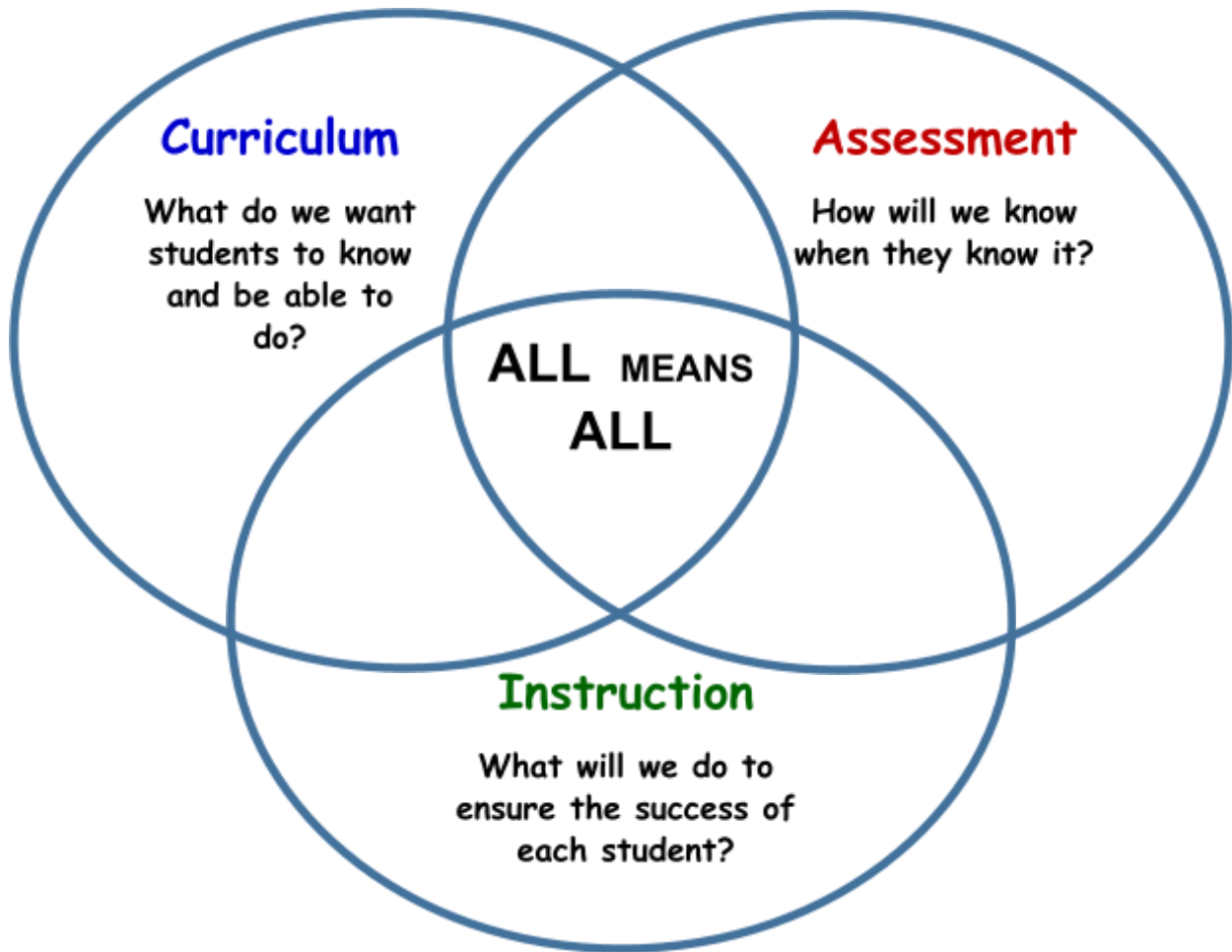


PROVIDING EDUCATIONAL EXCELLENCE FOR ALL STUDENTS!



ELEVATING THE ESSENTIALS: UNPACKING STANDARDS TO TARGET CURRICULUM, ASSESSMENT, & INSTRUCTION

Opportunity to learn (OTL) has the strongest relationship with student achievement of all school-level factors. It may seem like common sense, but data shows that success in mastery learning is directly related to "whether or not students have had an opportunity to study a particular topic or learn how to solve a particular type of problem presented by the test." (Husen)

Prepared Especially for your
James Monroe HS Instructional Leaders

by Dan Mulligan, flexiblecreativity.com

Searching for Opportunities: Data Analysis

Using student achievement data for decision-making involves an ongoing cycle where educators analyze student performance (from assessments, work samples, attendance, etc.) to identify learning gaps, evaluate teaching effectiveness, and tailor instruction, grouping, goals, and interventions for continuous improvement, a process that empowers teachers and students to make informed choices for better academic outcomes. Key steps include establishing a data-driven culture, providing tools for data analysis, teaching students self-monitoring, and aligning data systems across the school or district.

How Data Informs Decisions:

- **Instructional Adjustment:** Teachers adapt lessons, assignments, and strategies in real-time based on student needs revealed by data.
- **Personalized Learning:** Data helps create individualized learning paths and identify students needing extra support or enrichment.
- **Goal Setting:** Students and teachers use data to set realistic, data-informed learning goals.
- **Curriculum & Program Evaluation:** Schools assess the effectiveness of their curriculum and assessment tools, optimizing resource allocation.
- **Identifying Systemic Issues:** Data reveals broader trends and challenges, guiding school-wide improvement plans.

The mission of James Monroe High School is to provide character education, rigorous academics, and success beyond tests, fostering responsible 21st-century citizens through a student, faculty, parent, and staff partnership, believing all students can learn.



Compression and Elevation Charts

Compression of academic performance refers to the decrease in achievement gaps between subgroups over time.

