

Motivating Life-long Learners: Rigor, Relevance and 21st Century Literacy for Elementary Teachers

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**Note: Videos and images have been
removed to reduced file size**

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Agenda

- Rigor / Relevance
- Strategies in Action
 - Defining
 - Summarizing
 - Comparing
- How to use
Strategies to
Support Literacy

Word Cloud of 100 most
frequently used words in
my workshops
www.wordle.net

**Staff development
should model what
you expect to see in
the classroom**

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**Students are
motivated by
*Rigor***

**Creating is the
highest form of
thinking.**

Bloom's Taxonomy of Thinking Skills

- **Creating** - generating new ideas
- **Evaluating** - justifying a decision or choice
- **Analyzing** - breaking into component parts
- **Applying** - using information in a new setting
- **Understanding** - explaining idea or concept
- **Remembering** - recalling information

Creating A new combination
of old elements

Creating A new combination
of old ...information,
stories, data, art,
music, literature,
strategies...

Students are
motivated by
Relevance Taking
responsibility for
their learning

Learning is relevant to students when the student:

- understands how this information or skill has some **application in their life.**
- has an opportunity to **follow their own process rather than just learn “the facts.”**
- not just learning content and skills, but is **learning how they learn.**

Motivating Life-long Learners

#1 factor for improving student motivation is choice.

Not whether the student does the assignment, but how they engage in the work.

~Doug Reeves

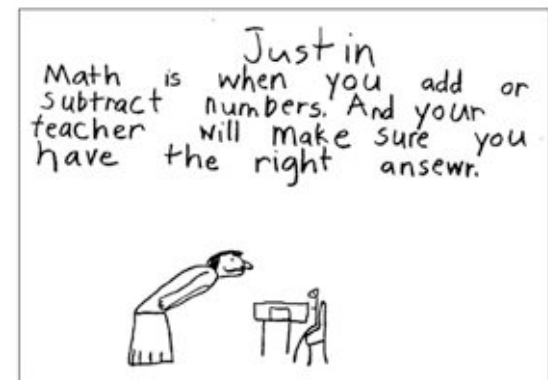
$$\begin{array}{r} 63 \\ + 28 \\ \hline \end{array}$$

from: *Teach Like Your Hair's on Fire*
by Rafe Esquith

5th graders are asked to help create a multiple choice question.

*Tell me the correct answer then let's **create three wrong answers** and the **reasons why students** might **incorrectly choose them.***

Justin, a second grader, talks about math



From: Math Is Language Too:
Talking and Writing in the Mathematics Classroom
Phyllis Whittin

Question: A cruise ship carries 200 passengers and crew. Each life boat carries 30 people.
How many lifeboats will the ship need?

Almost one-third of the 8th graders who took the NAEP math test answered

“6 remainder 20”

From a high school valedictorian:

“I could memorize very easily, and became valedictorian.

But I was embarrassed that I understood much less than some other students who cared less about grades.

I felt that my brain was a way station for material going in one ear and (after the test) out the other.”

