POWER STANDARDS

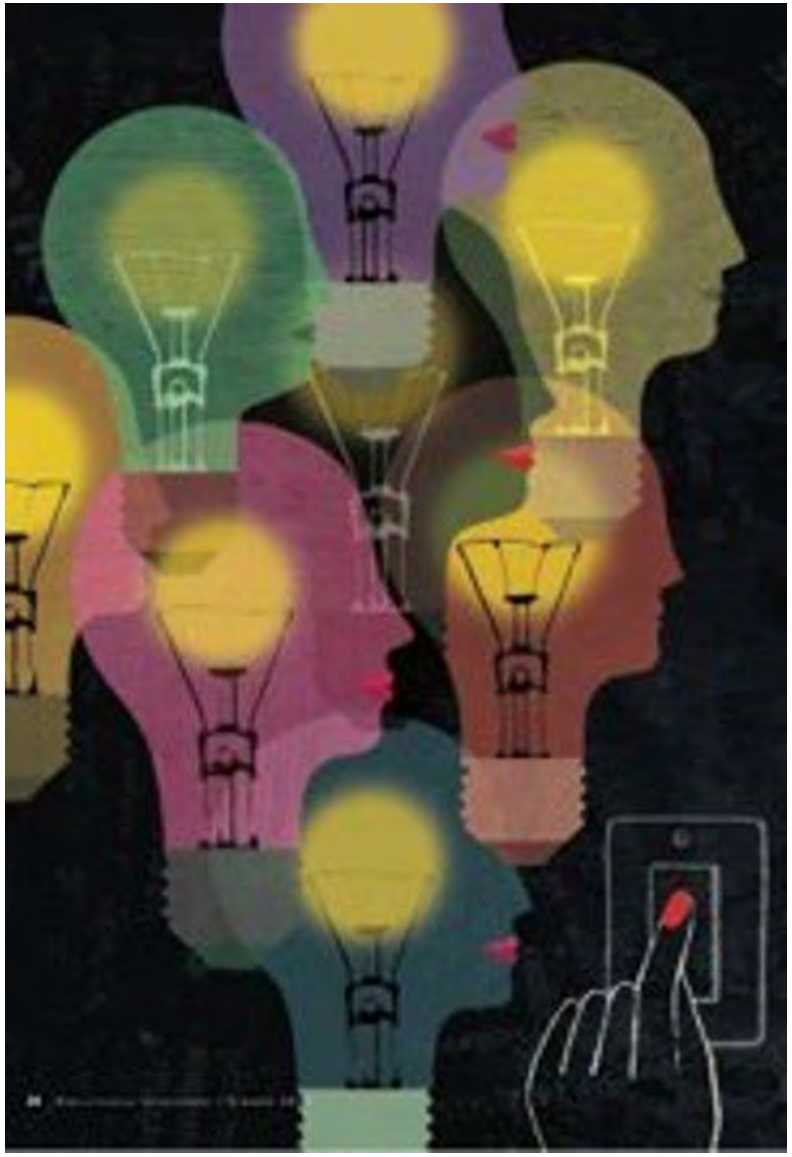
SOCIAL STUDIES AND SCIENCE: A FOCUS ON INQUIRY

ROSE COLLINS-JUDON, ASST. SUPERINTENDENT

DAWN BARTZ, EXECUTIVE DIRECTOR

THIS IS THE BLUEPRINT FOR LEVERAGING GRADE LEVEL STANDARDS

The Power Standards for Social Studies and Science for Grades K-8 represent what each student should know and be able to do by the end of the respective grade level. They do not replace the NYSED content standards, instead they are intended to highlight what students should be knowledgeable about by the end of each year.



POWER STANDARD ORGANIZATION

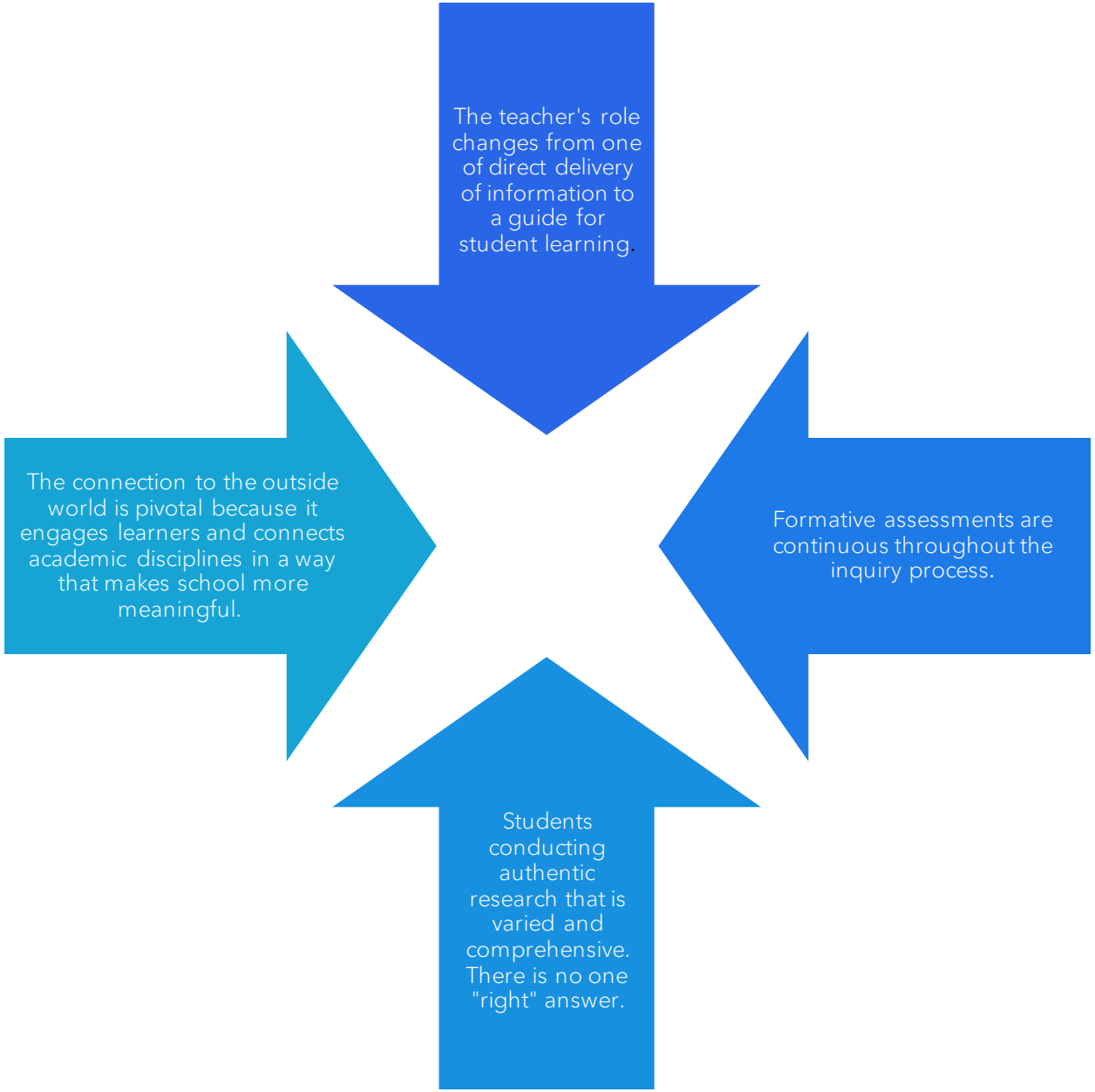
The Power Standards are organized to present the **Conceptual Understandings** (Those "Big Ideas" that should be realized through instruction), **Key Ideas** (Those specific facts and concepts that students must know within the course of study), and **Required Skills** (The skills that students should be able to perform and that are at the highest levels – levels 3 and 4 – of the DOK scale).

THE INQUIRY PROCESS

- Begins with a driving question or compelling problem to solve that is connected to the outside world.
- Collaborative groups of students are formed to address the question or problem.
- Students conduct research on the issue.
- Students create a project that addresses the question or problem
- Students present their work and discuss their process with the larger community and receive feedback.
- Student reflection on the process and product.

SCIENTIFIC INQUIRY AND HISTORICAL INQUIRY

"INQUIRY ACTS AS A MAGNET FOR CONTENT. IT MOTIVATES FURTHER ANALYSIS OF CONTENT AND INPUT OF SEVERAL DISCIPLINES IN ORDER TO SOLVE COMPLEX INQUIRIES"
JOHN DEWEY



AS YOU READ THROUGH THESE HIGHLIGHTS:

Look	Look	Notice	Ensure	Plan	Plan
for recurring skills throughout each discipline.	for any cross-cutting skills shared between both contents (or with others).	recurring themes and how the skills are consistent over time and how they build upon each other.	mastery of the skills that students should have.	ways to integrate the necessary skills into instructional practices that encourage inquiry-based learning.	methods to ensure that students are actively "doing" the work where possible.

HIGHLIGHTS FROM THE POWER STANDARDS

KINDERGARTEN

Science

- Observing
- Investigating
- Using models
- Creating
- Presenting Ideas

Social Studies

- Understanding basic economic principles of "wants" and "needs"
- Understanding the chronology of events: "first, second, third..."

FIRST GRADE

Science

- Observing
- Investigating/Experimenting
- Using Models
- Creating
- Presenting information

Social Studies

- Chronological Reasoning: Understanding that events and other information are sequenced in their lives.
- Understanding the difference between the past and the present and applying it to their lives.

SECOND GRADE

Science

- Observing
- Planning and conducting investigations
- Analyzing data
- Creating models
- Using inquiry methods to define a simple problem

Social Studies

- Chronological Reasoning: Recognizing that change takes place over a **period of time.**
- Creating timelines showing changes in their school and community over time.
- Demonstrating a knowledge of several big changes in their community over time.
- Understanding cause and effect in relationship to these changes.
- Developing an appreciation of cultural diversity.

THIRD GRADE

Science

- Understanding cause and effect
- Analyzing and interpreting data
- Defining a simple problem
- Observing and investigating
- Constructing an argument
- Use evidence to support or construct an explanation

Social Studies

- Investigating the different types of governmental styles in at least 3 different countries.
- Comparing and contrasting these different world communities and the U.S. in terms of leadership, economics and government structures.
- Examining the roles and responsibilities of citizens in different countries and comparing and contrasting these to citizenship in the U.S.

FOURTH GRADE

Science

- Providing evidence to predict outcomes.
- Developing models that demonstrate solutions.
- Generating multiple solutions for a problem.

Social Studies

- Examining change over time in the state and city where they live.
- Investigating regional changes and creating maps, charts and other visual representations that show these change.
- Investigating the causes and effects of human migration withing the country, displacement from countries and lands, and immigration patterns.

FIFTH GRADE

Science

- Showing data through graphical displays to illustrate patterns and relationships.
- Supporting an argument with evidence.
- Using evidence to explain phenomena.
- Using measurement and graphing to provide evidence of change.

Social Studies

- Creating physical and political maps covering the Western Hemisphere (including those countries outside of the U.S.).
- Researching and showing comparative cultural characteristics of countries in the Western Hemisphere.
- Using various types of maps to examine patterns of human settlement and economic activity.
- Exploring a current issue that is shared by two or more countries.

SIXTH GRADE

Science

- Constructing explanations using qualitative and quantitative reasoning.
- Using valid and reliable forms of evidence.
- Developing oral and written arguments, supported by empirical evidence.
- Using math to support scientific conclusions.
- Analyzing and interpreting data to provide evidence and to find similarities and differences.

Social Studies

- Exploring migration patterns in the Eastern Hemisphere.
- Using various maps of the Eastern Hemisphere to examine the factors that influenced boundaries and political structures.
- Comparing and contrasting classical civilizations of the Eastern Hemisphere.
- Examining how cultural achievements of civilizations influenced contemporary societies.

SEVENTH GRADE

Science

- Constructing scientific conclusions based on valid and reliable evidence from sources.
- Constructing an explanation that includes qualitative and quantitative relationships.
- Applying scientific ideas to explain real-world phenomena.
- Analyzing and interpreting data to provide evidence and to identify similarities and differences.

Social Studies

- Examining theories behind patterns of human settlements and migrations.
- Understanding the various factors and theories leading to revolution.
- Understanding the powers granted to each branch under the Constitution.

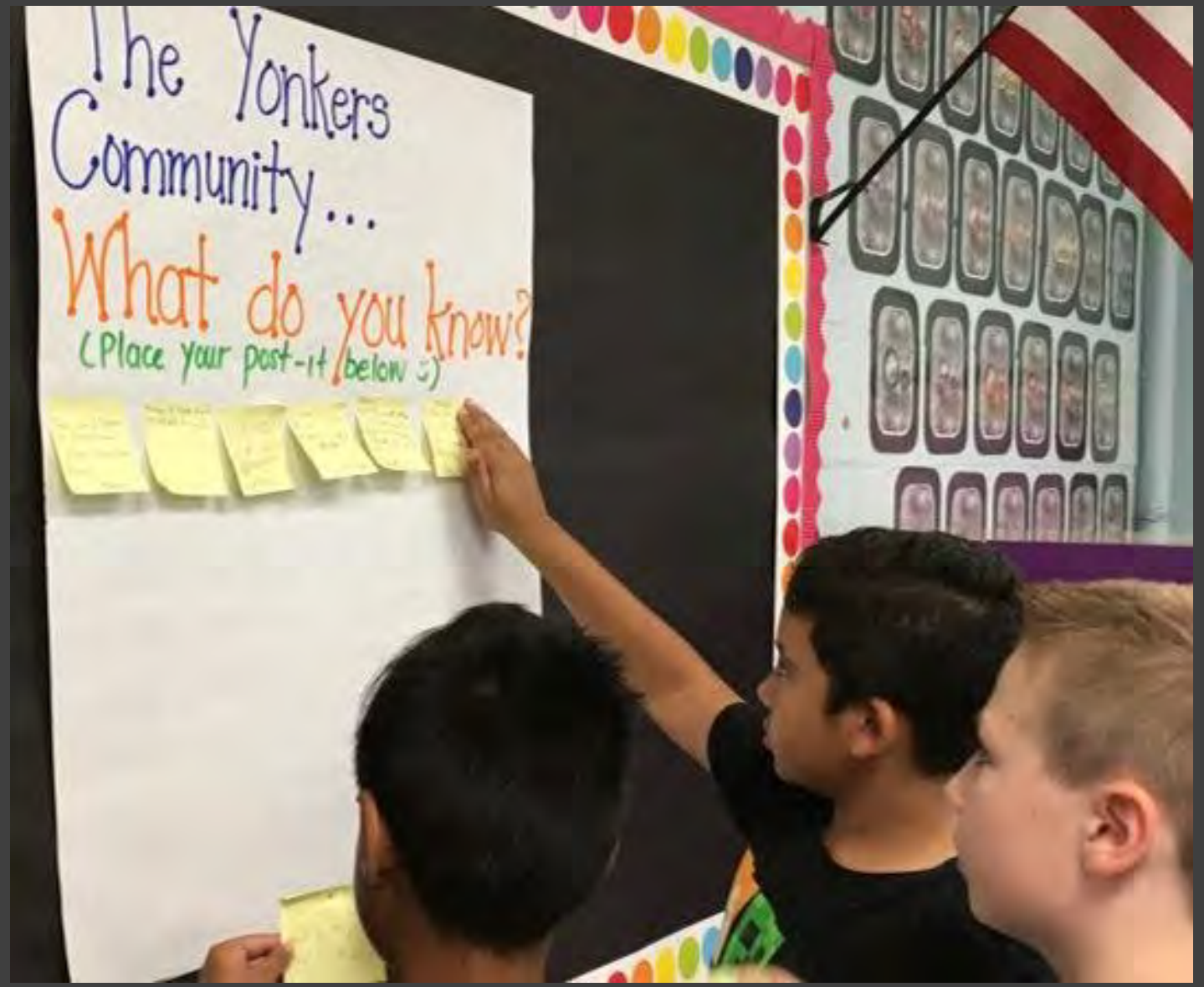
EIGHTH GRADE

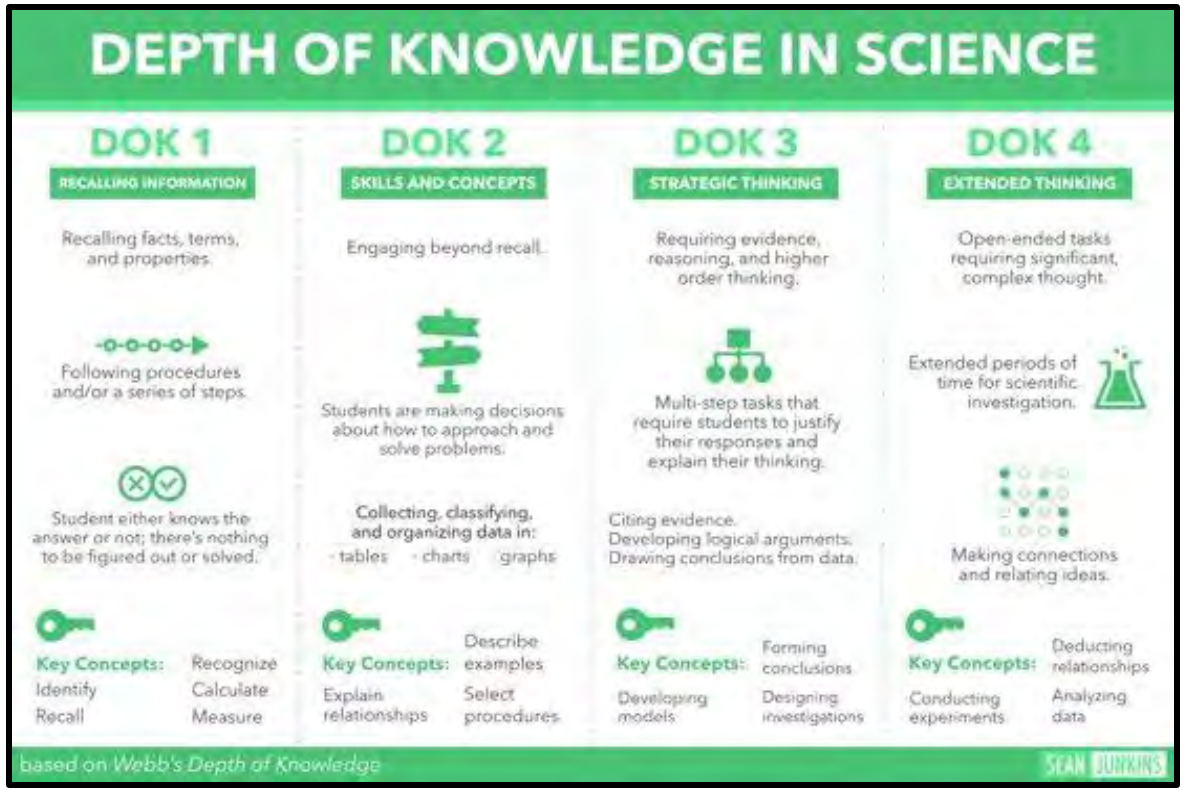
Science

- Constructing scientific reasoning based on valid and reliable evidence from sources.
- Constructing an explanation that includes qualitative and quantitative relationships.
- Applying scientific ideas to explain real-world phenomena.
- Analyzing and interpreting data to provide evidence and to identify similarities and differences.

Social Studies

- Exploring major events of the Reconstruction era to the Present Day and their impact on the nation.
- Examining the causes and consequences of WWI.
- Examining the economic practices and the "man-made" environmental conditions leading to the Great Depression.
- Examining the causes and consequences of WWII, including how the aftermath of WWI was a contributing factor to WWII.
- Examining, comparing, and contrasting Civil Rights events and leaders of the 1960s.


The Yonkers Community...
What do you know?
(Place your post-it below :)


DEPTH OF KNOWLEDGE IN SCIENCE
DOK 1
RECALLING INFORMATION
Recalling facts, terms, and properties.
Following procedures and/or a series of steps.
Student either knows the answer or not; there's nothing to be figured out or solved.
Key Concepts:
Identify
Recall
Recognize
Calculate
Measure
DOK 2
SKILLS AND CONCEPTS
Engaging beyond recall.
Students are making decisions about how to approach and solve problems.
Collecting, classifying, and organizing data in:
- tables - charts - graphs
Key Concepts:
Explain relationships
Describe examples
Select procedures
DOK 3
STRATEGIC THINKING
Requiring evidence, reasoning, and higher order thinking.
Multi-step tasks that require students to justify their responses and explain their thinking.
Citing evidence.
Developing logical arguments.
Drawing conclusions from data.
Key Concepts:
Developing models
Forming conclusions
Designing investigations
DOK 4
EXTENDED THINKING
Open-ended tasks requiring significant, complex thought.
Extended periods of time for scientific investigation.
Making connections and relating ideas.
Key Concepts:
Conducting experiments
Deducting relationships
Analyzing data
based on Webb's Depth of Knowledge
SEAN JUNKINS


DEPTH OF KNOWLEDGE IN SOCIAL STUDIES
DOK 1
RECALLING INFORMATION
Recalling facts, terms, and concepts.
Asking students to know who, what, and when.
Recognizing and identifying specific information found in:
- maps
- charts
- graphs
- tables
- drawings
Key Concepts:
Identify
List
Define
DOK 2
BASIC REASONING
Engaging beyond recalling or reproducing.
Asking students to know how and why.
Comparing and contrasting people, places, and events.
Key Concepts:
Classify into categories
Explain issues
Understand relationships
DOK 3
COMPLEX REASONING
Requiring evidence, reasoning, and higher order thinking.
Justify how and why with application and evidence.
Propose solutions.
Make connections.
Recognize misconceptions.
Key Concepts:
Draw conclusions
Cite evidence
Apply concepts
DOK 4
EXTENDED REASONING
Plan, investigate, and develop over an extended period of time.
Apply conceptual understanding and higher level thinking.
Analyze and synthesize information from multiple sources.
Key Concepts:
Make predictions
Develop arguments
Plan solutions to problems