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**Lincoln High School** is a school-wide extended-day program aimed at preparing all students for future success. We are a community of scholars who are dedicated to personal and academic excellence. We strive for the development of strong character and intellectual engagement in all of our students, ensuring success beyond high school in college, career, and service.

**We will:**
- Develop Personal Responsibility
- Value Each Other
- Embrace Challenge
- Take Risks
- Cultivate Success
- Be Agents of Change in Our Community
- Lead
**Daily Snapshot:** A daily snapshot will be visible at the opening of every class. In this snapshot, the do now, learning target, day’s agenda and homework/practice will be displayed.

**Bell to Bell Instruction:** Students will not line up at the door prior to the bell. Instead, students must have all of your materials out and be actively working until the bell rings or until dismissed—whichever is most appropriate.

**Student Engagement:** Students must respond when called on in class. Some strategies that teachers may use to involve all students:

- **Cold Call.** This indicates that students are on the hook for participation and cannot anticipate when they will be called on.
- **No Opt Out.** When students say, “I don’t know,” teachers may respond, “If you did know, what would you say?”
- **Ask a Question.** If the answer is not known, students may be given the opportunity to ask a clarifying question.
- **Scaffolding.** Students may be prompted with another question or a series of questions to help them better construct the concept or response.
- **Re-voicing or Restating.** The teacher may ask another student the same question to model a response, than return to the original student and give him or her another opportunity to respond—either repeating the previous student’s response or restating it in his or her own words.

**Private Reasoning Time (PRT):** It is vital to give students time to contemplate all questions on their own. PRT allows students to clarify, expand, engage and even take risks. Teachers ask students to respect one another’s PRT—this means no chatting, doodling, or off task behaviors. When the teacher asks a question, remember that there is a “no hands” rule during PRT. This ensures all students are thoroughly contemplating the question and to reminds all involved that no answer is final.

**SLANT:** Students should be engaged in learning at all times. Heads down, whether sleeping or not, is not tolerated at any time. The acronym SLANT encourages more positive body language and behavior; SLANT stands for:
- **S:** Sit Up
- **L:** Listen
- **A:** Ask questions
- **N:** Nod
- **T:** Track the speaker with your eyes

**All backpacks off, materials out on desk:** Students will look like they are in class for the duration of the period and prepared for learning. If students do not have supplies, they may borrow paper and pencil from the teacher or a peer. Students may not be left satisfied sitting without materials in front of them.

**Appropriate Electronic Use**
Electronics have the capability of being invaluable resources that support student learning. In times such as these, electronic devices may be used at the teacher’s discretion. When students use electronic devices as a distraction, however, said devices will be taken away and will not be returned until the end of the day (3:05). If students refuse to give their devices to the teacher or make losing their device an issue or disruption, the teacher may choose to give the device to or refer the student to an administrator.
**Overview and Rationale:** When entering the classroom, a snapshot must be made visible for students’ reference. This snapshot will provide direction for the class, including the learning target, the do now, an agenda, and homework for the day.

**Examples:**

**Wednesday, October 3, 2014**

<table>
<thead>
<tr>
<th><strong>DO NOW</strong></th>
<th><strong>LEARNING TARGET</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Compass Points to reflect on yesterday’s seminar: What do you now know? What worries you? What excites you? What is your stance (opinion)?</td>
<td>I can articulate my opinion as a clear thesis.</td>
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</tbody>
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<th><strong>AGENDA</strong></th>
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<tr>
<td>1. Thesis Mini-lesson</td>
</tr>
<tr>
<td>2. Exemplars and Revisions</td>
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<tr>
<td>3. Troubleshooting Thesis Statements</td>
</tr>
<tr>
<td>4. Exit Slip: notecard thesis</td>
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**HOMEWORK**

Review your thesis with three peers. Document their suggestions and revise based on their suggestions.
Learning to use one’s mind well The school should focus on helping young people learn to use their minds well. Schools should not be "comprehensive" if such a claim is made at the expense of the school’s central intellectual purpose.

Less is more, depth over coverage The school's goals should be simple: that each student master a limited number of essential skills and areas of knowledge. While these skills and areas will, to varying degrees, reflect the traditional academic disciplines, the program's design should be shaped by the intellectual and imaginative powers and competencies that the students need, rather than by "subjects" as conventionally defined. The aphorism "less is more" should dominate: curricular decisions should be guided by the aim of thorough student mastery and achievement rather than by an effort to merely cover content.

Goals apply to all students The school's goals should apply to all students, while the means to these goals will vary as those students themselves vary. School practice should be tailor-made to meet the needs of every group or class of students.

Personalization Teaching and learning should be personalized to the maximum feasible extent. Efforts should be directed toward a goal that no teacher have direct responsibility for more than 80 students in the high school and middle school and no more than 20 in the elementary school. To capitalize on this personalization, decisions about the details of the course of study, the use of students' and teachers' time and the choice of teaching materials and specific pedagogies must be unreservedly placed in the hands of the principal and staff.

Student-as-worker, teacher-as-coach The governing practical metaphor of the school should be student-as-worker, rather than the more familiar metaphor of teacher-as-deliverer-of-instructional-services. Accordingly, a prominent pedagogy will be coaching, to provoke students to learn how to learn and thus to teach themselves.

