

Oregon Game Programming Project Challenge

2008 Winning Team PHRED from Philomath





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Today's Goals

- Focus on being a coach or mentor
- I hope you leave:
 - Feeling more comfortable about your role
 - Having some more tools in your bag of tricks
 - Understanding better what it takes to solve a challenge.
 - Having gotten your questions answered
- Have some fun!!



Agenda

- Review our Mission
- Forming your team
- Registering your team
- Equipping your team
- Managing your team



Our Mission



- **OGPC not just about programming a game and competing in tournaments**
 - **Teach Specific Technical skills**
 - Program Planning, Design, Coding, Testing, Creating Sprites, Sounds, Documentation
 - **Teach General life skills**
 - Teamwork, Time Management, Cooperation, Communication, Responsibility
 - **Show that team projects can be fun**
 - **The team members do the work**
 - **Expose kids to the possibility of technical careers**



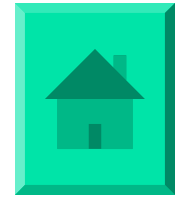
Questions You May Have

- **Exactly what is the role of the coach?**
- **How much time does it take?**
- **What resources do you need?**
- **What do the team members get out of it?**
- **What knowledge and skills do you need?**
- **Oh, yeah, and what's the score of the Duck's or Beav's game today?**

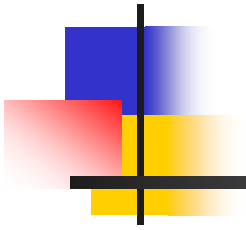


OGPC 2.0 Season Overview

- Details of theme and project challenge announced.
- Registration Opens: Feb. xx, 2009
 - Web address: <http://techstart.org/ogpc.html>
 - Registration fee: \$50
- Registration Closes: Mar. xx, 2009
- Game Concept Document: Apr. xx, 2009
- Tournament: May 16, 2009



Forming Your Team





Where Teams Come From

- School Based
 - In class: Perhaps 45 minutes a day
 - After school: Perhaps 1.5 hours; 2 to 4 times a week
 - Special block: Several hours once a week
- Club Based
 - Probably after school or evening
- Independent team
 - After school, evenings, or weekends
- We encourage you to find and include youngsters that normally would not have this exposure



Where to Meet

- Large enough space to handle the number of youngsters on the team
- Access to one or more computers
 - Some students can code game while others create sprites or sounds, test previous modules



Team size

- High initial interest may fade
- Sub-teams of 2-3 can work in parallel
 - Research the theme
 - Learn programming techniques
 - Develop graphics
 - Prototype a game
 - Work on the presentation
- Eventually team must stabilize at 3 to 7 team members
- 4 students may be the “ideal”



You Need Adults, Too!

- Coach – The person in charge
 - Organizes the team
 - Does not need to be a techie
- Mentor – The technical guru
 - Provides technical advice
 - Provides the technical basics
- One person can play both roles



Coach – The Person in Charge

- Single point of contact for team
- Understands the OGPC program
- Management expertise more important than technical expertise
 - Recruits the team
 - Registers the team
 - Arranges for equipment
 - Schedules meetings
 - Sets the philosophy and instills team spirit
 - Is a good role model



Mentor – The Technical Guru

- Technical Advisor to assist the coach
- Teaches game programming design
- Helps set achievable goals
- Encourages structured problem solving
 - Follow typical engineering project models
 - Experiment with one variable at a time

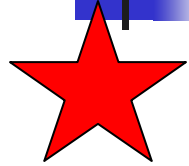


Mentor could be...

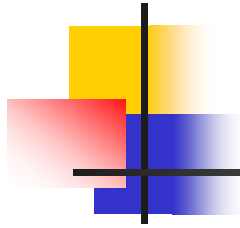
- You
- Another colleague
- A parent
- A high school or college student
- An occasional visitor



General Advice to All Adults



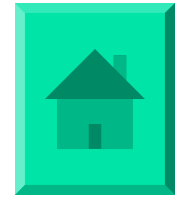
- This is the students' project, not yours
- Be a good role model
- Keep a positive attitude
- Encourage teamwork and insist on mutual respect
- Don't over emphasize "winning" – demonstrating a solution at a tournament is success
- Help kids keep project in scope of the short season – they will have more ideas than time!
- Have fun



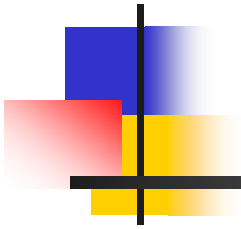
Team Ethics



- We are a team.
- We do the work to find the solutions with guidance from our coaches and mentors.
- We honor the spirit of friendly competition.
- What we discover is more important than what we win.
- We share our experiences with others.
- We display gracious professionalism in everything we do.
- We have fun.



