

# Office of Curriculum, Instruction, & Assessment

## Update to School Committee February 12, 2020

Dr. Ian Kelly, Assistant Superintendent

Dr. Linda Kobierski, PK-8 STEM Curriculum Coordinator

Dr. Heather L. B. Smith, PK-8 Humanities Curriculum Coordinator

# The Fairbanks House



- History
- Charm
- Character
- Value
- Structure
- Investment

# Dedham Public Schools



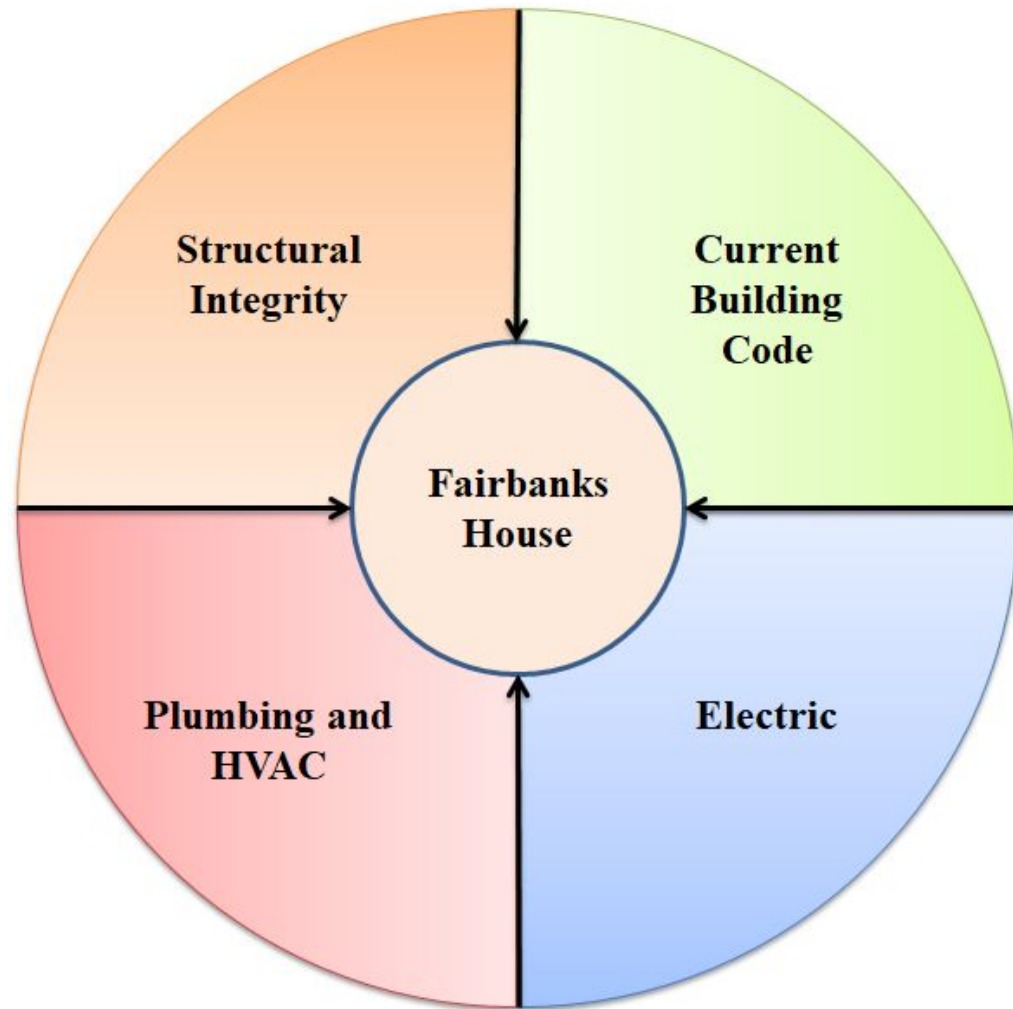
- History
- Charm
- Character
- Value
- Structure
- Investment

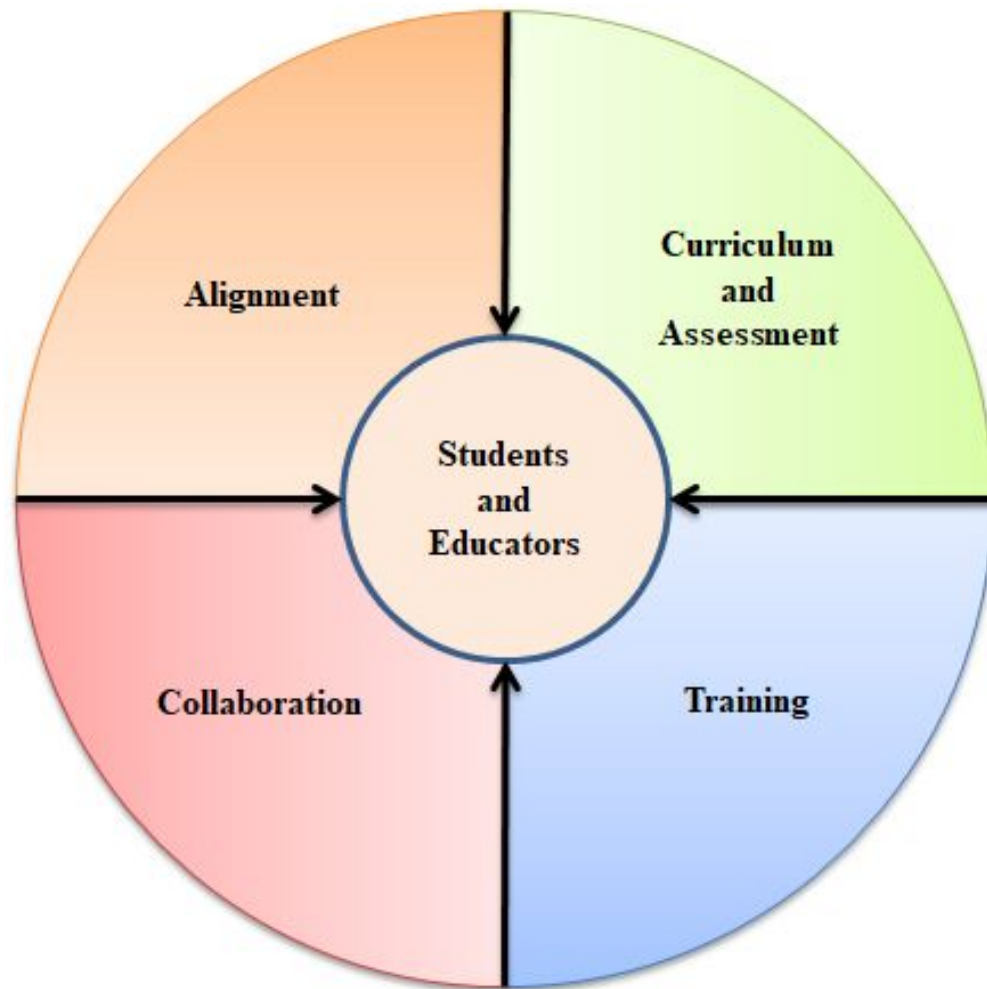
What if the Fairbanks family  
were living on East St. today?

