STEMeracy
STEM + Literacy

With Vatoyia Gardner & Anitra Cook
STEMeracy
What is that?
Implementing STEMeracy as a Librarian
Literacy Non-fiction
Zombies and Forces and Motion by Mark Weakland

Literacy Fiction
All is Falling Down by Gene Zion
My Mouth is a Volcano

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Hawaii's Kilauea volcano began to erupt on Thursday, May 3, 2018. Explore the resources below to learn about what is happening and the impact it is having on the lives of those who live on the Big Island.

Record your learnings, wonderings, feelings, and the volcano specific vocabulary you come across.

Explore

National Geographic: Volcano Eruption
The True Story of the Three Little Pigs
Green Screen
Breakout EDU
One Book, One School

Taking a Schoolwide Literacy Initiative a Step Further
Water Princess
A Long Walk to Water
In Collaboration with AIG
STEM + Literacy Strategies
Interactive Notebooking
Science
Technology
Engineering
Math
Integration & Collaboration
Literacy Strategies

- Interactive Notebook
- Words to Know (Word Splash)
- Frayer Model Foldable
- Proof Writing
- Whiteboard Meeting
- Explore the ideas
- Sequence Flowing Map
- Compare and Contrast
Planning a Stem Lesson

Ask:

What is the lesson going to be about?
What grade level?
What standards do I need to address?
Can I figure out ways to hit multiple standards for other content areas?
# Forces and Motion

## Essential Standard and Clarifying Objectives

### 3.P.1 Understand motion and factors that affect motion.
- **3.P.1.1** Infer changes in speed or direction resulting from forces acting on an object.
- **3.P.1.2** Compare the relative speeds (faster or slower) of objects that travel the same distance in different amounts of time.
- **3.P.1.3** Explain the effect of earth’s gravity on the motion of any object on or near the earth.

## Unpacking

What does this standard mean a child will know, understand and be able to do?

### 3.P.1.1
Students know that when a force acts on an object it will result in a change of speed and/or direction.

### 3.P.1.2
Students know that speed can vary. Students know that varying the speed of a moving object will affect the time it takes for the object to travel a particular distance.

### 3.P.1.3
Students know that the earth ‘pulls’ on all objects on or near the earth without touching those objects.
Explore
Present the Content – Help learner understand concepts, process/procedures, facts or principles

Elaborate
Construct New Learning – Help learner apply prior learning and acquire new

Engage
Establish Relevancy – Help learner determine need of learning new concepts

Explain
Improve Understanding – Help learner to express new learning and provide guidance

Evaluate
Assess Learning – Help learner measure learning against its corresponding goals
STEMeracy

Connecting Literature to Online Learning
Assessments

- Fun and engaging
- Ready-made quizzes
- Self-paced or live learning
- Instant feedback
- Easy data collection
Sphero - the app-enabled ball that does it all. Sphero lets you play, learn, and explore. Sphero connects via Bluetooth© with your iOS, Android, or Windows device.

LEGO® Education Solutions for early learning use play to open up the world of early math, science, and language skills for young children.
Classroom Learning Management System
Website
THE LITERACY SHED
Blog

- Teachers have full administrative control
- Encourage reflection
- Reinforce writing
Brain Breaks

Geared toward K-5 students, Go Noodle helps teachers get kids moving with short interactive activities.

Braingle has over 15,000 brain teasers, riddles, logic problems, and mind puzzles for students.
Apps

Students can tap the link or scan the code with the Metaverse App to interact with AR Experiences.
Collaboration Tools

Padlet is an online virtual bulletin board, where students can collaborate, reflect, share links, and pictures.

Lino is a virtual bulletin board that allows students to post sticky notes, videos and documents. Pose a question and students can respond.
Seesaw is a student-driven digital portfolio that empowers students to independently document what they are learning at school.
Polls

Ask the audience a question. Then watch as the chart updates automatically with their responses.

Answer Garden is a feedback tool that allows students collaborate and brainstorm ideas.
Literacy

Read Works provides high quality nonfiction and literary articles, along with reading comprehension, vocabulary lessons, formative assessments, and teacher guidance.

- Newsela is a database of current event stories tailor-made for classroom use.
- Use to differentiate nonfiction reading.
- Integrate with Google Classroom
Common Lit

“CommonLit is a free collection of fiction and nonfiction for 2nd-12th grade classrooms”.

You can search and filter the collection by

- Lexile
- Grade
- Theme
- Genre
- Literary device
- Common core standard
Interactive

Interactive presentation and assessment tools that can be used as student-paced or teacher-paced lessons.

- Download results for grades.
Virtual Field Trips

The World Wonders Project brings to life the wonders of the modern and ancient world.

Google Street View is a technology featured in Google Maps and Google Earth that provides panoramic views from positions along many streets in the world.
Creativity

Editing tools that allow users to create talking animations that enhance instruction, projects or presentations.
BUILD YOUR WILD SELF

Use to create a normal and a wild you!
Then Blabberize it to make it talk.
Videos

With flipgrid, short videos are used to amplify student learning.

Animoto is a video maker that turns photos and video clips into a professional-looking videos in minutes.
Videos

Screencastify is a screen capture software that can be used to create a video from your screen. Does not require any downloading or installing.

WeVideo is an online video editing that allows you to capture, create, view and share your movies.
Videos

Educreations is an app that transform your ipad into a recordable whiteboard.

EdPuzzle is the perfect tool for allowing students to watch and engage videos while the teacher gathers data throughout the lesson. Perfect tool for a flipped lesson.
Presentations

Adobe Spark is the integrated web and mobile app that allows anyone to create and share impactful visual stories.

Prezi is a presentation software that uses motion, zoom, and spatial relationships to bring your ideas to life and make you a great presenter.
Writing

Storybird lets anyone make visual stories in seconds. They curate artwork from illustrators around the work and allows students to turn those images into stories.

toonDoo lets you create comic strips and cartoons easily with just a few clicks, drags and drops.
Writing

Little Bird Tales is a storytelling e-learning tool that can be used for students of all ages.

WhatWasThere ties historical photos to Google Maps, allowing you to tour familiar streets to see how they appeared in the past.
Feedback on Impact

Stemeracy Lesson

Form description

Your name *

Short answer text

Grade *

Short answer text

Title of Stemeracy Lesson *

Short answer text
Questions?
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