~ High School Student quoted in Wiggins and McTighe
Understanding by Design

Move students toward greater relevance

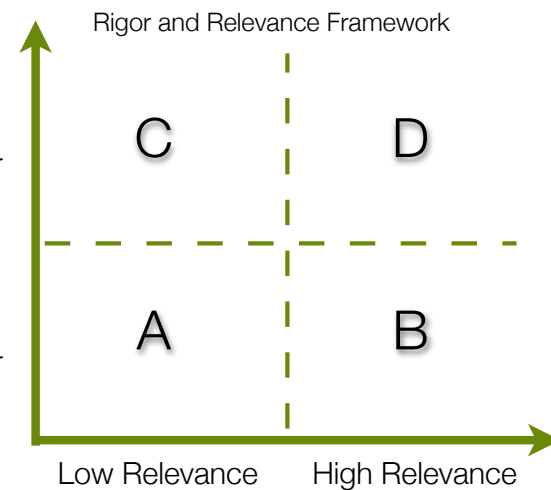


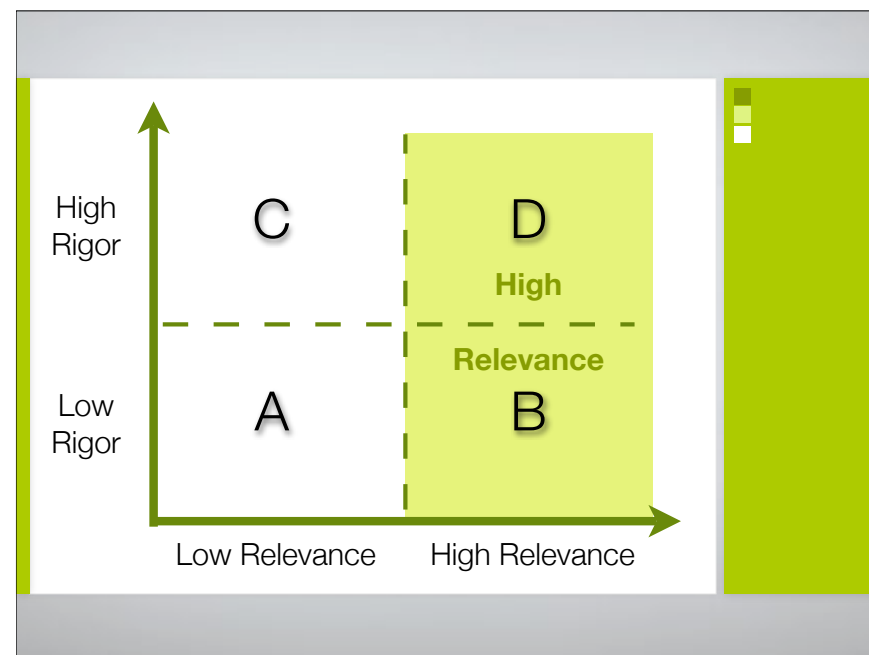
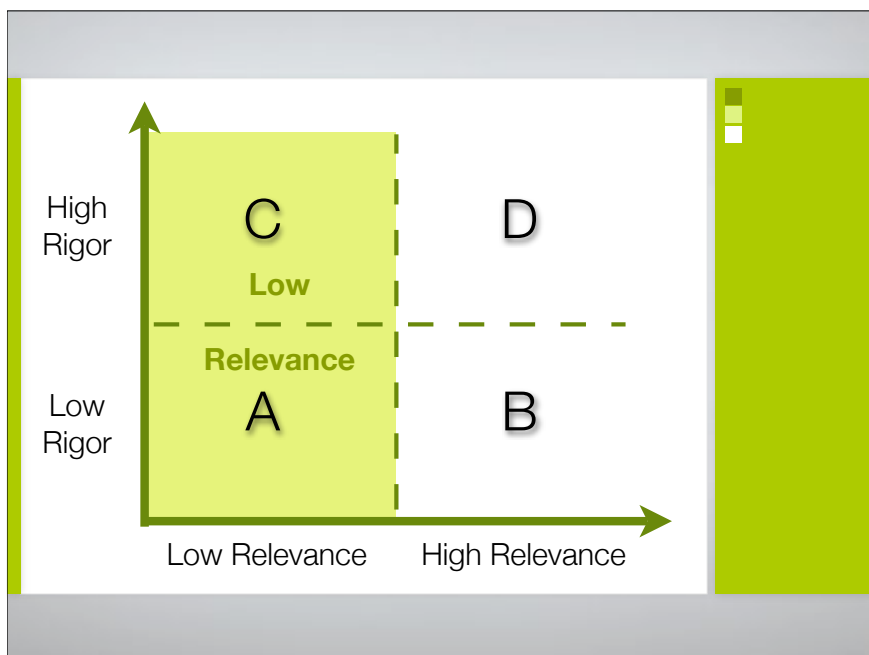
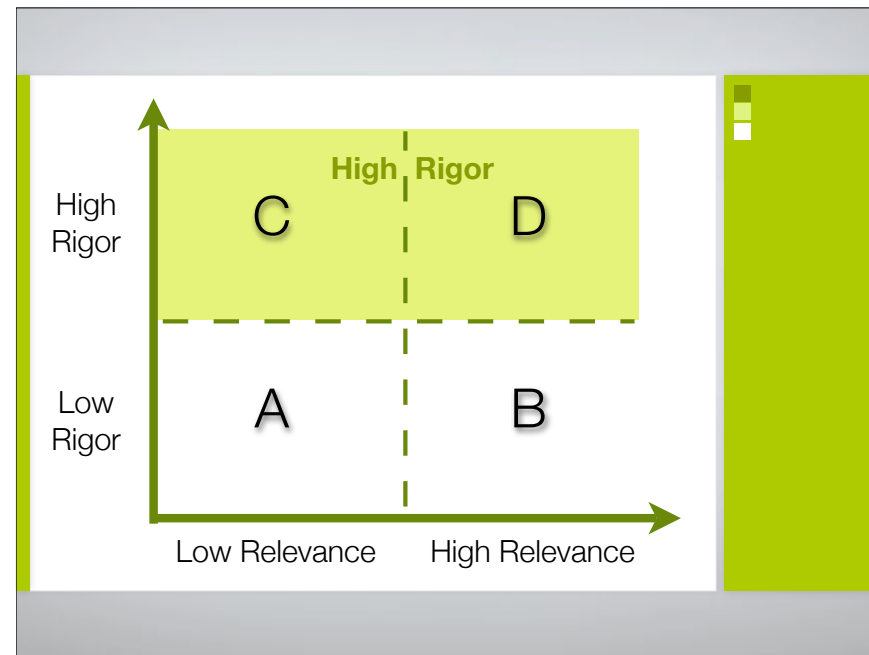
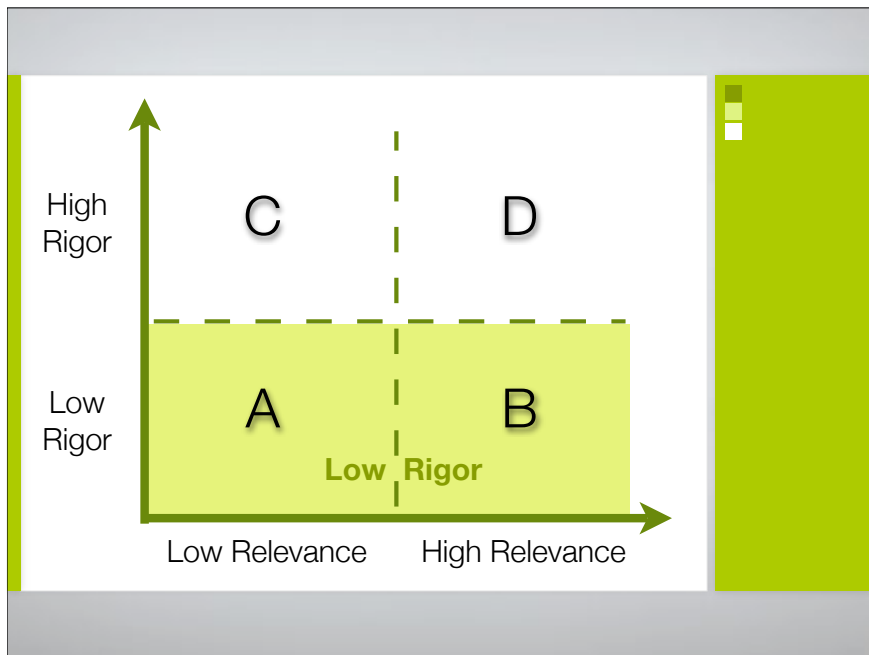
Using skills and knowledge in routine school setting.