And what if they wanted to  
renovate and really bring the  
place into the 21st Century?



- Historical Commission
- Building Inspector
- Structural Engineer
- Architect
- General Contractor
- Subcontractors





- DPS Professionals
- Special Education Audit
- ELA Audit
- ELL Audit
- Research
- Performance Data

1

# Strategic Vision

Dedham Public Schools

## District 20/20 Vision

1. Invest in human capital to design and grow individual educator capacity throughout the district.
2. Create integrated organizational structures/systems to ensure high quality instruction and consistent learning expectations/outcomes.
3. Expand use of technology to streamline educator and student feedback for improved performance.



Maintain

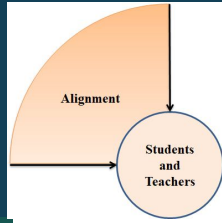
Renew



# 2

## **Strategic Actions and Progress**

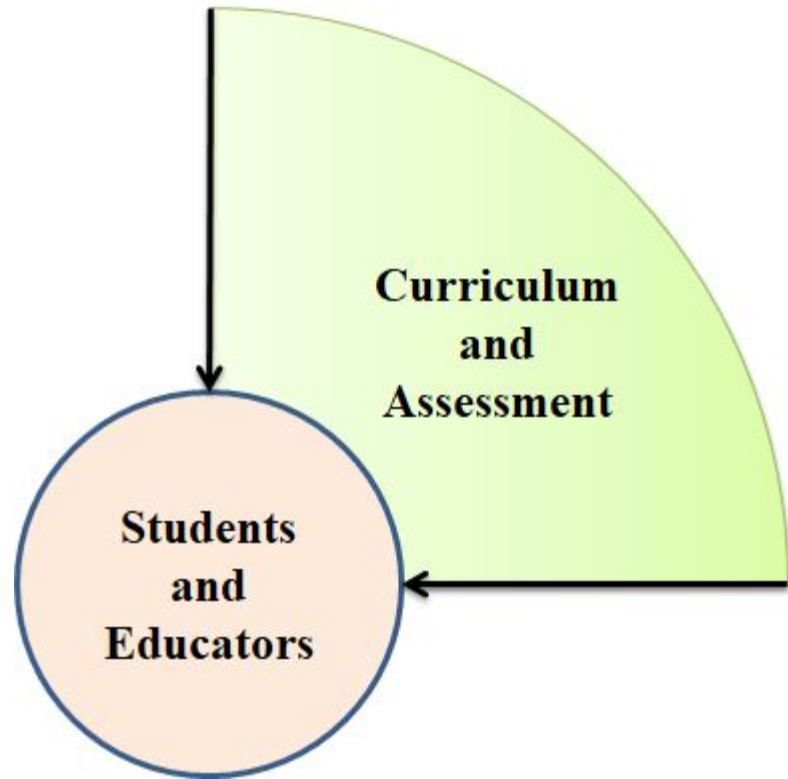
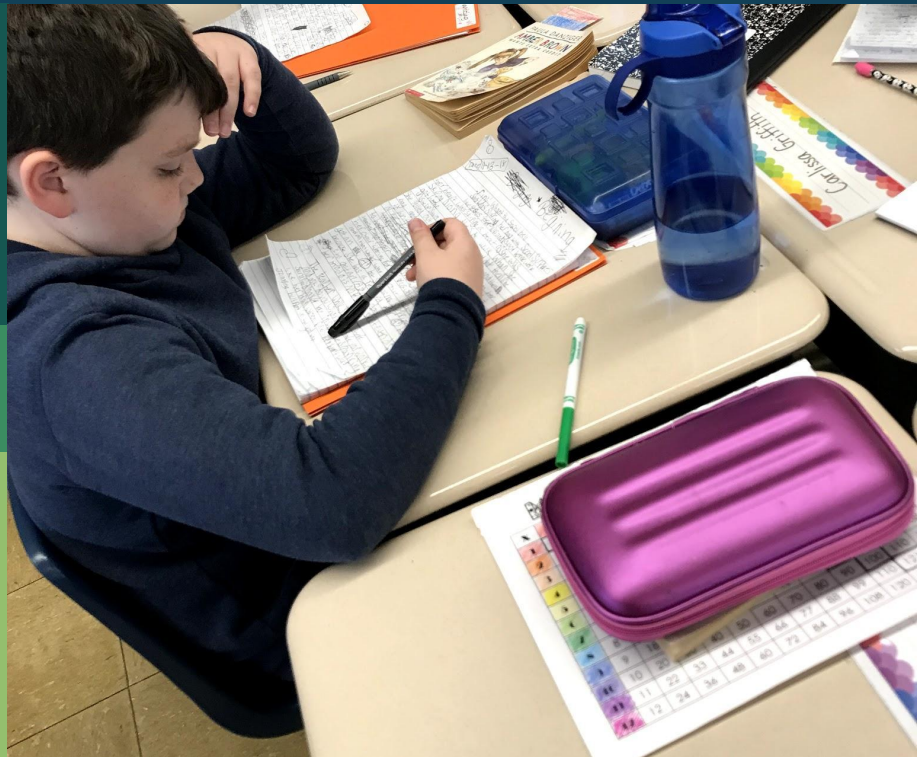
What did we do to achieve our goals?  
What do our classrooms look and  
sound like?



