



Rigorous Creativity in Core Academic Classes – Autodesk is for more than just tech class

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Class Summary

Autodesk products, in particular the entertainment creation suites, offer an opportunity to reinvent learning in language arts, social studies, and other core academic classes. By using a game or movie development approach to core subject learning, you can motivate your students to learn with the use of tools such as Autodesk® 3ds Max®, Autodesk Maya®, and other software products. The variety of Autodesk products, combined with the general principles that have already seen amazing classroom success, could reignite a passion for learning in so many students and schools. You can be part of the solution, as a mentor or teacher or business.

Meta-Summary: Autodesk – it's not just for engineering anymore.

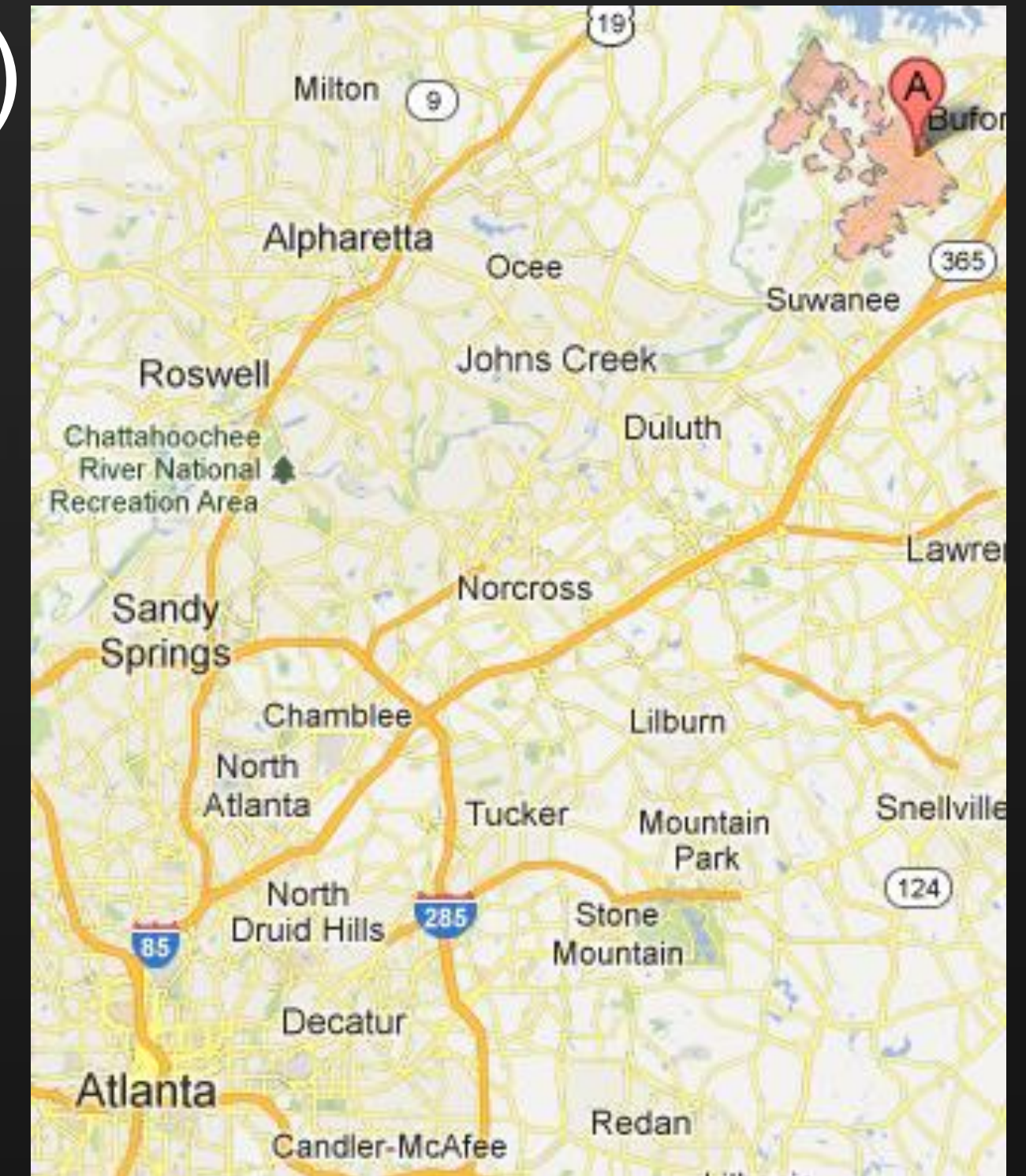
Learning Objectives

At the end of this class, you will be able to:

- See how Autodesk products have created positive change in the non-technical, core subject classroom
- Evaluate how to begin to reach out to teachers of core classes as potential creative partners
- Review how industries, schools and other leaders in your area can join together in creating an authentic learning environment
- Map out a plan to make your own “flavor” of project-based learning that blends the technical with the core classes.