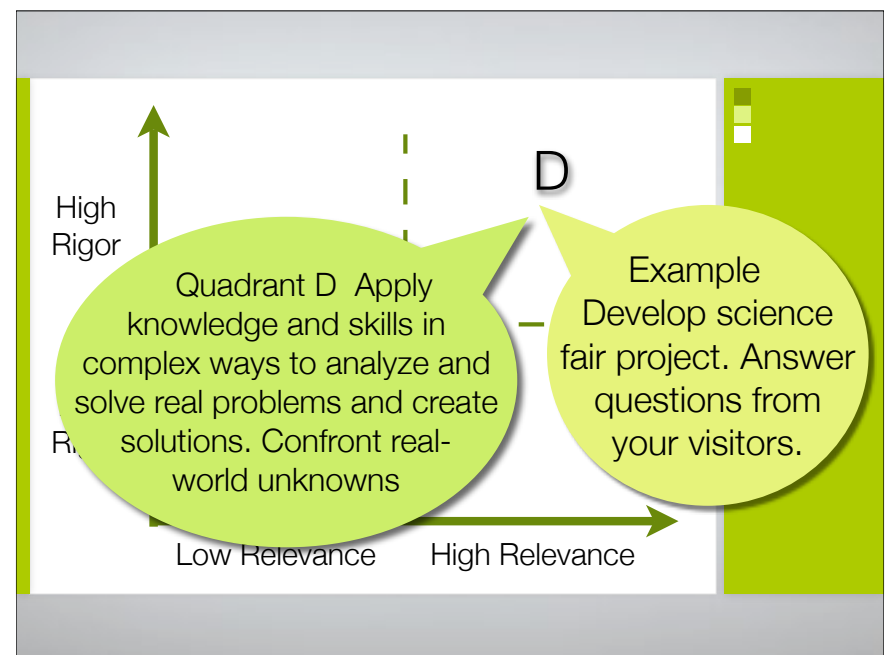
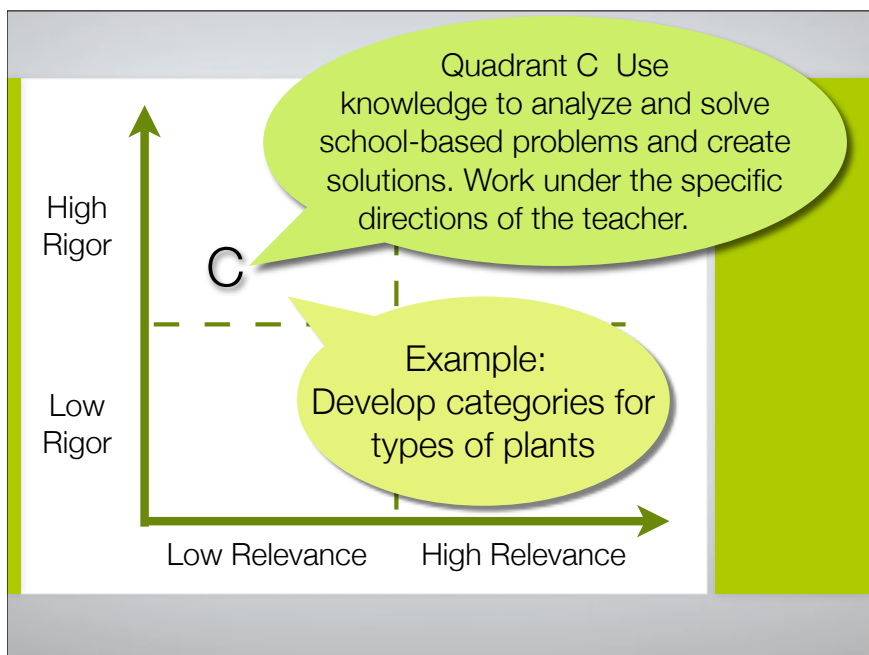
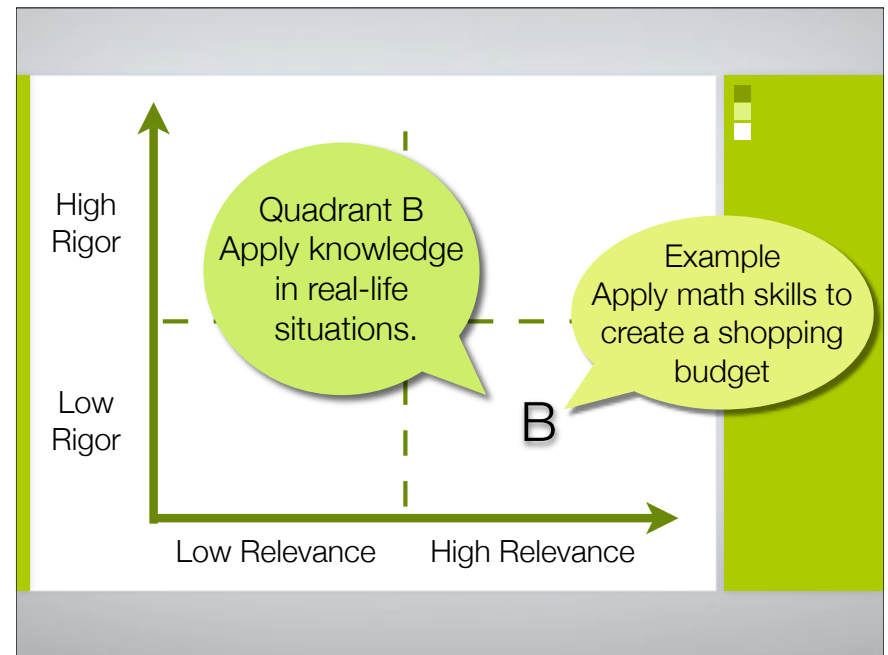
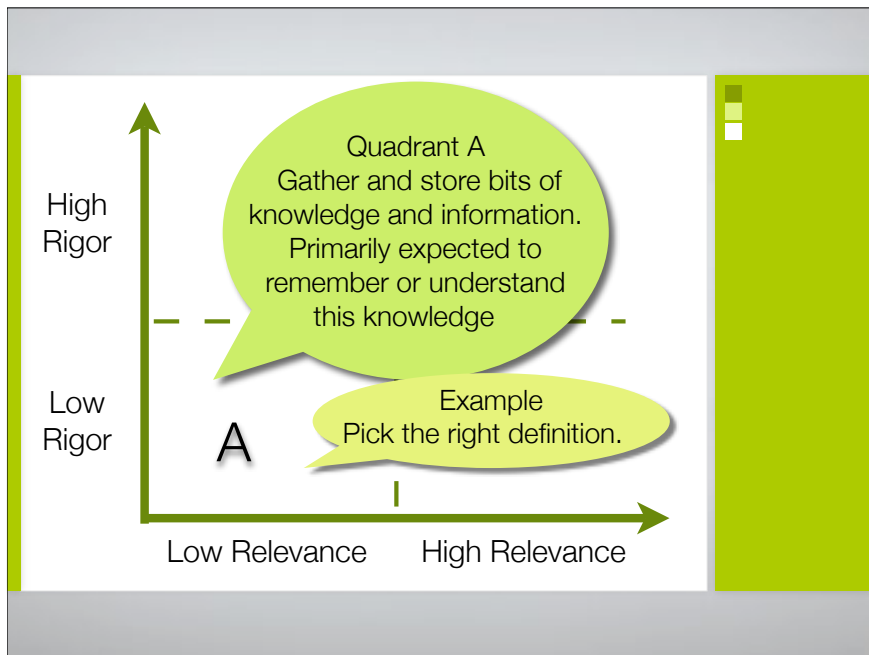
Work as directed by the teacher.