# Alignment

1. Strategic Planning
2. Human Resources
3. Systems and Structures

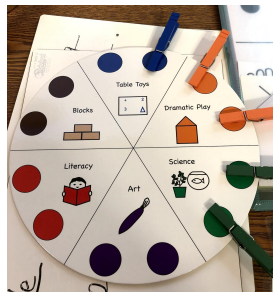
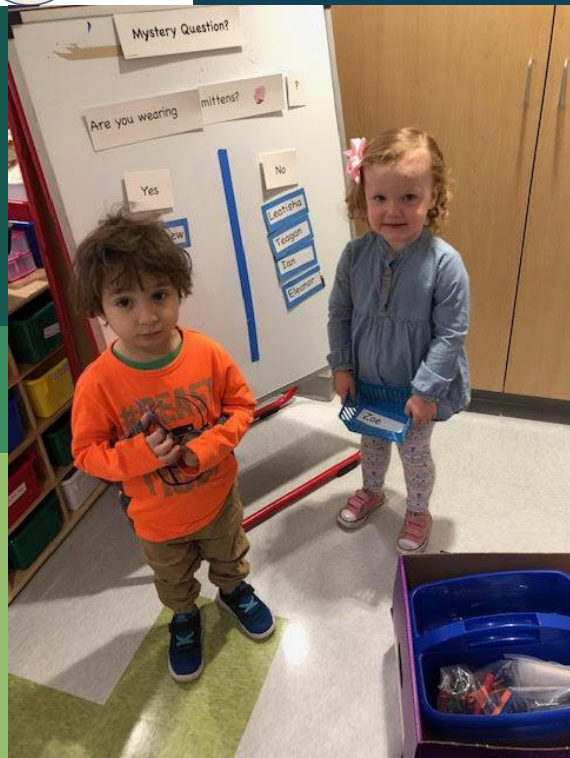
## Time on Learning



# Tools of the Mind (PK)

Curriculum  
and  
Assessment

Students  
and  
Educators



**Play Centers**



**Play Plans**



**Make -Believe Play**



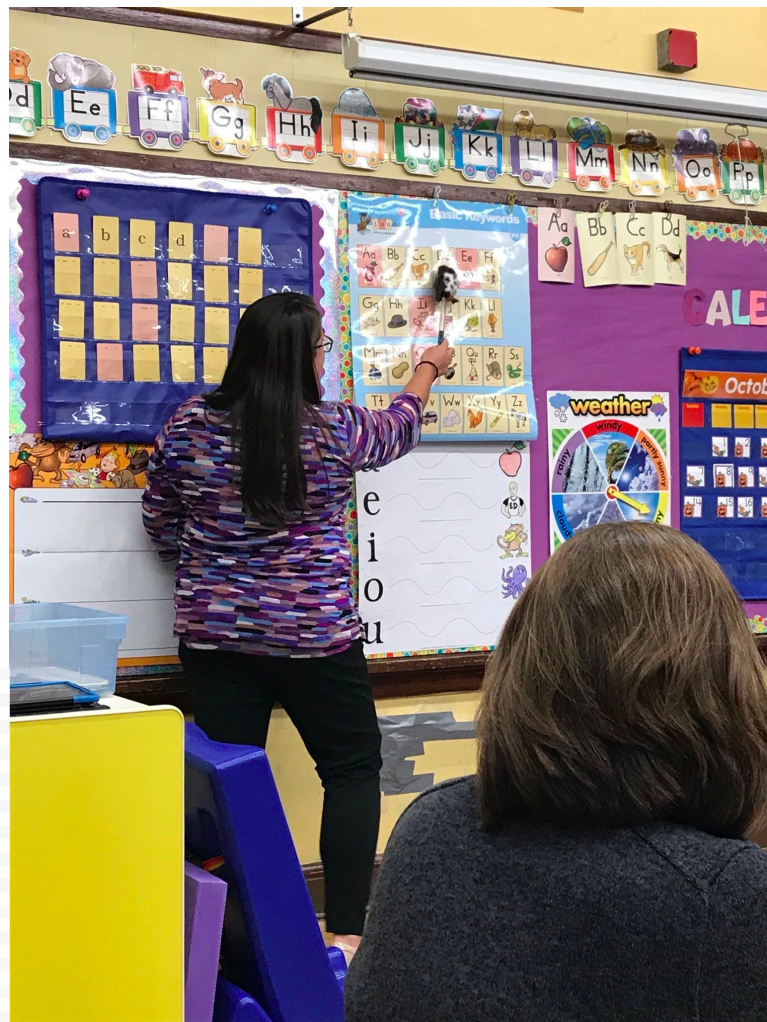
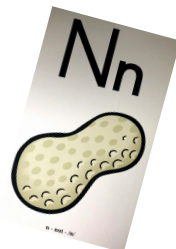
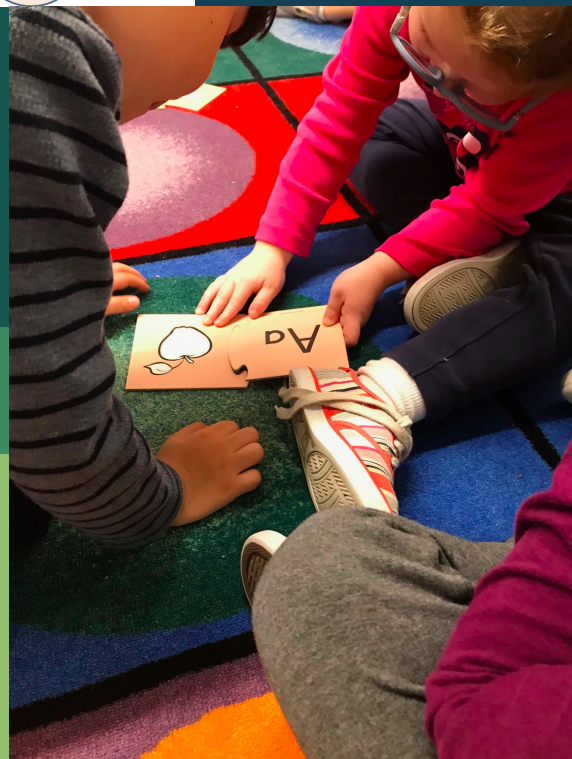
**Graphics Practice**



# Fundations PK-2

Curriculum  
and  
Assessment

Students  
and  
Educators





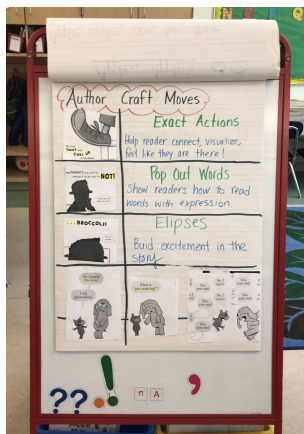
# Reading Units of Study K-8 New Reading Assessments