CDAT – Center for Design and Technology

- Hosted at Lanier High School (north of Atlanta, GA)
- 80 9th, 45 10th, 25 11th (about 145 total students)
- 3-hour block project-based learning (PBL)
- Focus on digital creativity skills and collaboration
 - Engineering, Movies, Gaming, Simulation



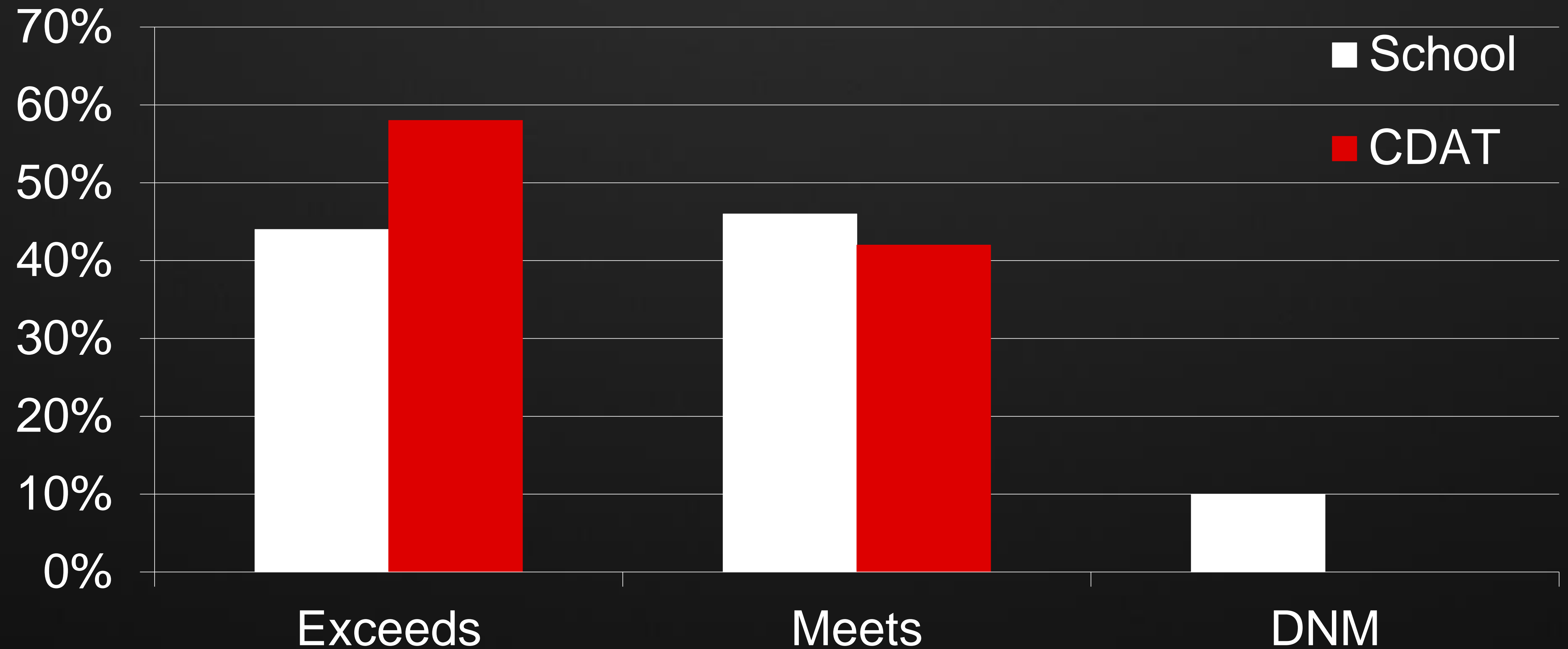
CDAT – Center for Design and Technology

- 50% White
- 65% Male
- 45% “Free/Reduced lunch”
- Not just “geeky white boys”