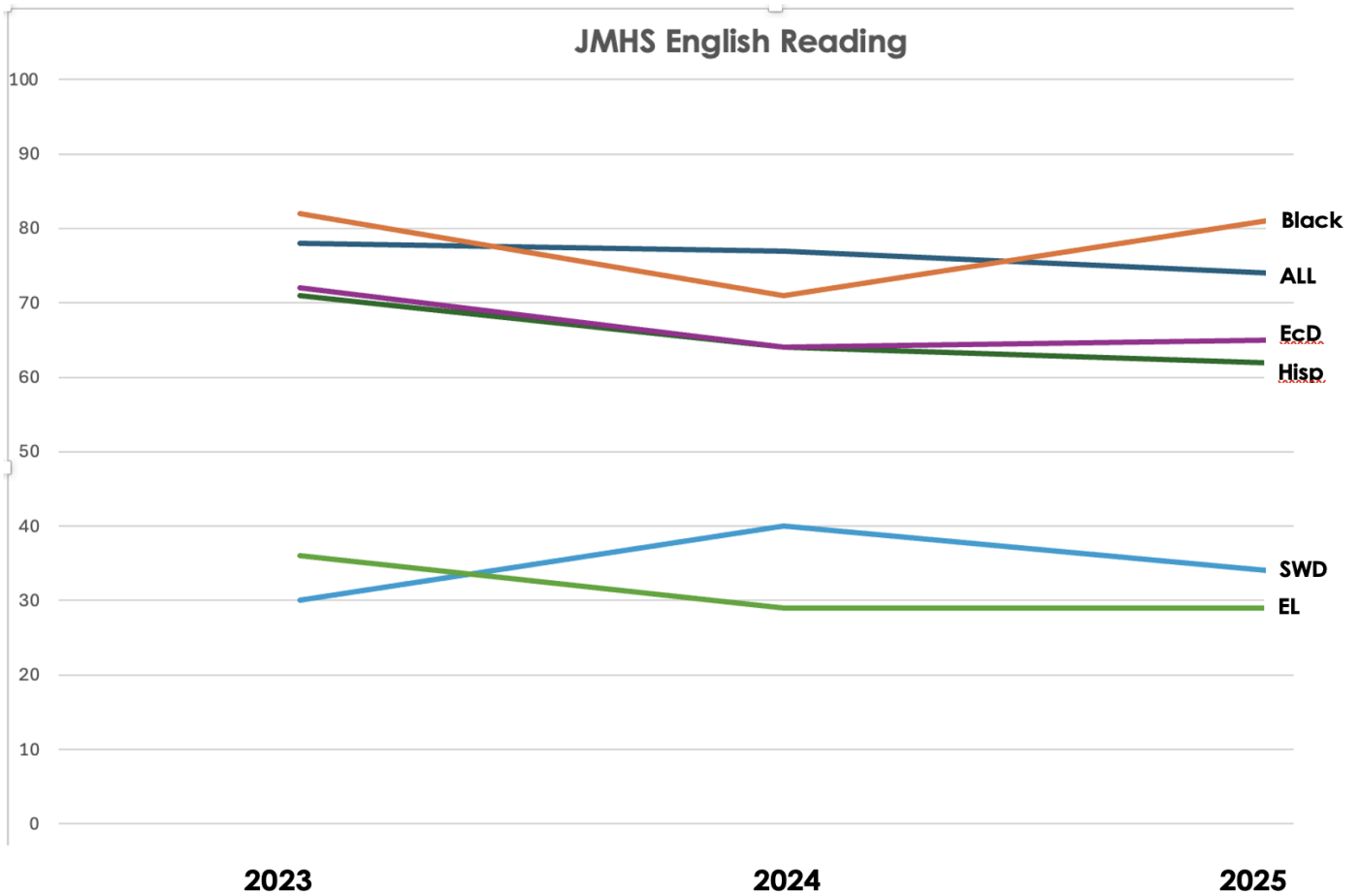
Elevation of academic performance refers to an overall positive trend where student achievement or growth levels increase over time.

Compression and Elevation refer to the overall increase in the achievement of all students while at the same time decreasing achievement gaps between subgroups.

Searching for Opportunities: A Snapshot in Time

SOL ENGLISH READING RESULTS

Longitudinal and Subgroup Analysis

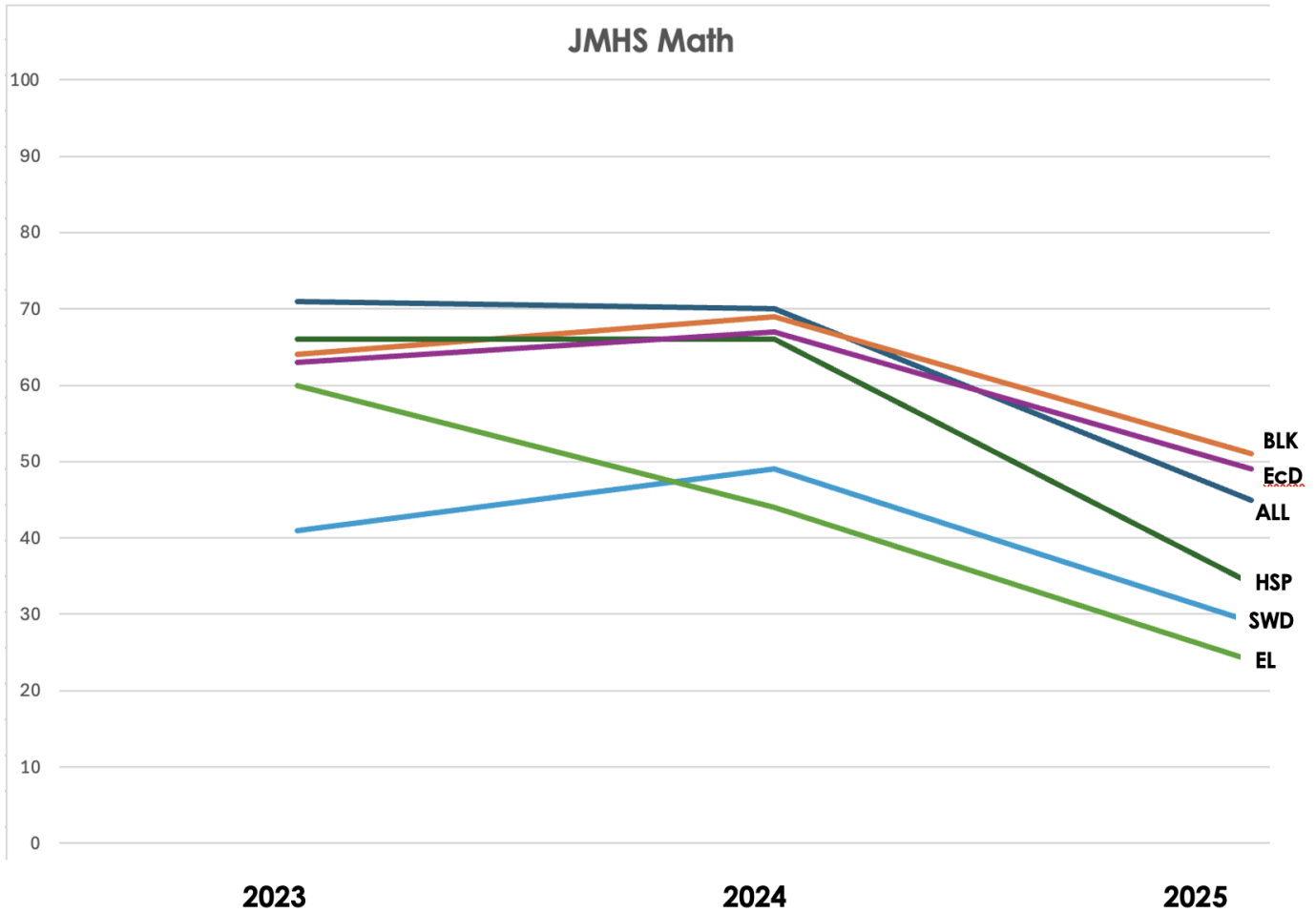
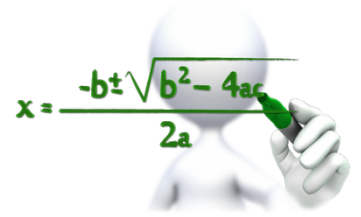


