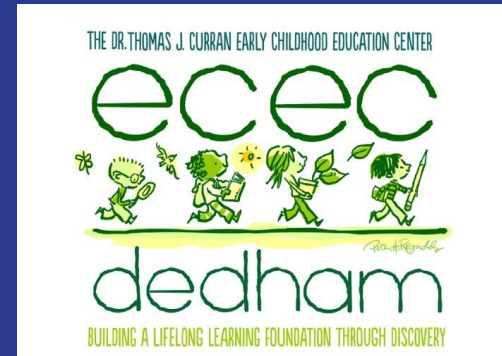
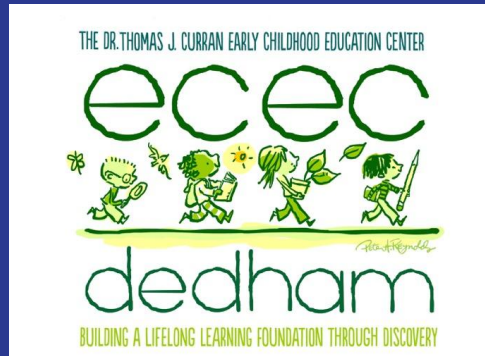
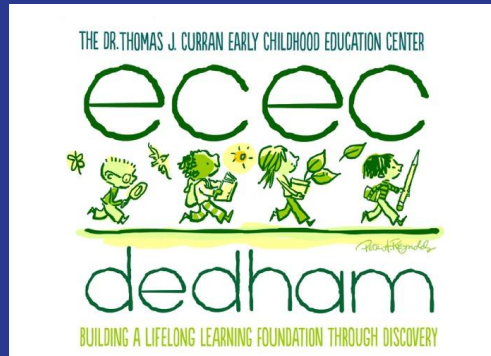
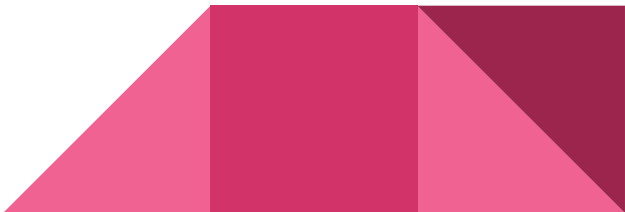


# Early Childhood STEM & Humanities



Presentation to Dedham School Committee  
May 15, 2019

# ECEC Presentation Team

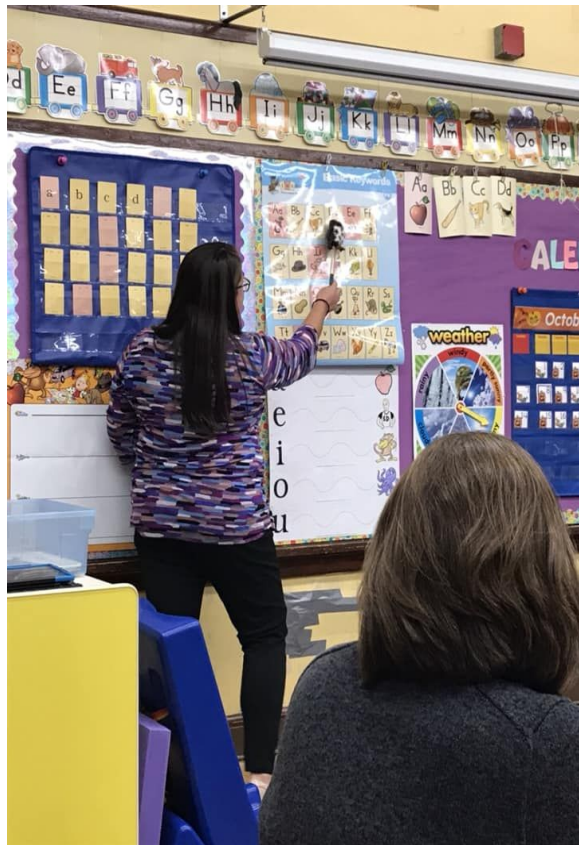
- Mrs. Kimberly Taylor, Principal
  - Mrs. Erika Battaini, Integrated Preschool Teacher
  - Mrs. Kristen Cannon, Instructional Coach
  - Mrs. Emily Hutton, Kindergarten Teacher
  - Mrs. Bridget O'Leary, Art Teacher
  - Dr. Heather Smith, Humanities Curriculum Coordinator
  - Dr. Linda Kobierski, STEM Curriculum Coordinator
- 

## Introductory Remarks

“Teachers who have the right tools with the right support and the right motivation, will go miles in just minutes.”