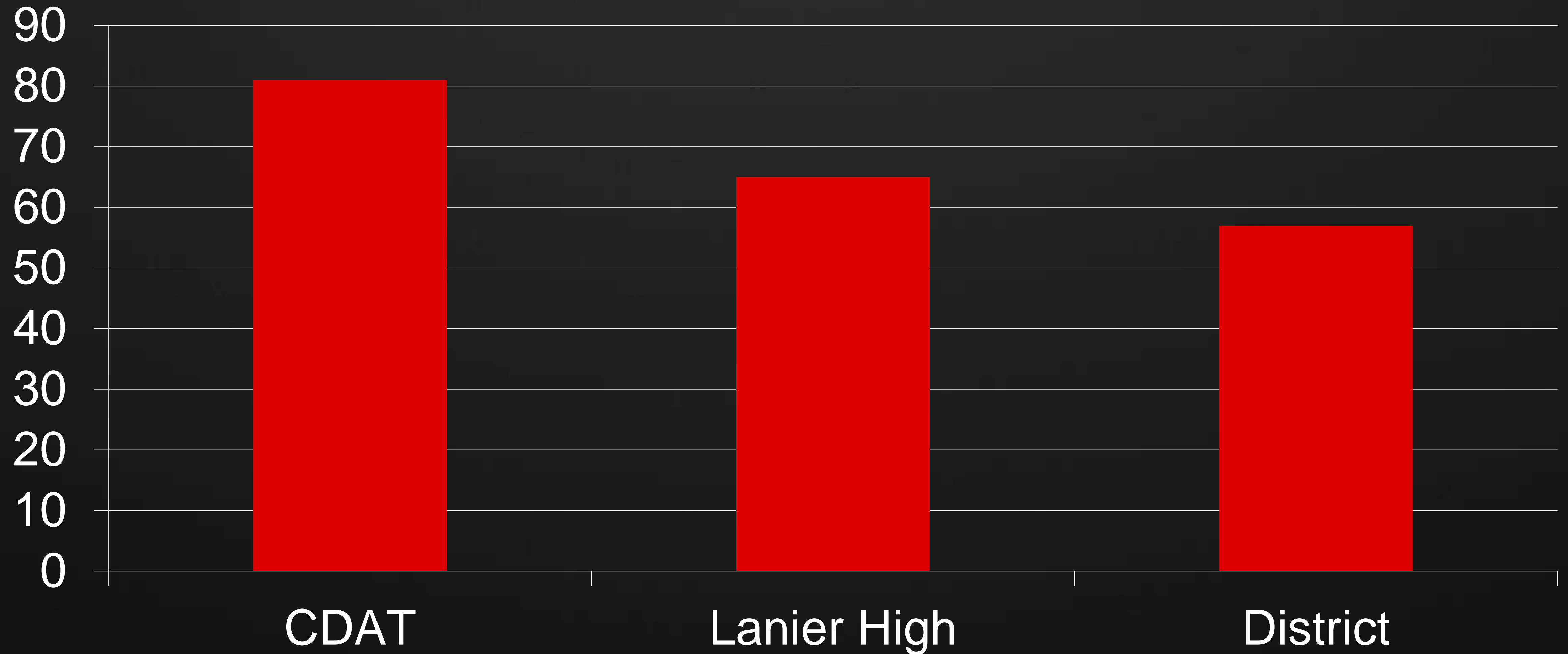


It's all about the data these days....

Language Arts Scores – End of Spring 2012



Chemistry Scores – October 2012



Data Summary

- Our program has beaten our school and district in 8 of 9 exams, ALL written by the State or District
- Our program has grown dramatically: 30 to 150 in 3 years
- Our attendance and retention is very high

So, what's the concept?

Principles of the CDAT program

- Efficiency – not all kids need all time, nor do the teachers (pre-test!)
- Creativity – letting kids choose HOW to demonstrate learning (in addition to the tests)
- Authenticity – tools like 3DS Max ARE authentic, and have become the industry in our region (engineering, movies, games)

The Project Schedule – like a movie or game

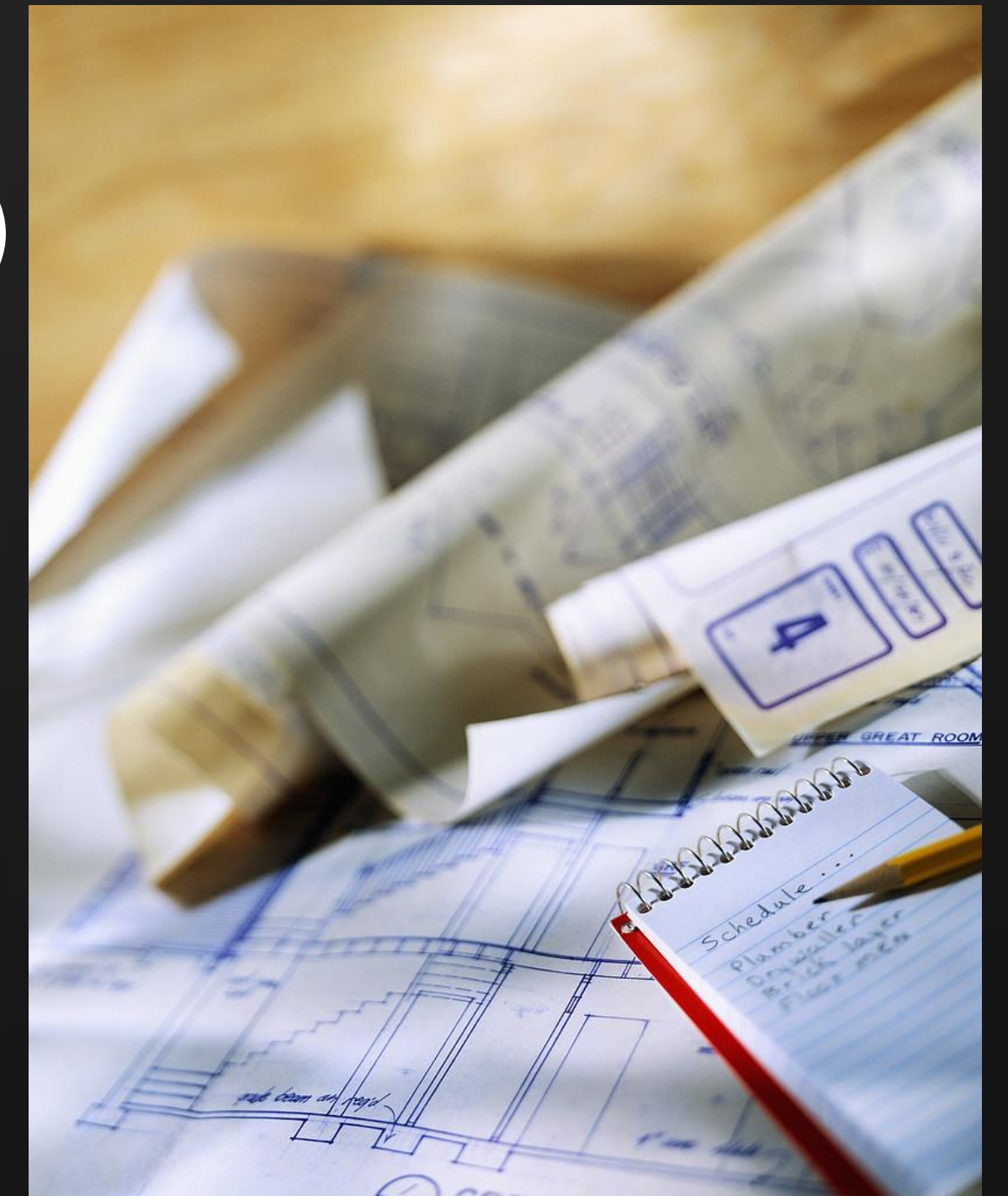
- 6-week project window, planned around formal assessment
- Elective classes serve/parallel core classes
- Students learn more by creating than by listening
- Begin with weeks of research up front, then develop for weeks (we call it “Mulan” or “Brave”) – the design cycle

