

Improving Critical Thinking and Questioning in the Content Areas



INSTRUCTIONAL LEADERSHIP
IN THE 21st CENTURY
TEACHING BEGINS WITH
THE LEARNER

March 21, 2019
Provo, Utah

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For me...

PROMOTING CRITICAL THINKING ACROSS CONTENT AREAS
THROUGH INQUIRY & EFFECTIVE QUESTIONING

A. Identify topic, purpose, process, and decide intentional or spontaneous wording

B. Scaffold questions, be intentional with purpose driven models and types:

- Blooms; Webb's DOK; Hess' Cognitive Rigor Matrix; de Bono's Six Hats; Eberle's SCAMPER; Wiggins & McTighe's Essential Questions & Six Facets of Understanding; Alexander's Dialogic Teaching, Socratic
- Open-ended and Closed (specific answer); Probing; Funneling (general to greater detail) Leading; Rhetorical, Inquiry
- Scaffold to give parts of answers to build info until student can answer.
- Involve other students in building information through Q&A, A&Q & circle back to student
- Teach students to ask questions with intentional approaches, strategies, games, structures

C. Utilize wait time

Wait time increases: student response length, student confidence, response variety, creativity of responses, weaker student input

- Time: 3-5 seconds
- Tools: Card codes: duo/multi; Toss; Timer toss

D. Use questions as a re-engagement strategy

- Think about it
- Reflective minute
- Find or create an example
- What is the next step? Justify

E. Extend the quality of questions: reroute, ramp up, rally

Reroute dead end questions to specific closed or open ended questions.

- Any questions? / Any question about _____?
- Everyone get it? / Everyone get the points about _____?
- Understand? / Understand _____?
- Want me to go over it again? / Want me to go over _____ again?

Ramp up low level questions:

- Define.../ Explain in your own words (paraphrase)...
- Give an example of... / Give an example and explain why that is a good example
- Tell difference between / Compare and explain pros and cons of each; which is better and why
- Yes-No; True-False; single word answer / Justify; correct; support with evidence; elaborate with reasoning
- Ramp up phrases: Tell me more; How did you...; What were your insights that helped derive your answer; what steps and why; Elaborate so others can reflect and check their thinking; justify

Rally questions from students:

- Students ask students
- Teacher gives answer students form question
- Students answer student and form new question

PLANNING EFFECTIVE QUESTIONING

1. Purpose for question?
2. Response format? (oral, written, both)
3. Response strategy? (tool, game, individual or combined)
4. Plan question. (clear, terminology & grammar, heard and understood?)
5. Time & response ability

HOT STEPS FOR CAMPUS COORDINATION AND SPIRALING

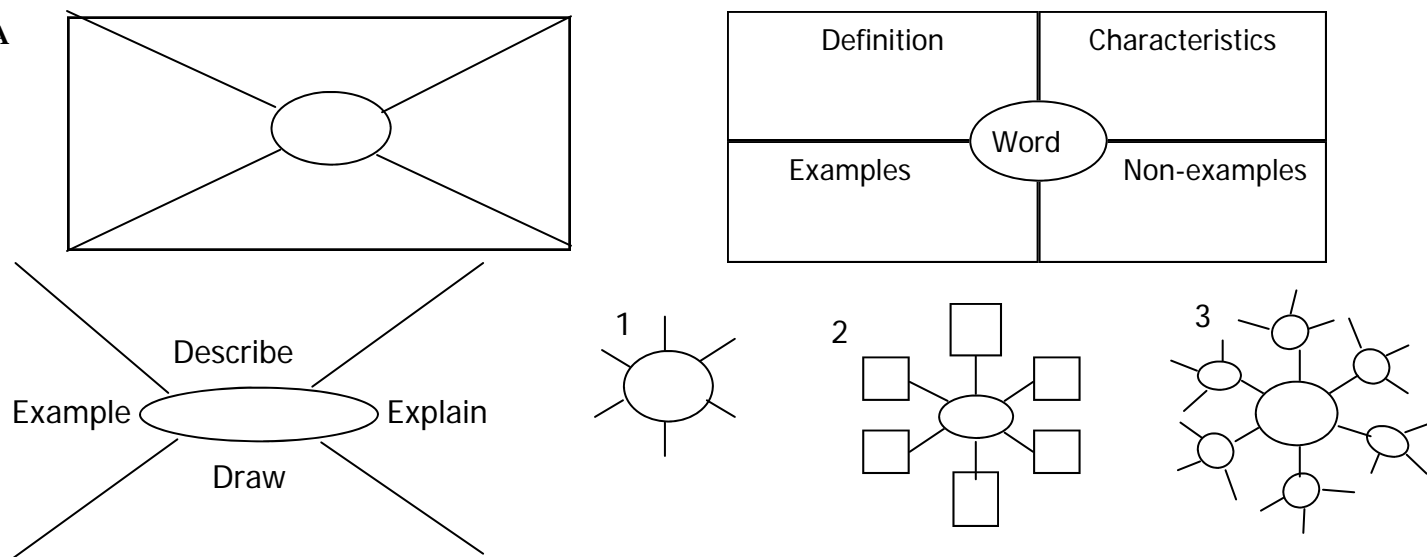
1.

2.

3.

4.