Curriculum  
and  
Assessment

Students  
and  
Educators



**Mini-Lessons in Reading & Writing, K-8**



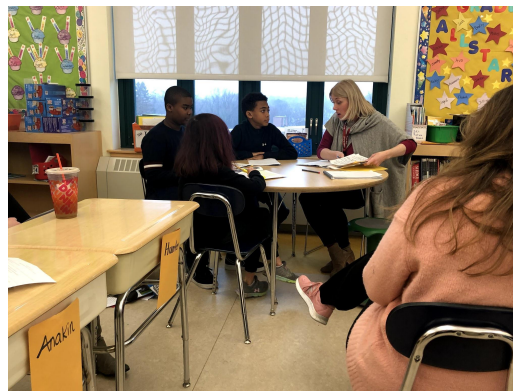
**Anchor Charts for Reading & Writing, K-8**



**Conferring with Readers & Writers, K-8**



**Reading "Just Right" Books**

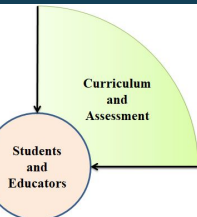


**Small Group Instruction, K-8**



**Engagement & Student Talk**

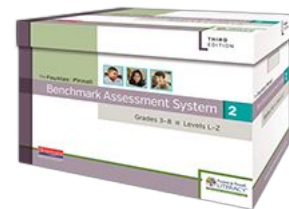
# Reading Units of Study K-8 New Reading Assessments



**Coaches Model Conferring & Reading & Writing Workshop**

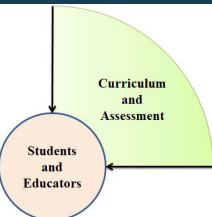


**Coaches Model Small Group in Reading & Writing Workshop**



**Benchmark Assessment System for Reading**

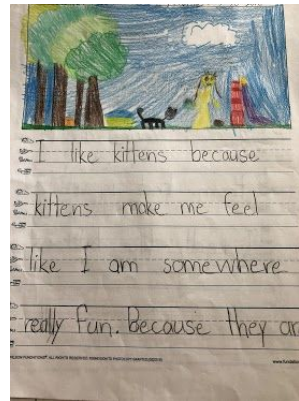




# Writing Units of Study K-8 New Writing Assessments K-8

	grades K-1	grades 2-3	grades 4-5	grades 6-7	grades 8	grades 9-10
<b>content</b>	The writer makes his opinion and takes a stand or a claim and begins to support it with evidence.	The writer makes a claim or thesis or a topic, or both, supported by evidence, and presents a variety of evidence to support his claim.	The writer makes his opinion and takes a stand or a claim and begins to support it with evidence.	The writer makes his opinion and takes a stand or a claim and begins to support it with evidence.	The writer makes his opinion and takes a stand or a claim and begins to support it with evidence.	The writer makes his opinion and takes a stand or a claim and begins to support it with evidence.
<b>audience</b>	The writer writes a beginning in which he or she explains to the reader that he or she is writing to the reader.	The writer writes a beginning in which he or she explains to the reader that he or she is writing to the reader.	The writer writes a beginning in which he or she explains to the reader that he or she is writing to the reader.	The writer writes a beginning in which he or she explains to the reader that he or she is writing to the reader.	The writer writes a beginning in which he or she explains to the reader that he or she is writing to the reader.	The writer writes a beginning in which he or she explains to the reader that he or she is writing to the reader.
<b>organization</b>	The writer organizes his ideas and presents them in a logical order.	The writer organizes his ideas and presents them in a logical order.	The writer organizes his ideas and presents them in a logical order.	The writer organizes his ideas and presents them in a logical order.	The writer organizes his ideas and presents them in a logical order.	The writer organizes his ideas and presents them in a logical order.
<b>style</b>	The writer uses simple language and a straightforward style.	The writer uses simple language and a straightforward style.	The writer uses simple language and a straightforward style.	The writer uses simple language and a straightforward style.	The writer uses simple language and a straightforward style.	The writer uses simple language and a straightforward style.

## Learning Progressions for Writing, K-8



**Why Cats Are Better Pets Than Fish**

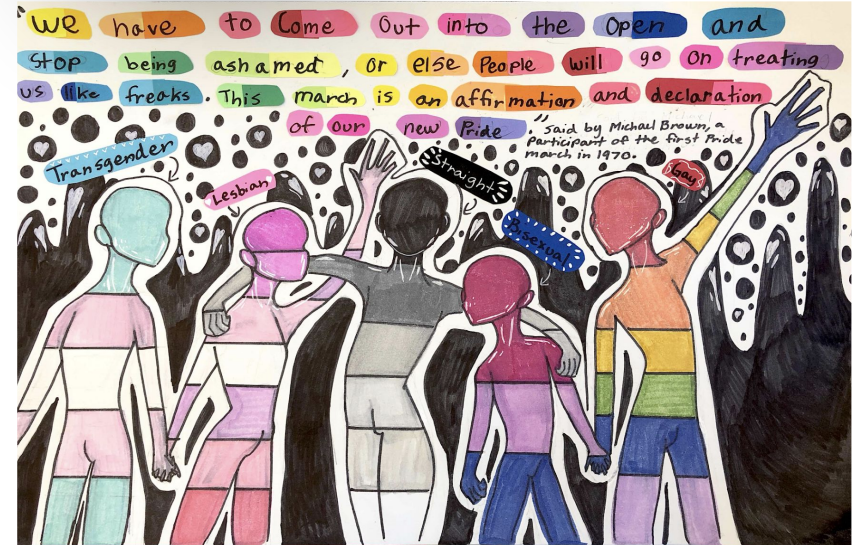
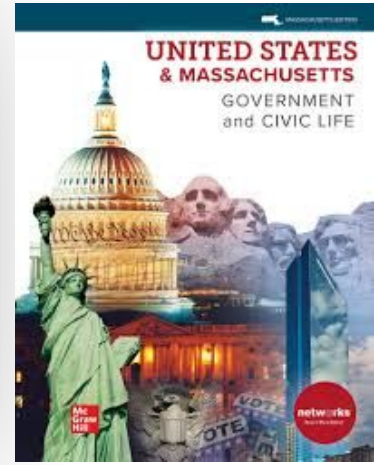
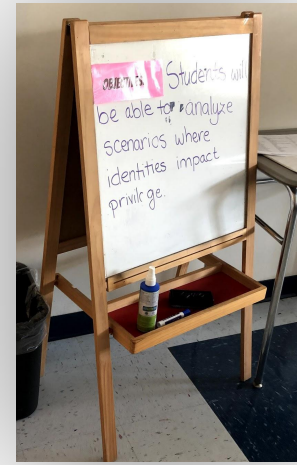
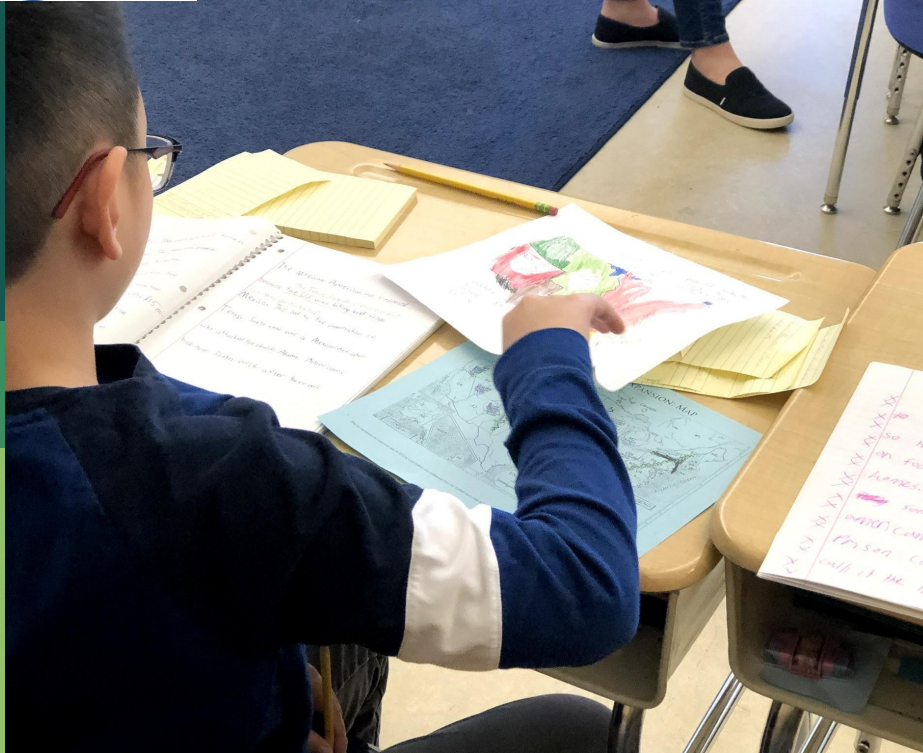
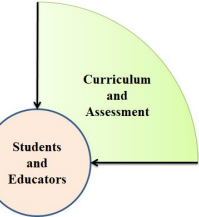
Cats are better pets than fish for many reasons. One reason is that you can actually play with cats. Fish, on the other hand, or fish, just swim there and look pretty. You can't take them out of their tank. Because then they'll die. You can clean the tank, but you can't clean the fish. Fish are pretty boring. They're just there.