Demonstration of mastery Teaching and learning should be documented and assessed with tools based on student performance of real tasks. Students not yet at appropriate levels of competence should be provided intensive support and resources to assist them quickly to meet those standards. Multiple forms of evidence, ranging from ongoing observation of the learner to completion of specific projects, should be used to better understand the learner's strengths and needs, and to plan for further assistance. Students should have opportunities to exhibit their expertise before family and community. The diploma should be awarded upon a successful final demonstration of mastery for graduation - an "Exhibition." As the diploma is awarded when earned, the school's program proceeds with no strict age grading and with no system of credits earned" by "time spent" in class. The emphasis is on the students' demonstration that they can do important things.

A tone of decency and trust The tone of the school should explicitly and self-consciously stress values of unanxious expectation ("I won't threaten you but I expect much of you"), of trust (until abused) and of decency (the values of fairness, generosity and tolerance). Incentives appropriate to the school’s
particular students and teachers should be emphasized. Parents should be key collaborators and vital members of the school community.

**Commitment to the entire school** The principal and teachers should perceive themselves as generalists first (teachers and scholars in general education) and specialists second (experts in but one particular discipline). Staff should expect multiple obligations (teacher-counselor-manager) and a sense of commitment to the entire school.

**Resources dedicated to teaching and learning** Ultimate administrative and budget targets should include student loads that promote personalization, substantial time for collective planning by teachers, competitive salaries for staff, and an ultimate per pupil cost not to exceed that at traditional schools by more than 10 percent. To accomplish this, administrative plans may have to show the phased reduction or elimination of some services now provided students in many traditional schools.

**Democracy and equity** The school should demonstrate non-discriminatory and inclusive policies, practices, and pedagogies. It should model democratic practices that involve all who are directly affected by the school. The school should honor diversity and build on the strength of its communities, deliberately and explicitly challenging all forms of inequity.

<table>
<thead>
<tr>
<th>SD™ Subdimension</th>
<th>The Vision</th>
<th>Guiding Questions</th>
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<tr>
<td><strong>Standards</strong></td>
<td></td>
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<tr>
<td>Purpose</td>
<td>• The lesson is based on grade-level standards, is meaningful and relevant beyond the task at hand (e.g., relates to a broader purpose or context such as problem-solving, citizenship, etc.), and helps students learn and apply transferable knowledge and skills.</td>
<td>• How do the standard and learning target relate to content knowledge, habits of thinking in the discipline, transferable skills, and students’ assessed needs as learners (e.g., language, culture, academic background)?</td>
</tr>
<tr>
<td></td>
<td>• The lesson is intentionally linked to other lessons (previous and future) in support of students meeting standard(s).</td>
<td>• How do the standard and learning target relate to the ongoing work of this classroom? To the intellectual lives of students beyond this classroom? To broader ideals such as problem-solving, citizenship, etc.?</td>
</tr>
<tr>
<td>Learning Target and Teaching Points</td>
<td>• The learning target is clearly articulated, linked to standards, embedded in instruction, and understood by students.</td>
<td>• What is the learning target(s) of the lesson? How is it meaningful and relevant beyond the specific task/activity?</td>
</tr>
<tr>
<td></td>
<td>• The learning target is measurable. The criteria for success are clear to students and the performance tasks provide evidence that students are able to understand and apply learning in context.</td>
<td>• Is the task/activity aligned with the learning target? How does what students are actually engaged in doing help them to achieve the desired outcome(s)?</td>
</tr>
<tr>
<td></td>
<td>• The teaching points are based on knowledge of students’ learning needs (academic background, life experiences, culture and language) in relation to the learning target(s).</td>
<td>• How are the standard(s) and learning target communicated and made accessible to all students?</td>
</tr>
<tr>
<td>Intellectual Work</td>
<td>• Students’ classroom work embodies substantive intellectual engagement (reading, thinking, writing, problem-solving and meaning-making).</td>
<td>• How do students communicate their understanding about what they are learning and why they are learning it?</td>
</tr>
<tr>
<td></td>
<td>• Students take ownership of their learning to develop, test and refine their thinking.</td>
<td>• How does the learning target clearly communicate what students will know and be able to do as a result of the lesson? What will be acceptable evidence of student learning?</td>
</tr>
<tr>
<td>Student Engagement</td>
<td>• Engagement strategies capitalize on and build upon students’ academic background, life experiences, culture and language to support rigorous and culturally relevant learning.</td>
<td>• How do teaching point(s) support the learning needs of individual students in meeting the learning target(s)?</td>
</tr>
<tr>
<td>Engagement Strategies</td>
<td>• Engagement strategies encourage equitable and purposeful student participation and ensure that all students have access to, and are expected to participate in, learning.</td>
<td></td>
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<tr>
<td>Talk</td>
<td>• Student talk reflects discipline-specific habits of thinking and ways of communicating.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Student talk embodies substantive and intellectual thinking.</td>
<td></td>
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<tr>
<td>SD&lt;sup&gt;TM&lt;/sup&gt; Subdimension</td>
<td>The Vision</td>
<td>Guiding Questions</td>
</tr>
<tr>
<td>-----------------------------</td>
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<td>------------------</td>
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<tr>
<td><strong>Curriculum</strong></td>
<td><em>Instructional materials (e.g., texts, resources, etc.) and tasks are appropriately challenging and supportive for all students, are aligned with the learning target and content area standards, and are culturally and academically relevant. The lesson materials and tasks are related to a larger unit and to the sequence and development of conceptual understanding over time.</em></td>
<td><em>How does the learning in the classroom reflect authentic ways of reading, writing, thinking and reasoning in the discipline under study? (e.g., how does the work reflect what mathematicians do and how they think?)</em></td>
</tr>
</tbody>
</table>
| **Teaching Approaches and/or Strategies** | *The teacher makes decisions and utilizes instructional approaches in ways that intentionally support his/her instructional purposes.*  
*Instruction reflects and is consistent with pedagogical content knowledge and is culturally responsive, in order to engage students in disciplinary habits of thinking.*  
*The teacher uses different instructional strategies, based on planned and/or in-the-moment decisions, to address individual learning needs.* | *How does the content of the lesson (e.g., text or task) influence the intellectual demand (e.g., the thinking and reasoning required)? How does it align to grade-level standards?*  
*How does the teacher scaffold the learning to provide all students with access to the intellectual work and to participation in meaning-making?*  
*What does the instruction reveal about the teacher’s understanding of how students learn, of disciplinary habits of thinking, and of content knowledge?*  
*How is students’ learning of content and transferable skills supported through the teacher’s intentional use of instructional strategies and materials?*  
*How does the teacher differentiate instruction for students with different learning needs—academic background, life experiences, culture and language?* |
| **Scaffolds for Learning** | *The teacher provides scaffolds for the learning task that support the development of the targeted concepts and skills and gradually releases responsibility, leading to student independence.* |  |
| **Assessment for Student Learning** | *Students assess their own learning in relation to the learning target.*  
*The teacher creates multiple assessment opportunities and expects all students to demonstrate learning.*  
*Assessment methods include a variety of tools and approaches to gather comprehensive and quality information about the learning styles and needs of each student (e.g., anecdotal notes, confering, student work samples, etc.).*  
*The teacher uses observable systems and routines for recording and using student assessment data (e.g., charts, conferencing records, portfolios, rubrics).*  
*Assessment criteria, methods and purposes are transparent and match the learning target.* | *How does the instruction provide opportunities for all students to demonstrate learning? How does the teacher capitalize on those opportunities for the purposes of assessment?*  
*How does the teacher gather information about student learning? How comprehensive are the sources of data from which he/she draws?*  
*How does the teacher’s understanding of each student as a learner inform how the teacher pushes for depth and stretches boundaries of student thinking?*  
*How do students use assessment data to set learning goals and gauge progress to increase ownership in their learning?*  
*How does the teacher’s instruction reflect planning for assessment?*  
*How does the teacher use multiple forms of assessment to inform instruction and decision-making?*  
*How does the teacher adjust instruction based on in-the-moment assessment of student understanding?* |
| **Adjustments** | *The teacher uses formative assessment data to make in-the-moment instructional adjustments, modify future lessons, and give targeted feedback to students.* |  |
| **Use of Physical Environment** | *The physical arrangement of the room (e.g., meeting area, resources, student seating, etc.) is conducive to student learning.*  
*The teacher uses the physical space of the classroom to assess student understanding and support learning (e.g., teacher moves around the room to observe and confer with students).*  
*Students have access to resources in the physical environment to support learning and independence (e.g., libraries, materials, charts, technology, etc.).* | *How does the physical arrangement of the classroom, as well as the availability of resources and space to both the teacher and students, purposefully support and scaffold student learning?*  
*How and to what extent do the systems and routines of the classroom facilitate student ownership and independence?*  
*How and to what extent do the systems and routines of the classroom reflect values of community, inclusivity, equity and accountability for learning?*  
*What is the climate for learning in this classroom? How do relationships (teacher-student, student-student) support or hinder student learning?*  
*What do discourse and interactions reveal about what is valued in this classroom?*  
*What are sources of status and authority in this classroom (e.g., reasoning and justification, intellectual risk-taking, popularity, aggressiveness, etc.)* |
| **Classroom Routines and Rituals** | *Classroom systems and routines facilitate student responsibility, ownership and independence.*  
*Available time is maximized in service of learning.* |  |
| **Classroom Culture** | *Classroom discourse and interactions reflect high expectations and beliefs about all students’ intellectual capabilities and create a culture of inclusivity, equity and accountability for learning.*  
*Classroom norms encourage risk-taking, collaboration and respect for thinking.* |  |
**Overview and Rationale:** Interactive Notebooks are intended to help students actively engage with learning. When documenting the day’s lesson, teacher-directed information or “input” is placed on the right-hand page. The left is reserved for the student’s “output” or student interaction with the new learning.