The Weekly Schedule

- 3-hour block, half of a school day
- Blend of a college schedule with “flipped classroom” and real projects
- Autodesk is not only software, but a model of “flipped”, kids love it!
- Weekly formative assessment, MANY conversations with students

The 4-Year Plan

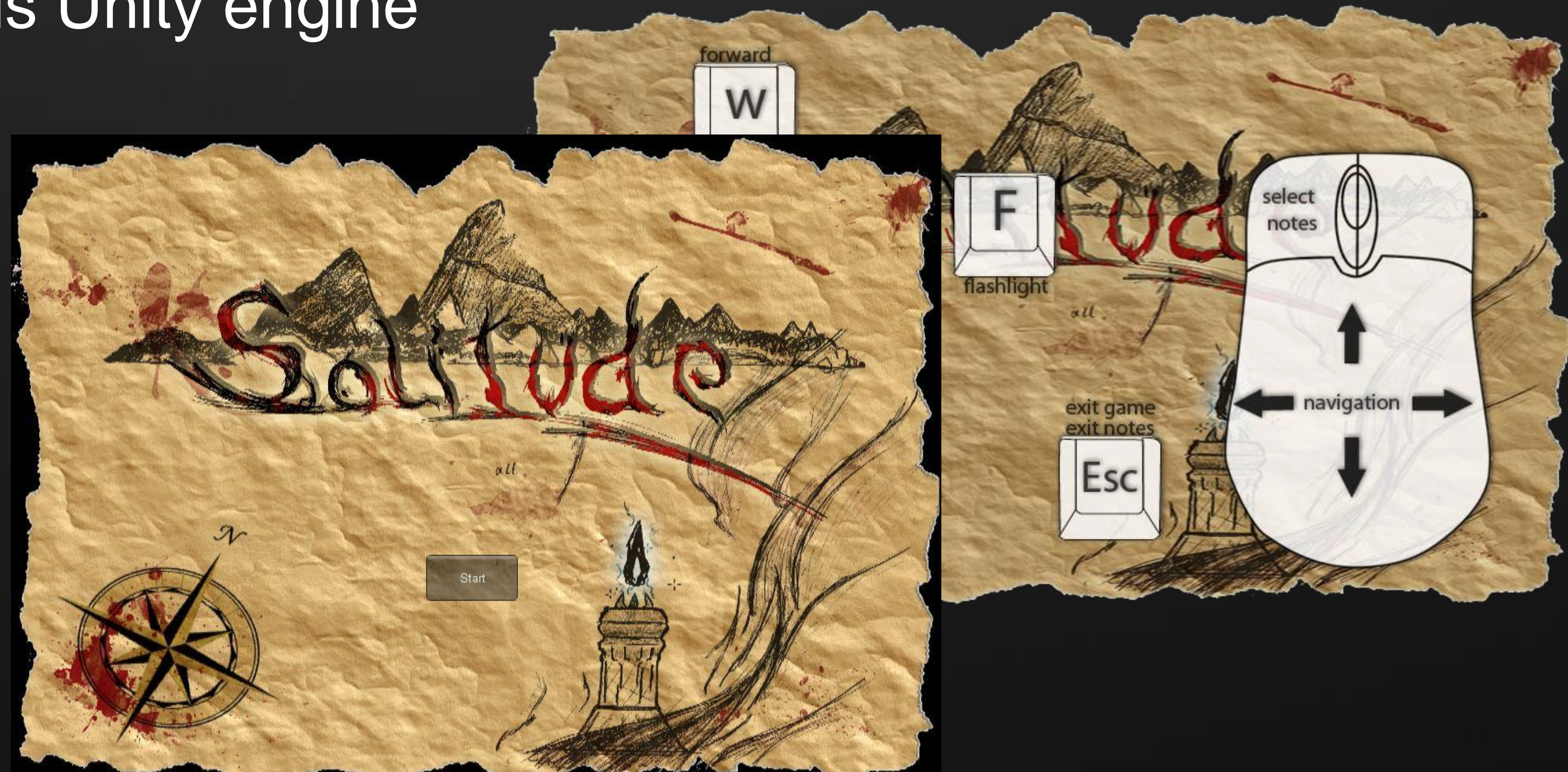
- 9th grade – learn about a bunch of cool tech, find your flavor!
- 10th grade – specialize in your favorite (30% Autodesk)
- 11th grade – entrepreneurship and/or contract work
- 12th grade – external internships or outsource for local companies



Let's see some student work, eh?