Using skills and knowledge for myself in the real world.

Figuring out my own approaches.









Higher and lower-order reflection by students

- Creating
- Evaluating
- Analyzing
- Applying
- Understanding
- Remembering

I can describe patterns, create my own connections, and assess my progress

I can tell you what I did, but don't expect me to think about it

Reflective Questions for Students

- **What** am I learning today?
- **Why** am I learning it?
- **How can I use** this knowledge and these skills **to make a difference** in my life?
- **How can I work** with teachers and other students **to improve my learning**?
- **How am I progressing** as a learner?
- **How can I communicate** what I'm learning with others?

Students are motivated by *Reflection*

They monitor and assess their own progress as life-long learners.

We'll focus on three strategies

- **Defining:** negotiating meaning
- **Summarizing:** synthesis and judgment
- **Comparing:** assessing similarities and differences

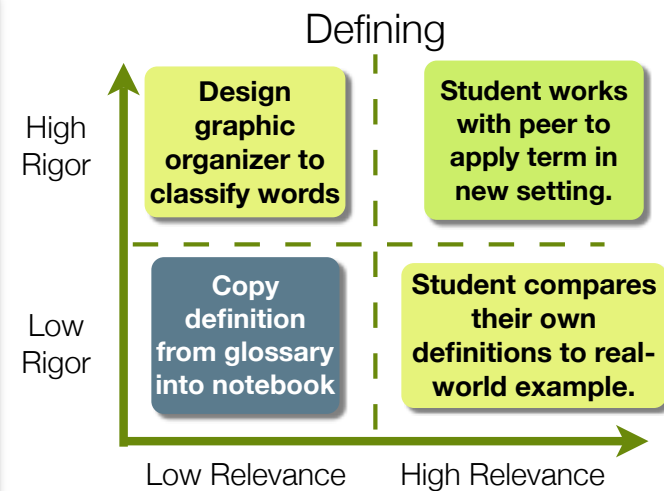
for more:
www.edteck.com/read

Robert Marzano:
What Works in Schools

"35 years of research concretely identifies the factors that are the primary determinants of student achievement."

