

EXPERTS IN
HANDS-ON
STEM EDUCATION



#### Presenter





**Jim Schmidt**EdD, Educational Specialist

Over 20 years of experience in public school education and administration

#### **Panelists**





**Dori Atterberry**1st Grade Teacher
Galileo STEM Academy



Jill Janicek
2nd Grade Teacher
Galileo STEM Academy



**Guy Falconer**Design Technology Educator
Sage International School

#### Who We Are



#### **PCS Edventures History**

Started as Pat's Computer School in 1988

Grew to network of experiential learning centers in Idaho, Washington and California

PCS Edventures learning solutions are now in more than 7000 sites in all 50 states and over 17 other countries

Philosophy of hands-on projects that fuel a passion for learning and a lifelong love of STEM



#### Who We Serve



- K-12 educators in classrooms
- After-school programs
- Libraries and makerspaces
- Youth groups such as FFA, Boys & Girls Club, 4H, etc











#### What is STEM?



To raise new questions, new possibilities, to regard old problems from a new angle, requires creative imagination and marks real advance in science.

Albert Einstein

Equipped with his five senses, man explores the universe around him and calls the adventure Science.

- Edwin Powell Hubble

## Jim Schmidt



#### What is STEM?

- Hands-on
- Integrated Approach
- Relevant to Learner
- Panelists' Perspectives

Time Management





#### **Morning Centers**

- STEM and 21st Century Skills
- Build It; Create It; Make It;
   Model It; Practice It; Read It







#### **Cardboard Challenge**

- Arcade games
- Other classes come and pay-to-play with pretend money
- Pretend money earned to shop at 2nd grade store





#### **BrickLAB**

- Two systems for using bricks
  - Individual
  - Class Tub
- Builds can be added to any lesson
- Students pose questions or problem
- "Let's see what might work."









Project-Based Learning: Famous Threesomes and Three Billy Goats Gruff



ELA (Literacy & writing), math, engineering, building, and creating

Next Generation Science Standards with cross-curricular connections

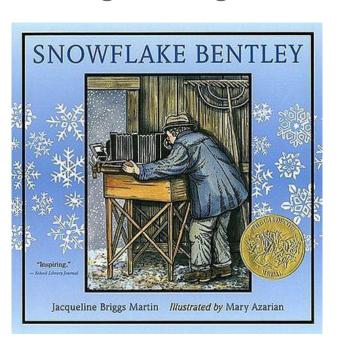




#### **Snow Village: Project-Based Unit**



- Writing Activity -
  - Step-by-step directions:
  - How to Build a Snowman









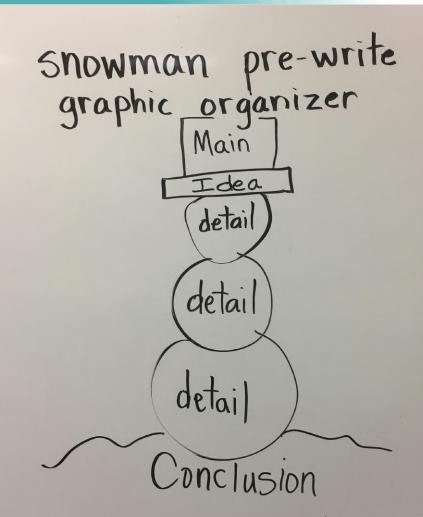




#### **Snow Village:**

#### **Project-Based Unit**

- Creative writing about snowmen coming to life
- Snowmen at Nightby Caralyn Buehner







#### **Snow Village: Project-Based Unit**

- Field trip to Watershed water cycle and drinking water
- Presentation
  - How does my building help the snowman community?
  - Graded by Rubric



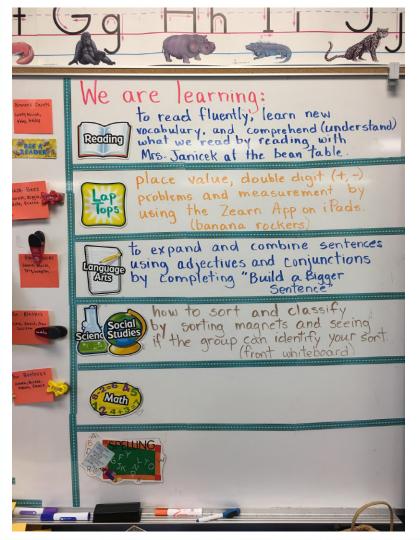
If you're lucky, build a snowman!



## **Brick Organization**

























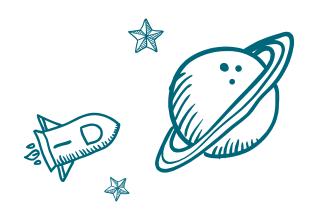
## STEM EXPERIENCES





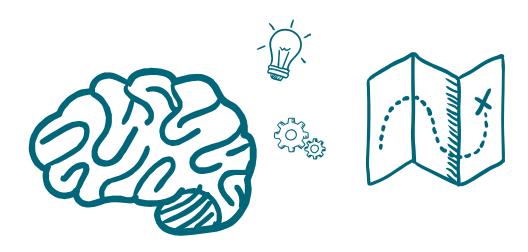
# BOOTS ON THE GROUND





## KEEP STEM SIMPLE





# PROCESS NOT PRODUCT

## Obstacles to Implementation



What kind of **obstacles** have you faced in implementing STEM? How have you **overcome** those challenges?



#### **PCS Products**



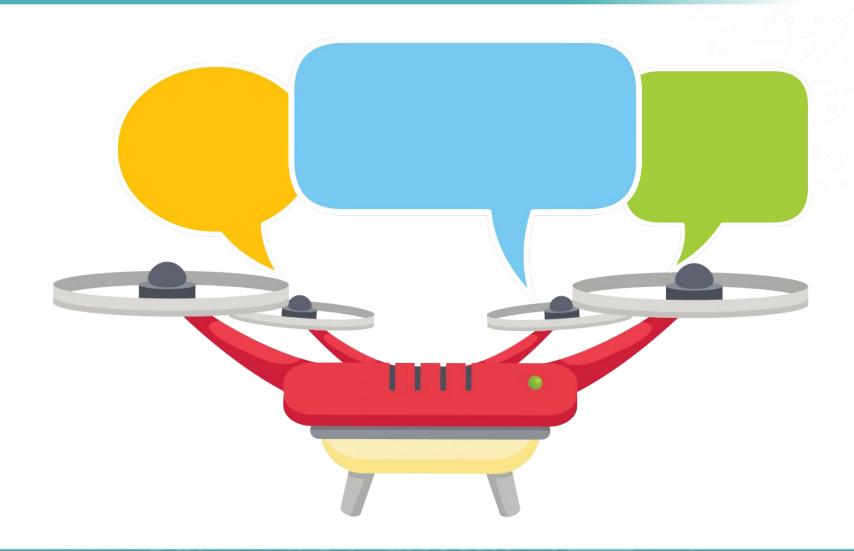
Which PCS products have been most useful to you in creating your STEM program?





## Questions?









#### edventures.com

sales@edventures.com (800) 429-3110



#### **PCS Edventures Product Lines:**