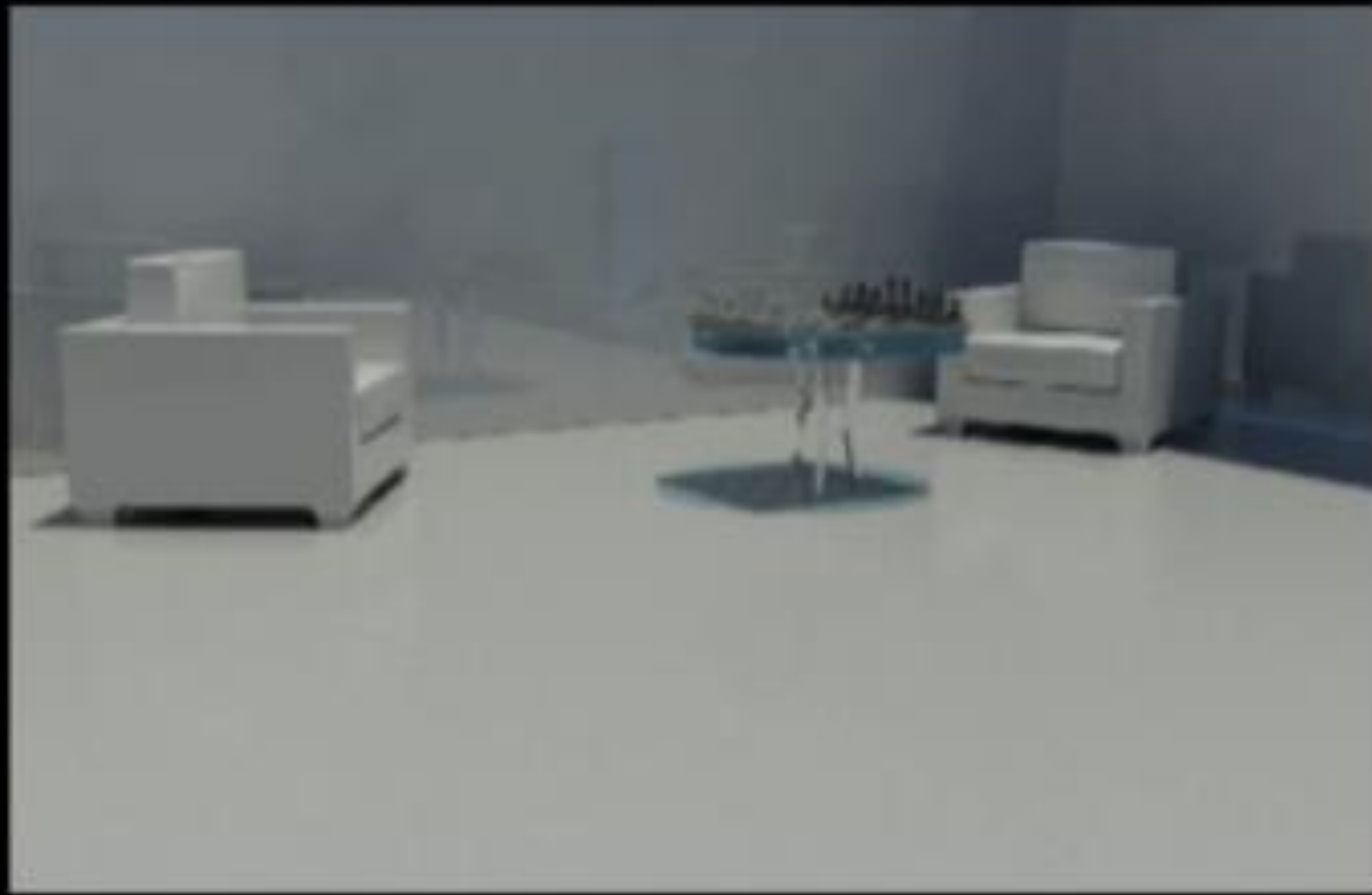
Social Studies

- “Solitude” - The French Revolution meets *Lord of the Flies*
- Tech: 3DS Max, plus Unity engine
- Team of 4 students



