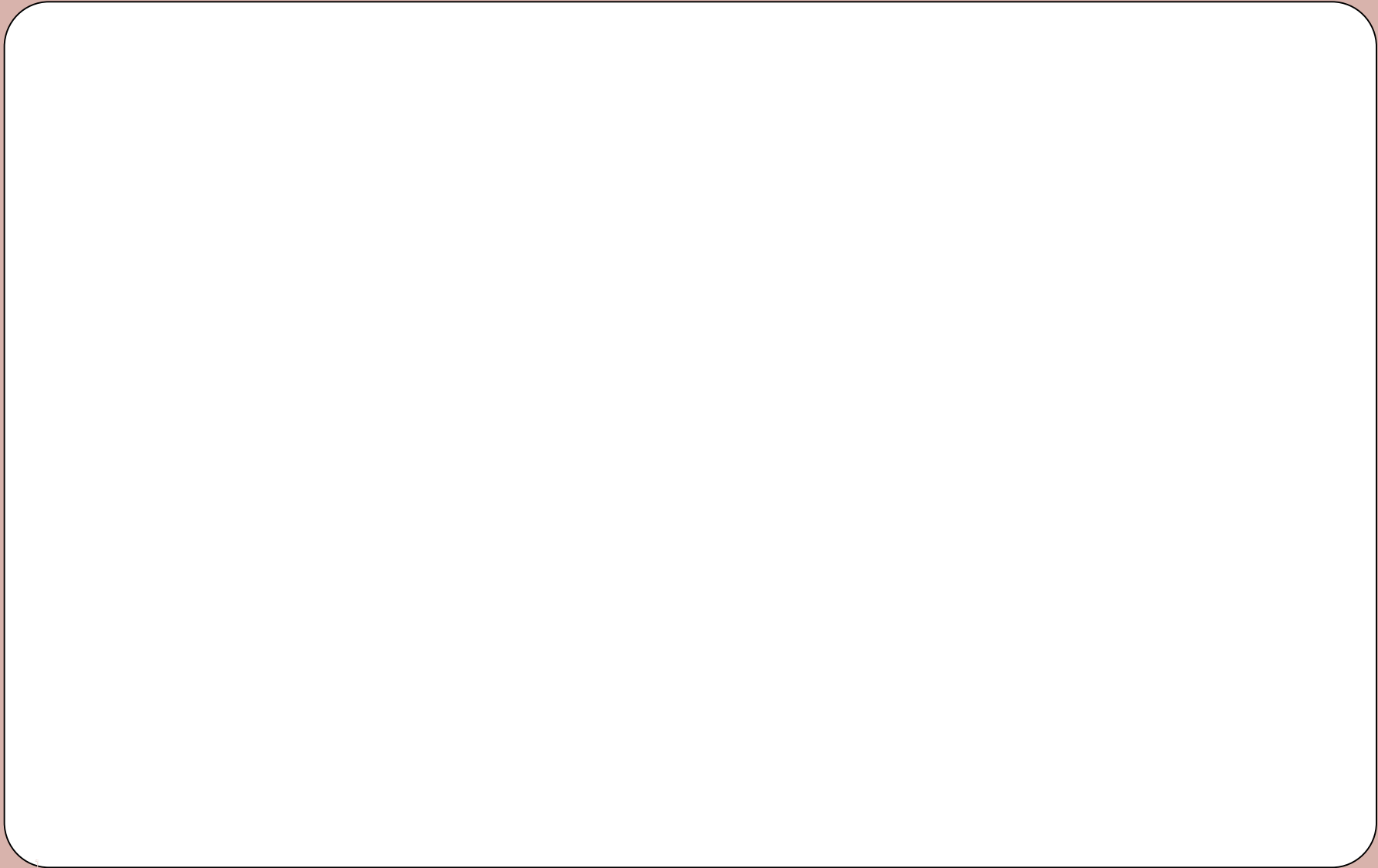
Research Slide One

- Remember to change the title of the slide
- You can add some text here or make the pictures bigger.
- Try to use flash pictures, animation, etc. to show how exciting computing is.
- We try to use as little text as possible and instead put the text in the notes area to remind presenter what to say (e.g., using Slide Show-> View Presenters Tools)

Research Slide Two

- Remember to change the title of the slide
- You can add some text here or make the pictures bigger.
- Try to use flash pictures, animation, etc. to show how exciting computing is.
- We try to use as little text as possible and instead put the text in the notes area to remind presenter what to say (e.g., using Slide Show-> View Presenters Tools)

Interaction Slide

- Remember to change the title of the slide
- Create a slide that gets the audience to interact and think like a person in computing
  - A logic problem
  - Popular logical thinking game
  - Example of class project (e.g., hangman - select slideshow to see animation)
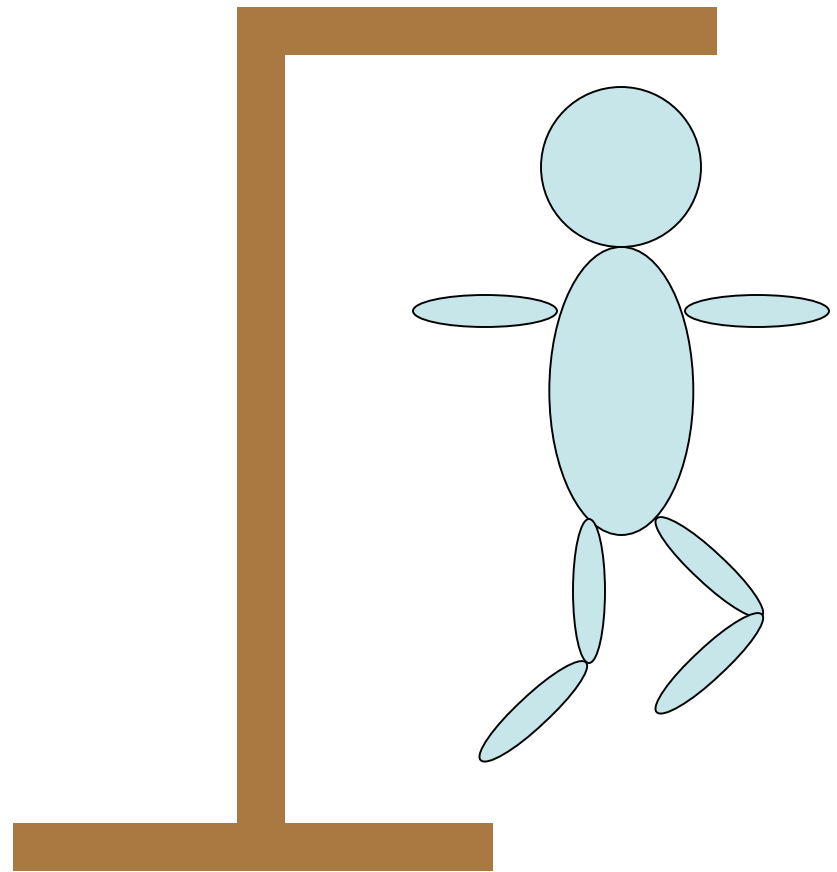
Contact Info

- Presenter Name
  - Email address
- Presenter Name
  - Email address

- ...

- Sponsors: [sponsor list - people who gave you money, support, time, to create this presentation]

Thanks for Coming!

Questions? Comments?