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Session 1 Notes: Prepping Ts for Tech Rich Classrooms

Attendees:

- Susie Simmons, 6-12 Tech Coach at Bonny Eagle RSU #6
- Dan Callahan, Training & Professional Learning Specialist, Massachusetts Teachers Association
- Charlie Cianciolo, K-5 Technology integrator and coach RSU #57

Notes:

- You don't need to be doing everything; don't aim for R(edefinition) first; aim for S(ubstitution)
- Think about what our new Ts saw when they were going through their "training" in college; no screens allowed; devices are "the devil"
- Experimenting needs to be expected/supported; failure is ok (learn from mistakes)
- What do you want teaching to look like and then demonstrate that in everything you do; if you expect meaningful use of technology then show that
- Pedagogy and skills are more important than the latest mandate (ie SmarterBalanced=years wasted)
- kahoot.it - online formative assessment - fun competitive
- socrative - like the above site
- college training is beyond our control; need to start working on it once they come into our district

- Less specific tools and more skills (word processing versus Word)
- New teacher training needs to help to boost up the technology integration skills
- Should we identify teachers and “require” them to attend a class or get “Remedial help”?
- Included in the evaluation process? If so, there needs to be a commonality to how that is assessed.

Session 2 Notes: Makerspaces

Attendees:
@tofer8 - terri.dawson@gorhamschools.org

Notes:
“Discovery space”
3D Printing station
“Fab Lab”- a place to play, to create, to learn, to mentor, to invent.
“Inspired play”
Pinterest as a resource
Taking apart and putting back together
Intent and purpose
Inquiry
How to videos via YouTube
Need a project to do or the materials will just sit there
Stop motion video- leave how-to resources on table
Classroom stations
Involve the students in making the choices
Foss Kits
Mini courses
“Fun Friday”
Enrichment opportunities
Lego corner (Lego wall, “add to a building” theme)
*Educators at #EdCampOOB can get free copies of Contraption Maker for school: contraptionmaker.com/education

Make Magazine
The Brown Bag Challenge
Another Brown Bag idea

Mad Science of Maine

Purpose

- Support teacher's classroom projects
    - Example: raising trout--digital data collection
- Student tinkering

Space Considerations

- room, cart, table
- Stations
- Manpower will determine your space and what you can do

Materials

- old computers, old parts, old books
- Lego
- K'Nex
- Foss Kit
- Ruth's Reusable Resources
    - Longmeadow, MA has something similar
- Fundraiser: go to Maker Faire and sell little kits for things like goop, playdough, cookies

Resources/References

- Instructables: DIY instructions
- YouTube: Videos to show students how to do something
- Maker Spaces on Pinterest: Good for visuals of different spaces, project ideas, etc.
- *The Element* by Ken Robinson: finding your passion

- *Building Up*
- *The Most Magnificent Thing* by Ashley Spires - good for teaching perseverance: trial and error and feedback
- *Calder's Circus* illustrated by Melissa Sweet (Maine Illustrator!)
- Gallimoto (Spelling?)

Modeling behavior: kids don't necessarily know how to make things -- that they can make things.
Saco Middle School has a table and leaves materials and a model.
Very few kids will do it on their own without a model.

"Take apart lab": take apart old computers, old parts, old books -- see what things looks like on the inside.

"What do you want to do?"
- 3D print artificial hands

"What can we make with this?"

Projects you can do

- sticky note stop motion
- Mini-courses: Reggio-Emilia emergent curriculum, the whole school would come together and teach each other. Six week mini courses.
- Fun Friday
- Genius Hour
- Maker club
- Green screen
- Bring a maker in and let them work in the space for a few hours.
- Brown Bag challenges: fill a bag with materials and leave a challenge (e.g. Build the tallest thing you can)

- Rube Goldberg (for a fun example, look for the OK Go video for "This too Shall Pass"
- Snap Circuits
- Mad Science will come to schools
- Little Bits (not cheap, but cool): magnets
    - There are cards with projects/challenges
- Arduino (spelling?)
- Paper snowflakes
- Duct tape projects (sourcing from Lowes, HD)
- Praying Mantis egg sacs -- design a terrarium
- Grow potatoes
- Making isn't just technology: sewing, knitting, crochet
- Coding -- Scratch, Daisy the Dinosaur, cup stacking, Robot Turtles board game (http://www.robotturtles.com)

Documenting:

- How do you capture what they are doing?
    - Kids can take projects.
    - Digital projects can be put on school/library websites.
    - Edmodo
    - Student showcases: blog, etc.
        - Let students help in showcase -- how, where, why.
- Evidence: support grows

Eric Braun (http://twitter.com/southshoreeric) : We are connecting 3D printing to PBL by making the project authentic in a project to print 3D hands for kids. Looking for teachers to collaborate on this. Working with Enabling the Future http://30hands.com/blog/3d-printing-digital-storytelling-go-hand-in-hand-to-make-a-difference/

Susie Simmons (@SusieTechIntegr): Spaces “defined” by topic at the MS; computer technician has a kids corner where students take apart and experiment with old tech; library has other corner set up, too.

Green screen work area (telling your story)
The Most Magnificent Thing (book) by A. Spires:
http://www.amazon.com/Most-Magnificent-Thing-Ashley-Spires/dp/1554537045/ref=sr_1_1?s=books&ie=UTF8&qid=1438095929&sr=1-1&keywords=the+most+magnificent+thing&pebp=1438095931963&perid=0V84N761RBVP207CMBRZ
Dreaming Up (book) by C. Hale:
http://www.amazon.com/Dreaming-Up-A-Celebration-Building/dp/1600606512

Maker faire: selling projects to fundraise for future materials

Session 3 Notes: Standards & Authentic Learning - How to fit it all in?!

RtI coordinator HS-Is it different at elem, ms, hs

How do you actually get to authentic? something that means something to the student

Examples--
problems that come up at school, let it go, might hit standard might not
community connections--partner with experts in the community to do something community needs

Discrepant timelines--bridge building takes a lot of time

How to make sure your learning is AUTHENTIC
Community investment/community involvement
Have freedom to be creative
You have to trust your students in a non-traditional classroom
This is REAL work -people will see the results - makes students more accountable
Project-based learning
Making connections to local organizations (conservation commission in OOB)
Science/SS focus - STEM
Chamber of Commerce connection
Cross-curricular - you can hit many standards at the same time
Traditional Math curriculum is going away - teachers are using what they choose in order to teach all of the standards
Authentic takes time - managing projects

Billy Corcoran & Cynthia Nye - Project-Based Learning Unit

Billy & Cynthia PBL US Regions Unit