A



Consider: synonyms, antonyms, personal connection, prior knowledge connection, example, non-example, characteristic, picture, definition, sentence, places, people, things, pros, cons, causes, effects...Consider tiering & varying: word in center, amount of criteria to find, which criteria to find, what to do with vocabulary web when complete

B

Using pictures, descriptions, procedures from two texts identify:

Basic similarities & differences. What's the same? Different?

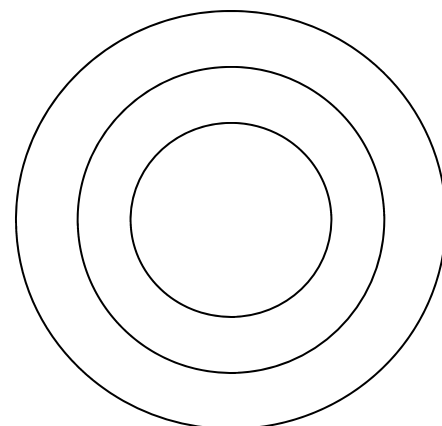
What are the most important points in the texts? How are they the same? Different?

	Picture/Text 1: _____		Picture/Text 2: _____	

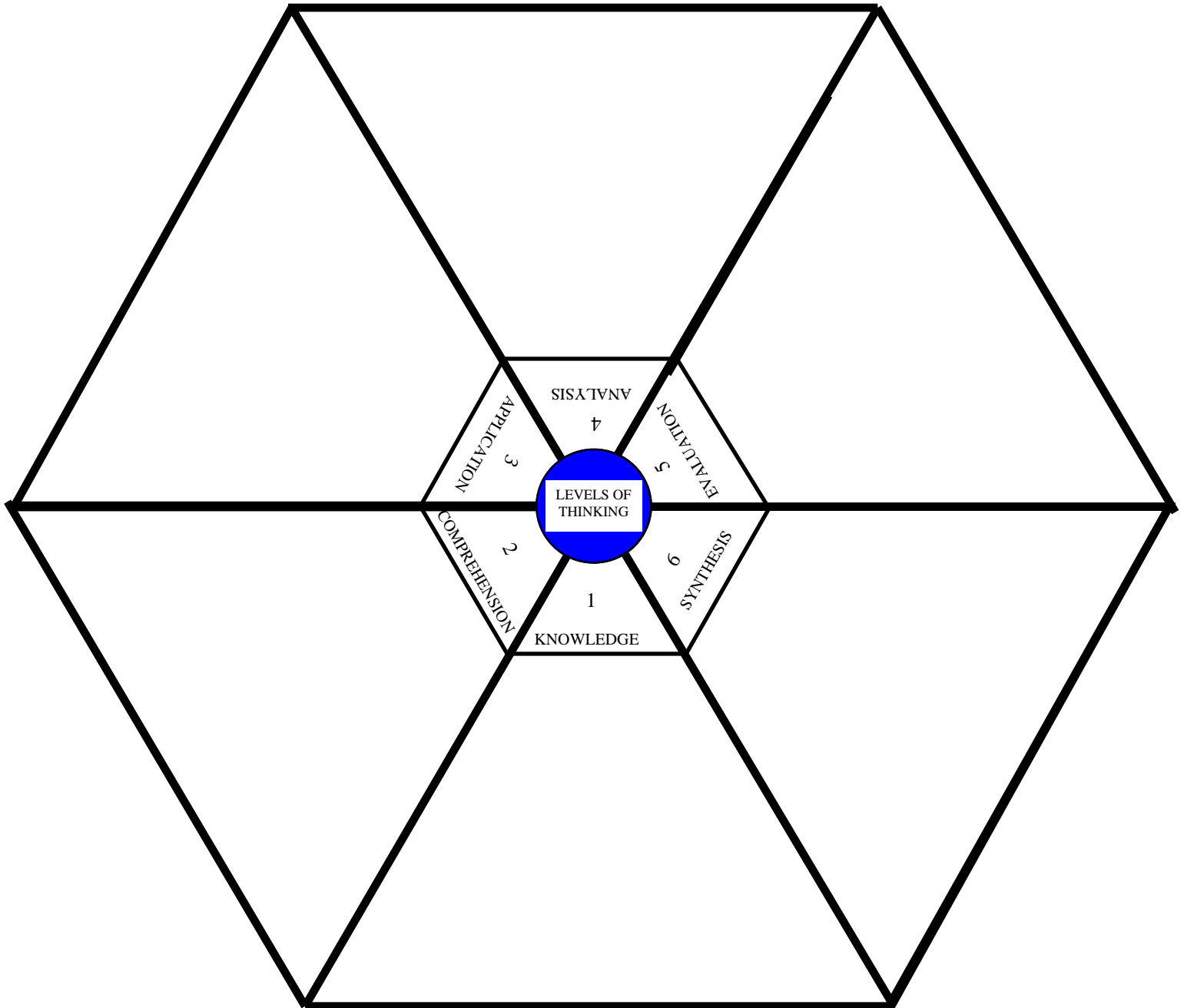
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Word splash	Word splash