~Anonymous~





# Instructional Coaching

**Learner**  
**ClassroomSupporter**  
**InstructionalSpecialist**  
**CurriculumSpecialist**  
**ResourceProvider**  
**DataCoach**  
**LearningFacilitator**  
**SchoolLeader**  
**CatalystForChange**

**Mentor**

# Instructional Coaching

*“Coaching is about working collaboratively to move student learning forward.”*





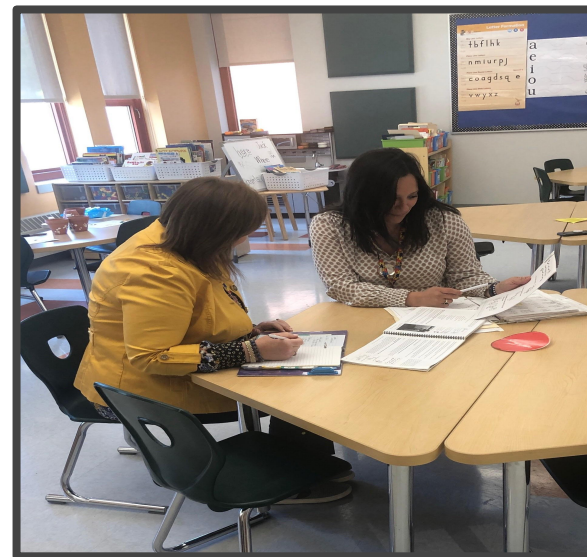
# Coaching Cycles

**Four** (6-8 week) cycles...consists of 1 planning meeting and 3 in class sessions per week

**One** mini (3-4 week) cycle\*

**Two** ongoing weekly coaching meetings.... Meets once per week for 45 min - 1 hr

Curriculum	Number of Cycles
Preschool <i>Foundations</i> *	2
Preschool <i>Tools of the Mind</i>	2
Kindergarten <i>Reading Workshop</i>	3
Kindergarten <i>Writing Workshop</i>	4
Kindergarten <i>Science</i>	2
Ongoing: Interventionist, Art teacher & Library Media Specialist to discuss STREAM	2





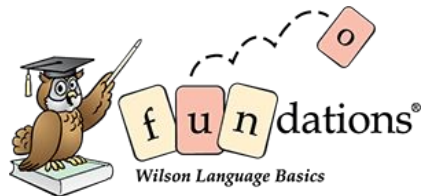


# Reading & Writing: Preschool

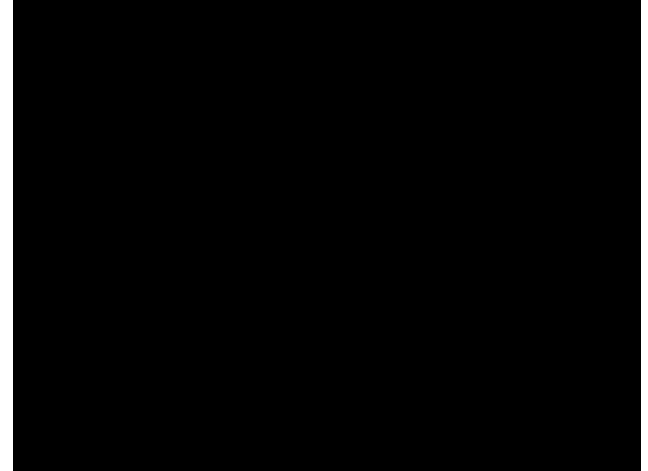
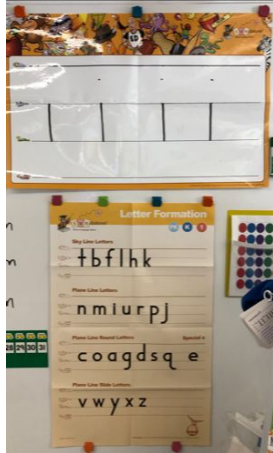


## - Foundations

- All five preschool teachers were trained this year and are implementing semesters one and two of Foundations
  - **Semester ONE:**
    - Exposure to all 26 letters, keywords, and sounds
    - Students learn uppercase and lowercase letters
  - **Semester TWO:**
    - Students learn to “Sky Write” letters in the air
    - Students learn the language of each letter formation
    - Students practice making each letter on Trace and Write Grids

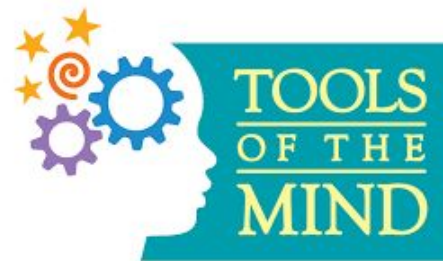


# Fundations Photos



Student leading our warm-up for  
"Sky Writing"