Robert J. Marzano, *What Works in Schools: Translating Research into Action*, 2003

Defining negotiating meaning.



Elements for teaching defining

- Before the dictionary comes out... connect students with their prior knowledge
- After the term has been defined ... give students chances to more deeply process the term

Pre-dictionary:
Let students work together to compare preliminary definitions.

- Students develop their own definition
- Compare to peer definitions
- Similarities
- Differences
- Use visual, verbal and text-based approaches

List, Group, Label

- Give students term
- They individually brainstorm related ideas
- They pair and share
- They put post-its into groups and label
- Turn into a poster

Personal Vocabulary Notebook

Prior knowledge plus processing

1. Term:
2. Student Definition:
3. Dictionary Definition:
4. Student comparison of 2 and 3:

Students use prior knowledge to generate a preliminary definition. Then use their definition to explore the dictionary definition.

Personal Vocabulary Notebook

Prior knowledge and processing

1. **Term:** Expedition

2. **Student Definition:** A trip

3. **Dictionary Definition:** a journey taken for a specific purpose.

4. **Student comparison of 2 and 3:**

I thought an expedition could be any trip, even an vacation, but now I know it's a trip that has a goal.

Reading for Academic Success ~ Strong and Silver

Students can measure their own progress.

Self-evaluation is **rigorous** and **student-centered**

Level	Rubric
4	I understand even more about the term than what I was taught. I know multiple meanings.
3	I understand the term and I'm not confused about any part of what it means.
2	I'm a little uncertain about what the term means, but I have a general idea.
1	I really don't understand what the term means.

Building Academic Vocabulary Bob Marzano

Personal Vocabulary Notebook

Prior knowledge and processing

My understanding of this term is at rubric level 4 | **3** | 2 | 1

1. **Term:** Expedition

2. **Student Definition:** A trip

3. **Dictionary Definition:** a journey taken for a specific purpose.

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Student Vocabulary Progress

Student Name _____ Unit _____

Rubric 4	X	X	X			
Rubric 3	X	X	X	X		
Rubric 2	X	X				
Rubric 1	X	X				

Building Academic Vocabulary - Bob Marzano

Check for understanding - 4th graders midpoint in unit on electricity

If you were discussing electricity, what words would you use?

What words might you find in a book about electricity?

Words I Use

Words I'd Find
in a Book

In 15 minutes teacher got insight into what students knew, recognized (with some uncertainty) or never made it on either list.