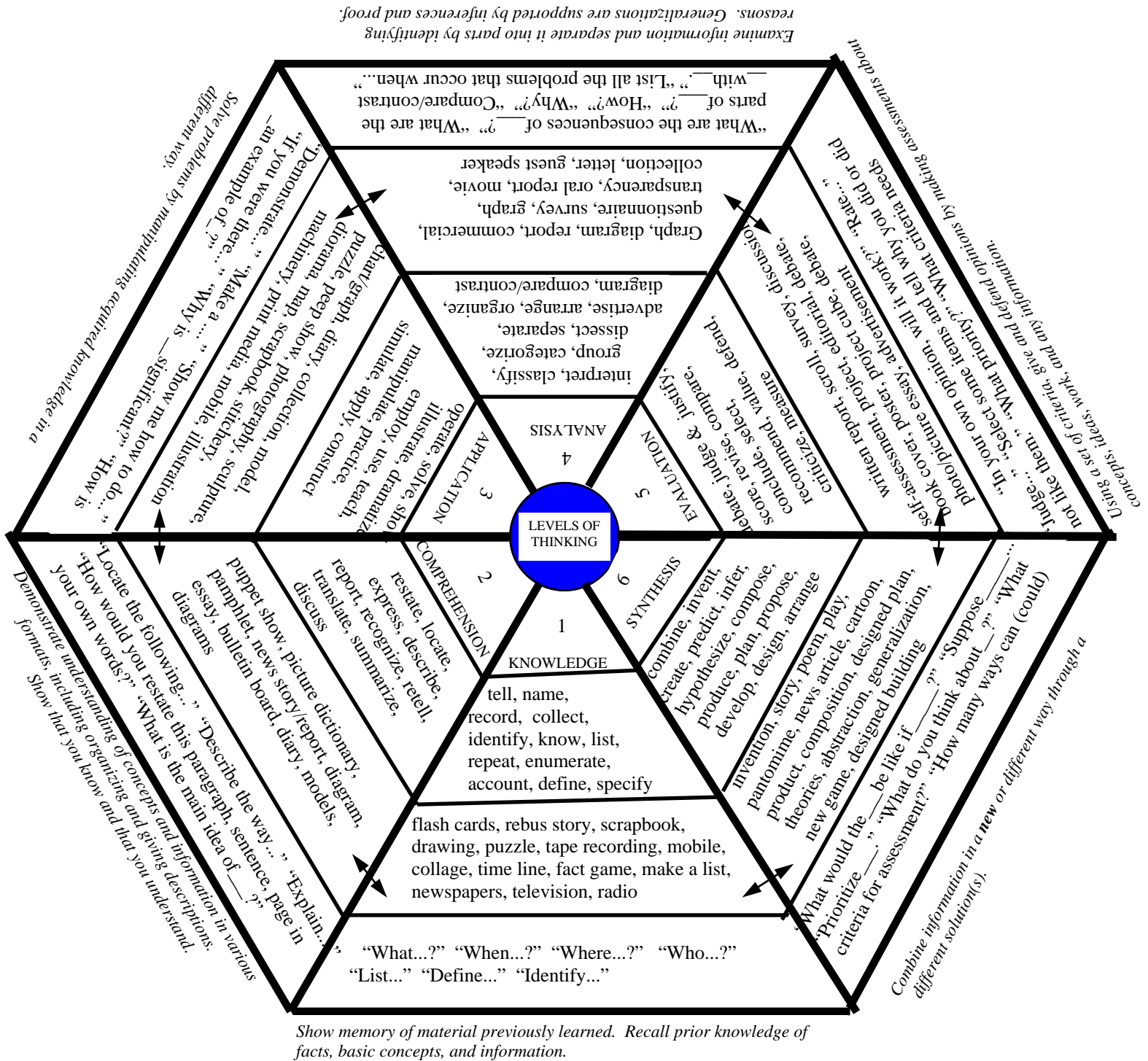
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H.O.T. WHEEL



H.O.T. WHEEL



H.O.T. QUESTIONING & CRITICAL THINKING

build, pretend, create, plan, invent, combine, develop, design, arrange. What would happen if...?; Can you predict ___? What would the ___ be like if ___? Suppose ... Prioritize... What do you think about ___? How many new ways can you? Construct a model that synthesizes information. What would happen if? What alternatives are there? What if someone ___? Imagine that ___. Can you invent ___? Can you predict the outcome of ___? Can you construct a model that would change...? What changes would you make to solve...? Can you think of an original way for the...? How would you test...?

SYNTHESIS PREDICT

*Use previously established ideas to
create NEW ideas*

measure, rate, select, judge, score, evaluate, conclude, prove, estimate. What would you choose?; Why was it better that...? In your opinion will it work? How? Select some items and tell why you did or did not like them. How would you prioritize...? Why do you agree or disagree? If ___ then ___. What is your opinion of ___? What choice would you have made? How would you justify? What would you select? What information would you use to support the view? How could you determine?

EVALUATION JUDGE AND JUSTIFY

Discriminate between ideas

group, separate, compare/contrast, divide, sort, look at, question, discover. Why do you think...?; Can you sort the parts? What are the consequences of...? What are the parts of ___? How? Why? Compare ___ with ___. Examine all of the problems that occur when ___. The best part ___. Can these be arranged this way? What evidence can you find...? What is the relationship between...? What inference or conclusion can you draw based on evidence? Can you make a distinction between ___? How would you classify ___? How would you categorize ___? What is the function of ___? What motive?

ANALYSIS COMPARE OR CLASSIFY

See patterns, parts, hidden meanings

APPLICATION SHOW

Use information

solve, build, choose, plan, show, practice, use, make, try. Show me how to do...; How would you use ___? Demonstrate... Make a... If you were there... Why is ___ significant? How is ___ an example of ___? A way to ___ is ___. A connecting idea is ___. Is what you are saying ___? Could you clarify that comment? What examples can you find? How would you solve ___ using what you've learned? Can you make use of the facts to ___? What approach would you use to ___? What facts would you select to show?

