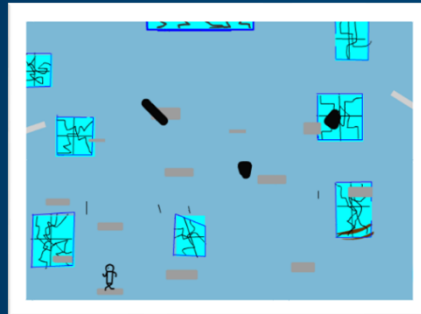


GLOBALORIA™

Making computing and STEM learning
fun through game design and coding



Utah Education Interim Committee

September 17, 2014

Amber Oliver
Vice President, Partnerships & Operations

Imagine the Economic Opportunities for Utah if **KIDS** know how to **CODE**

IT STEM Corporations in Utah



5,701 IT companies

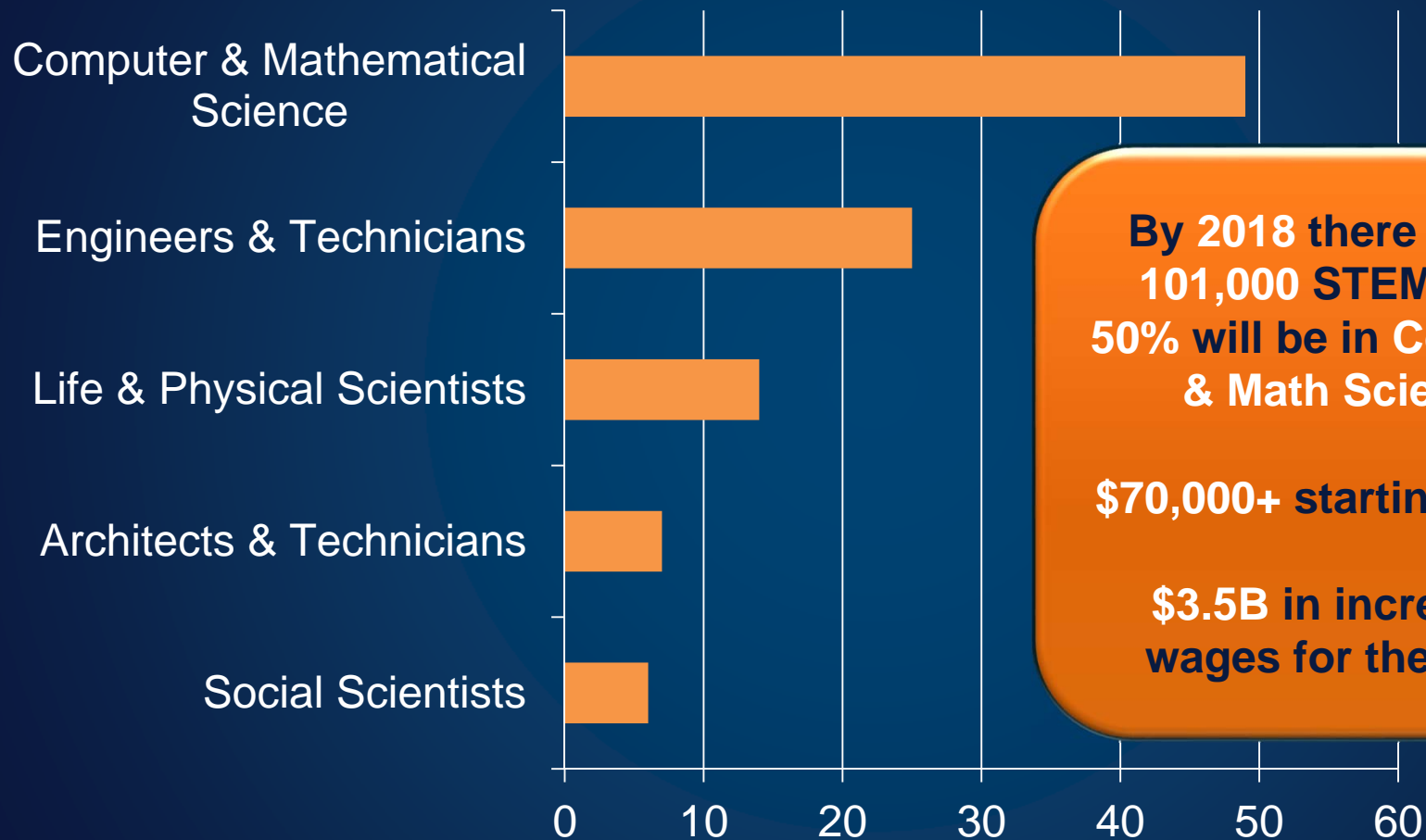
41% growth in Info Services Sectors

85 Utah Companies on 2014 Inc. 5000

Source: Utah Technology Council

<http://www.utahtech.org/advocacy/engineering%20initiative.aspx#sthash.m3Pvm44c.dpuf>

Jobs for Utah!



**By 2018 there will be
101,000 STEM jobs;
50% will be in Computer
& Math Science**

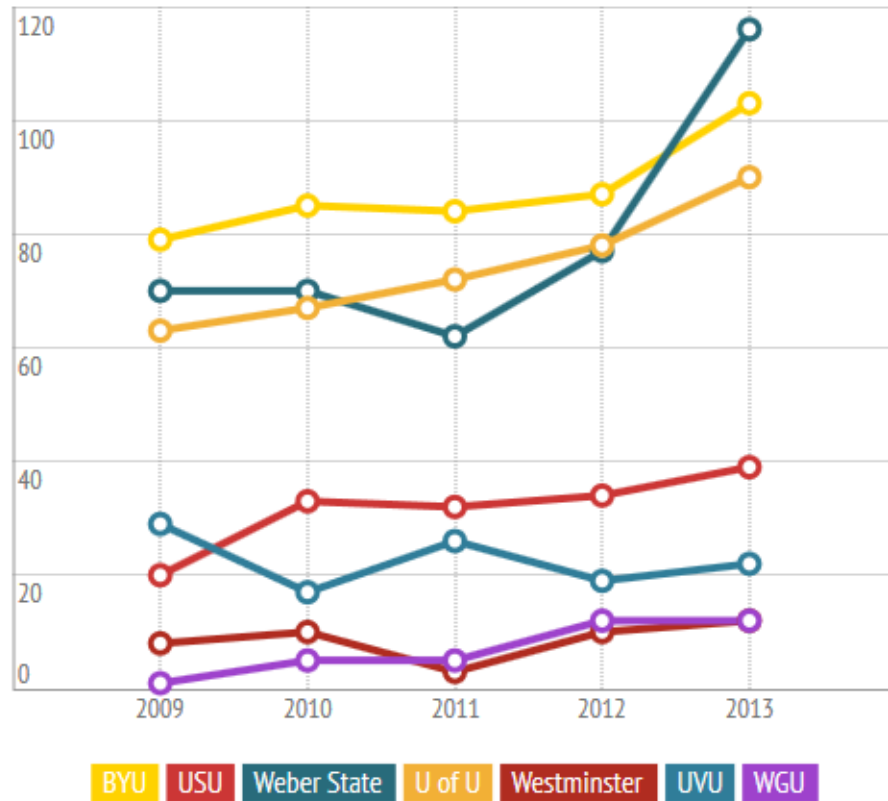
\$70,000+ starting salary

**\$3.5B in increased
wages for the state**

Source: Innovation Vital Signs: Utah's Federal R&D and STEM Jobs Report 2013*
https://www.usinnovation.org/state/pdf_cvd/CVD2013UtahInnovation.pdf

Growth in **STEM Graduates** & Research

Utah CS - BA



Copyright Silicon Slopes

**47% increase in STEM
University Grads &
Researchers since 2011**

**Computer Science
Mathematics
Engineering
Technology
Science**

Source: Silicon Slopes

<http://siliconslopes.com/2014/02/utah-computer-science-grads-jump-44-to-522/>

State of STEM in Utah – **Not There Yet!**

- 1% of Utah high school students took computer science classes
- 534 computer science graduates
- Utah IT companies recruited as much as 70% of workforce from out of state
- 2000+ unfilled STEM jobs



Source: Utah Technology Council

<http://www.utahtech.org/advocacy/engineering%20initiative.aspx>

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Teaches Professional Computer Science & Engineering Skills as Students Code

6th graders can learn to code!