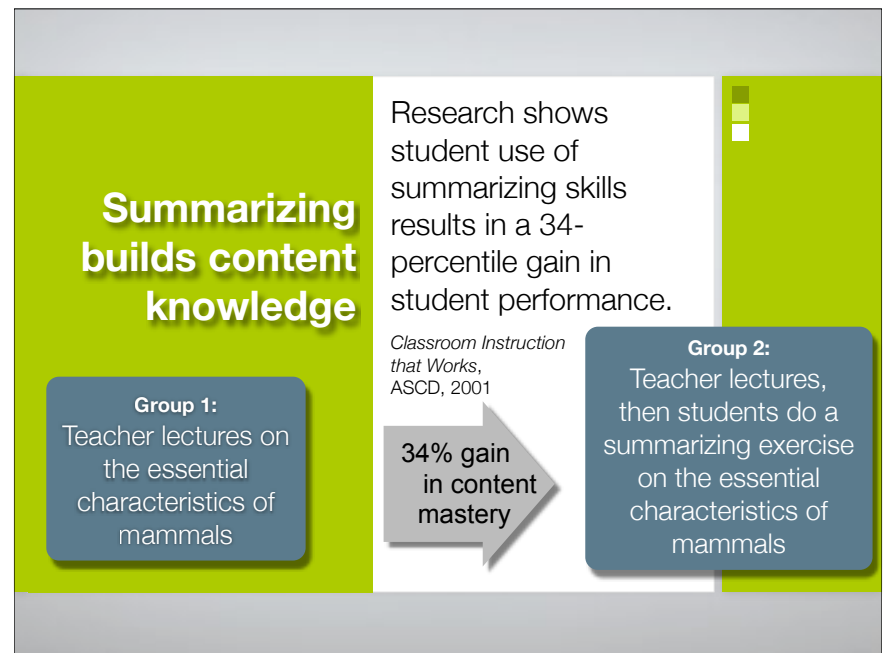
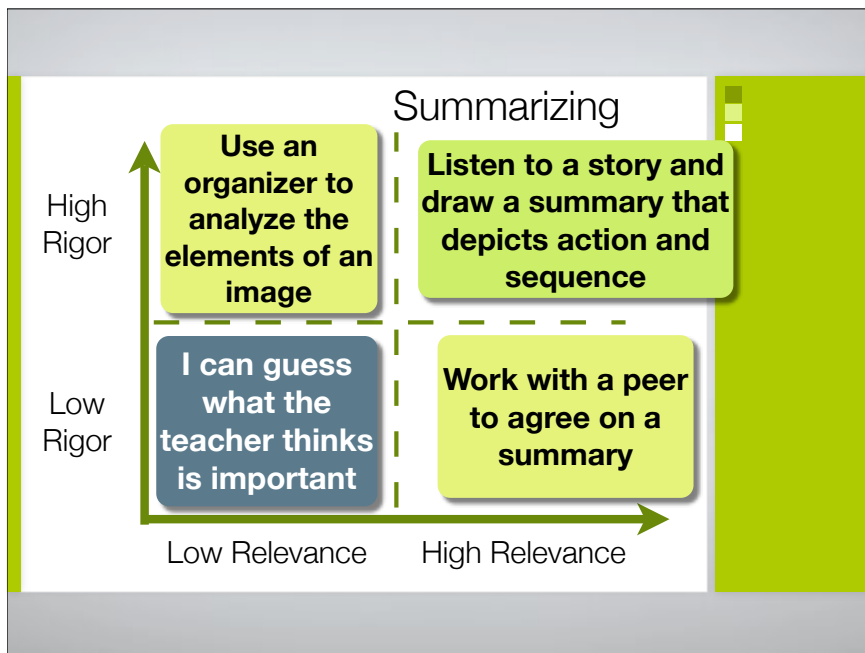
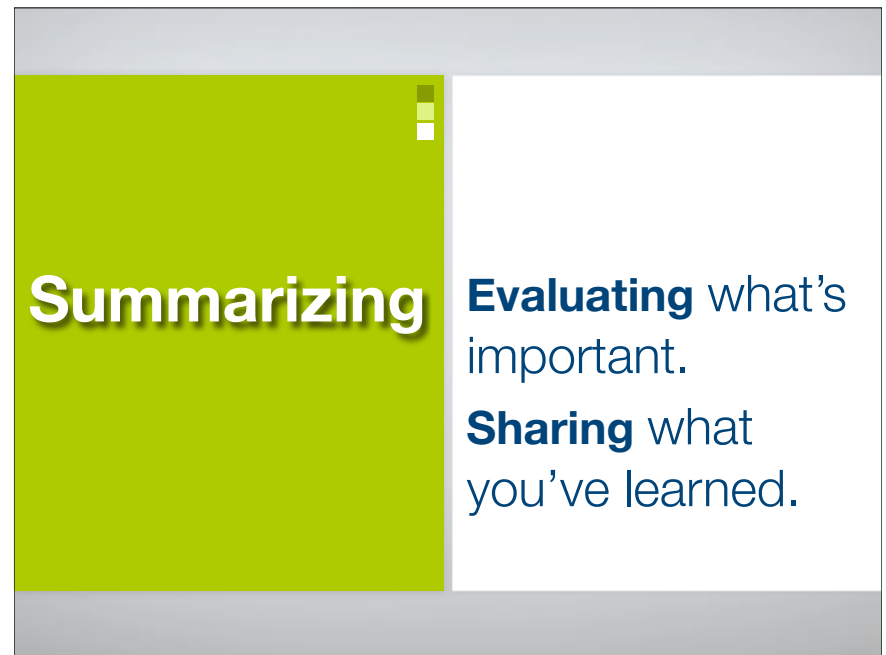
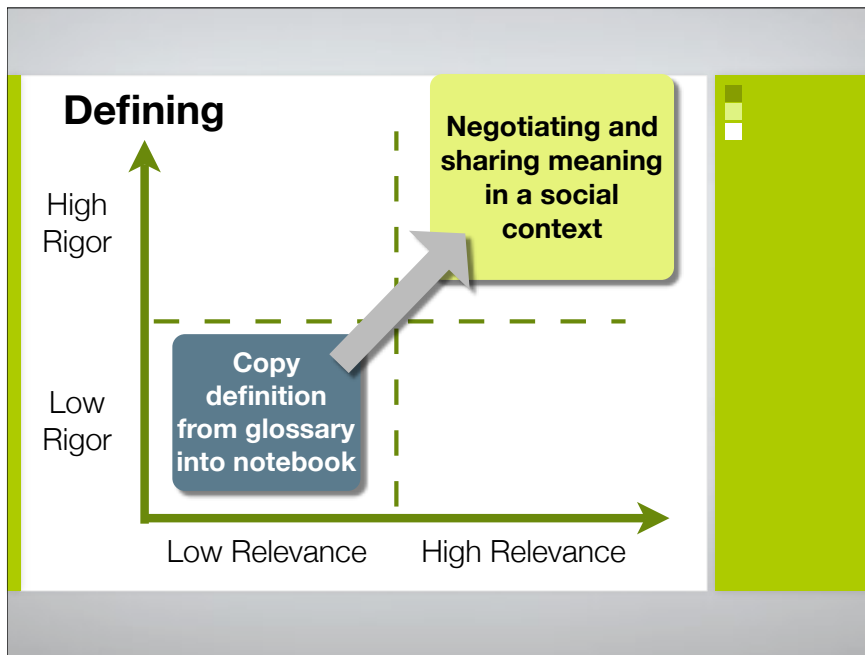
"They know more than I thought about electricity!"

Elements for teaching defining

- Before the dictionary comes out... connect students with their prior knowledge
- After the term has been defined ... give students chances to more deeply process the term

Defining: a chance for reflective writing

- How is the word related to something else I learned in school?
- How is the word related to something else in my life?
- How is the word used in different situations?
- How has my understanding of the word grown?



Six essential summarizing skills

- **Identify details** – can you identify key symbols, words, visual elements?
- **Recognizing context** – where is this taking place, time period, who's involved?
- **Identify relationships** – who are these people, what is their relationship to one another?