COMPREHENSION DESCRIBE

Understand information

describe, compare, explain, retell, locate, discuss, rephrase, paraphrase, summarize. Can you explain what is happening?; What can you say about ___? Locate the following. Describe the way... How would you restate the rest of the paragraph, sentence, page in your own words? Can you explain what is happening? Which statements support? What can you say about?

KNOWLEDGE TELL

State information

know, relate, label, cite, tell, record, define, repeat, name, match, identify. What...? When...? Where...? Who...?; Can you list the three...? Define ___. Select... Which one? Can you recall?

MILD-TO-SPICY QUESTIONING



Mild

1. What is your opinion about _____?
Describe what you envision in your mind's eye from your reading.
Find an example to prove your belief _____.
2. Recall the steps to _____.
Find the meaning of _____.
What do you think will happen next?



Medium

3. How would the situation have changed if _____?
Create a flow map and design a different way to solve the problem.
What does the author want me to understand about _____?



Hot

4. Compare or contrast the effects caused from the _____.
List your reasoning for agreeing or disagreeing with the statement _____.
Summarize the passage in 10 words.
5. Based on what you know justify your opinion about _____.
Evaluate and explain the author's theory about _____.
Judge the value of _____.



6. I would rate _____ because _____.
Apply evidence from ____ to support your idea about _____.
What conclusions can you draw about _____? Defend your position.

CONTENT AREA CRITICAL THINKING

What does it say?	What does it mean?	What does it mean to me?

CONTENT AREA CLOSE READ FOR VOCABULARY & COMPREHENSION OF TEXT

<p>PHASE 1: WHAT DOES IT SAY? (Key Ideas & Details)</p> <p>General understanding:</p> <ul style="list-style-type: none"> • What can you infer from the title and headings? • Is it fiction or nonfiction? • What is the text about? • What is the general meaning of___? • What happened? Who? When? Where? How? • What does the author believe about _____? • 1 significant vocabulary word: • 1 significant phrase: • 1 significant idea: • What did the author consider _____? • 	<p>PHASE 2: WHAT DOES IT MEAN?? (Craft & Structure; vocabulary, text structure, text features)</p> <ul style="list-style-type: none"> • Why did the author use that word/phrase and what message was he trying to give about the _____? • What was the message the author was trying to get across about character traits? How were the characters used to deliver that message? • How did the mindsets of the characters impact the decisions they made? How did that impact the overall outcome? How were mindsets significant in the outcome? • How did what was happening in the world impact what the author was experiencing when the statement was made? Is the way the statement was made a reflection of the tone of the author as well as the time in history that it was made? • 	<p>PHASE 3: WHAT DOES IT MEAN TO ME? (Integration of knowledge and ideas; synthesize and analyze information from multiple sources)</p> <ul style="list-style-type: none"> • How does this quote impact your attitude toward_____? • What is the evidence on which you base your opinion? • How will specific character traits impact success? • How does mindset impact success? • What does that mean for you in choices you make? • What is similar in the two texts? What is similar between the text (s) and media? • What is different? Which text evidence supports the better approach or decision? •
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TAKING A CLOSE LOOK AT THE AMERICAN DREAM

PHASE 1:

WHAT DOES IT SAY?

General understanding:

What is the general meaning?

What does the author believe about America and being an American?

Key details:

Find 1 significant vocabulary word, 1 phrase, 1 idea

What did the author consider the American dream and was it a dream for all?

PHASE 2:

WHAT DOES IT MEAN??

Why did the author use that word/phrase and what message was he trying to give about the American dream?

How did what was happening in the world impact what the author was experiencing when the statement was made? Is the way the statement is made a reflection of the tone of the author as well as the time in history that it was made?

PHASE 3:WHAT DOES IT MEAN TO ME?

How does this quote impact your attitude toward America and the American dream?

What is the evidence on which you base your opinion?

There are those that will say that the liberation of humanity, the freedom of man and mind is nothing but a dream. They are right. It is the American Dream

1

Democracy is never a thing done. Democracy is always something that a nation must be doing. What is necessary now is one thing and one thing only that democracy become again democracy in action, not democracy accomplished and piled up in goods and gold.

What is freedom? Freedom is the right to choose: the right to create for oneself the alternatives of choice.

Archibald MacLeish (American Poet 1892-1982)

I look forward confidently to the day when all who work for a living will be one with no thought to their separateness as Blacks, Jews, Italians, or any other distinctions. This will be the day when we bring into full realization the American Dream... a dream yet unfulfilled. A dream of equality of opportunity, of privilege and property widely distributed, a dream of a land where men will not take necessities from the many to give luxuries to the few, a dream of a land where men will not argue that the color of a man's skin determines the content of his character; a dream of a nation where all our gifts and resources are held not for ourselves alone, but as instruments of service for the rest of humanity; the dream of a country where every man will respect the dignity and worth of the human personality ...

Dr. Martin Luther King, Jr. (1929-1968)

2

Being an American is so much more than just having citizenship. It's that beat in your heart to be free, to be your own man, to have control over your own destiny. America has always been an idea. It has nothing to do with papers, documents, or immigration laws. It has a lot to do with ideals and dreams.

3

Paul Cuadros (award winning investigative reporter; his family moved to US from Peru in 1960.)