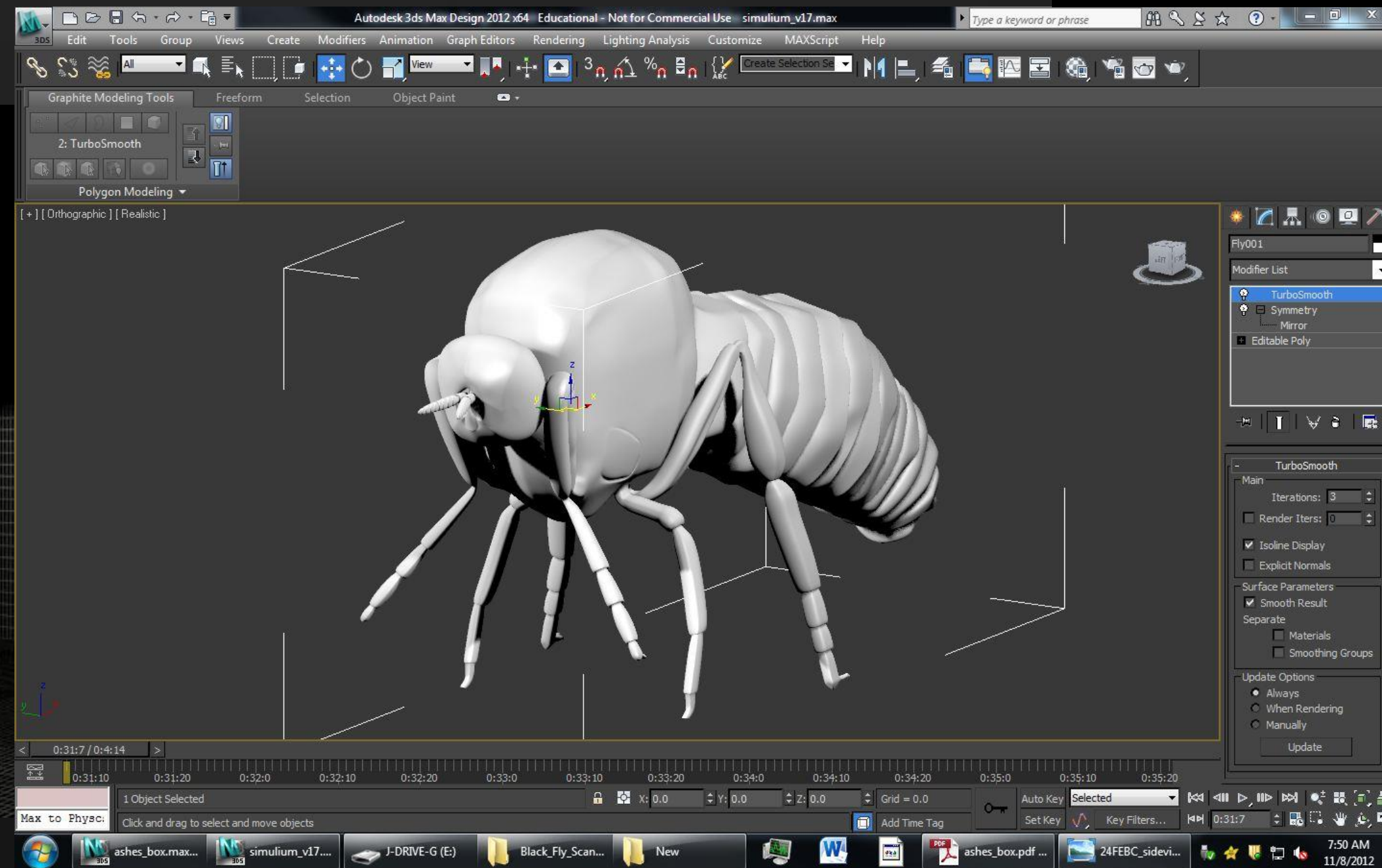
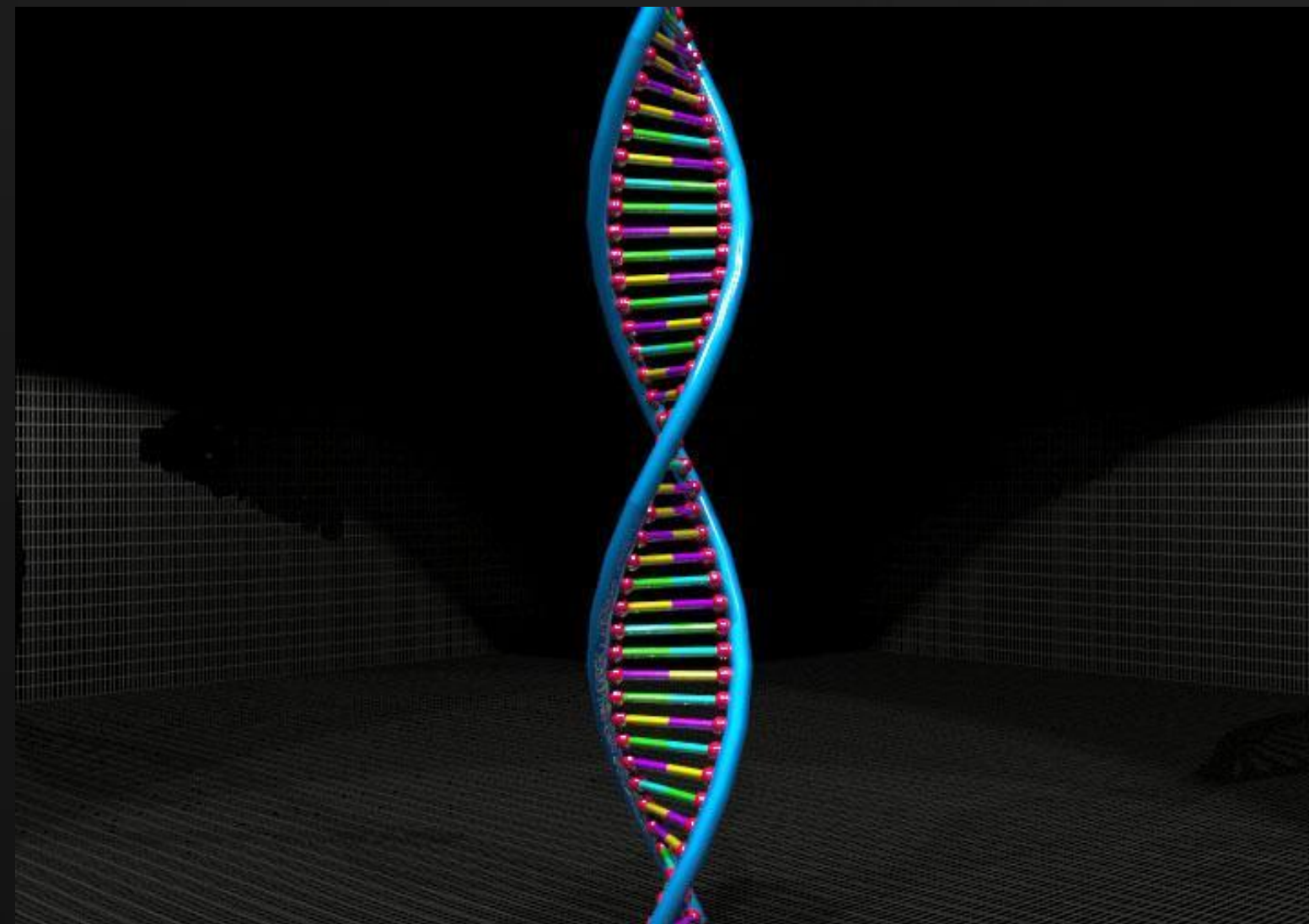