Continued - Summarizing skills

- **Identify opinions** – is there a point of view expressed in the source information?
- **Make predictions** – based on the information, what will happen next?
- **Infer meaning** – is there meaning that can be extracted from what's between the lines?

Elements for teaching summarizing

- Allow students to make their own judgements about what's important (instead of just repeating the details the teacher highlights)
- Students need to be able to share what they've learned with an audience other than the teacher.

Model active viewing, listening, and reading as a foundation for summarizing

- Getting the **visual message** right
“So what the **artist is saying** is...”
- Getting the **spoken message** right
“So what **you're saying** is...”
- Getting the **written message** right
“So what the **author is saying** is ...”

After creating their own visual summaries, 2nd graders said:

- People were **moving west**. They moved **by wagon** at first, then but **train**, which is **faster**.
- The **Indian** could see the **people coming**. They knew their **lives were changing**.
- The **railroad split** the **old** way from the **new** way.

Elements for teaching summarizing

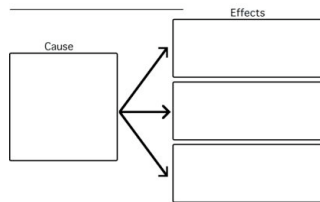
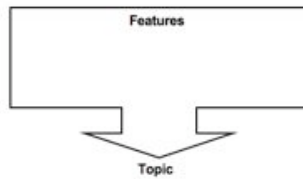
- Allow students to make their own judgements about what's important (instead of just repeating the details the teacher highlights)
- Students need to be able to share what they've learned with an audience other than the teacher.

Explaining what you've learned is telling a story using a narrative structure.

- Student may need **explicit training** about **narrative structures**.
- Recognizing **how information is organized** helps to **analyze original** work and **summarize it** for their **audience**.

Informational Pattern	Description	Cue Words
Description	Describes a topic by listing characteristics, features, and examples	for example, characteristics are
Comparison	Explains how two or more things are alike and/or how they are different.	different; in contrast; alike; same as; on the other hand
Cause / effect	Lists one or more causes and the resulting effect or effects.	reasons why; if...then; as a result; therefore; because
Problem / Solution	States a problem and lists one or more solutions for the problem.	problem is; dilemma is; puzzle is solved; question... answer
Sequence	Lists items or events in numerical or chronological order.	first, second, third; next; then; finally

Description:
listing characteristics,
features, and
examples



Cause / Effect:
one or more causes
and the resulting effect
or effects



"Telling Board"

Let student sequence a story in pictures, text, symbols
Roger Essley - Author, Illustrator

Summarizing: a chance for reflective writing

- What did I think was important?
- How did I share that with others?
- Is my summary accurate?
- Did I use my own words and style?
- What did I learn from the summarizing?

Summarizing

High
Rigor

Low
Rigor

Low Relevance

High Relevance

I can guess
what the
teacher thinks
is important

Evaluating what you think
is important. Creating an
appropriate summary for
an authentic audience

Comparing Classifying

Evaluating
similarities and
differences.

Sharing what
you learned.

Comparing builds content knowledge

Research shows
student use of
summarizing skills
results in a 45-
percentile gain in
student performance.

*Classroom Instruction
that Works,
ASCD, 2001*

Group 1:
Teacher lectures on
the essential
characteristics of
mammals

**45% gain
in content
mastery**

Group 2:
Teacher lectures,
then students compare
the essential
characteristics of
mammals to birds

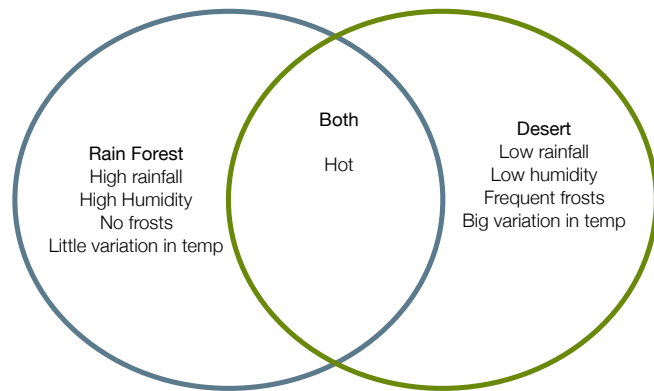
“Compare the animals and climate of
the rain forest and desert.”

Rain Forest	Desert
Ave rainfall 450 centimeters /year	Ave rainfall 15 centimeters /year
High Humidity	Low humidity
No frosts	Frequent frosts
Little variation in temp-average 26°C	Big variation in temp
Ave low 17°C	Low 13°C
Spider Monkey	High 48°C
Pit Viper	Bats
Three-toed Sloth	Iguana
Jaguar	Ants
Giant River Otter	Tarantula
Bats	Coyote
Iguana	Desert Tortoise
Ants	Rattlesnake

Climate



Climate



Do you give students chances to develop their comparative models?

- They could select items to compare from a teacher-produced list.
- They could independently decide what to compare.
- Can include some combination of selecting both the items and / or characteristics.

How is the comparison useful?
What does it enable us to do or see?

Student designed comparison

Which lunch is better?

How will you design your comparison?

Move students from comparing to classifying

- We typically ask students to take someone else's classification system and apply it.
- We rarely ask students to generate a classification system of their own.

List, group, label strategy
Students create classification systems with Post-its.

