Notes based on STEM certification visit

* Schools to visit:

-Clark Creek elementary school, Cherokee County\*\*

-Hightower Elementary – Dekalb County

-Warren Technical School

-STEM Academy, Savannah, GA

* Parent role

-How has STEM affected/changed your child?

-active participation

-STEM partner program similar to Partners in Literacy

* Business/Community

-Plan with teachers

-Meet with teachers before units to explain key concepts/topics

-Design challenges

-guest speakers (in-person. Skype, field trips)

* Students

-Must understand what they are doing

-Be able to articulate using standards based vocabulary

-understand the engineering design process and be able to use it throughout projects and challenges

-Self-asses with rubrics

-research through scientific process\*\*\*\*

-able to speak to key vocabulary

* Teachers

-Evidence of all parts of the engineering design process present

-Rubrics

-Journals

-Feedback and questioning that is standards based and specific

-deep understanding of core concepts\*\*\*

-Measure of growth for our program – not just grade levels

-Measurement and data analysis/collection\*\*\*\*

* School:

-Competitions – robot build, GA tech nanotechnology, SeaPerch, Science Olympiad (school-wide and individual), Science Fair?

-STEAM journals

-specific feedback

-Scream the theme – STEAM bulletin boards and examples of students work throughout classes and building.

-Create a measure of growth beyond tests (journals???)

Examples and Non-examples

* Students should be producers of technology, not just consumers

-Creating QR codes

-Blogging

-“tweeting”

-using coding to create games to teach a concept

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| Example | STEMified |
| Build a volcano to divert lavas flow | Looking at statistics of current volcanos  +What problems did this cause?  +How to solve this problem? |
| Create a poster of recycling | +Students produce a Public Service Announcement about the importance of recycling  +Students create a recycling club |