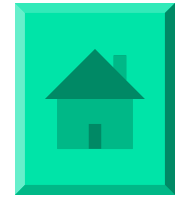
Registering Your Team



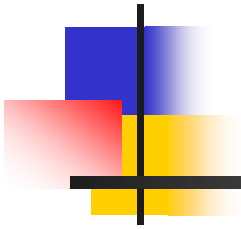


Team Registration

- Opens: February xx, 2009
- Closes: March xx, 2009
- Web address:
<http://techstart.org/ogpc.html>
- \$50 registration fee
- First-Come-First-Served, so REGISTER EARLY!!



Equipping Your Team





Minimum Resources to Start

- A copy of Game Maker – Lite Edition or Pro Edition
- A computer with Windows XP or Vista
- A place to meet and practice
 - Classroom
 - Family room
 - Garage
 - Community Room



Software Warnings

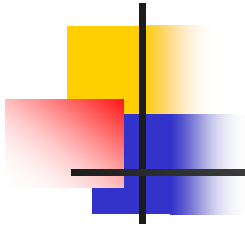
- School security may not allow GameMaker to be installed or run
 - Consider using personal laptops
 - GameMaker runs nicely from a Flash drive
 - Provide a way to share work
 - Flash drives, email
 - Teach kids to save versions as they go



Example Team Budget

- Registration Fee: \$50
- Game Maker: \$0 (Lite) or \$20 (Pro)
- Transportation:
- Total:
- Extras: team shirts, snacks, etc

Possible Sources of team funding



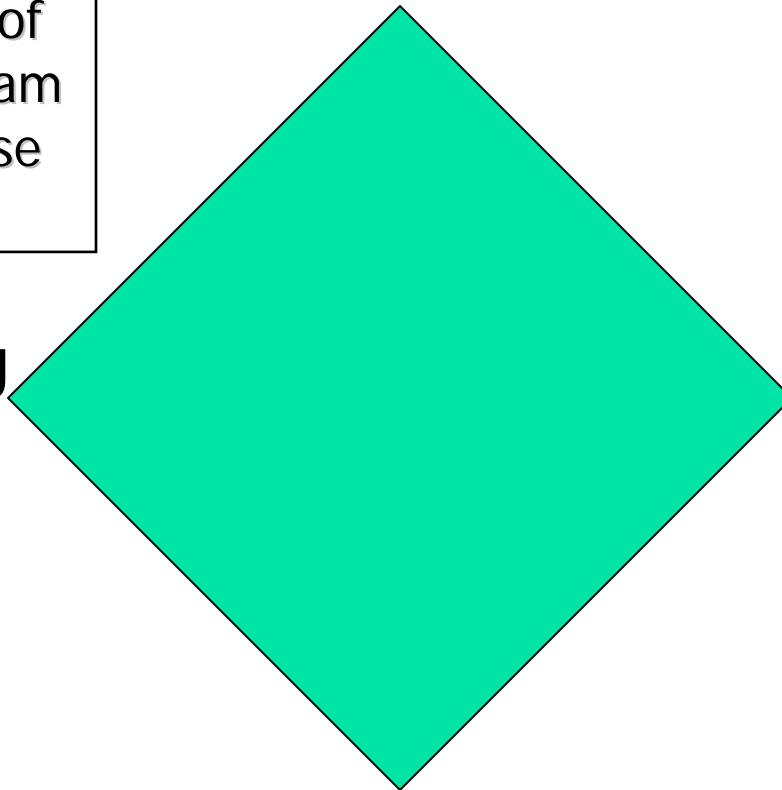
Having some portion of costs picked up by team members gives a sense of commitment

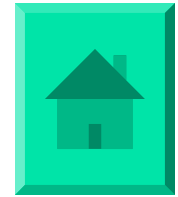
Team Member Dues

Fundraising Activities

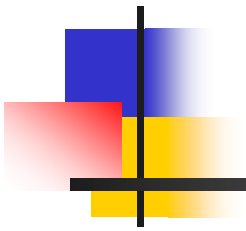
Team Sponsors

TechStart Scholarship





Managing Your Team





Meeting Organization

- How often and how long to meet
 - Most teams meet 2-3 times per week
 - After school, evenings, weekends as team desires
 - Some add extra time as get closer to end
 - > 1 hr (set up and take down)
 - < 3 hrs (attention span)
- At least 2 adults present during meetings – can use parents who take turns
- Set ground rules -- E.g. don't turn kids loose to walk home by themselves after dark
- Refreshments / snacks