Rigor and relevance in practice: Student-designed classifying exercise

- What do I want to classify?
- What things are alike that I can put into a group?
- Does everything fit into a group now?
- Would it be better to split up any of the groups or put any groups together?

Use categories with your word wall

Rearrange by words:

- counting
- your family
- your friends
- animals

Extensions: **show** me what the word **looks** like, **draw** it, **act** out the word, **verbalize** it in a **sentence**.

Elements for teaching comparing and classifying

- We must ask students to develop the comparison, not just learn and repeat the model that we present to them.
- Student must be asked what they learned from the comparison.

Comparing and Classifying: a chance for reflective writing

- What did I compare?
- How did I structure the comparison?
- How was the comparison useful to me?
- What did I learn from it?
- How did others design their comparisons?

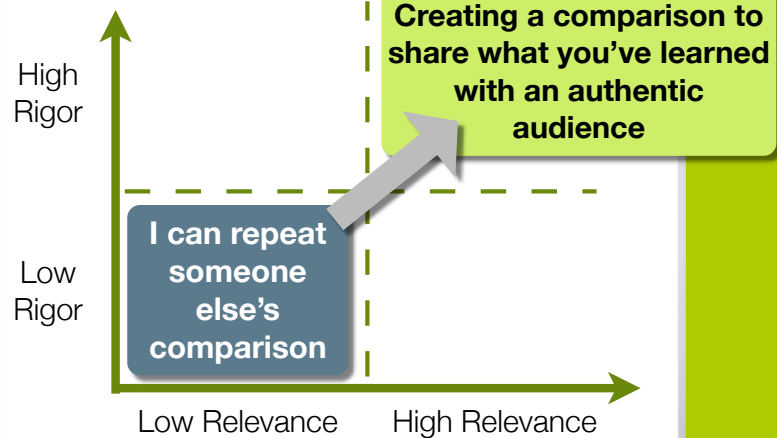
6th graders write ABC book

- Students study the organs of the body
- Develop a comparisons
- Create an ABC book

What process did you use to complete the project?

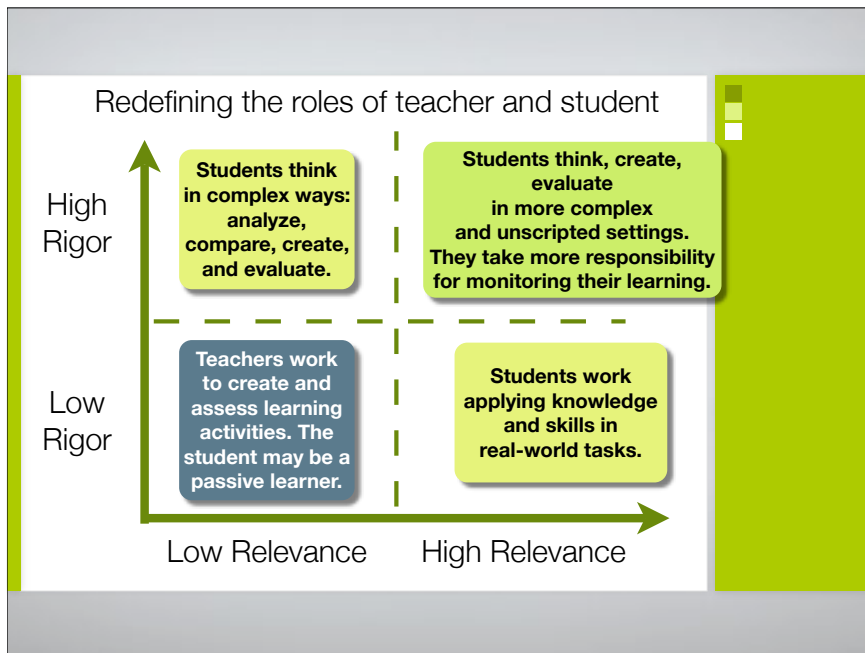
We
organized and decided
who was going to do what and
how. Then we read everything over
**to see if everything made
sense to our audience**

Comparing



**When do we
stop modeling
for students**

and let them take
responsibility for
their learning?



Move teacher from dispensing information *to instructional designer*

- **Rigor** - analyzing, evaluating, creating
- **Relevance** - students select their strategy
- **Reflection** - student evaluates their progress

Product that asks students to communicate their thinking

Motivating Life-long Learners

#1 factor for improving student motivation is choice.

Not whether the student does the assignment, but how they engage in the work.

~Doug Reeves

Traditional Writing is Assigned	Writing Assigned with Choice
Students are asked to write only on the teacher's topics.	Students can develop topics that matter to them.
Student writes for the teacher.	Audience and purpose for writing is identified.
Teacher grades their writing.	Students are asked to reflect on their growth.

New digital technologies have put **students in charge of the information** they access, store, analyze and share.

Digital age gives students access to information and higher order thinking tools.

Bloom's Higher-Order Skills

- **Creating** - generating new ideas
- **Evaluating** - justifying a decision or choice
- **Analyzing** - breaking into component parts

What skills will the 21st century workplace require?

- *Literacy*
- *Numeracy*
- *Self-discipline*

Creativity and adaptability
they must be **flexible independent learners**

Our goal – **students** who will be able to **function** in an **unpredictable world**.

Learn to research, think, problem-solve and write like a

- scientist, engineer, coach, artist, historian, writer, mathematician, musician