Creative Coding Through Games and Apps (CCGA)

There is an exciting new teacher training opportunity for those interested in a new beginning level coding course: *Creative Coding through Games and Apps* (CCGA), now available through the Microsoft Imagine Academy.

CCGA enables students to learn foundational computer science concepts through coding in a real software development environment: programming and publishing mobile games and apps. Students learn to code by creating real software products.

The CCGA workshop will take teachers through a condensed version of the Creative Coding course, emphasizing hands-on experience with the curriculum. CCGA provides a complete curriculum of teaching and learning resources for teaching introductory programming and computer science. The workshop is for teachers who plan to teach *Creative Coding through Apps and Games* in a classroom setting.

This training is suitable for *all* teachers – workshop participants' experience with coding and/or teaching coding can vary from none to extensive. The focus of this training session will be teaching *Creative Coding through Apps and Games* in a secondary school setting.

The 2016 Super Summer Institute will offer a two-day CCGA teacher training session on July 18 / 19. Teachers who complete the CCGA training will:

- Understand how to teach the 6, 9, 12 and 18-week versions of the CCGA course;
- Gain proficiency in TouchDevelop (programming language);
- Understand the basic coding concepts students will learn through CCGA;
- Understand teaching strategies that help students master basic coding concepts; and
- Understand how to address the hurdles that students may encounter during the course.

Workshop Agenda

Day 1 Morning	• Introduction to TouchDevelop • Course overview • Peer networking Part 1 • Deep dive: Units 1 -2	**Day 2 Morning**	• Finish your projects • Course overview, continued • Deep dive: Units 7-9
Day 1 Afternoon	• Deep dive: Units 3-6 • Peer networking Part 2 • Start your projects	**Day 2 Afternoon**	• Deep dive: Units 10-12 • Peer networking Part 3 • Preparing your next steps
Learning Outcomes	• Understand what a computer program is • Learn programming language syntax • Build and publish apps / games in TouchDevelop	• Master key concepts (Variables, Data Types, Objects, Object Methods / Properties, Nesting, Conditionals, Logical Operators, Functions, Variable Scope, Events / Event Handlers, Animation, Arrays, etc.)	