Reading	2023	2024	2025
All	78	77	74
Black	82	71	81
Hispanic	71	64	62
SWD	30	40	34
Econ. D	72	64	65
EL	36	29	29

Searching for Opportunities: A Snapshot in Time

SOL MATHEMATICS RESULTS

Longitudinal and Subgroup Analysis



Math	2023	2024	2025
All	71	70	45
Black	64	69	51
Hispanic	66	66	34
SWD	41	49	29
Econ. D	63	67	49
EL	60	44	24

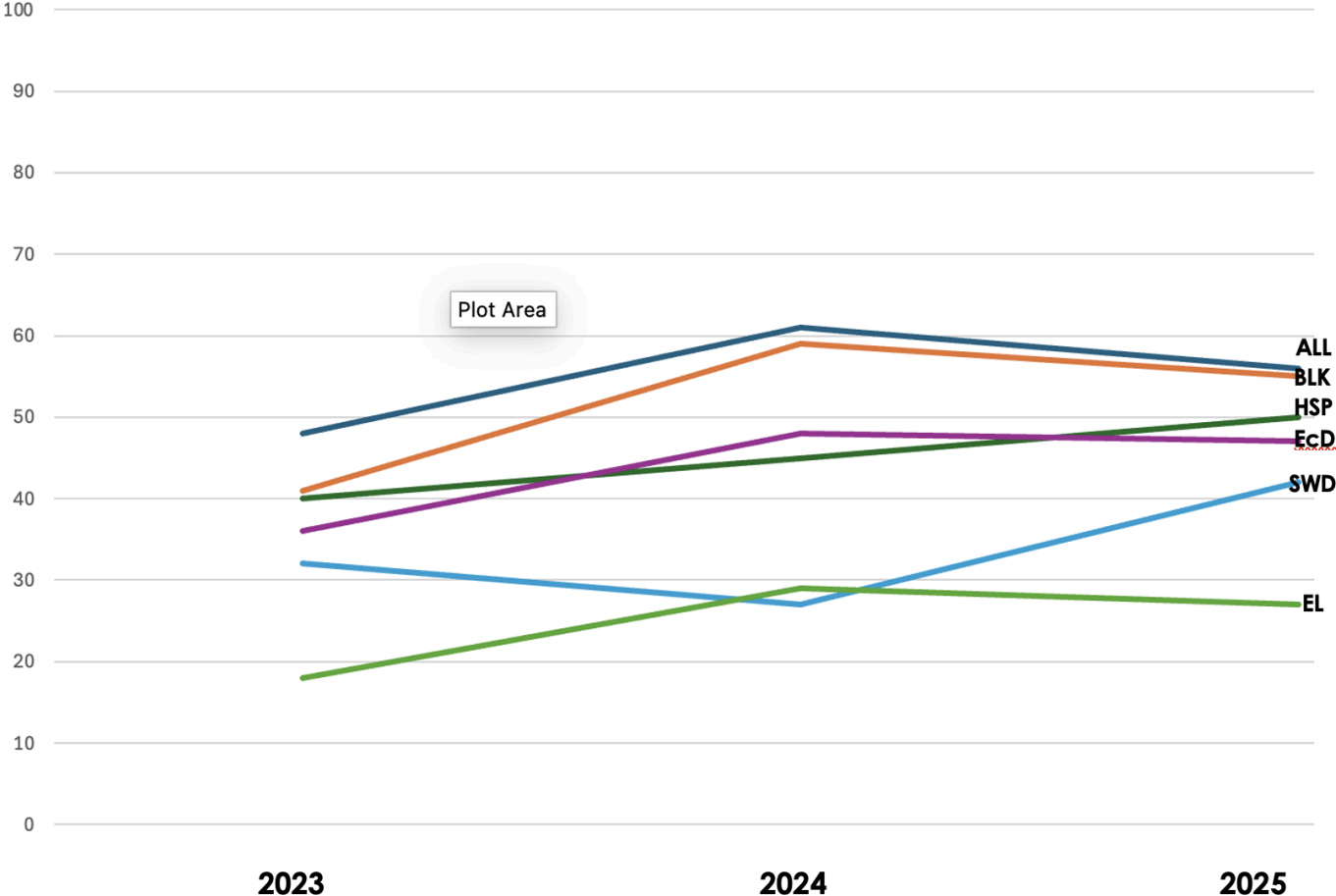
Searching for Opportunities: A Snapshot in Time