# Reading & Writing: Preschool

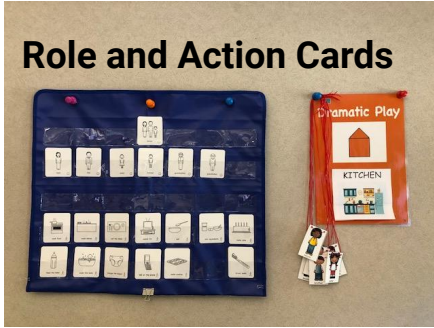


- **Tools of the Mind**

- 
- Preschool teachers have attended 3 out of 4 trainings so far; last training in June
- Sequence of activities that build on skills throughout the entire school year
- Focus on PLAY!
  - Make-Believe Play Practice
  - Make-Believe Play Planning
  - Make-Believe Play
- Other various reading, writing, math, and science activities to help build self-regulation
  - i.e. Story Lab, Graphics Practice, Math Memory, Science Eyes

# Tools of the Mind Photos

**Role and Action Cards**



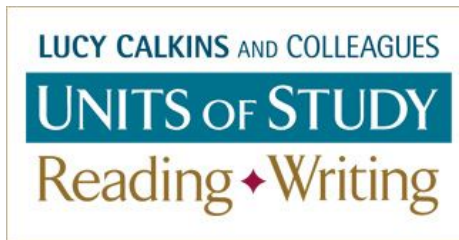
**Play Plans**



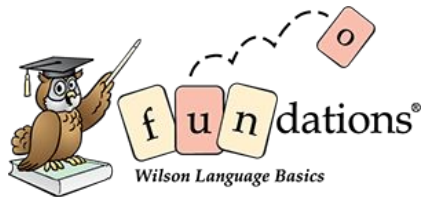
**Make-Believe Play**



# Reading & Writing: Grade K

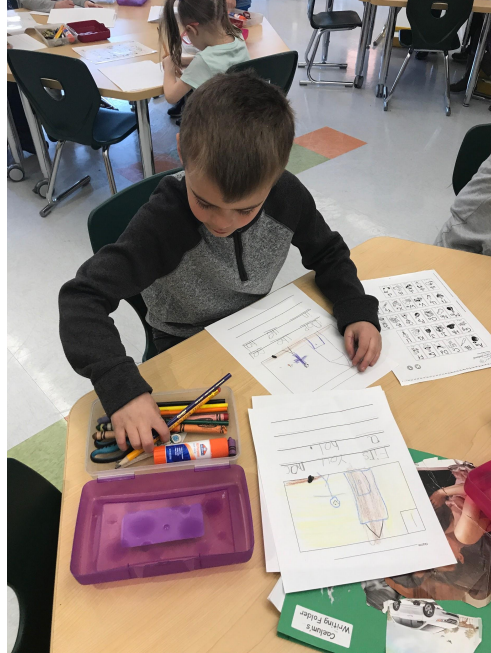


- Reading: Foundations and Reader's Workshop
  - All nine kindergarten teachers are in their second year of Foundations implementation
  - All nine kindergarten teachers implementing Reader's Workshop
- Writing: Writer's Workshop
  - Five kindergarten lab teachers are a part of cohort 1
  - Narrative Writing, Informational Writing and Opinion Writing
  - Writer's Workshop: Mini Lesson, Writing Partners, Independent Writing, Small Group Instruction, Share
  - Increase in stamina in kindergarten writing
  - "How To" informational writing: opportunity for students to write about a topic they know well





# Writer's Workshop in Kindergarten



# Science: Grade K

## Life Science: Living Things and Their Needs



- Bessbugs
  - 12 bessbugs and a habitat arrived this spring for each of nine kindergarten classrooms
  - Students able to examine bessbugs, hold/touch bessbugs and record their observations on recording sheets.
  - Each classroom conducted experiment with choice chambers (soil vs. sand, wet vs. dry, wood vs. apple, dark vs. light)
- Pumpkin Seeds
  - Each student planted a pumpkin seed. Students record observations about plant's growth on recording sheets.
  - Classroom Experiment with four plants (no light, no water, no soil and the control)