Cats are also better pets because they don't need much cleaning up after. Some people might say, "Well, fish are better because they don't throw up hairballs." Actually, you also have to clean a fish's tank. You then have to move the fish to a temporary tank. That is usually smaller than you clean the tank. You then have to fill the tank back up with water, put more gravel and things at the bottom and wait. Sometimes the fish might have in there. And there's a lot of work to keep the fish tank clean. Cats, on the other hand, or you just need food, water, toys and a lot and I mean a lot of attention. There's not a lot to ask. Fish!

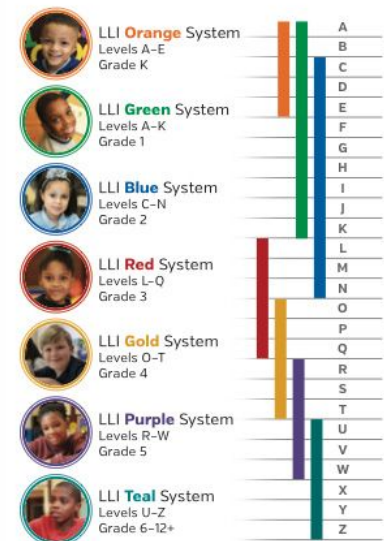
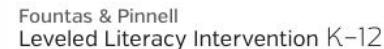
Cats are also better pets because they make people laugh at the time they make weird laughing sounds at birds which is weird but it's also funny! I have a cat at home and one of them doesn't have very good balance and he is usually tripping, tripping his feet or just panning.

## Student Work Samples in Grades K and 5

# Integrated Units of Study K-5 Alignment with New Social Sciences & History Frameworks, Gr. 6-8







accelerate student progress

measure growth: what students learned

for immediate and long-term benefit

identify what students know and are able to do

determine next teaching steps/instructional planning

communicate students' strengths and weaknesses

group students effectively / purposefully

determine individual goals, needs, discrepancies, accommodations

determine effectiveness of teaching

give feedback to students

building resiliency

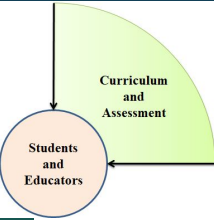
quality instruction

Why should we assess?



*News and Notes from  
Math Enrichment and Challenge  
Week of 11/20/19- 11/27/19*

# Do the Math & Math Challenge



Joke of the week:

Why do plants hate math?

It gives them square roots!

This week we continued our focus on whole numbers! Our focus shifted slightly to a specific type of whole number - prime numbers. After learning about the ancient mathematician Eratosthenes, we learned his strategy for finding prime numbers using a 100 chart - The Sieve of Eratosthenes. After we identified the prime numbers up to 100 (Did you know that there are 25 of them?), we also played a board game called 97 Prime.

If you are curious, I have linked below a couple of pages that talk about prime numbers and their history. There is an interactive Sieve of Eratosthenes and a Prime Number Generator that you can explore. These pages also go into more complicated aspects of prime numbers if you want a challenge!