The screenshot shows an IDE window titled 'IDKS_finalgame'. The main canvas displays a game scene with a blue background and yellow stars. A hand cursor is over a math problem: $16 \times 3 =$. Below the problem are three input boxes containing the numbers 48, 45, and 95. To the left, there are buttons for 'Pause' and 'Quit'. To the right, it says 'LEVEL 6'. The code editor on the right shows the following ActionScript code:

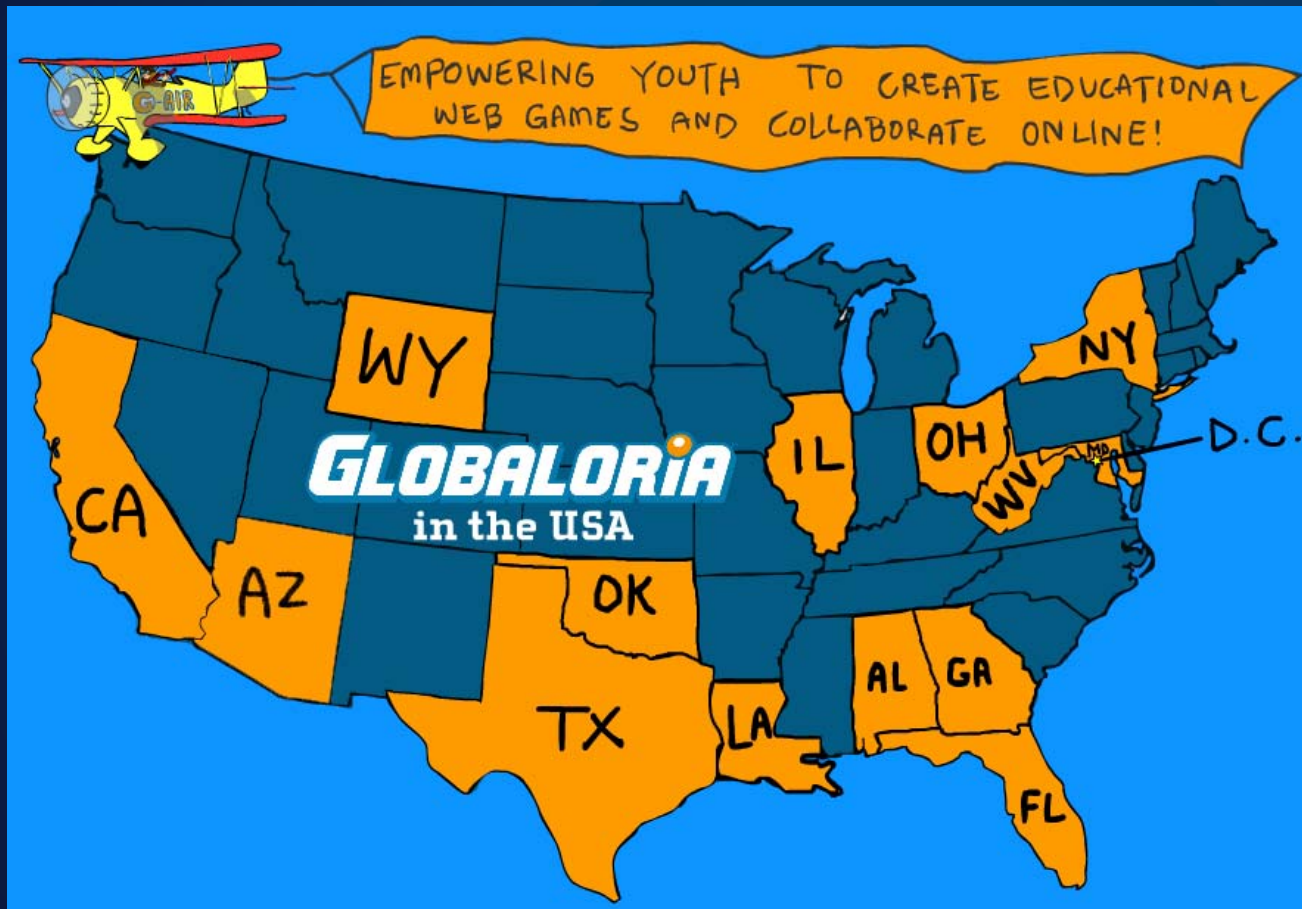
```
1 stop();
2
3 quit.onRelease = function() {
4     gotoAndPlay(1);
5 }
6
7
8 paused.onRelease = function() {
9     gotoAndPlay("p6");
10 }
11
12
13 block2.onEnterFrame = function(){
14
15     block2._y=block2._y + 1;
16     if(_root.MC_enemy1.hitTest(this)){
17         _root.gotoAndStop("
18             _root._x = 0;
19     }
20     if(block2.hitTest(wrong1)){
21         gotoAndPlay("lose7");
22     }
23     if(block2.hitTest(right)){
24         gotoAndPlay("level 7");
25     }
26
27     if(block2.hitTest(wrong2)){
28         gotoAndPlay("lose7");
29     }
30 }
```