**Examples:**

![Interactive Notebook Example](image)

**Application:** The left and right sides of interactive notebooks can take on many strategies. While the right side is typically reserved for teacher-directed Cornell Notes, diagrams, and handouts (glued in), the left side has many different options for student application. Some options are, but are not limited to:

- Concept Maps
- Graphic Organizers
- Guiding questions and student-generated answers
- Summary
- Pictorial representation, *labelling a visual illustration (drawing) explaining the topic*
- Flow Charts, Sequence Charts
- Venn diagram
- KWLH Chart
- Comic Strip
- Freyer Models
- Mnemonic Devices
- Connection to student’s life
- Current events/articles that relate to topic
- *Write a newspaper article about the topic*
- Outcome Sentences:
  - I learned...
  - I was surprised to find...
  - This reminds me of...
  - I wonder what would happen if...
  - I now understand...because...I liked...
  - I didn’t like...
  - The important thing about...
- Gist statement (summarize the main idea in seven words)
- Here I Stand (state personal opinions about the topic)

Adapted from AVID
Rationale and Overview: Cornell Notes are used for note-taking and help students organize information in a manner that helps them connect learning to previous knowledge, share their learning with peers, and summarize learning for better comprehension and later reference.

Example:

<table>
<thead>
<tr>
<th>Class Notes</th>
<th>Name: Student A</th>
</tr>
</thead>
<tbody>
<tr>
<td>If there was no class lecture this week, write a paragraph about what you learned and/or questions about what you didn't understand.</td>
<td>Class: Algebra</td>
</tr>
<tr>
<td></td>
<td>Period: 6</td>
</tr>
<tr>
<td>Date: 1/11</td>
<td>Notes:</td>
</tr>
<tr>
<td><strong>Topic:</strong> Distance Formula</td>
<td><strong>What is the distance formula?</strong></td>
</tr>
<tr>
<td><strong>Questions/Main Ideas:</strong></td>
<td>The distance formula calculates distance based on rate and time.</td>
</tr>
<tr>
<td></td>
<td><strong>Distance = rate \times time</strong></td>
</tr>
<tr>
<td></td>
<td><strong>D = rt</strong></td>
</tr>
<tr>
<td><strong>Example 1:</strong> How far will a train travel at 85mph for 4 hours?</td>
<td><strong>Example 1:</strong> How far will a train travel at 85mph for 4 hours?</td>
</tr>
<tr>
<td></td>
<td><strong>D = ?</strong></td>
</tr>
<tr>
<td></td>
<td><strong>r = 85mph</strong></td>
</tr>
<tr>
<td></td>
<td><strong>t = 4 hours</strong></td>
</tr>
<tr>
<td></td>
<td><strong>D = 85(4)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>D = 340 miles</strong></td>
</tr>
<tr>
<td><strong>Example 2:</strong> How far will a truck travel at 65mph for 3.5 hrs?</td>
<td><strong>Example 2:</strong> How far will a truck travel at 65mph for 3.5 hrs?</td>
</tr>
<tr>
<td></td>
<td><strong>D = ?</strong></td>
</tr>
<tr>
<td></td>
<td><strong>r = 65mph</strong></td>
</tr>
<tr>
<td></td>
<td><strong>t = 3.5 hrs</strong></td>
</tr>
<tr>
<td></td>
<td><strong>D = 65(3.5)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>D = 227.5 miles</strong></td>
</tr>
</tbody>
</table>

Summary: The distance formula measures distance based on rate and time. Distance = rate \times time. This is often used with word problems.

Application: Cornell Notes can be applied to any situation where students receive new information and are responsible for organizing said information for later reference. The key elements for future use are: identifying the main topic, organizing by main ideas or guiding questions in the left column, providing relevant details and key terms in the right column, and summarizing learning at the bottom of the page. Summary may be used as an exit slip or homework, depending on the students’ understanding of the concepts. Likewise, the summary can be a formative tool to check for understanding.

Adapted from AVID
**Rationale and Overview:** Private Reasoning Time (PRT) gives students time to think about, consider and/or analyze the problem set before them. This strategy provides an uninterrupted period of time to think without distraction or influence of others’ ideas.

**Example:**

**TEACHER:** Class, please jot down your thoughts about the following question: Was the U.S. Constitution meant to be a "living, breathing" document that changes with the times? Remember, think on your own; do not share your idea with your classmates—yet.

*Thirty seconds passes.*

**TEACHER:** Fred, will you please share your thoughts with the class?

**FRED:** *(summarizes or reads his written response)*

**TEACHER:** Excellent. Thank you Fred. Wilma, can you please build on what Fred said or give us another perspective?

**WILMA:** *(summarizes or reads her written response, or supplements Fred’s response with her own ideas)*

**Application:** PRT can be used any time a question is posed. The time given to students for thinking can be adjusted to meet the needs of the question. For example, in the above depiction of PRT, more time might be offered, had students studied the topic for a lengthened period of time. Their response would require more time to allow them to answer the question sufficiently. Likewise, if the question is one that elicits a shorter response or is potentially a level one, fact-based question, a shorter period of time may be suitable.

Likewise, PRT can be utilized with other thinking routines, such as Think-Pair-Share and Dyads/Triads, allowing students time to think independently before working with peers.
**Rationale and Overview:** A Venn diagram is a graphic organizer used to help students compare and contrast different concepts or perspectives.