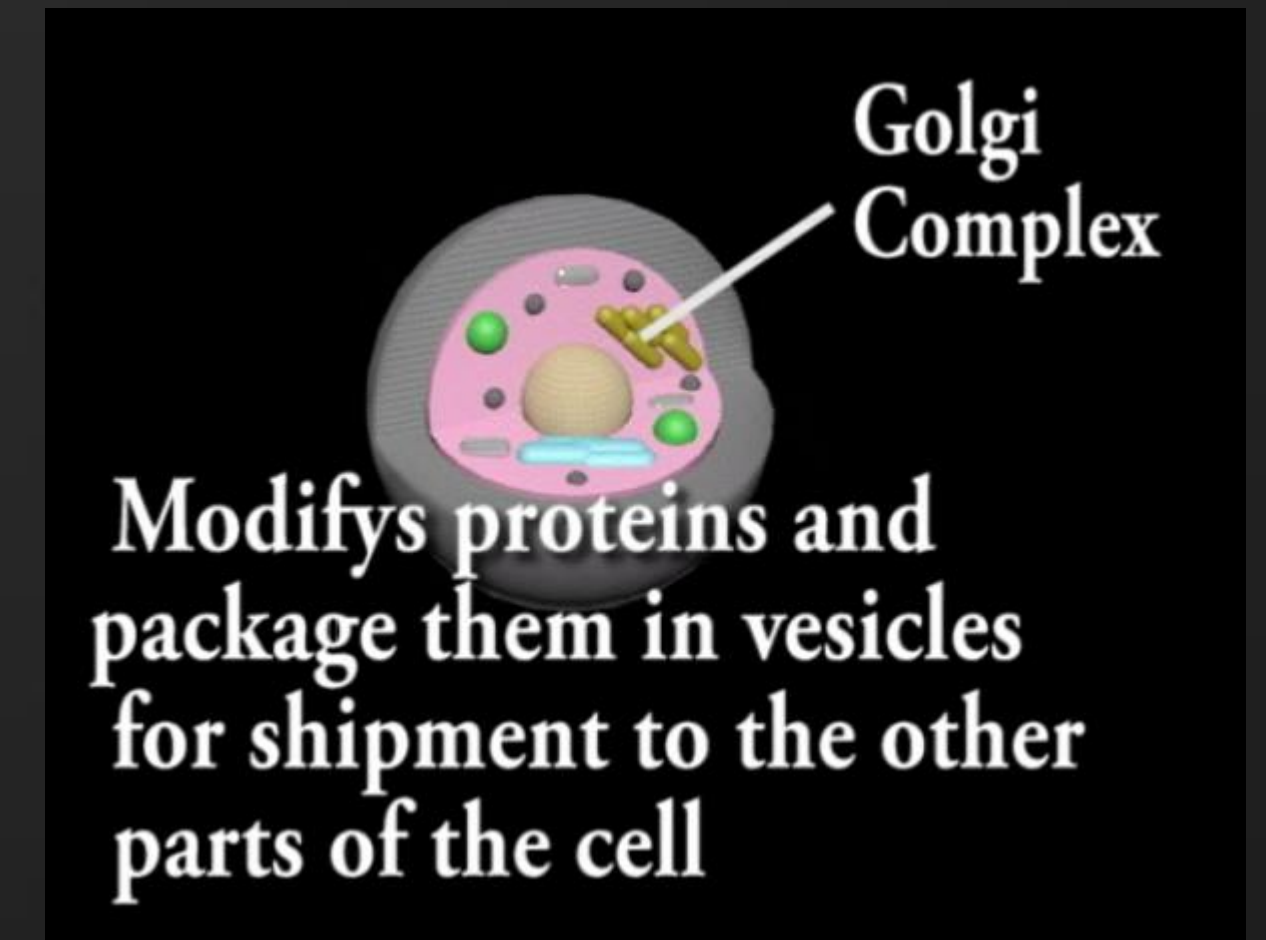
Poetry

