Bring STEM into your room… Even you, English!

2.4.2020

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Endeavor Leadership Program
Spring Semester 2020

Overview

For my PD session, my idea is to bring the most exciting parts of Endeavor and NASA to my colleagues while putting them through a 5E model- mini-lesson since it is difficult to get all of the 5E's accomplished in an hour. A video will engage them in the power of integrating technology; then, they will explore technology that can be used in their classrooms. Explain they will determine how they can use this in their content areas. Then, I will show them some of the resources that they have available so that they can use NASA resources as an area to find content and articles to read that promote STEM. They will elaborate by creating either a storyboard or Flipgrid example that they can take back to use in their classroom.

Goals

1. Introduce staff at my school to coding, one-on-one devices and how it can be implemented into their classrooms focusing on Storyboard That and Flipgrid.

2. Provide all staff time to discover the technology resources that <u>NASA has for educators.</u>

3. Prove to my staff that STEAM is not just for Math, Science, and Elective teachers, but that it is accessible by all contents and can be easily incorporated into our classrooms.

Specifications

Who is your proposed audience (minimum 12)?
- The audience that I am trying to attract is all general/ special education teacher in my building. I have a group of teachers that have already signed-up to come.

Which teachers will you serve with your PD and activities? What grades, subjects, and how many students do they teach?
- Teacher are 6-8th grade teachers or administration. They serve anywhere from 130-155 students. My goal is to have representation from every content at each grade level.

What STEM concepts or learning goals will you and your materials address which can potentially replace other classroom activities?
- I hope that through the presentation, my colleagues will find that the NASA resources are an excellent place to get learning material and lessons to promote STEM fields. Also, providing a concrete way to engage students through technology and teach the content in more real-world, applicable ways.

Standards Meet

Colorado State Standards

One of the goals of the Colorado Standards is that all students are engaged in 21st century practices and that STEM concepts are being transferred across content areas.

NGSS

Engaging in Argument from Evidence
- Looking at critiquing two arguments on the same topic
- Respectfully providing and receiving critiques

    o   Construct, use, and/or present an oral or written argument

Cherry Creek School District Evaluation System

"Element C: Technology: Teachers integrate and utilize appropriate available technology to engage students in authentic learning experience"

The PD Session

How and where do you intend to carry out your PD?
- The PD session will take place during our February in-service day during the optional afternoon sessions. I plan to encourage my colleagues to come to my meeting by having it be hands-on, engaging, and by having snacks.

How long will the session be? When will it be held? Will teachers have access to computers?
- Teachers will come to the hour-long session, where they will do multiple tasks and have the opportunity to play with their computers and work hands-on with some of the technologies that I present during the presentation. Creating examples they will be able to take back to their classrooms.

What, in general, will your pre-survey and post-survey ask?
- The pre-survey will be on a scale of 1- 10 where one is novice and 10 is expert. I will ask questions along the lines of skills with technology, familiarly with incorporating STEM into the classroom, how they believe technology can be used in the classroom, and lastly how often they are using technology to enhance their students learning.
- The post-survey will contain short answer questions about the overall learning experience, how they plan on incorporating the technology in their classrooms and what benefits technology will bring to their classroom. Lastly, I will ask how their views of using technology in the classroom has changed from the presentation.

What outcomes or expectations do you hope to see for your educators?
- I am hopeful that my educators will see the powerful impact of STEM for our students now and in the future. I hope to provide them with some tools to use immediately in their classrooms. Overall, I want them to be engaged and excited about the idea of implementing STEM into their classrooms.
- For the Storyboard That part of the presentation, the outcome I hope to reach is that teachers can see that this is a tool they can use to allow students to demonstrate their understanding differently and bring in creativity and technology.
- Flipgrid is a fantastic resource that I plan to spend a lot of time to show how it allows students to verbally explain their argument and then respond to others to build respectful critiques of their classmates.

How will you follow up with the teachers in attendance?
- I plan to ask some questions in the post-survey to get an idea of where they would like to go with the tools that I presented them in the session. Also, I will follow up with small groups and even try to create a group that meets monthly to discuss how to get more STEM into our school culture.

What data collection methods (e.g., surveys, interviews) will you use to analyze the PD's success?
- I plan to use a padlet during the presentation so the participants can ask questions and interact with the presentation. I will use this as a teaching model as to how to have students stay engaged in a lesson.
- I will interview the participants at the end to get their feedback and suggestions for next time.

Come learn and explore

BRING STEM INTO YOUR CLASSROOM...
EVEN YOU, ENGLISH!

18 FEBRUARY 2020 • 2:00 PM

THE INNOVATION CENTER
SNACKS WILL BE PROVIDED
PRIZES WILL BE GIVEN
KNOWLEGE WILL BE GAINED

NEED MORE INFO?

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(My flyer for my staff)