# Living Things and their Needs in Kindergarten

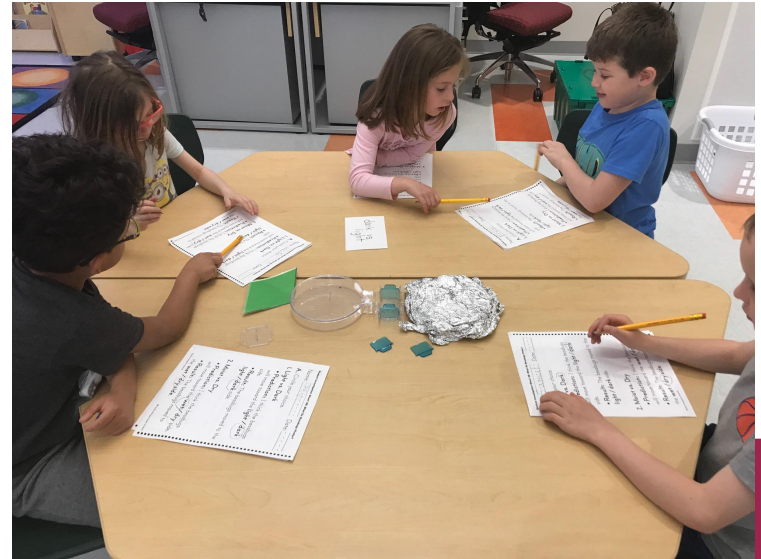
Collecting data on plants



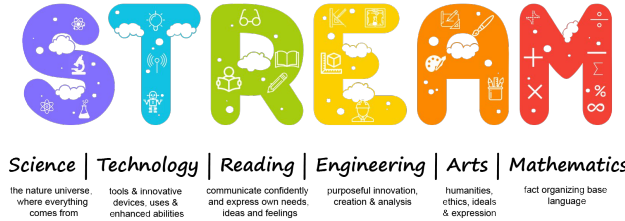
Holding a bessbug



Bessbug experiment- light vs. dark



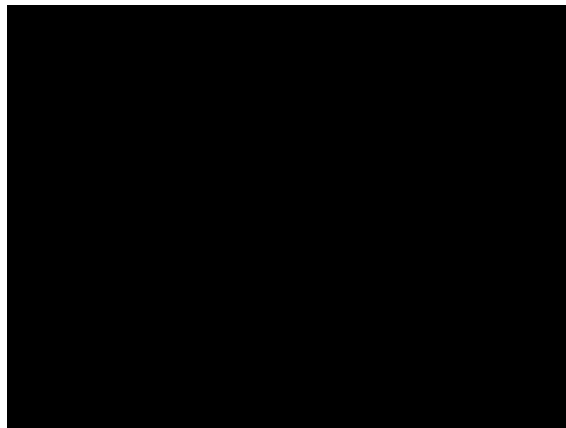
# “STREAM-ing”



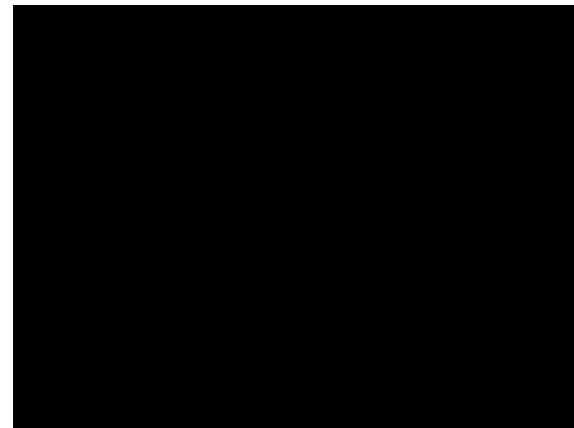
- **Science, Technology, Reading, Engineering, Art, Math/Music/Movement**
  - Cross-curricular
  - Choice based
  - Play based
- **Three events:**
  - Read across America,
  - Inky (DLIT)
  - Bugs (K Science curriculum connection)
- **All specialists participated (Inky and Bugs)**
  - Bug Author Study
- **School wide collaboration from Specialists to food service**