<https://mathigon.org/course/divisibility/primes>

<https://mathigon.org/course/divisibility/distribution-of-primes>



# Building Blocks of Science K-5

Grade	Sept -Nov	Dec -March	March-June
K	Push Pull Go	Weather & Sky	Living Things & Their Needs
1	Light & Sound Waves	Sky Watchers	Exploring Organisms
2	Matter	Earth Materials	Ecosystem Diversity
3	Forces & Interactions	Weather & Climate Patterns	Life in Ecosystems
4	Energy Works	Changing Earth	Plant & Animal Structures
5	Structure & Properties of Matter	Earth & Space Systems	Matter & Energy in Ecosystems

**Full Alignment to  
Next Generation Science Standards  
(NGSS)**



**Figuring Out Phenomena Using the  
Science Practices**

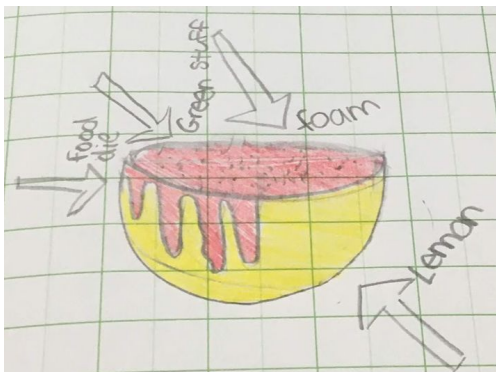


# Building Blocks of Science K-5

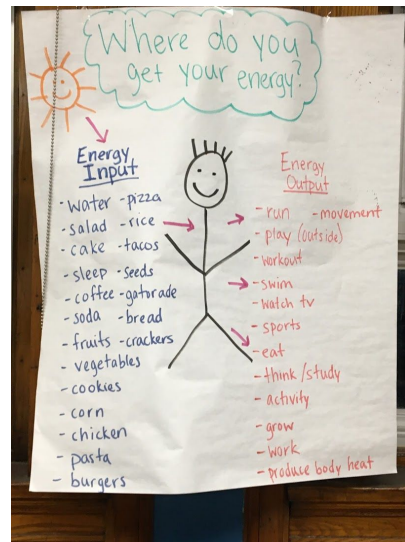
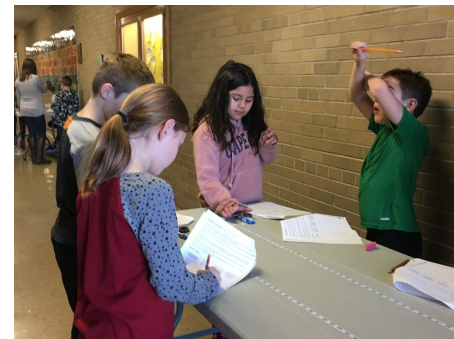
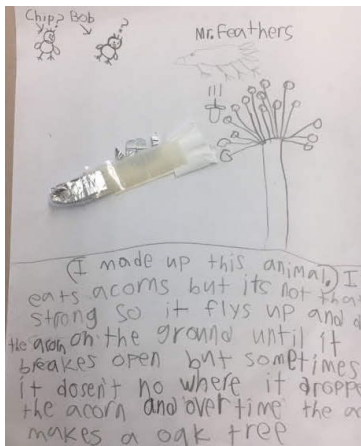
Curriculum  
and  
Assessment

Students  
and  
Educators

Table of Contents	
Description	Page
Scientific Drawing	3
Lemon Experiment	5



Science Notebooks



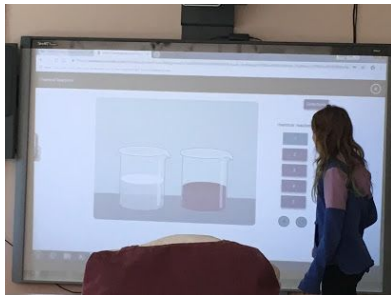
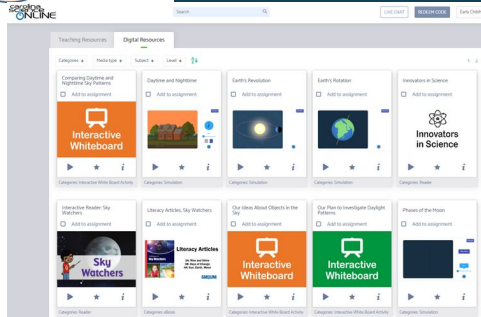
Collaborative Learning  
&  
Science Talk

# Building Blocks of Science K-5

Curriculum  
and  
Assessment

Students  
and  
Educators

Edgenuity  
ONLINE

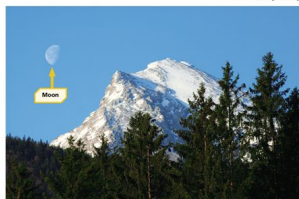


## The Day Sky

The most important object in the day sky is the Sun. The **Sun** gives us light. The Sun is the closest star to Earth. A **star** is a ball of hot, glowing gases.

You might also see clouds in the day sky. You might see birds or planes. Many days you can see the **Moon**.

Look for both the Sun and the Moon in the daytime sky.



Choose the things you see in the daytime sky.

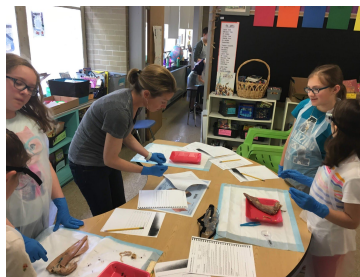
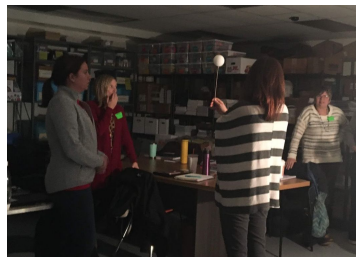
Sun

Leaves

Birds

Rocks

Clouds



Side-by-Side Coaching Support

Integration of Technology

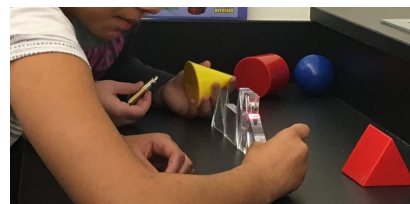
# Integrated Sciences & Tech/Engineering 6-8 Science & Engineering Practices

Curriculum  
and  
Assessment

Students  
and  
Educators

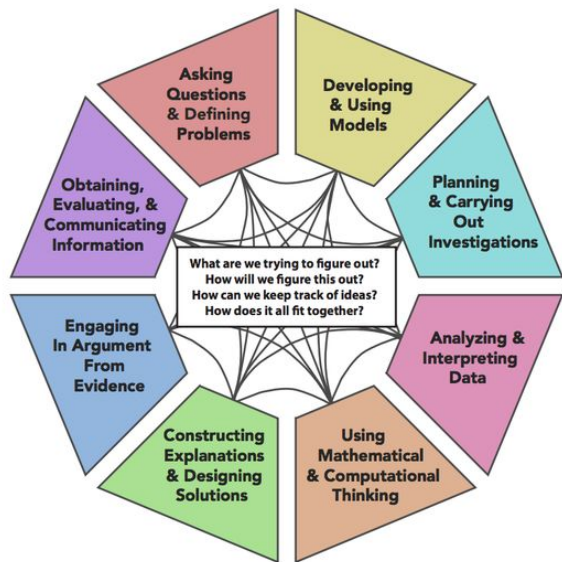
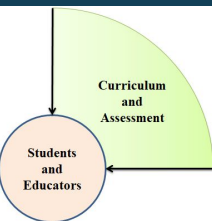
Earth and Space Science	Physical Science	Life Science
ESS1: Earth's Place in the Universe Grade 6 Grade 8	PS1: Matter and Its Interactions Grade 6 Grade 8	LS1: From Molecules to Organisms: Structures and Processes Grade 6 Grade 7 Grade 8
ESS2: Earth's Systems Grade 6 Grade 7 Grade 8	PS2: Motion and Stability: Forces and Interactions Grade 6 Grade 7 Grade 8	LS2: Ecosystems: Interactions, Energy, and Dynamics Grade 7
ESS3: Earth and Human Activity Grade 7 Grade 8	PS3: Energy Grade 7	LS3: Heredity: Inheritance and Variation of Traits Grade 8
	PS4: Waves and Their Applications in Technologies for Information Transfer Grade 6	LS4: Biological Evolution: Unity and Diversity Grade 6 Grade 8

