Palmetto Elementary School STEM Action Plan

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Big Ideas:
We will be integrating STEM into our school in 2nd through 5th grades as a cross curricula activity in order to foster a culture of STEM thinking throughout the students, parents, teachers and community.

Goals and Objectives:
- 2nd Grade STEM lab
- 4th and 5th grade STEM lab
- 3rd Grade science morphing into STEM
- STEM nights in the Fall and/or Spring
- Grade level integration with all standards and content areas
- Grade level planning integrated with science and homeroom teachers
- Educating community stakeholders about the initiative
- Educate parents about the initiative
- We will focus student assessments around including writing

Timeline:
The timeline for the implantation of our STEM program is going to be a tiered implementation. We will start with the introduction of STEM with the first 21 days activities that we use for guided reading and writing, this time will be for quick STEM activities, expectations and classroom rules. These activities include things like building a tower with paper to hold a penny or creating a puzzle with no communication and no picture. The next step of the implementation will be using content narrative style STEM lessons within the STEM/Science classrooms. These STEM activities will be integrated with all content areas and last for each quarter.

Assessments:
The assessment of the initiative will be extremely hard to measure because of the scope of it. Since we will be having a shift in the school culture without a survey of school culture it will be nearly impossible to measure quantitatively. Thinking qualitatively we will be able to see the shift student thinking and projects that they produce, we will also be able to see teachers using their GBE in order to grow professionally in the area of STEM. The goals and objectives will be the way to really measure our progress toward shifting the culture since they will be a binary result. We will assess the students with the use of the engineering journal along with reflections of the activities.

Resources:
This action plan will require many different types of resources but the main type will be human resources. We will need the school stakeholders to accept STEM into the school community and allow it to create a shift in the school culture. The other types of resources that will be needed will be time during the school day for the teachers to be able to implement and teach these activities. Teachers will also need common planning to enable cross curricula collaboration. We will need physical materials that we will ask the community at large to donate to the school for us to use.
**Learning Experiences:**
- Visiting other schools
- STEM institute
- Common Planning
- STEM day
- Previous STEM activities
- Reflection on all STEM related activities

**Examples:**
2nd through 5th grade STEM day;
- Dan the Can (authentic text)
- 2nd through 5th grade
- In the cafeteria as grade level
- Create a design for life preserver that would float the can
- Construction time limited
- Test design
- Graph Data
- Reflect on process and how they would improve the design