## Brainstorming Notes — 2014-10-16

- Needs to be "entertaining" while not being too gamey 'Game-ification' Concept
  - Needs something so that people would want to come back for more 'addictive'
- Puzzle / Platformer game
  - 2D room where you control a stick figure that requires a unique mechanic to reach the end
  - Ex: Start from one point trying to get to a door you can't reach
  - Each level may introduce some new physics component
    - Classic physics problems, X and Y components
    - Kinetic Energy, optics, Convex and Concave lens
    - Electromagnetism, right hand rule
  - Avoid drawn out math but to solve the puzzle you have to understand the overall concepts
  - Could include an editor that a teacher could make their own levels and share it with the students
- Needs to have some end goal the student is working towards
  - Use software to build different components of a car and then when you put all the pieces together you end up with a working car
  - "Make your own video game" type of a game/experience
- Mad scientist game
  - Could be used for chemistry.
  - Your job would be to build different compounds.
  - The teacher could airdrop assignments to the students or a table of elements
- Camera
  - You could use the camera to take pictures of things, then change those pictures to reflect:
    - Convex / Concave lens / changed focal points / etc.
- Sphere
  - Calculate how far the sphere should go, then run it and see if you were right
- Math Blaster Game
  - Have to quickly solve problems and each correct answer would shoot some kind of alien / zombie
- Make an app that can take a quick 5 minute poll that the class can do and tell the teacher what they really need to cover and what everyone already seems to know
- Turn classroom into distributed system
  - MMO gamification science, what keeps people coming back for more
  - Turn classroom into an MMO with learning
  - Track your accomplishments across the school year
  - Be able to work from home and get help from other students who are also online
    - Use some point system like Stack-Overflow
    - Teacher would be able to monitor it
    - Students could ask other students for help using the app
  - Teams can solve problems and compete
    - Push notifications could alert you when you have a question or something
  - Predictive algorithms that could predict what students would be good for what scholarships, could be based on their helpfulness rating in some category by the other students
  - Teacher notes could be posted online, webcasts