TWO COLUMN CRITICAL THINKING & PROCESSING

is/is not; if/then; fact/opinion; question/answer; answer/question; cause/effect;
problem/solution; effort/result; character traits & accomplishments; thinking/behavior

text/text notes; text/graphic organizer; word/symbol; text/picture; quote/paraphrase;
statistic/opinion; term/vocabulary web; text/inferences; text/evidence; picture/text

CLOSE READING

Read for general meaning, then look for key ideas & details, then develop a deeper understanding. Use picture books, books, poetry, fiction or informational text. Question answering & asking; comprehension of text with retelling & recounting the text; characters & story elements; textual support: prove it; back it up : Main Idea & Supporting Details. What they do, say, think, say about others, treat others, respond.

- 1st phase key ideas & details: overall comprehension (look at pictures, text structure, general understanding with textual evidence) What are the key ideas? What can you infer from the title, heading,? Who, what, when, where, how?
 - 2nd phase craft and structure: pull things out of text or pictures (key ideas & details) Retelling & recounting text: Intro character(s): who, setting: where, when; problem & steps to solve, major events, how problem is solved, ending; understanding genre, vocabulary; interpret words and phrases as they are used in text; What kind of text? Describe craft and structure. What is authors point of view? Your point of view?
 - 3rd phase Integration of knowledge and ideas: look for words, phrases (pictures) the author used to help reader get deeper understanding; greater vocabulary built from multiple exposures with critical thinking and inquiry; deep thoughts using context. How did author use elements to send message? Compare various versions and tell how they connect to theme, mood?
1. What words/phrases/pictures make us see? Feel? Taste? Smell? Hear?
 2. What words/phrases did the author use to share information about the character?
 3. How did the illustrations show _____? What illustrations/words/phrases show _____'s point of view?
 4. Why would a person _____? When would a person not _____?
 5. I heard the word _____. I think I think it means _____ because _____.
 6. I read the word _____. I think it means _____ because _____.
 7. When the author said _____ the illustration showed this by _____.
 8. When the illustration showed _____ the author said _____.
 9. What did _____ do? Say? Think? Say about _____? Say about others?
 10. How did _____ treat others? Respond to difficulties? Feel about _____?
 11. What words seem unusual? Why?
 12. What does the author want me to understand? How do the words used help me to understand this?
 13. What is the author's background? Do you see if and how that impacts the text?
 14. Were there any words that could have more than one meaning? Why would the author have chosen to use multi-meaning words as they were used?
 15. Were any nonsense words or foreign language words used? What was the effect? What was the author's purpose in using those words?
 16. The author repeated words/phrases. Why? What effects do the repetitions have on the text?
 17. What is _____'s point of view about _____ at the beginning compared to the end? Where does the change of opinion occur? What evidence backs up the change in point of view?
 18. Do the words appear in an order that becomes more positive or negative? Increase or decrease? Did any words evoke specific emotions? How did the author use those words to bring about specific emotions?
 19. Did the author stop the action to have a reflection back in time? Why? What might have happened if the reflection had not been a part of the text?
 20. What type of text structure do you see? (description, compare/contrast, sequence, cause/effect, problem solving) How does that relate to the development of ideas?
 21. Faster or slower? What effect does that have?

RQ⁴U: REFLECTIVE QUESTIONING FOR YOU

1. **U face it:** Identify the situation.
2. **U own it:** Set goals to address personal responsibility for change.
3. **U fix it:** Determine steps and execute a plan.
4. **U check it:** Self-assess and celebrate or start again.

RQ⁴U TARGET GOAL SETTING

Name:

Date:

Target goal:

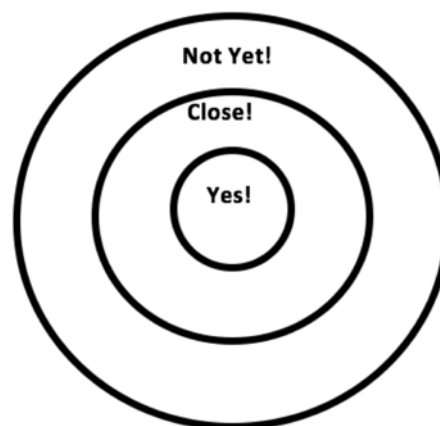
Evidence:

Steps to reach goal:

Did I succeed?

If the answer is yes, describe why.

If the answer is "I'm close," or "not yet," identify the next step for continual improvement.



RQ⁴U: SETTING A GOAL TO BE PREPARED: Case Study

STEP 1: U Face It—Identify the Situation

I didn't set a goal at all to be prepared for my test. I forgot about my test until the night before it was to be given and crammed to study as best I could without the resources or time that I needed. If I had set a goal and made a plan, I could have been prepared to do a great job. I didn't think about this being a major grade. I should have planned on when I could work on it from the day the test date was given and I could have planned to be prepared before the day it was due.

STEP 2: U Own It—Set Goals to Address Personal Responsibility for Change

I will set high goals, plan how to reach them, and review them at preset dates to make sure that I meet my goals as I work through tasks in preparation for my test. When I take a test, I will be ready to do my best.

STEP 3: U Fix It—Determine Steps and Execute a Plan

RQ⁴U TARGET GOAL

Name: Alex

Date: September 16

Target Goal

I will process my class notes every day from 20–30 minutes to learn as I go.

Evidence

I will have notes that I processed each day, a journal to show when I worked at home, and will be prepared to actually review what I know before a test. My grade will be higher and reflect that I learned the material well.