# Photos



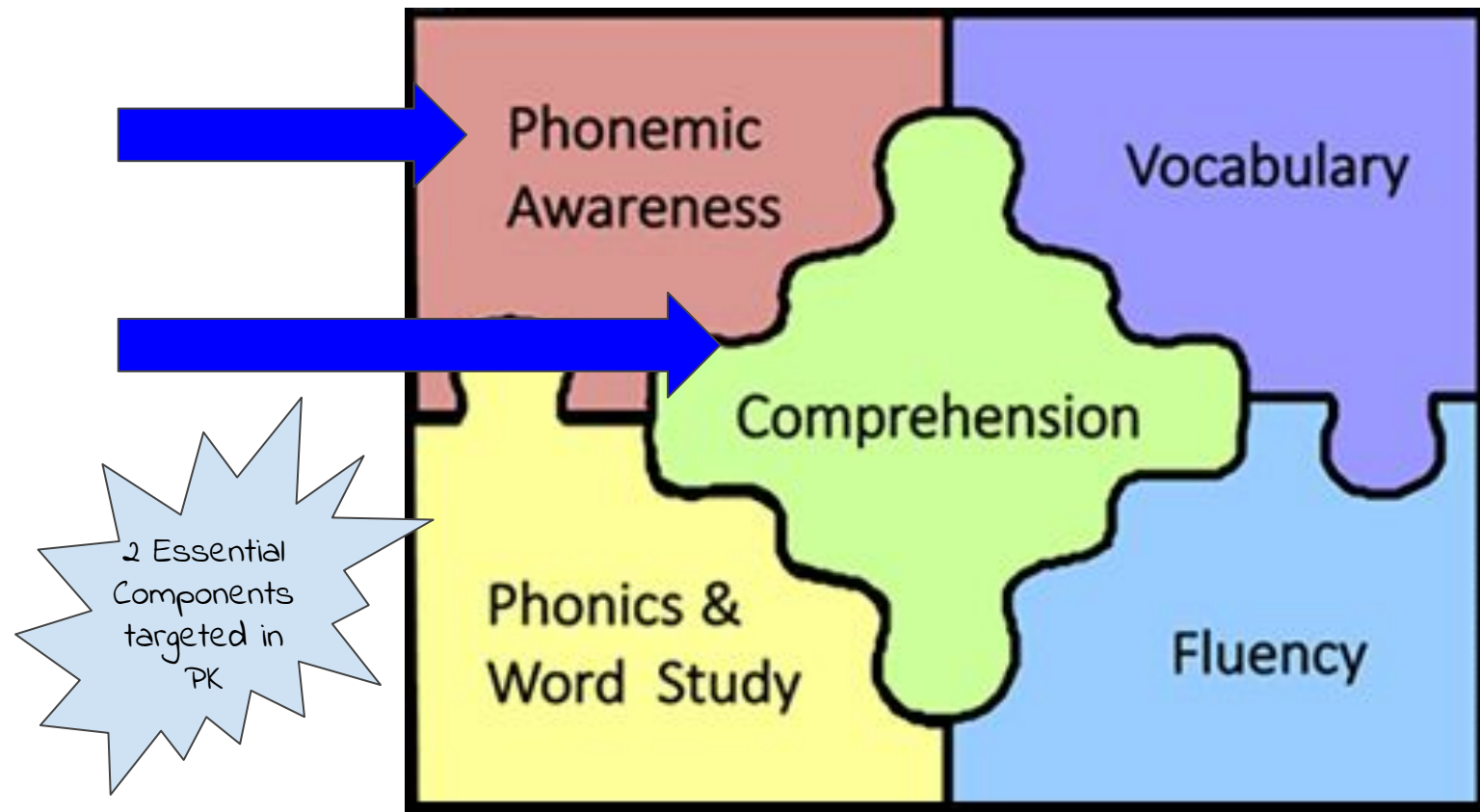
STREAM video



Beetle Bop video



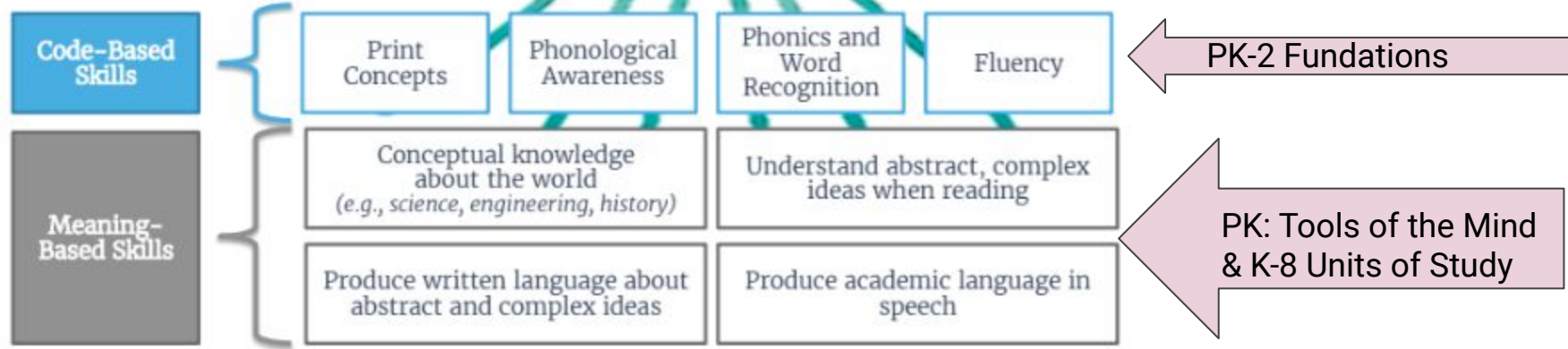




## PK & K Foundations Essential Components

# Summary: Translating Research into Practice

## Building Language and Knowledge



## Building Language & Knowledge in the Early Years

# Learning Progression for Information Writing

	Pre-Kindergarten	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
<b>STRUCTURE</b>								
<b>Overall</b>	The writer told and drew pictures about a topic she knew.	The writer told, drew, and wrote about a topic.	The writer taught readers about a topic.	The writer taught readers some important points about a subject.	The writer taught readers information about a subject. He put in ideas, observations, and questions.	The writer taught readers different things about a subject, the part facts, details, quotes, and ideas into each part of his writing.	The writer used different kinds of information to teach about the subject. Sometimes she included lists, essays, stories, or how-to sections in her writing.	The writer conveyed ideas and information about a subject. Sometimes he incorporated essays, explanations, stories, or procedural passages into his writing.
<b>Lead</b>	The writer started by drawing or saying something.	The writer told what her topic was.	The writer named his topic in the beginning and got the readers' attention.	The writer wrote a beginning in which he named a subject and tried to interest readers.	The writer wrote a beginning in which she got readers ready to learn a lot of information about the subject.	The writer hooked her readers by explaining why the subject is interesting, telling a surprising fact, or giving a big picture. She let readers know that she would teach them different things about a subject.	The writer wrote an introduction in which he helped readers get interested in and understand the subject. He let readers know the subtopics that he would develop later as well as the sequence.	The writer wrote an introduction in which she interested readers, perhaps with a quote or significant fact. She may have included her own ideas about the topic. She let readers know the subtopics that she would develop later and how her text would unfold.
<b>Transitions</b>	The writer kept on working.	The writer put different things he knew about the topic on his pages.	The writer told different parts about her topic on different pages.	The writer used words such as and and also to show she had more to say.	The writer used words to show sequence such as before, after, then, and later. He also used words to show what did not fit such as however and but.	The writer used words in each section that helped readers understand how one piece of information connected with others. If he wrote the section in sequence, he used words and phrases such as before, later, next then, and after. If he organized the section in kinds or parts, he used words such as another, also, and for example.	Often the writer wrote about results, she used words and phrases such as consequently, as a result, and because of this. When she compared information, she used phrases such as in contrast, by comparison, and especially. In narrative parts, she used phrases that go with stories such as a little later and three hours later. If she wrote sections that stated an opinion, she used words such as but the most important reason, for example, and consequently.	The writer used transition words to help his readers understand how different bits of information and different parts of his writing fit together. The writer used transitions such as for instance, in addition, therefore, such as, because of, as a result, in contrast to, unlike, despite, and on the other hand to help connect ideas, information, and examples and to compare, contrast, and imply relationships.