Team Kick-off Meeting

- Consider inviting parents
- Set expectations with both
 - Goals
 - Season
 - Milestones
- Explain the real situation to the parents



Parent Involvement

- Explain program/philosophy
- Explain team rules
- Discuss participation commitment for team members
- Review costs and funding sources
- Communicate about tournament
- Solicit help – Roles for parents
 - Car Pooling
 - Snacks
 - Coordinate Fund Raising
 - Publicity
 - End of Season Party



**Getting Started with the Team Members

- Set Team Goals
- Decide responsibilities
 - Can rotate, especially near beginning
 - Usually will want to be fixed as near tournament
 - Need backup roles due to absences
- Set milestones – use project management analogy
 - Set dates for each phase of project to keep on track
 - Include design, build, test, REWORK
- Encourage participation in a team environment



** Learning Opportunities

- Encourage risk taking
 - “If you never fail, you never tried anything new.”
Albert Einstein
 - Key is to manage the risk
- Encourage experimentation
- Expect failure – focus on what is learned as a result
- Problem solving takes time – Edison’s experience with light bulb filament



** Facilitate Structured Problem Solving

- Defining problem
- Brainstorming
- Evaluating alternatives
- Choosing alternative
- Implementing
- Evaluating & testing





Hard vs.. Soft Skills

■ **Hard Skills**

- Mechanical Design
- Programming
- Software Design
- Analysis
- Problem Solving
- Experimentation
- Documentation
- Computer Graphics
- Testing
- Human Interface

■ **Soft Skills**

- Timeliness
- Teamwork
- Tact and Compromise
- Confidence
- Courtesy
- Perseverance
- Planning
- Positive Attitude

Turn these youths into engineers



Build a Foundation

- Introduce techniques and concepts
 - Build or bring demos
 - Discuss advantages and disadvantages
 - Let kids figure out how to apply concept to Challenge
- If meetings start before Challenge is announced, can use mini-challenges to introduce concepts
- One approach: use 5-10 minutes at start of each meeting to introduce concepts



Skill Builders

- Templates
- Simple Games to focus on a Concept
 - Examples found in free on-line tutorials
- Learning Exercises
 - Motion Control
 - Collisions
 - Game Flow
 - Levels of Difficulty



Sample Concepts

Use of a theme

Game Flow

Consistency and Variation

Scoring System

Use of Animations

Graphics

Testing

Documentation



Divide and conquer- Examples

- Game Designer
- Graphics & sounds
- Testing
- Marketing
(Presentations)
- Rooms
- Levels
- Scoring
- Research

With All the Focus on the creating a game...

Don't Forget the Judging



Technical Judging Interview

Programming

Game Research & Development

Game Experience

- Panel of “experts” interviews teams
- Prepare the team by:
 - Encourage ALL members to participate in presentation responsibilities.
 - Practice speaking in front of a group
 - Learn how to listen to “judges” questions and respond or pass them off to a team-mate.
 - Focus the presentation on how the game meets the requirements of the challenge
 - Personalize the presentation

Team Performance Judging Interview

Presentation & Teamwork

- Another good learning opportunity
- Engineering requires Research skills and presentation skills
 - (remember the marketing kid? 😊)

“The
Bizness”

2nd Place
Teamwork
Award



Many Awards your Team can win!!

Champion
Game Experience
Game R&D
Presentation
Programming
Teamwork





Our Mailing Lists

- ogpc-interest
 - All volunteers – you can opt out
 - One way from OGPC to our volunteers
 - We add you when you express interest
- ogpc-coaches-2
 - Coaches and mentors are added when you register your team
 - Communication from OGPC to registered coaches – very important channel



Next Steps

- Get on the OGPC interest list
- Register your team during Winter 2009
- Start recruiting your team
- GameMaker workshop is coming for coaches to learn details of using GameMaker software
 - Date and venue are TBA
- Download the free version from <http://www.yoyogames.com>
 - Start playing with tutorials from that site

Contact Us – at the TechStart Foundation

Web site: <http://www.techstart.org/ogpc>

Email: ogpc@techstart.org

Phone: 503-802-5211

Students
Evaluating
Games in
Arcade Room



Everybody leaves a winner!!