## Integration of the Disciplinary Core Ideas at Each Grade Level





# Integrated Sciences & Tech/Engineering 6-8 Science & Engineering Practices



## Incorporation of Science & Engineering Practices throughout Curriculum

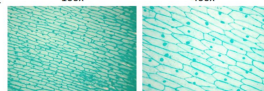
### Breaking News: Cells on Mars!!



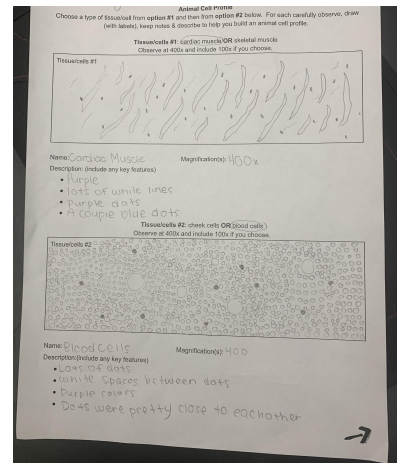
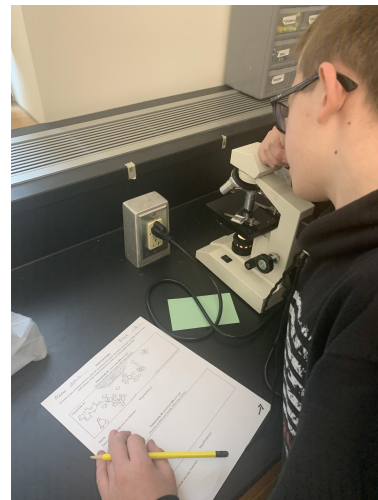
The Mars rover Curiosity has made a very "curious" discovery. NASA states that Curiosity has sent back photos of what are unmistakably, living cells!

Here are the cells photographed at two magnifications:

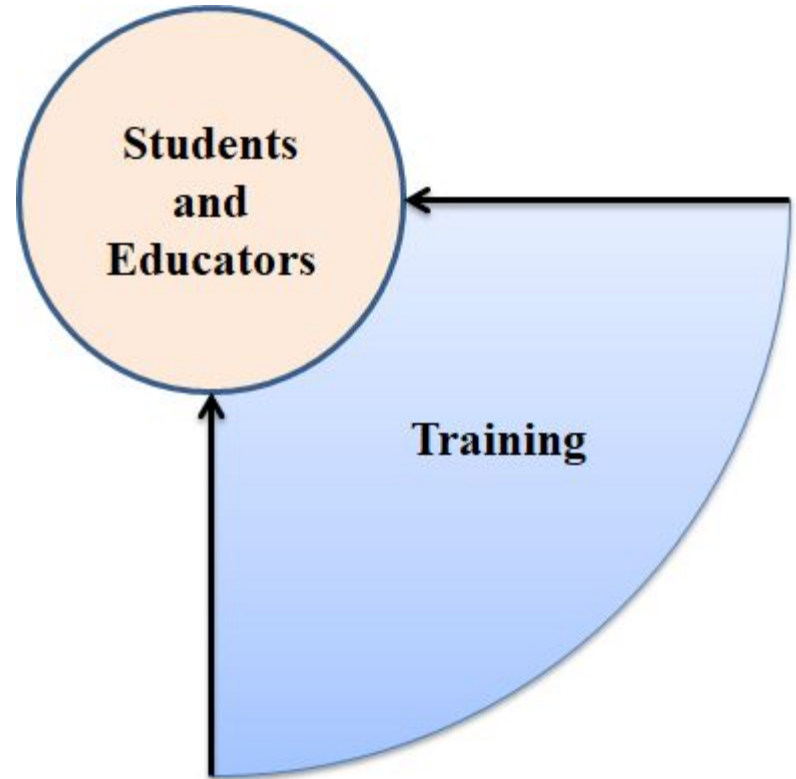
100x 400x

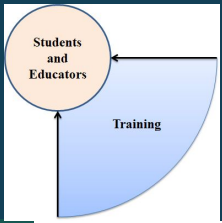


In preliminary studies, astrobiologists have determined that these cells must have come from a Martian organism that is either a plant or animal. It is your job to use a microscope to collect evidence about plant and animal cells, and then use this evidence to make your own claim about "What are these cells from Mars?"



## Professional Training & Support for all New Curriculum

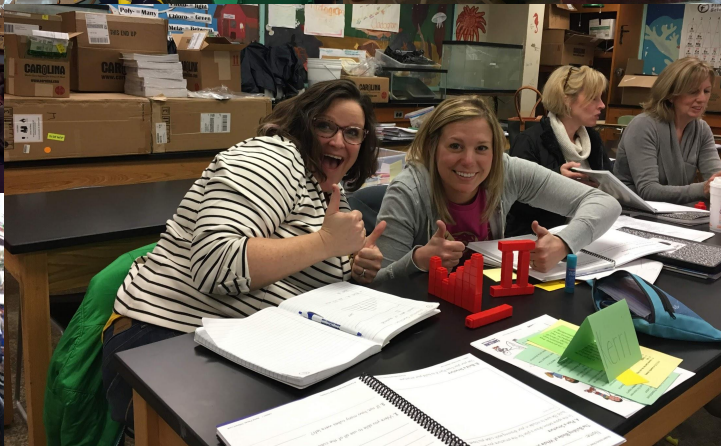
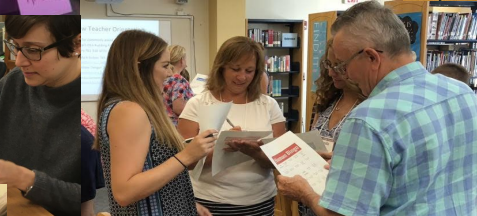
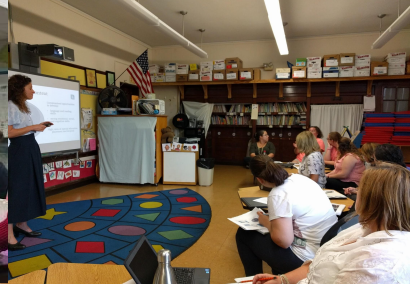