Steps to Reach Goal

1. I will spend 20–30 minutes a day reviewing my class notes.
2. I will highlight, put my notes in a graphic organizer, or draw a picture showing what my notes were about.
3. I will use my resources or ask the teacher when I have questions about each day's notes. When preparing for my test, I will review notes already processed and studied.

STEP 4. U Check It: Self-Assess and Celebrate or Start Again

Yes I was successful! I spent 20–30 minutes reviewing my notes. When I reviewed them, I processed and highlighted the information, created graphic organizers, and utilized two column notes in a variety of ways.

This helped me to learn the material and stay caught up with all information taught. I asked questions when I had them each day. When it was time to study for the test, I found I already knew most of the information and did not have to cram to learn tons of information at the last minute, only to find I couldn't remember it.

GOAL-GUIDE TEMPLATE

Reflective Questions

1. Did I set a goal and make a plan to reach my goal? If the answer is no, why not?
2. What might have happened if I had set a goal and made a plan to reach it?
3. Did I review my goal periodically and adjust according to what I found?
4. If I had a plan and my plan wasn't working, how could I readjust my plan to better reach my goal?
5. Did I reflect on the fact that the task was important and would require my best effort when the task was first given? Did I think about what might happen if I didn't give it my best effort?
6. How can I change my thinking and actions to set a goal, make plans to reach my goal and give my best effort rather than medium or little effort in the future?

RQ⁴U

1. **U face it:** Identify the situation.
2. **U own it:** Set goals to address personal responsibility for change.
3. **U fix it:** Determine steps and execute a plan
4. **U check it:** Self-assess and celebrate or start again.

Be sure to continually assess your situation as you proceed through each step of the process.

RQ⁴U TARGET GOAL SETTING

Name:

Date:

Target goal:

Evidence:

Steps to reach goal:

Did I succeed?

If the answer is yes, describe why.

If the answer is "I'm close," or "not yet," identify next step plan for improvement.

CRITICAL THINKING

	What does it say?	What does it mean?	What does it mean to me?
1 .			
2 .			
3 .			
4 .			

PLANNING PAGE

Name:

Date assigned:

Due Date:

Check Point Date(s):

- **Assignment**
- **Project**
- **Presentation**
- **Test**

Materials/Resources needed:

Research needed:

Individual, partner or group:

Tasks to be completed / Individual job assignments:

Work Effort, Initiative, Persistence, Resilience, Follow Through, Reflection, Communication

PRESENTATION PLANNING PAGE

Name:

Date Assigned:

Due Date:

Goals /objectives for presentation:

What do you want the audience to gain from the presentation?

Method(s) / mode(s) of presentation

Modes: technology, manipulative, visual aid, project, handout:

Partner/Group member & Responsibilities:

Material needs (including tech)

Date & item(s) to be checked out:

Work Effort, Initiative, Persistence, Resilience, Follow Through, Reflection, Communication

RQ⁴U: REFLECTION QUESTION CONNECTIONS

U FACE IT: Reflect on Your Work

- A. What did you know about the topic, subject, question, problem, or situation before starting?
- B. What process did you follow or work through to create your piece, paper, or project?
- C. Have you done something similar in the past? If so, how did you apply this information?
- D. What problems did you encounter while working? How did you solve them?
- E. What resources did you use and were they reliable and helpful?

U OWN IT: Reflect on Your Goals, Feelings, and Outcomes

- A. How do you feel about this topic, subject, question, problem, or situation? What do you like or dislike? Why?
- B. What was fulfilling? Frustrating? Why?
- C. Did you meet your goals? Why or why not?
- D. Did your goals change as you completed it? Explain.
- E. What did you learn while working on this? Did your ideas, views, or opinions change?

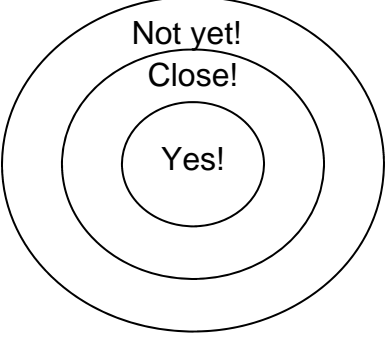
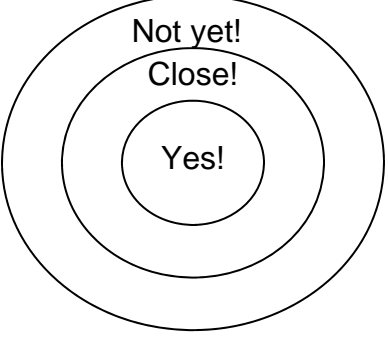
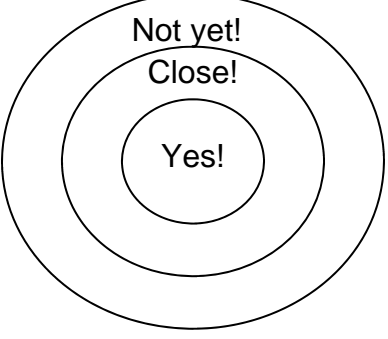
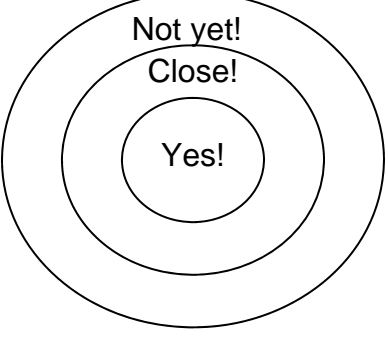
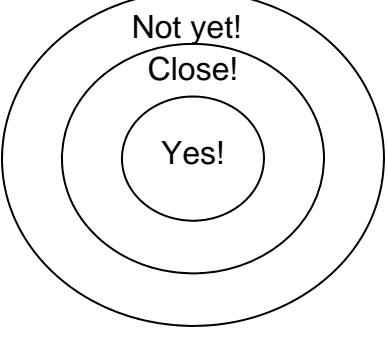
U FIX IT: Reflect on Your Work to Affirm or Improve