**Examples:**

![Venn Diagram Example](image)

**Application:** In addition to comparing and contrasting relevant concepts, Venn diagrams also help students understand the innate relationships between ideas. Furthermore, Venn diagrams help students structure information in a way that may better meet the needs of the visual learner. Two or three concepts may be used; these may also be used to compare and contrast historical figures, environments, species, and mathematical formulae—there are many options for use of a Venn.
Rationale and Overview: Prior to introducing new content or skills, one may access students’ prior knowledge as a means of discovering what students already know. A KWHL chart allows teachers and students to determine prior knowledge by asking four questions.

Example:

<table>
<thead>
<tr>
<th>What do we KNOW?</th>
<th>What do we WANT to know?</th>
<th>HOW will I discover this knowledge?</th>
<th>What have we LEARNED?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

Application: KWHL charts allow teachers to flesh out misconceptions, connect new knowledge to old learning, and develop a plan for acquiring new information. Save the last column, “Learned,” for later, once new information has been introduced. There, students will document that which they have learned.

Adapted from AVID.
**Rationale and Overview:** Costas Levels of Questioning introduces questions in a series of four levels, ranging from comprehension, to analysis and ultimately, universal connections. In using Costas, teachers assist students in asking questions that promote higher-order thinking.

**Example:**

**LEVEL 3:**

**Key Words** | **Sentence Starts**  
---|---  
Evaluate | What would you predict if...?  
Predict | How would you prioritize...?  
Judge | Why was ____ better than ____?  
Assess | How could you prove or disprove...?  
Idealize | What evidence supports...?  
Forecast | What judgment could be made about...?  

**LEVEL 2**

**Key Words** | **Sentence Starts**  
---|---  
Compare | How is ____ similar to ____?  
Inspect | What might we infer from...?  
Apply | How would you categorize...?  
Solve | What is the function of...?  
Infer | How would you classify...?  
Analyze | What conclusions can you draw about...?  
Reason | Why do you think...?  
Distinguish | How is ____ related to ____?  
Explain | How would you summarize...?  

**LEVEL 1:**

**Key Words** | **Sentence Starts**  
---|---  
Choose | What is...? When is...? Who is...? When did...?  
Identify | What is the definition of...?  
Observe | How would you show...?  
Restate | Which is the best answer?  
Match | Which is...?  

**Application:** This strategy is useful when helping students extend their thinking or push their understanding in a given content area. Students guide their own thinking using questions, thereby helping themselves to dig more deeply into the content.

Adapted from AVID.
Rationale and Overview: See Think Wonder (Harvard Project Zero) helps students use three distinct skills: observation, analysis and questioning. This thinking routine helps them expand on their thinking in a way that is scaffolded, leaving their thinking to gain a level of complexity with each step.

Example:

**SEE:** What do you SEE?
- Water
- Fog
- A woman jumping

**THINK:** What do you THINK about that?
- She’s hot from the warm weather.
- She’s happy.

**WONDER:** What does this make you WONDER?
- What is she celebrating?

Application: See Think Wonder is a routine that can be used with various forms of media. While the above example is of an image, See Think Wonder can be used for audio bits, textual material, posters, graphs, and many more mediums. In using See Think Wonder, teachers may opt to ask students to make their “sees” build to their “thinks,” and culminate in “wonders,” or they may leave each of the three categories entirely independent of each other.

Rationale and Overview: This thinking routine from Harvard’s Project Zero helps students connect new ideas to prior knowledge and examine the relationships between their own experiences and new concepts or information. It also encourages them to take stock of ongoing questions, puzzles and difficulties as they reflect on what they are learning.

Example:

CONNECT: How are the ideas and information presented CONNECTED to something you already knew?
- No one is perfect. No one.
- “The road less traveled” is from Frost’s poem.
- Taking risks is something we encourage at Lincoln.

EXTEND: What new ideas did you get that EXTENDED or pushed your thinking in new directions?
- Risks can be uncomfortable; I knew that, but I never called it that or thought of that word.
- It takes courage to accept imperfections.
- Character is built when we make mistakes and have the courage to do so.

CHALLENGE: What is still CHALLENGING or confusing for you to get your mind around? What questions, wonderings or puzzles do you now have?
- Is it necessary to take risks on your own, or can you do so with the support of others and still have the same benefits?

Application: Teachers may consider using Connect Extend Challenge after students have learned something new, be it a small piece of new information, or a broader unit. It may also be used as a reflection routine to gauge students’ newly formulated thoughts. This routine can be applied using a variety of media: art, text, audio, etc. If the content presents a new idea or concept, Connect Extend Challenge is applicable.
Thinking Routines (Q)CSE(Q)

Rationale and Overview: Another routine adapted from Harvard’s Project Zero is Claim Support Explain. The acronym, (Q)CSE(Q) shows an option of asking questions before and after the CSE. This is a means to help students make their initial claim, provide relevant evidence, and extend their reasoning.

Example:

**QUESTION**: Who is the most favored winner of the 2014 World Cup? Predict.
**CLAIM**: The Netherlands possess the talent to take home the Cup.
**SUPPORT**: In their first match, the Dutch trounced Spain 5 to 1, and van Persie scored two goals.
**EXPLAIN**: Robin van Persie has demonstrated loads of talent in the first round of games, scoring a goal that very well may be one of the best in all of the Cup. With such talent in the attack, the Netherlands are poised to get positive results. The skill of van Persie, as well as their forward, Arjen Robben—who also scored against Spain—make up a dangerous threat for any opponent. Paired with a solid defense, and the fact that they do not house the pressure of Brazil to win on home turf, the Dutch may very well beat all others.

**QUESTION**: Can a dangerous offense be enough to win an entire tournament? Explain.

Application: (Q)CSE(Q) invites students to articulate their opinions in a way that also requires evidence and extended reasoning. Teachers may use this to prepare for a class discussion, such as a Socratic seminar, where students will assert their claims and be expected to provide evidence. Teachers can also use claim, support and explain to introduce the different elements of a body paragraph.

**Think Pair Share**

**Rationale and Overview**: This routine from Harvard Project Zero encourages students to think deeply about a concept, question or idea, then allows them the opportunity to articulate and share their ideas with a partner. In doing so, they also gain their partner’s perspective, thereby adding to their own understanding. During this time, students must be given ample time for personal think time, ensuring enough time to comprehend, analyze and produce a clear response.

**Example**: Below is a possible script from a teacher using Think Pair Share:

**TEACHER**: Look at the equation on the board. What additional information is needed to solve? Think for two minutes. Please jot down notes, if you think it will help you remember, or refer to your notes.

*Teacher allows two minutes for students to process and formulate a response.*

**TEACHER**: Now, turn to your partner, and share your thoughts. Remember, you are addressing what additional information is needed to solve the equation.

*Teacher allows time for pairs to talk. While students talk, teacher circulates the room, listening to student conversations. The teacher may opt to write down snippets of conversation, or listen for students to later call upon.*

**TEACHER**: Now, conclude your conversations. *Pause.* Let’s hear what you had to say. *Teacher may now cold call upon students to elicit responses. Teacher may also document student responses on chart paper, the whiteboard or SMARTboard.*

**Application**: Think Pair Share is a processing tool to enable students the time to process and formulate a response to a given question or topic. The content to which this routine can be applied is limitless. Think Pair Share may also be used to process new information while taking notes, providing a momentary pause for processing when facing a hefty amount of new content.

Collaboration Routines

AB Dyads

**Rationale and Overview:** AB Dyads help students articulate their learning and practice active listening. Prior to being asked a question, students organize themselves in pairs and determine speakers A and B. When prompted, student A responds to the question, speaking for thirty seconds. Speaker B listens during this time. The roles are then reversed.

**Example:**

**TEACHER:** Please determine which of you will be A and which will be B. *Teacher allows time to determine roles.* Now, student A, use thirty seconds to summarize the First Amendment of the US Constitution. *The students designated as As share their thinking with Bs. Bs do not talk, but merely listen.*

**TEACHER:** Thank you. Now, student B, use fifteen seconds to summarize your partners’ thoughts. *Bs summarize.*

**TEACHER:** Bs, it’s your turn. Use thirty seconds to explain the way in which the First Amendment is applied to our lives today. *The students designated as Bs share their thinking with As. As do not talk, but merely listen.*

**TEACHER:** Thank you. As, please summarize your partners’ thinking.

**Application:** In this example, two separate questions were asked by the teacher. Also, students were asked to summarize. This engages the listener and holds students accountable for active listening. AB Dyads do not need to have different questions, nor is the summary of the listener required. Similarly, a variety of prompts can be provided, for both content and process. For example, an algebra teacher might ask students to articulate the process used to solve a given problem. While student A might provide one means for solving the problem, student B may be prompted to give a different process for getting the same result.

Rationale and Overview: Adopted from Teacher Development Group, Habits of Mind and Interaction identify daily routines of thinking and collaboration that support student achievement.

Example: (see following page)

Application: The habits, when made visible in the classroom, can be a reference for student and teacher use, and can help provide guidance when engaging in tasks that necessitate higher order thinking and processing of complex information, as well as when tasks demand a high degree of collaboration. For the teacher, the provided checklist identifies routines that promote instruction in mathematics, but could likewise be applied to other content areas.

From Teachers Development Group at https://www.teachersdg.org/
Mathematically Productive Habits & Routines

Math Habits of Mind

- Generalize
- Make Sense
- Justify
- Persevere & Seek More
- Metacognition
- Multiple Pathways
- Regularity Patterns
- Connections
- Math Reasoning to the Authority
- Connections
- Mathematics

Math Habits of Interaction

- Private Reasoning Time
- Explain
- Listen to Understand
- Genuine Questions
- Critique & Debate
- Our Logic & Ideas
- Design Storming

Catalytic Teaching Habits

- Probes to reveal student thinking/reasoning
- Presses for discussion about the meanings of math concepts/ideas
- Asks for conjectures about the general/special case
- Asks for justification of:
  - a solution to a specific problem
  - the general/special case
- Monitors/scans the room for mathematical trends, needs, engagement
- Is transparent about ways a teaching move relates to how mathematicians' act/interact.

Mathematically Productive Teaching Routines

- Structuring Students' Mathematical Talk
- Working with Selected and Sequenced Student Ideas during Mathematical Discussions
- Working with Public Records of Students' Mathematical Thinking
- Working with Students' Mathematical Representations
- Conferring with Student Mathematicians
- Working with Students' Mathematical Errors and Misconceptions

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Rationale and Overview: Chalk Talk provides a way for students to capture the ideas in a written discussion. On large sheets of paper, students document their thinking in writing, introducing new ideas, posing questions and building on others' ideas through arrows and annotations.

Example:

Application: To begin the process of chalk talk, a question or topic must be posed. These questions or topics may be chosen by the teacher or be student-generated. Chalk talks may also be color coded, e.g. a particular group of students (small group or an entire class) may write with one color, while other groups write in another. This tracks the differences in beliefs between different populations, and also allows discussion to happen beyond the confines of time (class periods) or place (between classes).
Rationale and Overview: When tasked with reading a great deal of content, students can be divided into various expert groups to dissect and comprehend the material. Later, groups are reorganized heterogeneously, placing students from a variety of groups into one, then given the time to teach their peers the various elements from their “expert groups.” This allows students to carry the cognitive load, take ownership of their learning, and differentiate content that is key versus extraneous.

Example:
Part I:
Students are divided into five groups, and given a different text to read and take notes on the key details. Their groups are divided thus:

<table>
<thead>
<tr>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
<th>Group D</th>
<th>Group E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student A.1</td>
<td>Student B.1</td>
<td>Student C.1</td>
<td>Student D.1</td>
<td>Student E.1</td>
</tr>
<tr>
<td>Student A.2</td>
<td>Student B.2</td>
<td>Student C.2</td>
<td>Student D.2</td>
<td>Student E.2</td>
</tr>
<tr>
<td>Student A.3</td>
<td>Student B.3</td>
<td>Student C.3</td>
<td>Student D.3</td>
<td>Student E.3</td>
</tr>
<tr>
<td>Student A.4</td>
<td>Student B.4</td>
<td>Student C.4</td>
<td>Student D.4</td>
<td>Student E.4</td>
</tr>
<tr>
<td>Student A.5</td>
<td>Student B.5</td>
<td>Student C.5</td>
<td>Student D.5</td>
<td>Student E.5</td>
</tr>
</tbody>
</table>

Part II:
After given ample time to become experts of their subject, groups are then reorganized in the following manner:

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Group 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student A.1</td>
<td>Student A.2</td>
<td>Student A.3</td>
<td>Student A.4</td>
<td>Student A.5</td>
</tr>
<tr>
<td>Student B.1</td>
<td>Student B.2</td>
<td>Student B.3</td>
<td>Student B.4</td>
<td>Student B.5</td>
</tr>
<tr>
<td>Student C.1</td>
<td>Student C.2</td>
<td>Student C.3</td>
<td>Student C.4</td>
<td>Student C.5</td>
</tr>
<tr>
<td>Student D.1</td>
<td>Student D.2</td>
<td>Student D.3</td>
<td>Student D.4</td>
<td>Student D.5</td>
</tr>
<tr>
<td>Student E.1</td>
<td>Student E.2</td>
<td>Student E.3</td>
<td>Student E.4</td>
<td>Student E.5</td>
</tr>
</tbody>
</table>

Application: The use of jigsaw with a variety of texts allows different elements of a broader topic to be reviewed, comprehended and analyzed in a relatively short amount of time. Furthermore, reading in this way might allow a single text to be examined through a variety of lenses. For example, in a history class, students reading an excerpt from the Communist Manifesto may be broken into five groups, and be tasked with evaluating the source from five different perspectives (proletariat, bourgeoisie, capitalist and socialist).

**Rationale and Overview:** Philosophical chairs calls for students to choose a claim, then provide reasoning and evidence to support and defend their position. Best suited for whole-class settings, this calls for a great deal of high-level thinking, as well as clear articulation of ideas. At any point in the discussion, students may “vote” with their feet, moving to the side that best fits their stance. In this way, students receive immediate feedback as to the efficacy of their arguments; should their peers move to their side, they see that their claims, evidence and reasoning was strong.

**Example:**

![Diagram](image)

**Application:** When given a disputable topic, students are granted the ability to debate in a structured environment. Philosophical Chairs provides students a framework upon which to engage in the examination of differing perspectives. When doing so, the teacher may help students actively listen by utilizing “I heard you say...” as a sentence starter for new speakers. This ensures students hear the previous speaker and likewise connect their perspective to what was previously said. The teacher may also reserve the right to call upon any person at any given time to hear his/her **Rationale and Overview** for seating at his/her given location. To guarantee multiple voices are heard, the teacher may also stress that three speakers must share before a returning speaker shares a second time.

Adapted from AVID.
Rationale and Overview: Similar to Philosophical Chairs, Four Corners asks students to visibly show their views on a given topic by their choice of placement in the classroom. Using follow-up questions, the teacher can flesh out students’ reasoning for their placement in the classroom and also require students to provide evidence in support of their assertions.