SOL SCIENCE RESULTS

Longitudinal and Subgroup Analysis



JMHS Science



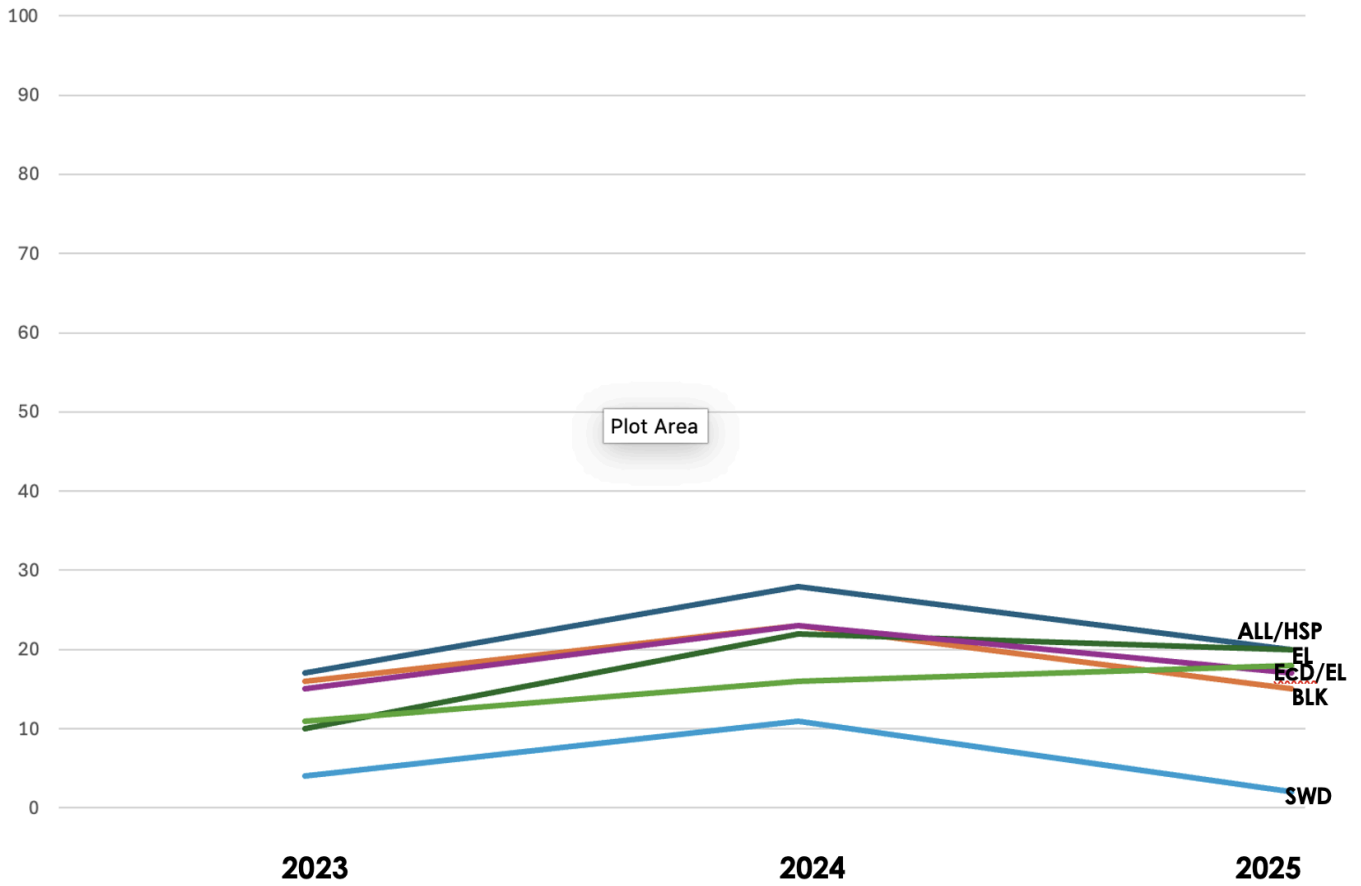
Science	2023	2024	2025
All	48	61	56
Black	41	59	55
Hispanic	40	45	50
SWD	32	27	42
Econ. D	36	48	47
EL	18	29	27

Searching for Opportunities: A Snapshot in Time
SOL HISTORY & SOCIAL SCIENCE RESULTS

Longitudinal and Subgroup Analysis



JMHS History



History	2023	2024	2025
All	17	28	20
Black	16	23	15
Hispanic	10	22	20
SWD	4	11	2
Econ. D	15	23	17
EL	11	16	18

Elevating the Essentials to Radically Improve Student Learning

<p>What we teach:</p> <ul style="list-style-type: none"> ~ Essential Knowledge ~ Essential Skills ~ Essential Vocabulary ~ Essential Processes <p>Essential Student Skills</p> <ul style="list-style-type: none"> ~ Critical Thinking & Problem Solving ~ Collaboration ~ Communication ~ Creativity & Innovation <p>Essential Practices</p> <ul style="list-style-type: none"> ~ Make learning 'safe' for each student. 	<p>How we teach:</p> <p>Step 1: Clear Learning Objectives</p> <p>Step 2: Modeling Guided Practice Independent Practice</p> <p>Step 3: Checking for Understanding along the way</p> <p>Step 4: Extending and Applying Knowledge</p>	<p style="text-align: center;">Instructional Frameworks</p> <ul style="list-style-type: none"> ~Clear objective: as well as, showcase vocabulary ~Five Minute Limit: teacher talk limited to short intervals ~Student Engagement: active learning continually through lesson ~Summarizing: each student summarizing learning continually ~Rehearsal Time: students collaborate to compare and contrast, share perspectives, etc. ~Formative Assessment: Frequent check for Understanding ~TAPS: Total, Alone, Pairs, Small-group
<p>9 Ways to Teach Anything</p> <ul style="list-style-type: none"> ~Share clear learning Goal(s) ~Clarify and teach each essential vocabulary ~Model higher order thinking ~Ask second questions ~Continually check for understanding (formative) ~Facilitate guided practice ~Monitor independent practice ~Engage whole class in discussion and debate ~Integrate consistent reading and writing with clear feedback ~Include opportunities to summarize & extend and apply new knowledge 	<p style="font-size: 1.2em; margin: 0;">ALL MEANS ALL</p> <p style="font-size: 1.2em; margin: 0;">A GUIDE TO</p> <p style="font-size: 1.2em; margin: 0;">RESEARCH-BASED</p> <p style="font-size: 1.2em; margin: 0;">LEARNING</p>	
<p>Authentic Literacy Lessons</p> <ul style="list-style-type: none"> ~Read: Close reading of a text, articles, books in all content areas ~Annotate: Purposefully interacting with the text ~Discuss: Making connections, questioning, citing evidence, debating ~Write: Facilitates free and creative thinking, applying new vocabulary; requires specific feedback 		
<p>Framework for Instructional Planning:</p> <ul style="list-style-type: none"> ~ Establishing and sharing clear learning goals ~ Creating an Environment for Learning- <i>provide students' context for for learning; check for and build background knowledge</i> ~ Helping Students Develop Understanding – <i>guide students in discovering and developing understanding</i> ~ Helping Students Extend and Apply Knowledge – <i>closure that requires each student to do something with and reflect on their understandings</i> 		

UNPACKING THE ESSENTIAL SKILLS OF STANDARDS

LEVEL OF COMPLEXITY	KEY VERBS THAT MAY CLUE LEVEL		EVIDENCE OF DOK
<p>Level 1 Recall/Reproduction Recall a fact, information, or procedure. Process information on a low level.</p> <p>Bloom <i>Know/Remember</i> The recall of specifics and universals, involving little more than bringing to mind the appropriate material.</p> <p><i>Comprehend/Understand</i> Ability to process knowledge on a low level such that the knowledge can be reproduced or communicated without a verbatim repetition.</p>	Arrange Calculate Cite Define Describe Draw Explain Give examples Identify Illustrate Label Locate List Match	Measure Name Perform Quote Recall Recite Record Repeat Report Select State Summarize Tabulate	<ul style="list-style-type: none"> ● Explain simple concepts or routine procedures ● Recall elements and details ● Recall a fact, item or property ● Conduct basic calculations ● Order rational numbers ● Identify a scientific representation for simple phenomena ● Label locations ● Describe the features of a place or people ● Identify figurative language in a reading passage
<p>Level 2 Skill/Concept Use information or conceptual knowledge, two or more steps</p> <p>Bloom <i>Apply</i> Uses information in another familiar situation. Executes – carries out a procedure in a familiar task Implements – uses a procedure in an unfamiliar task</p>	Apply Calculate Categorize Classify Compare Compute Construct Convert Describe Determine Distinguish Estimate Explain Extend Extrapolate Find Formulate	Generalize Graph Identify patterns Infer Interpolate Interpret Modify Observe Organize Predict Relate Represent Show Simplify Solve Sort Use	<ul style="list-style-type: none"> ● Solve routine multiple-step problems ● Describe non-trivial patterns ● Interpret information from a simple graph ● Sort objects ● Show relationships ● Apply a concept ● Organize, represent and interpret data ● Use context clues to identify the meaning of unfamiliar words ● Describe the cause/effect of a particular event ● Predict a logical outcome ● Identify patterns in events or behavior

UNPACKING THE ESSENTIAL SKILLS OF STANDARDS

LEVEL OF COMPLEXITY	KEY VERBS THAT MAY CLUE LEVEL		EVIDENCE OF DOK
<p>Level 3 Strategic Thinking Requires reasoning, developing a plan or a sequence of steps, some complexity</p> <p>Bloom <i>Analyze</i> Breaking information into parts to explore understanding and relationships.</p> <p><i>Evaluate</i> Checks/Critiques – makes judgements based on criteria and standards</p>	Appraise Assess Cite evidence Check Compare Compile Conclude Contrast Critique Decide Defend Describe Develop Differentiate Distinguish	Examine Explain how Formulate Hypothesize Identify Infer Interpret Investigate Judge Justify Reorganize Solve Support	<ul style="list-style-type: none"> ● Solve non-routine problems ● Interpret information from a complex graph ● Explain phenomena in terms of concepts ● Support ideas with details and examples ● Develop a scientific model for a complex situation ● Formulate conclusions from experimental data ● Compile information from multiple sources to address a specific topic ● Develop a logical argument ● Identify and then justify a solution ● Identify the author's purpose and explain how ● Identify the author's purpose and explain how it effects the interpretation of a reading selection
<p>Level 4 Extended Thinking Requires an investigation, time to think and process multiple conditions of the problem. Most on-demand assessments will not include Level 4 activities</p> <p>Bloom <i>Synthesize</i> Putting together elements and parts to form a whole</p> <p><i>Evaluation</i> Making value judgements about the method</p>	Appraise Connect Create Critique Design Judge Justify Prove Report Synthesize		<ul style="list-style-type: none"> ● Design and conduct an experiment that requires specifying a problem, report results/solutions ● Synthesize ideas into new concepts ● Critique experimental designs ● Design a mathematical model to inform and solve a practical or abstract situation ● Connect common themes across texts from different cultures ● Synthesize information from multiple sources

It's All About the Second Question



What if...?	Is _____ the reason for _____?
I wonder why _____?	Can...?
If...?	Would you rather...?
What is it that...?	What would it take to...?
When is it...?	Why is it that...?
Who could...?	Would _____ be possible if...?
How is _____ like _____?	Is it possible to...?
When is...?	Could...?
What could happen if...?	How can...?
If it were possible...?	What is your opinion about...?
Are there...?	Is it right to...?
Why is...?	I wonder when...?
How...?	I'm wondering if...?
Where did...?	How could it...?
Do you...?	Why are...?
Does it matter if...?	If it _____, could _____?
When is it...?	What can...?
Can you think of an example that is not ...?	

The impact of a first question can be enriched by following with:

"How do you know?"
"What makes you say that?"

DOK SAMPLES BY CONTENT AREA - ELA

ELA - READING

DOK 1

- Support ideas by reference to verbatim or only slightly paraphrased details from the text.
- Use a dictionary to find the meanings of words.
- Recognize figurative language in a reading passage.

DOK 2

- Use context cues to identify the meaning of unfamiliar words, phrases, and expressions that could otherwise have multiple meanings.
- Predict a logical outcome based on information in a reading selection.
- Identify and summarize the major events in a narrative

DOK 3

- Explain or recognize how the author's purpose affects the interpretation of a reading selection.
- Summarize information from multiple sources to address a specific topic.
- Analyze and describe the characteristics of various types of literature.

DOK 4

- Analyze and synthesize information from multiple sources.
- Examine and explain alternative perspectives across a variety of sources.
- Describe and illustrate how common themes are found across texts from different cultures

ELA -WRITING

DOK 1

- Use punctuation marks correctly.
- Identify Standard English grammatical structures, including the correct use of verb tenses.

DOK 2

- Construct or edit compound or complex sentences, with attention to correct use of phrases and clauses.
- Use simple organizational strategies to structure written work.
- Write summaries that contain the main idea of the reading selection and pertinent details.

DOK 3

- Support ideas with details and examples.
- Use voice appropriate to the purpose and audience.
- Edit writing to produce a logical progression of ideas

DOK 4

- Write an analysis of two selections, identifying the common theme and generating a purpose that is appropriate for both.

DOK SAMPLES BY CONTENT AREA - MATH

DOK 1

- Recall or recognize a fact, definition, or term
- Apply a well-known algorithm
- Apply a formula
- Determine area or perimeter of rectangles or triangles given a drawing and labels
- Identify a plane or three-dimensional figure
- Measure a length
- Perform a specified or routine procedure
- Evaluate an expression
- Solve a one-step word problem
- Retrieve information from a table or graph
- Recall, identify, or make conversions between and among representations or numbers (fractions, decimals, and percents), or within and between customary and metric measures
- Locate numbers on a number line, or points on a coordinate grid
- Solves linear equations
- Represent math relationships in words, pictures, or symbols

DOK 2

- Classify plane and three-dimensional figures
- Interpret information from simple graph
- Use models to represent mathematical concepts
- Solve a routine problem requiring multiple steps, or the application of multiple concepts
- Compare figures or statements
- Compare and contrast figures
- Provide justifications for steps in a solution process
- Extend a pattern
- Retrieve information from a table, graph, or figure and use it solve a problem requiring multiple steps
- Translate between tables, graphs, words and symbolic notation
- Select a procedure according to criteria and perform it

DOK 3

- Interpret information from a complex graph
- Explain thinking when more than one response is possible
- Make and/or justify conjectures
- Develop logical arguments for a concept
- Use concepts to solve problems
- Perform procedure with multiple steps and multiple decision points
- Generalize a pattern
- Describe, compare, and contrast solution methods
- Formulate a mathematical model for a complex situation
- Provide mathematical justifications
- Solve a multiple- step problem, supported with a mathematical explanation that justifies the answer
- Formulate an original problem, given a situation

DOK 4

- Relate mathematical concepts to other content areas
- Relate mathematical concepts to real-world applications in new situations
- Apply a mathematical model to illuminate a problem, situation
- Conduct a project that specifies a problem, identifies solution paths, solves the problem, and reports results
- Design a mathematical model to inform and solve a practical or abstract situations

NOTE: Level 4 requires applying one approach among many to solve problems. Involves complex restructuring of data, establishing and evaluating criteria to solve problems.

DOK SAMPLES BY CONTENT AREA – SCIENCE

DOK 1

- Recall or recognize a fact, term, definition, simple procedure (such as one step), or property
- Demonstrate a rote response
- Use a well-known formula
- Represent in words or diagrams a scientific concept or relationship
- Provide or recognize a standard scientific representation for simple phenomenon
- Perform a routine procedure, such as measuring length
- Perform a simple science process or a set procedure (like a recipe)
- Perform a clearly defined set of steps
- Identify, calculate, or measure

NOTE: If the knowledge necessary to answer an item automatically provides the answer, it is a Level 1

DOK 2

- Specify and explain the relationship between facts, terms, properties, or variables
- Describe and explain examples and nonexamples of science concepts
- Select a procedure according to specified criteria and perform it
- Formulate a routine problem given data and conditions
- Organize, represent, and compare data
- Make a decision as to how to approach the problem
- Classify, organize, or estimate
- Compare data
- Make observations
- Interpret information from a simple graph
- Collect and display data

NOTE: If the knowledge necessary to answer an item does not automatically provide the answer, then the item is at least a Level 2. Most actions imply more than one step. NOTE: Level 3 is complex and abstract. If more than one response is possible, it is at least a Level 3 and calls for use of reasoning, justification, evidence, as support for the response.

DOK 3

- Interpret information from a complex graph (such as determining features of the graph or aggregating data in the graph)
- Use reasoning, planning, and evidence
- Explain thinking (beyond a simple explanation or using only a word or two to respond)
- Justify a response
- Identify research questions and design investigations for a scientific problem
- Use concepts to solve non-routine problems/more than one possible answer
- Develop a scientific model for a complex situation
- Form conclusions from experimental or observational data
- Complete a multi-step problem that involves planning and reasoning
- Provide an explanation of a principle
- Justify a response when more than one answer is possible
- Cite evidence and develop a logical argument for concepts
- Conduct a designed investigation
- Research and explain a scientific concept
- Explain phenomena in terms of concepts.

DOK 4

- Select or devise an approach among many alternatives to solve problem
- Based on provided data from a complex experiment that is novel to the student, deduct the fundamental relationship between several controlled variables.
- Conduct an investigation, from specifying a problem to designing and carrying out an experiment, to analyzing its data and forming conclusions
- Relate ideas *within* the content area or *among* content areas
- Develop generalizations of the results obtained and the strategies used
- and apply them to new problem situations

NOTE: Level 4 activities often require an extended period of time for carrying out multiple steps; however, time alone is not a distinguishing factor if skills and concepts are simply repetitive over time.

DOK SAMPLES BY CONTENT AREA – HISTORY AND SOCIAL SCIENCE

<p>DOK 1</p> <ul style="list-style-type: none">● Recall or recognition of: fact, term, concept, trend, generalization, event, or document● Identify or describe features of places or people● Identify key figures in a particular context● Describe or explain: who, what, where, when● Identify specific information contained in maps, charts, tables, graphs, or drawings	<p>DOK 2</p> <ul style="list-style-type: none">● Describe cause-effect of particular events● Describe or explain how (relationships or results), why, points of view, processes, significance, or impact● Identify patterns in events or behavior● Categorize events or figures in history into meaningful groups● Identify and summarize the major events, problem, solution, conflicts● Distinguish between fact and opinion● Organize information to show relationships● Compare and contrast people, events, places, concepts● Give examples and non-examples to illustrate an idea/concept
<p>DOK 3</p> <ul style="list-style-type: none">● Explain, generalize, or connect ideas, using supporting evidence from a text/source● Apply a concept in other contexts● Make and support inferences about implied causes and effects● Draw conclusion or form alternative conclusions● Analyze how changes have affected people or places● Use concepts to solve problems● Analyze similarities and differences in issues or problems● Propose and evaluate solutions● Recognize and explain misconceptions related to concepts	<p>DOK 4</p> <ul style="list-style-type: none">● Analyze and explain multiple perspectives or issues within or across time periods, events, or cultures● Gather, analyze, organize, and synthesize information from multiple (print and non-print) sources● Make predictions with evidence as support● Plan and develop solutions to problems● Given a situation/problem, research, define, and describe the situation/problem and provide alternative solutions● Describe, define, and illustrate common social, historical, economic, or geographical themes and how they interrelate

DOK 3 Strategic Thinking & Reasoning

Tasks and classroom discourse falling into this category demand the use of planning, reasoning, and higher order thinking processes, such as analysis and evaluation, to solve real-world problems or explore questions with multiple possible outcomes. **Stating one's reasoning and providing relevant supporting/ evidence are key markers of DOK 3 tasks.** The expectation established for tasks at this level require an in-depth integration of conceptual knowledge and multiple skills to reach a solution or produce a final product. DOK 3 tasks and classroom discourse focus on in-depth understanding of one text, one data set, one investigation, or one key source, whereas DOK 4 tasks expand the breadth of the task using multiple texts or sources, or multiple concepts/disciplines to reach a solution or create a final product.

DOK 3 Verb Clues

Critique, appraise, revise for meaning, assess, investigate, cite evidence, test hypothesis, develop a logical argument, use concepts to solve non-routine problems, explain phenomena in terms of concepts, draw conclusions based on data

DOK 3 Teacher Role

Questions to probe reasoning and underlying thinking, asks open-ended questions, acts as a resource and coach, provides criteria and examples for making judgments and supporting claims, encourages multiple approaches and solutions; determines when/where (text, concept) depth and exploration is most appropriate

DOK 3 Student Role

Uncovers and selects relevant and credible supporting evidence for analyses, critiques, debates, claims and judgments; plans, initiates questions, disputes, argues, tests ideas/solutions, sustains inquiry into topics or deeper problems, applies to the real world

DOK 3 Possible Products

- | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • Complex Graph • Set up a database • Conduct or critique a designed investigation • Video cast or podcast • Analyze survey result | <ul style="list-style-type: none"> • Debate from a given perspective • Develop storyboard for film or cartoon animation • Multi-paragraph essay or short story • Design a webpage | <ul style="list-style-type: none"> • Literary critique • Play, book, music, or movie review • Informational report with several subtopics • Fact-based argument (Is this criticism supported by the historical facts) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

DOK 3 Potential Activities

- | | |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • Analyze results of a questionnaire or survey (e.g., survey classmates/ | <ul style="list-style-type: none"> • Solve complex, non-routine problems that draw upon multiple skills, concepts, and processes |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|

<ul style="list-style-type: none"> ● industry members to find out what they think about a current issue) ● Prepare an informational report about an area of study ● Write a letter to the editor after evaluating a product ● Prepare for and participate in a debate ● Use evidence to generate criteria for making judgments ● Make a booklet or brochure about a topic, organization, or issue ● Participate on a panel to discuss differing viewpoints on... 	<ul style="list-style-type: none"> ● Write an essay, short story, poem, or play ● Create complex graphs or databases where reasoning and approach to data organization is not obvious ● Design, conduct, or critique an investigation to answer a research question ● Propose an alternate solution to a problem studied ● Prepare a speech to support your perspective about ... ● Explain and apply abstract terms and concepts to real-world situations
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DOK 3 Potential Questions

<ul style="list-style-type: none"> ● What are the possible design flaws in ...? ● What is the theme/the lesson learned ... ? ● How would the theme change if ...? ● What underlying bias is there ... ? ● What inferences will these facts support ..? ● How does the author create tension/suspense...? ● What is the author's chain of reasoning or point of view for ...? ● How is ___ related to ___? ● What conclusions can you draw ___? ● How would you adapt___ to create a different___? ● How would you test___? ● Can you predict the outcome if___? ● What is the best answer? Why? ● What conclusion can be drawn from these three texts? ● What is your interpretation of this text? Support your rationale. 	<ul style="list-style-type: none"> ● What is the impact on the reader /viewer for use of this (rhetorical device, analogy, figurative language use, visual image, etc.)? ● What conclusions can you draw ... ? ● How can you prove that your solution or estimate is reasonable? ● What evidence can you find to support ... ? ● What ideas justify this position ... ? ● How would you describe the sequence of___? ● What facts would you select to support___? ● Can you elaborate on the reason___? ● What would happen if___? ● Can you formulate a theory for___? ● How would you test___? ● Can you elaborate on the reason___?
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DOK 3 Content Specific aligned to Bloom's Taxonomy (source: Hess)

Revised Bloom's Taxonomy	ELA and Social Studies	Math and Science
REMEMBER	Not Applicable	Not Applicable


<p>Retrieve knowledge from long-term memory, recognize, recall, locate, identify</p>		
<p>UNDERSTAND Construct meaning, clarify, paraphrase, represent, translate, illustrate, give examples, classify, categorize, summarize, generalize, infer a logical conclusion, predict, compare/contrast, match like ideas, explain, construct models</p>	<ul style="list-style-type: none"> ● Explain, generalize, or connect ideas using supporting evidence (e.g., quote, example, text reference) ● Identify/make inferences about explicit or implicit themes ● Describe how word choice, point of view, or bias may affect the readers' interpretation of a text ● Write multi-paragraph composition for specific purpose, focus, voice, tone & audience 	<ul style="list-style-type: none"> ● Use concepts to solve non-routine problems ● Explain, generalize, or connect ideas using supporting evidence ● Make and justify conjectures ● Explain thinking when more than one response/solution is possible ● Explain phenomena in terms of concepts
<p>APPLY Carry out or use a procedure in a given situation, carry out (apply) to a familiar task, or use (apply) to an unfamiliar task</p>	<ul style="list-style-type: none"> ● Apply a concept in a new context ● Revise final draft for meaning or progression of ideas ● Apply internal consistency of text organization and structure composing a full composition ● Apply word choice, point of view, style to impact readers'/viewers' interpretation of a text 	<ul style="list-style-type: none"> ● Design investigation for a specific purpose or research question ● Conduct a designed investigation ● Use concepts to solve non-routine problems ● Use and show reasoning, planning, and evidence ● Translate between problem & symbol notation when not a direct translation
<p>ANALYZE Break into constituent parts, determine how parts relate, differentiate between relevant-irrelevant, distinguish, focus, select, organize, outline, find coherence, deconstruct (e.g. For bias or point of view)</p>	<ul style="list-style-type: none"> ● Analyze information within a text or source ● Analyze interrelationships among concepts, issues, problems ● Analyze or interpret author's craft (literary devices, viewpoint, or potential bias) to create or critique a text or to support text interpretations ● Use reasoning and evidence to generate criteria for making and supporting an argument of judgment (e.g., Was FDR a great 	<ul style="list-style-type: none"> ● Compare information within data sets or texts or across related data sets ● Analyze and draw conclusions from data, citing evidence ● Generalize a pattern ● Interpret data from complex graph ● Analyze similarities/differences between research procedures or solutions

	president? Who was the greatest ball player?)	
EVALUATE Make judgments based on criteria, check, detect, inconsistencies, or fallacies, judge, critique	<ul style="list-style-type: none"> • Cite evidence and develop a logical argument for conjectures • Describe, compare, and contrast solution methods • Verify reasonableness of results • Justify or critique conclusions drawn 	<ul style="list-style-type: none"> • Cite evidence and develop a logical argument for concepts or solutions • Describe, compare, and contrast solution methods • Verify reasonableness of results
CREATE Reorganize elements into new patterns/structures, generate, hypothesize, design, plan, produce	<ul style="list-style-type: none"> • Synthesize information within one source or text • Develop a complex model for a given situation • Develop an alternative solution 	<ul style="list-style-type: none"> • Synthesize information within one data set, source or text • Formulate an original problem given a situation • Develop a scientific/mathematical model for a complex situation

DIFFERENTIATION CHART

MULTIPLE STRATEGIES TO REACH EACH STUDENT

<p>Musical/Rhythmic</p> <p>Sing it Create a beat Rap it Make a cheer Create a jingle Hum it Identify sounds React to sounds Listen to sounds Connect to music Write a poem</p>	<p>Verbal/Linguistic</p> <p>Read it Spell it Write it Listen to it Tell it Recall it Use "you" words Apply it Chunk information Say it Use mnemonics</p>	<p>Logical/Mathematical</p> <p>Make a pattern Chart it Sequence it Create a mnemonic Analyze it Think abstractly Think critically Use numbers Prove it Interpret the data Use the statistics</p>	<p>Visual/Spatial</p> <p>Mind maps Graphic organizers Video Color code Highlight Shape a word Interpret a graphic Read a chart Study illustrations Visualize it Make a chart Create a poster</p>
<p>Body/Kinesthetic</p> <p>Role play Walkabout Dance Lip sync Skits/charades/mimes Construction Math manipulatives Sign language Sports Activity centers Body language</p>	<p>Intrapersonal</p> <p>Metacognition Use self-talk Work independently Solve in your own way Understand self Journal it Rehearse it Use prior knowledge Connect it Have ownership</p>	<p>Interpersonal</p> <p>Think-Pair-Share Jigsaw Cooperative grouping Drama Debates Class meetings Role play Meeting of minds Peer counseling Tutors/buddies Giving feedback Shared Journals</p>	<p>Naturalist</p> <p>Label it Categorize it Identify it Form a hypothesis Do an experiment Adapt it Construct it Classify it Investigate it Discern patterns</p>

Headlines 

Topic:

If you were to write a headline for this topic or issue right now that captured the most important aspect that should be remembered, what would that headline be?

Explain why you selected this headline.

How has your headline changed based on today's discussion?

How does it differ from what you would have said yesterday? If you chose to keep your headline, explain your thinking.

Fan the Cards

Coach and Compliment

Choose a Card

Answer the Question

Fan and Pick

Thinking Routine	Five 5 Cs	RBIS	Action
Word Splash	CRI, COM	CEL, DU	Interpret, Analyze, Explain, Generalize
Spin the Word	CRE	CL, EAK	Interpret, Design, Create, Persuade
Things Associated With	COL, COM	CEL, C4U	Explain, Analyze, Describe, Create
Zoom In	CRI, CRE	CEL, DU	Analyze, Interpret, Cite Evidence
Cooperative Problem Solving Trio, Quad	COL, COM, CRI	EAK, CL	Discuss, Propose, Solve, Collaborate
Micro Lab	COL	EAK	Predict, Explore, Collect Evidence
Genius Hour	CRE, COM, CRI	EAK	Plan, Persuade, Justify, Create
Jigsaw	COL, COM, CIT	DU, C4U	Analyze, Explain, Design, Create
What I Know About	COM, CRI, CRE	CEL	Summarize, Validate, Explain
Red Light-Yellow Light	CRI	DU, CL	Clarify, Summarize, Express, Describe
Think Puzzle Explore	CRI, CRE, CIT	C4U, CL	Explain, Plan, Collect evidence
3-2-1 Bridge	CRE, CRI	CEL, C4U, CL	Analyze, Interpret, Combine, Create
The Explanation Game	CRE, CRI	CL, EAK	Hypothesize, Explain, Justify, Infer,
Reporter's Notebook	CIT, CRI	C4U, CL, EAK	Summarize, Describe
Walk a Mile in My Shoes	CIT, CRI	DU, CL, EAK	Hypothesize, Infer, Explain
Thinking Explosion	CRE, COM, CRI	EAK	List, Decide, Analyze, Create
Y Chart	CRE, CRI	CEL, C4U	Identify, Analyze, Explain, Defend
Cube It	CRI, CRE	CL, EAK, DIF	Describe, Analyze, Apply, Create
What's My Rule	CRI	DU, C4U	Predict, Defend, Conceptualize
Tug of War	CIT, CRE	EAK	Hypothesize, Defend, Prioritize
Compass Points	CRI, CIT	EAK	Describe, Explain, Plan, Summarize
What Makes You Say That	CRI, CRE, COM	DU, EAK, CL	Explain, Defend, Justify
Headlines	CRE, CRI, COM,	CL, DIF	Summarize, Create
Think Pad	COL, CIT	C4U	Hypothesize, Explain, Justify
RAFT	CRE, COL	CL, DIF	Apply, Create
Diamond Board Diamond Board Slides			
Think, Pair, Share			

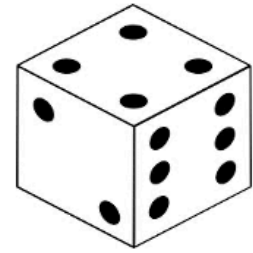
Legend: 5Cs

CRI	Critical Thinking	CRE	Creative Thinking	COL	Collaboration
CIT	Citizenship	COM	Communication		

Legend: RBIS

CEL	Creating an Environment for Learning (opening)
DU	Helping Students Develop Understanding (teaching without telling)
CL	Student-Centered Closure
C4U	Checking for Understanding (minimally every 9 minutes)
EAK	Helping Students Extend and Apply Knowledge
DIF	Differentiation (based on readiness or to vary context)

LET'S CUBE IT!



TEAM NAME: _____

TOPIC: _____

1. DESCRIBE IT: *What is it?*

WORDS...	IMAGE...
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2. EXPLAIN IT: *HOW WOULD YOU MAKE IT CLEARER FOR SOMEONE TO UNDERSTAND IT?*

WORDS...	IMAGES...
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3. APPLY IT: *WHAT DOES IT MAKE YOU THINK OF? WHAT CAN YOU DO WITH IT?*

WORDS...	IMAGES...
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4. ANALYZE IT: *WHAT ARE ITS ESSENTIAL PARTS? HOW IS IT MADE? WHAT IS IT COMPOSED OF?*

WORDS...	IMAGES...
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5. JUDGE IT: *ARGUE FOR OR AGAINST IT. SUPPORT YOUR THINKING.*

WORDS...	IMAGES...
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6. CREATE WITH IT: *WHAT IS SOMETHING YOU CAN DO WITH IT?*

WORDS...	IMAGES...
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