- A. Did you do your work the same as others or differently? What ways were the same? Different?
- B. What is one thing that is great about your piece? What is one thing that could be improved?
- C. In what ways did your work meet the standards or learning targets? In what ways did it not meet the standards or learning targets?
- D. What would you like others to notice about your work?
- E. What does your work say or show about you?

U CHECK IT: Reflect on Your Work and Apply Forward

- A. What would you change or improve if you were to do this work again?
- B. What is one thing you will improve on this piece before moving forward?
- C. What is a goal you will set for yourself after this experience?
- D. What would you like more help with as a result of this experience?
- E. What do you need to spend more time on to improve in areas needing improvement?

TARGET TRACKER

<p>Date:</p> <p>Target Goal:</p> <p>Evidence:</p> <p>Success? Why?</p> <p>Next Steps?</p>	
<p>Date:</p> <p>Target Goal:</p> <p>Evidence:</p> <p>Success? Why?</p> <p>Next Steps?</p>	
<p>Date:</p> <p>Target Goal:</p> <p>Evidence:</p> <p>Success? Why?</p> <p>Next Steps?</p>	
<p>Date:</p> <p>Target Goal:</p> <p>Evidence:</p> <p>Success? Why?</p> <p>Next Steps?</p>	
<p>Date:</p> <p>Target Goal:</p> <p>Evidence:</p> <p>Success? Why?</p> <p>Next Steps?</p>	

TARGET TRACKER

Target Goal	Not yet	Close	Yes!	Date	Comments (Evidence/barriers/ new strategies)

MY GROWTH MINDSET GOAL

Name: _____ Date: _____

Growth mindset goal:

Evidence I expect to confirm I reached my goal:

Date I plan to reach my goal:

Things/strategies I will do to reach my goal:

PROGRESS REVIEWS

Progress review date:

Progress review date:

Progress review date:

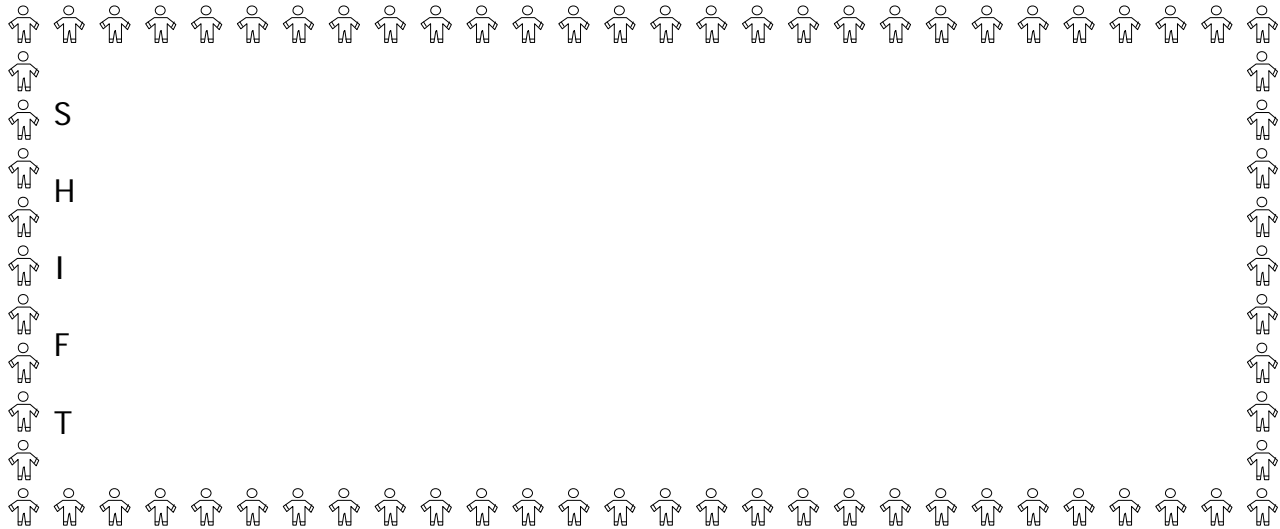
Evidence I met my goal or made progress toward my goal:

Barriers to my goal:

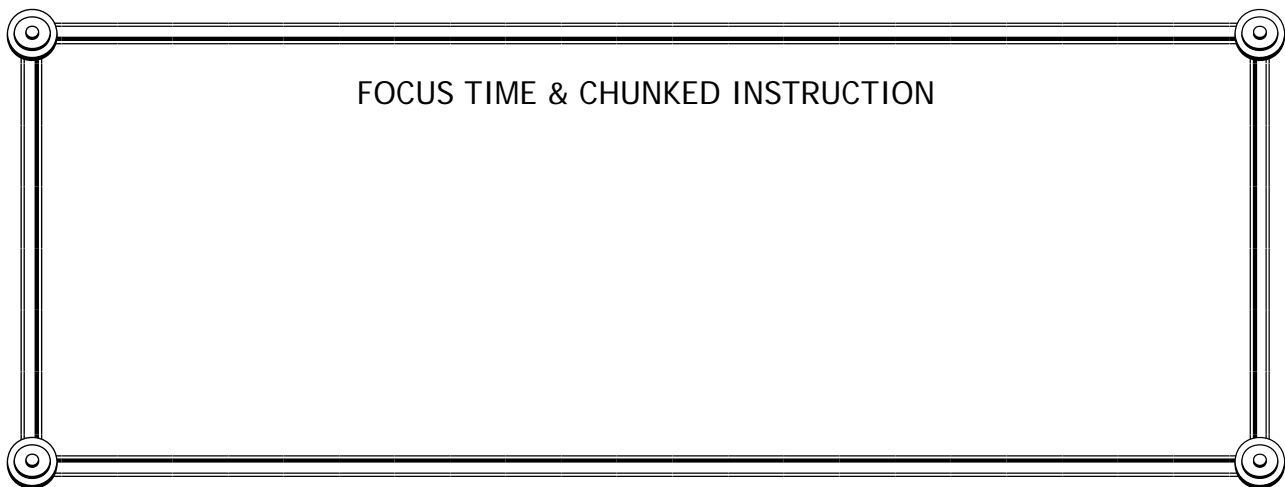
New things/strategies/things to reach my goal:

MEMORY MATTERS: STRATEGICALLY SETTING THE STAGE FOR SUCCESS

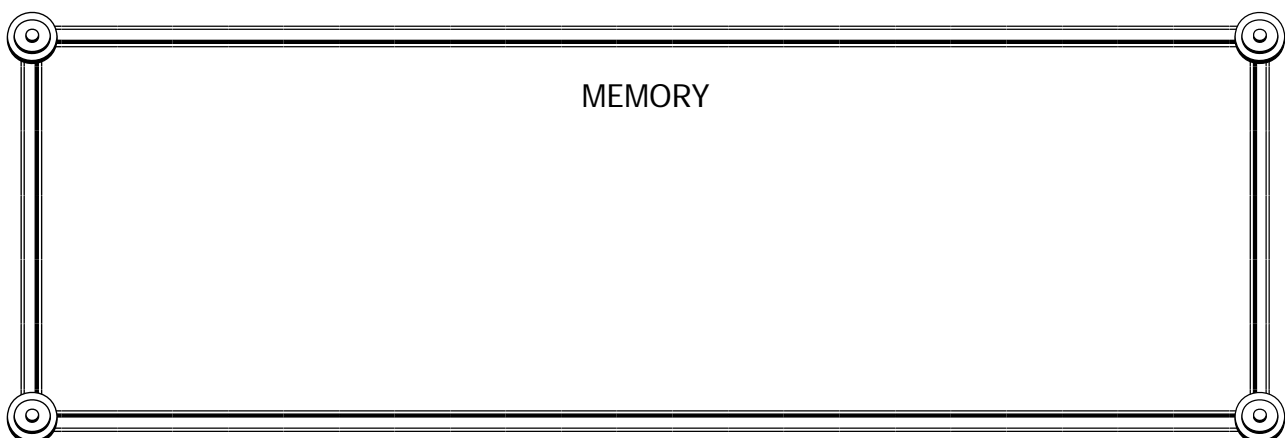
IMPROVE SOCIAL INTERACTIONS AND TRANSITIONS



IMPROVE ATTENTION, SHORT TERM AND WORKING MEMORY



IMPROVE LONG TERM MEMORY



DIFFERENTIATED INSTRUCTION, CRITICAL THINKING, QUESTIONING & ASSESSMENT: BACK IT UP!

1. **(STANDARD/LEARNING GOAL) DESIRED RESULTS:**

Content Objectives/Outcomes **Students will know and be able to...**

- Language Objectives/Students will develop skills...(listening/writing/speaking & active listening/reading)
- Key Vocabulary:
- Essential Questions:

2. **LEARNING PLAN (& RESOURCES):** (Sequences of instruction, experiences, strategies, activities)

Lesson Preparation: Content Obj/ Vocab/ Supp Materials :

What experiences will guide students to mastery?

- **Do they know it?** Fact recall / understanding:
- **Do they get it?** Conceptual recall / understanding / synthesis:
- **Can they do it?** Skill performance / synthesis:

Critical Questions:

Alternative ways to know, get and/or do?

Review & Assessment: Exit Ticket / Assessment :

Re-Teaching:

3. **EVIDENCE OF LEARNING:** How do you know your students are learning? What do you do if/when students are not learning? have learned? Base on evidence. Utilize varied response types.

Students will show they have achieved goals by...

- Pre-assessments (Starter card, bell ringer question, etc.)
- Formative assessments (KWL, TPS, exit slips, thumbs, quick write, quiz, prompts, collaborative groups, etc.)
- Summative assessments (Lesson/Unit/Quarter Tests, Semester Tests, Standardized Assessments, Performance Tasks (real world; presentations, models, labs, debates, projects, centers, activities, Socratic Seminars...))

Other Evidence: Unprompted Evidence; Anecdotal Notes; Self-Assessment

Next steps if students are not learning:

Next steps if students are learning:

