Infusing Literacy with PLTW Launch
Meet the Facilitators

Kelly Cartwright
PLTW
Instructional Developer

Amy Magill
PLTW Master Teacher
1ST Grade Teacher at STEAM Magnet School
PLTW Site Coordinator
Agenda

- Welcome!
- Starting with STEM Activity
- What is STEM?
- Exploring ELA Strands
- Connecting STEM and Literacy Standards
- Showcase – Amy Magill
- Cross-Curricular Strategies
- Reflection, Q & A
Start with STEM! - Video

Watch: Animal Life Cycles video

From 3rd grade PLTW Launch module Life Cycles and Survival
Start with STEM! – Life Cycle Cards
Start with STEM! – Group Work

- Cycle 1
- Cycle 2
Now what about literacy?

Think back to the STEM activity you just completed with animal life cycles. What ELA/Literacy skills did you use to complete the activity?

- Sequencing
- Listening
- Compare/Contrast
- Writing
- Communication
What is STEM?

• Science, technology, engineering, and math
• Building transportable skills
• Standards:
  • NGSS Science and Engineering Practices
  • CCSS Math Practices
  • CSTA Practices
ELA Strands

- **Literacy foundations** – print concepts, phonics, word recognition, fluency
- **Reading** – key ideas/details, craft and structure, knowledge and ideas, text complexity
- **Writing** – communicate clearly to an audience, production, research, text types
- **Speaking and listening** – comprehension, collaboration, presenting
- **Language** – conventions of standard English, knowledge of language, vocabulary
Connecting Literacy and STEM

Use different color highlighters to identify connections between ELA standards and STEM standards.

Reading Anchor Standard

Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

NGSS Performance Expectation

4-PS3-1 Energy
Use evidence to construct an explanation relating the speed of an object to the energy of that object
Showcase

Amy Magill
Showcase – Amy Magill

1. **TEACHER**
   - Light: Observing the Sun, Moon, and Stars

1. **TEACHER**
   - Animated Storytelling

1. **TEACHER**
   - Animal Adaptations

1. **TEACHER**
   - Designs Inspired by Nature

1. **TEACHER**
   - Light and Sound
Showcase – Amy Magill
Showcase – Amy Magill
Showcase – Amy Magill
The Moon

Know
- orbits around the Earth
- the moon changes shapes at night
- keeps Earth in its shape
- Earth’s ocean on the moon
- gray
- reflects light from the sun

Want to Know
- How it changes shape?
- How it changes the Earth?
- How the moon moves?
- Do we see all sides of the moon? 4 Mrs. H.
- How much does it weigh?
- How wide is the moon?

Learned
- the moon doesn’t change shapes, but the amount of light it reflects changes
- we always see the same side of the moon
- sphere
- weighs about $8.1 \times 10^9$ tons
- diameter is 2,159 miles
Cross-Curricular Strategies

**Strategy:**
Guide students to create a chart or graph to present information.

Students could do this in Activity 2 Part 3. They could create a graph that shows the information.

**Example Strategy at top of chart paper**

**Example sticky note to go with this strategy**

**Your Task:**
- Review the APB overview for your Launch modules.
- Read the cross-curricular strategies on the chart paper around the room.
- On a sticky note, write where in the module this strategy could be used and place it on the chart.
Thank you for joining us!