- Our first year products
- Goal was to create a visual demonstration of poetry
- 3DS Max became huge to our kids



Science

- Our latest (kids kept asking for it!)
- Lends a great visual discussion to the topic
- Focus on Biology and Chemistry



Is it worth it?

Teachers think so

- It's for teacher satisfaction too, not just for kids!
- Only one teacher of 10 has “opted out”
- Great for the right (voluntary) team, eliminates isolation
- Professional educators get to collaborate more regularly, reflect
- Little things like flexible schedule make life better

Students think so

- Our test scores are great, attendance is great, but their words:

**Student Opinions of Autodesk 3DS Max
used in Science Classes**

Center for Design and Technology
AKA - CDAT at Lanier High

<http://cdat.lanierhs.org>

Contests and Businesses think so

- 3rd place finish – Startupcamp Atlanta
- Category Winner – Technology Assoc. of GA “Webchallenge”
- Excellence Winner – International Student Media Festival 2012
- PBS producer – [Cielo Productions](#) and [Biscardi Creative](#)
- State of Georgia STEM – Model STEM Program
- Multiple students nominated for Governor’s Honors Program
- 1st place finish in 2012 Georgia Tech Scratch Game Programming

- And, there’s this Autodesk company that likes us....

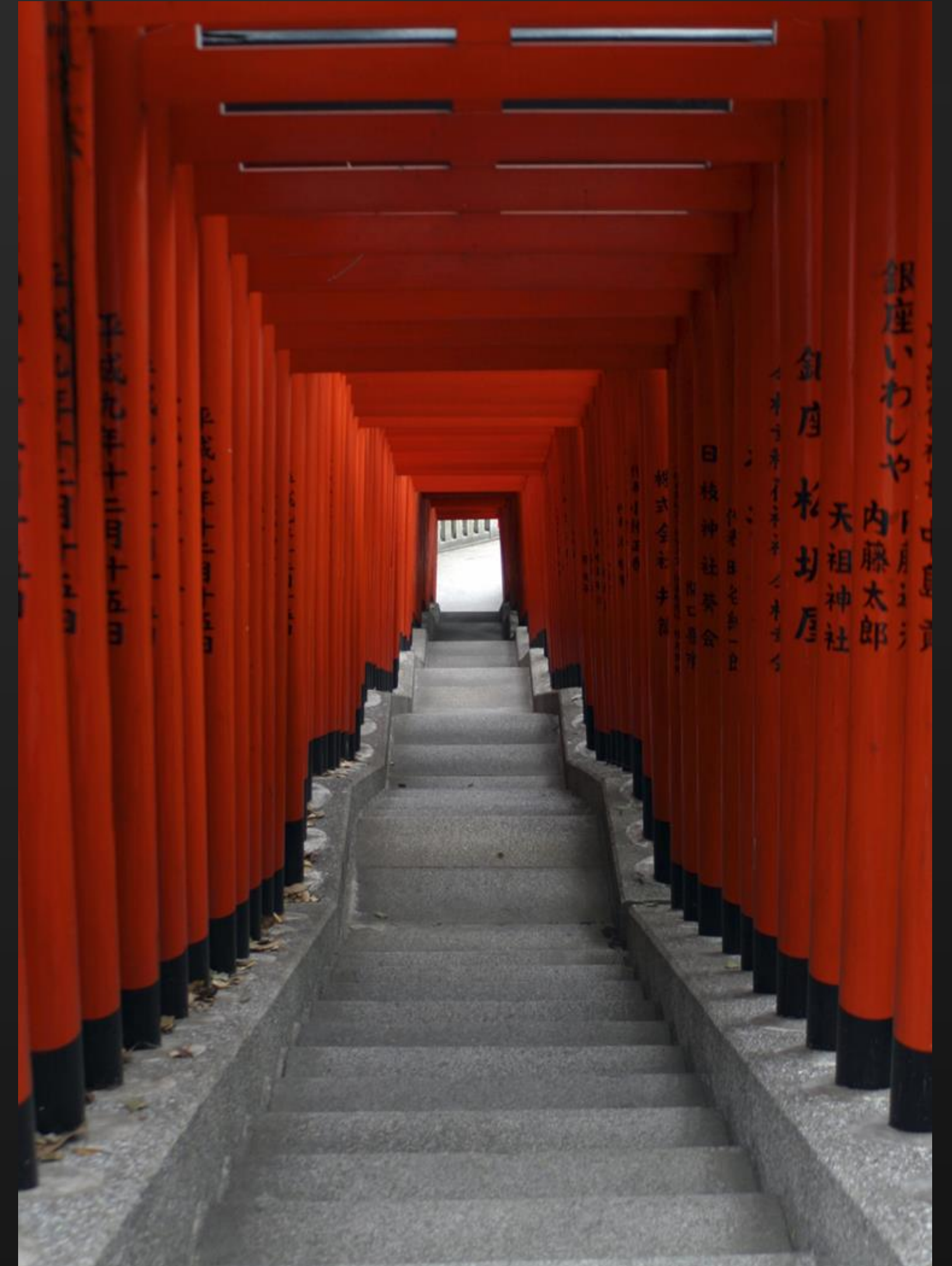
Some links that might help

- CDAT - <http://cdat.lanierhs.org> and <http://autodesk.lanierhs.org>
- Buck Institute - <http://bie.org>
- Edutopia - <http://edutopia.org>

How do I start?

First steps

- Teachers must choose this
- Students must choose this (authentic theme)
- Administrative commitment and support
- Local business needs, support and advice



That's our attempt. Questions?