<b>Ending</b>	After the writer said, drew, and "wrote" all he could about his topic, he ended it.	The writer had a last part or page.	The writer wrote an ending.	The writer wrote some sentences at the end to wrap up his piece.	The writer wrote an ending that drew conclusions, asked questions, or suggested ways readers might respond.	The writer wrote an ending in which she reminded readers of her subject and may either have suggested a follow-up action or left readers with a final insight. She added her thoughts, feelings, and questions about the subject at the end.	The writer wrote a conclusion in which he restated the main points and may have offered a final thought or question for readers to consider.	The writer wrote a conclusion in which she restated her important ideas and offered a final insight or implication for readers to consider.
<b>Organization</b>	On the writer's paper, there was a place for the drawing and a place where she tried to write words.	The writer told, drew, and wrote information across pages.	The writer told about her topic part by part.	The writer's writing had different parts. Each part told different information about the topic.	The writer grouped his information into parts. Each part was mostly about one thing that connected to his big topic.	The writer grouped his information into sections and used paragraphs and sometimes chapters to separate these sections. Each section had information that was mostly about the same thing. He may have used headings and subheadings.	The writer organized his writing into a sequence of separate sections. He may have used headings and subheadings to highlight the separate sections. The writer wrote each section according to an organizational plan shaped partly by the genre of the section.	The writer used subheadings and/or clear introductory transitions to separate his sections. The writer made deliberate choices about how to order sections and information within sections. He chose structures and text features to help emphasize key points. The writer used transitions, introductions, and topic sentences to pop out his main points. He wrote multiple paragraphs in some sections.
<b>DEVELOPMENT</b>								
<b>Elaboration</b>	The writer put more and then more on the page.	The writer drew and wrote some important things about the topic.	The writer put facts in his writing to teach about his topic.	The writer used different kinds of information in his writing such as facts, definitions, details, steps, and tips.	The writer wrote facts, definitions, details, and observations about her topic and explained some of them.	The writer taught her readers different things about the subject. He chose those subtopics because they were important and interesting. The writer included different kinds of facts and details such as numbers, names, and examples.	The writer explained different aspects of a subject. He included a variety of information such as examples, details, dates, and quotes. The writer used trusted sources and gave credit when appropriate. He made sure to research any details that would add to his writing.	The writer chose a focused subject, included a variety of information, and organized her points to lead where her readers. The writer used trusted sources and information from authorities on the topic and gave the sources credit for important examples in the text and in a bibliography.