# Principles

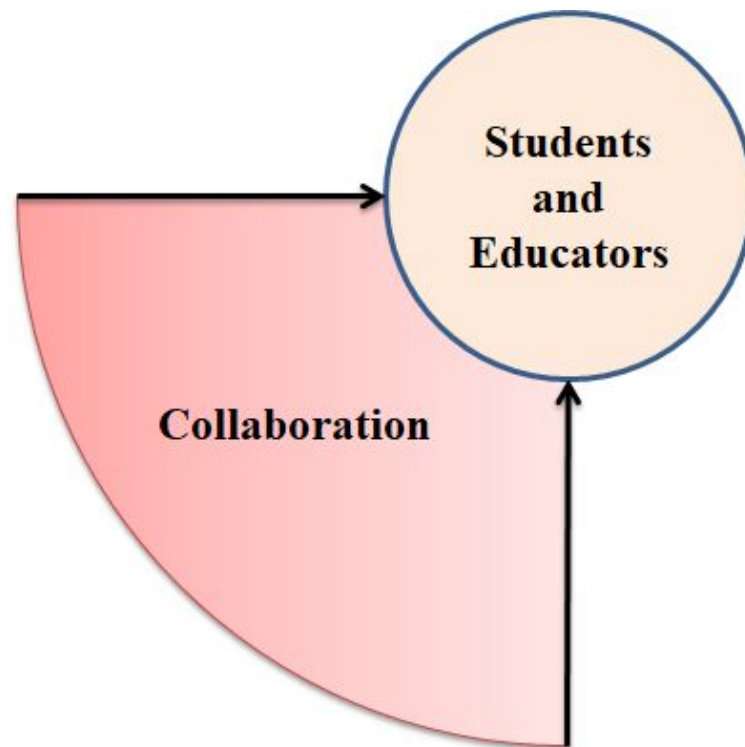
- Job Embedded
- Tailored
- Learning Together
- Relevant
- Focused
- Sustained



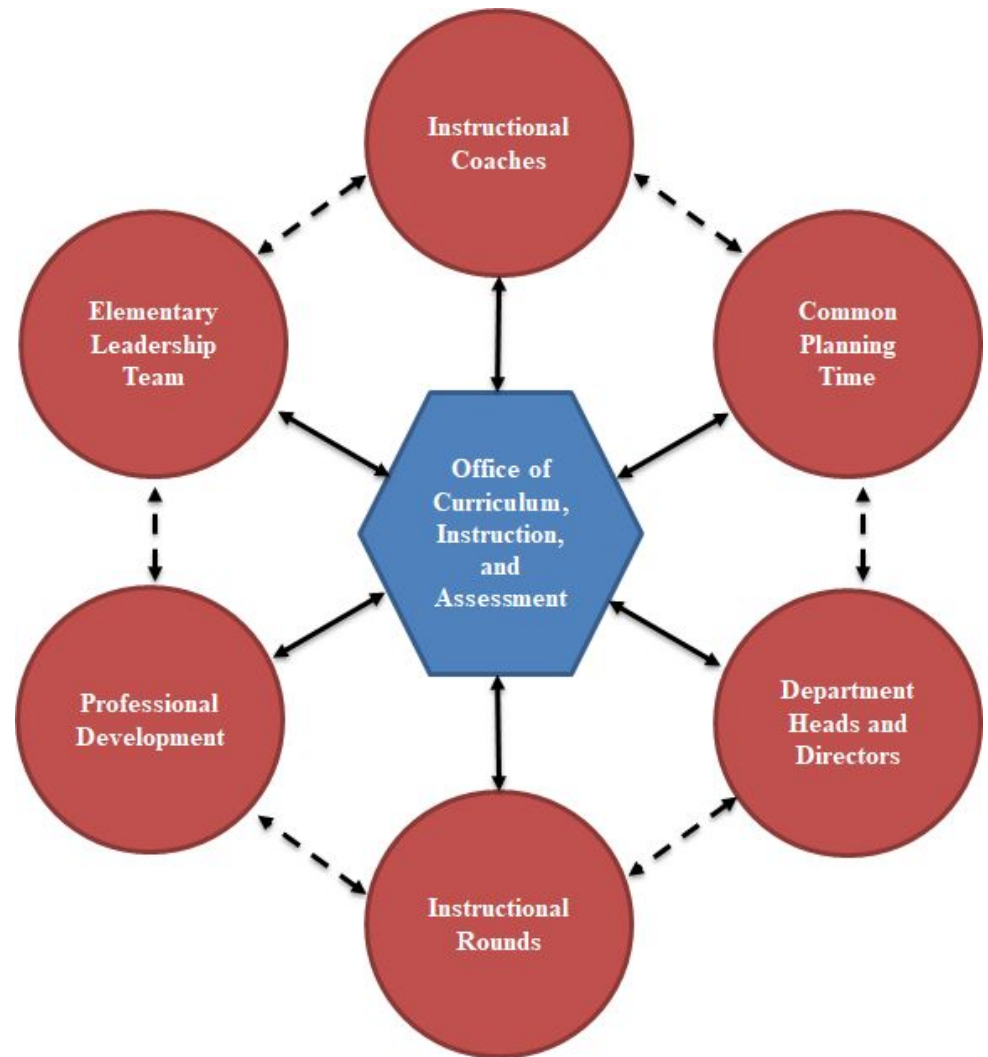
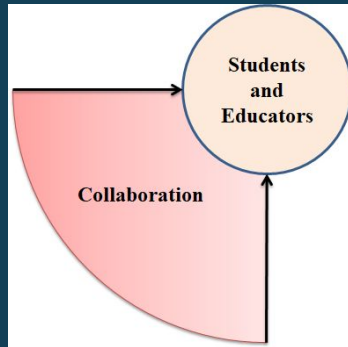




## Team Structures



# Integrated Systems for Collaboration





# 3

## Next Steps

Where do we go from here?

## Where to?