HTML5



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Proven
STEM Education Innovation




14 States
Districts: urban,
rural, suburban

**95% student
graduation**
**93% School
Retention**

GLOBALORIA

Making Computer Science & STEM
Fun & Engaging for All Students





Welcome,
Amber


- Log Out
- My Email
- My User Page
- My Social Profile
- File Uploader

Special page

Katelins2440's Project - Game Design I/II 1st Block 2013-14

<< Back to User Page | Collapse All | Edit Project

★ Projects Page

- Post all of the assignments you completed as an individual learner on this page. Team work should be posted on your Team page.
- If you get stuck when you're editing your project page click on the  icon for help.

UNIT 1: Getting Started

These activities are designed to help you get familiar with the globaloria platform.

What Is Globaloria (Edit)

[Back to Top]

In your own words, what will you be learning in this class?

We will be learning how to make games. We will be using Flash to help create our game. We will be learning a lot of different things about what goes into making a game.

Create Your Profile (Edit)

[Back to Top]

What do you hope people will learn about you from your profile?

What I like and some stuff about me and kinda what my favorite stuff is.

Create Your Blog (Edit)

[Back to Top]

Follow the steps in this topic to create your blog and connect to other students' blogs. You will also create a test blog post by following the steps in this topic.

Type in your Blog URL below. *Make sure you also typed your Blog URL into the "My Info" section of your Social Profile*



























<http://katelins2440.blogspot.com/> @

Blog About It

Project Page Progress

Unit 1: Getting Started

Status Blogs Globeys

What Is Globaloria:	100%		N/A
Create Your Profile:	100%		N/A
Create Your Blog:	100%		
Join The Community:	100%		
Where To Get Help:	100%		
Course Overview:	100%		
Unit 2: Hidden Object Game			
Play To Learn:	100%		
Choose Learning Topic:	100%		
Plan Game Scene:	100%		
Make Paper Prototype:	100%		
Intro To Flash:	100%		
Draw Background:	100%		
Add Hidden Objects:	100%		
Add Score And Mso Box:	100%		

Help

- Tygart's Valley High School
 - Home
 - Our Game Gallery
 - Active Classes
 - File List
 - Image Gallery
 - Recent Changes
- My Classes
 - See All My Classes
- My Tools
 - File Uploader
- Globaloria Central
 - Globaloria Schools
 - Globey Awards
 - Globaloria Game



Level 2.1 DNA 0 Health 200
25 DNA required

Biology

Zombie Factors 9

24

18

12 8
2 6
8 3

Math

Mastery of Content Knowledge

Chemistry

Lives ♥ x 5
Bubble words ⚙ x 15
Score 0

He climbs like a monkey.

This is an example of

(Simile) (Metaphor) (Hyperbole) (Personification)

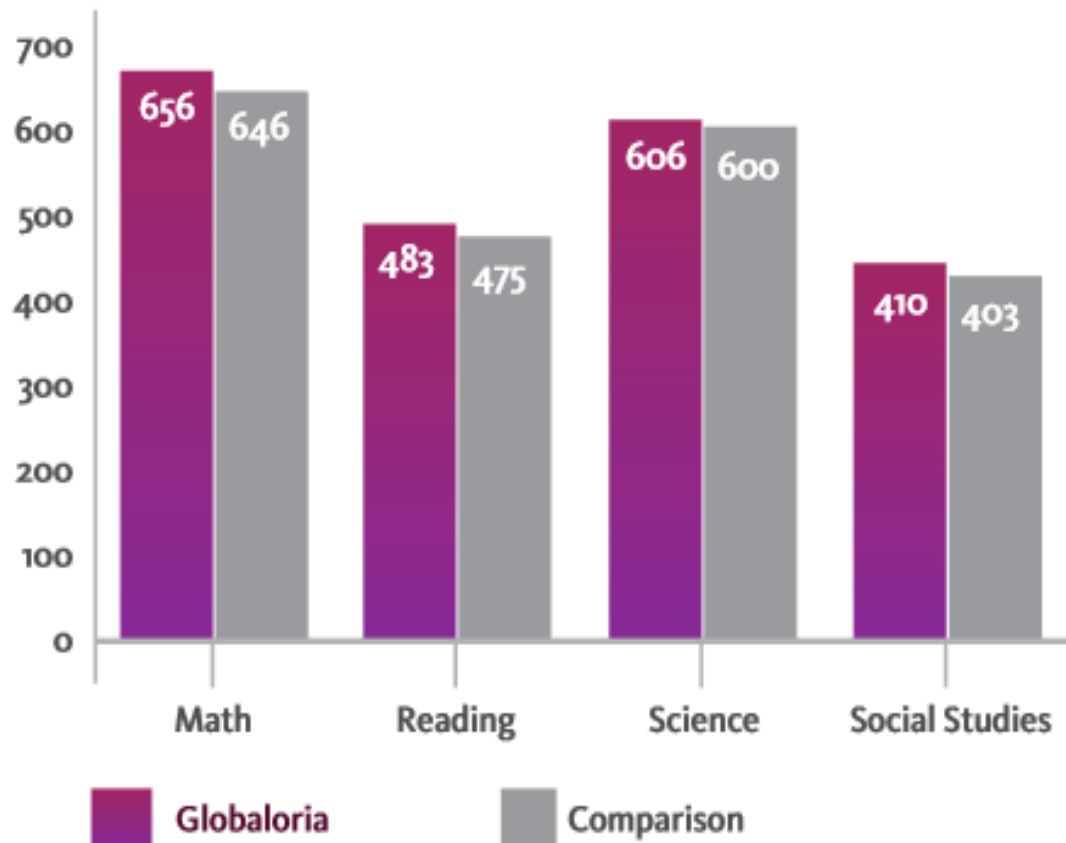
English

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**Any Teacher can Teach Coding
with Globaloria**



Figure 3: WESTEST2 Results



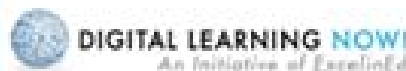
Selected Research Partners



Source: Edvantia, Inc, 2009 – 11, West Virginia

GLOBALORIA

Award Winning



GLOBALORIA™



Teaching All Students to **Code**