# Writing Across the Grades

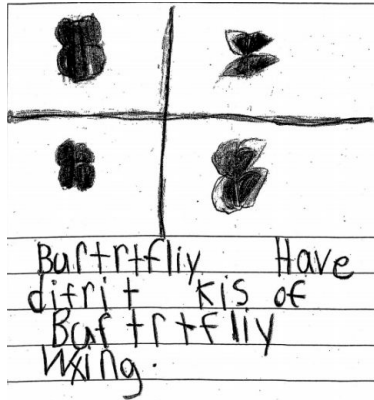
PreK

The writer told and drew pictures about a topic she knew.



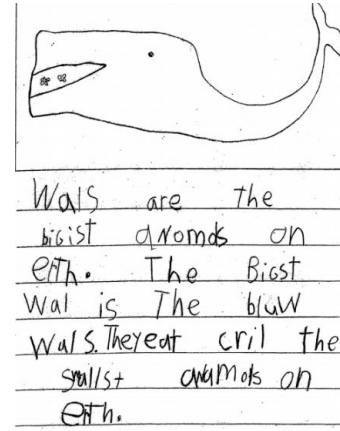
Kindergarten

The writer told, drew, and wrote about a topic.



Grade 1

The writer taught readers about a topic.



# Learning About, and Figuring Out: Early Childhood

## The World Around Me

- ☐ making observations
- ☐ experiencing the world through the senses
- ☐ exploring materials, sorting by observable properties
- ☐ building awareness of natural phenomena and processes

Weather  
Graphing

●			
●			
●	●		
Sunny	Cloudy	Rainy	Snowy

Science  
Eyes

Remember &  
Replicate



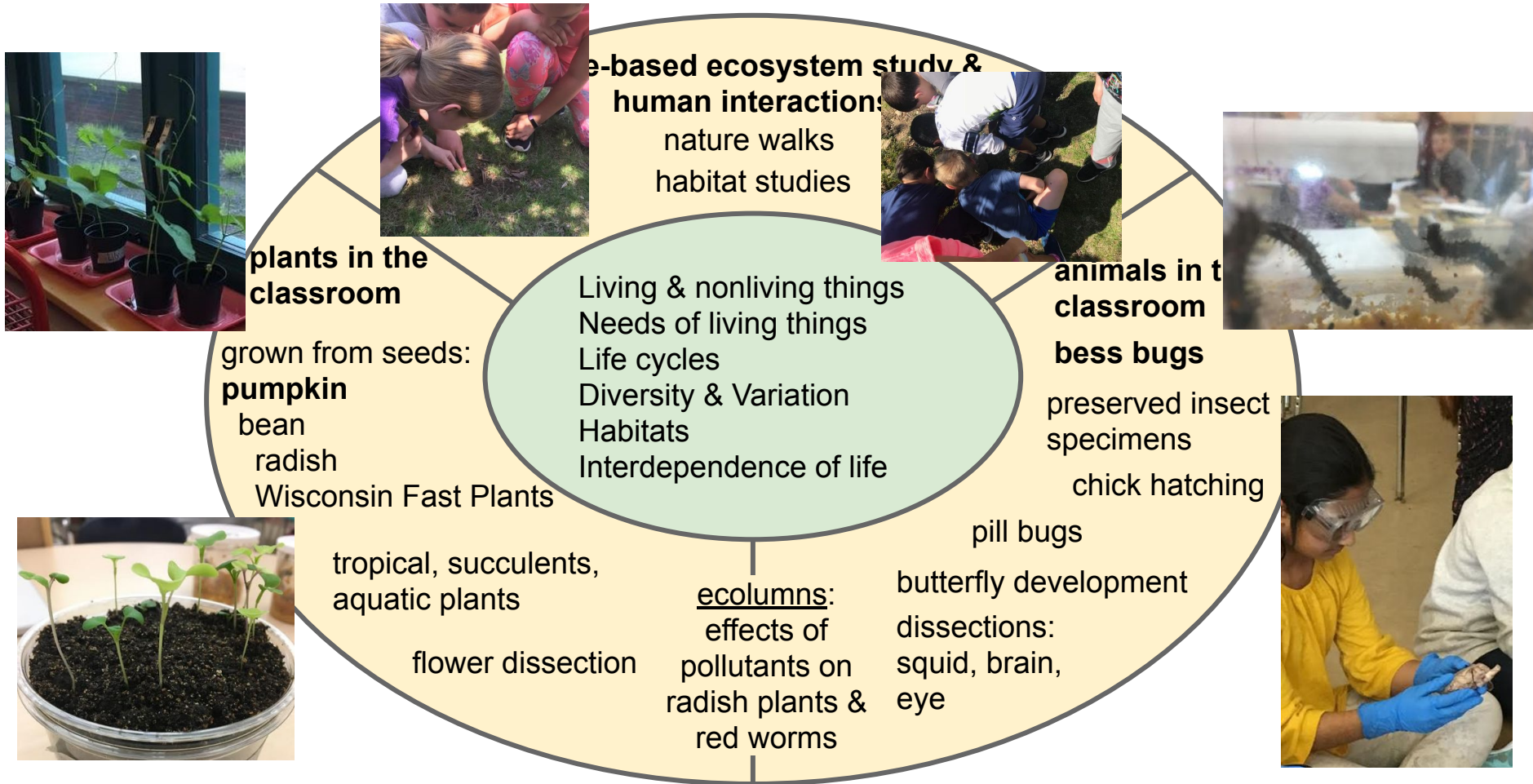
Making  
Collections

Story Lab





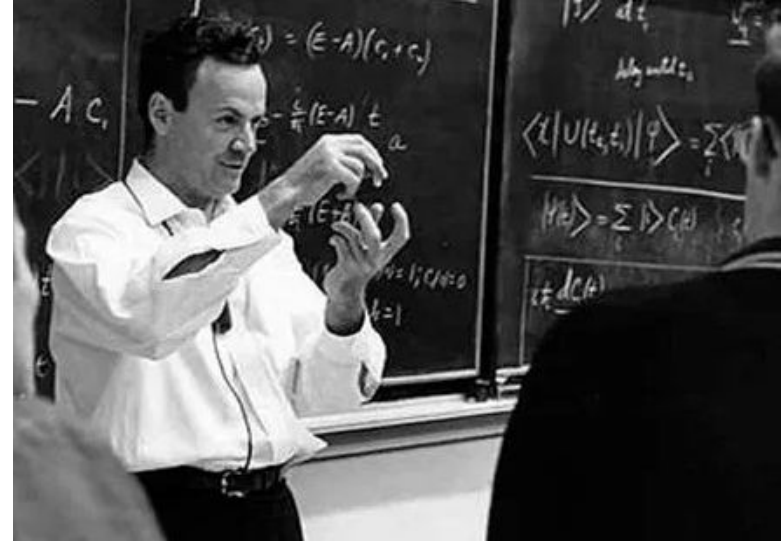
# Learning About, and Figuring Out: Life Science PK-5



# Learning About, and What's Important

The late physicist Richard Feynman recounted some of the early experiences that contributed to his understanding of—and approach to—science.

One story involves his summers in the Catskill Mountains, where on weekends he would go for walks with his father...




*...my father would take me for walks in the woods, and we learned all about nature and so on. All fathers took their sons out for walks in the woods on Sunday afternoons. One day this boy said to me, “See that bird standing on the stump over there? What kind of bird is that?” I (Richard) said, “I haven’t the slightest idea what kind of bird it is.”*



*The child says, “It’s a brown-throated thrush. Your father doesn’t teach you anything about science!”*



*But it was the opposite. My father had already taught me: “See that bird?” he once asked. “You can know the name of that bird in all the languages of the world, but when you’re finished, you’ll know absolutely nothing about the bird. You’ll only know about humans in different places, and what they call the bird. So let’s look at the bird and see what it’s doing—that’s what counts. We’ll see that it sings and teaches its young to fly, and it flies so many miles away in the summer, and no one knows how it finds its way, and so on (**I learned very early the difference between knowing the name of something and knowing something.**)”*



# Questions.....