Example:

![Four Corners diagram]

Application: When given true/false statements, students can demonstrate their beliefs using Four Corners. The teacher may then ask students to share their reasoning for their placement in the classroom, followed by a whole-class share-out from each perspective (agree, disagree and so on). This can be used in many different contexts, but one way might be at the start of a unit and again at the end, to show changes in perspectives over the course of a given unit.
Rationale and Overview: Socratic Seminar functions under the premise of uncovering truth. Through questioning, making claims, providing evidence, reasoning and posing new questions, students dig deeper and deeper into complex ideas.

Example:
There are many variations of Socratic Seminar. The first of which is traditional Socratic Seminar, which is a whole-class activity and lends itself to the protocol followed by the other variations. Students seat themselves in a large circle, ensuring all participants are able to see one another. The seminar then follows the following protocol:

- A guiding question is posed—which can be teacher-generated or student-generated, for more advanced classes.
- The first student speaker then follows with an assertion related to the initial question.
- This assertion is supported by evidence (preferably text-based) and reasoning, connecting the evidence to the initial assertion.
- Other students then follow by first restating what they heard (“I heard you say...”), then...
  - Asking a clarifying question
  - Expressing agreement or disagreement of the assertion, posing relevant evidence for their own claim
  - Posing a question that helps delve into the idea more deeply.
- The teacher facilitates this discussion, ensuring all students get equitable “air time.” He/she may maintain a list of speaking order, provide norm checking, or help students pose clarifying questions. To promote more speakers and/or ensuring personal think time for each student, he/she can also provide periods of time for students to talk to an elbow partner prior to returning to whole-class discussion.

Other variations of Socratic Seminar follow a similar protocol, but the difference resides in the way the classroom is set up. Whereas Socratic Seminar calls for all students to arrange themselves in a large circle, Fish Bowl and Wingman Seminars use groupings to make the discussion group smaller. These are diagrammed below:

Fish Bowl Seminar:

Here, each dash represents one student. Students on the inside of the fishbowl follow Socratic Seminar protocol to discuss a given topic, while students on the outside observe group dynamics, evaluate process or participation, or take notes. Should outside students wish to contribute, a “hot seat” can be provided, however, once a contribution is made, the student should leave to ensure their full participation in the outer bowl. The inside and outside later switch roles, and discussion continues.
Wingman Seminar:

Here, each dash represents one student. Students on the inside of this seminar follow Socratic Seminar protocol to discuss a given topic. Where this seminar differs from the others, however, is that each inner speaker has two “wingmen” that function as coaches or researchers who sit directly behind them. In the course of the discussion, they may pass their speaker a note, resource or idea to share with the group. The teacher may also facilitate a variety of “turn and talks” to allow the team of three to discuss a current question or topic, allowing the speaker time to formulate his/her argument. Periodically, the teacher facilitates the switching of speakers and wingmen, allowing all members of the class to have time in the inner circle.

**Application:** Each of these seminar formats are intended to promote student-to-student talk in a way that is guided and structured. Wingman Seminar provides students peer support when in a discussion environment, allowing them the option of turning to a peer for assistance with evidence or reasoning. This variation of seminar, as well as Fish Bowl Seminar, provide a smaller group to ensure more voices are heard. Where Fish Bowl differs, however, is the ability to make observations. The outer circle is used to meet the needs of a given purpose, be it for examining protocol or participation, or for merely taking notes, allowing those inside the fish bowl to focus on tracking and participating in the discussion.

Traditional Socratic Seminar is a more advanced form of seminar, calling upon students to do each of these skills on their own, given a structured way of participating using questioning, evidence and reasoning.

Adapted from AVID.
**Rationale and Overview:** Using the Frayer Model while introducing new vocabulary helps students connect their new learning to past knowledge. To do this, students use a graphic organizer to develop their understanding of new concepts.

**Examples:**

<table>
<thead>
<tr>
<th><strong>Definition (in own words)</strong></th>
<th><strong>Characteristics</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A change in size, shape, of state of matter</td>
<td>New materials are NOT formed.</td>
</tr>
</tbody>
</table>

**Examples (from own life)**
- Ice melting, glass breaking, cutting one’s hair

**Non-Examples (from own life)**
- Burning wood; rust

**Synonyms**
- shocking
- scandalous
- outrageous

**Illustration**

**Sentence**
- Kim Kardashian’s outfit at the Grammy’s was so *calumnious* that it had to be censored when aired on TV.

**Antonyms**
- sedate
- boring
- conventional

**Application:** This strategy is useful when students are having a difficult time differentiating between two concepts. It is also useful when building vocabulary and/or introducing new terminology.

Vocabulary Acquisition Strategies

Rationale and Overview: Oral Language Acquisition (OLA) is a way to help students learn and apply new vocabulary in a way that meets a variety of learning styles. New words are introduced orally. As a group, students work to develop a student-generated definition or synonym. The group then decides on a physical definition or movement to correspond to the word and definition. When the word is then stated, students then respond with the student-generated definition and movement, thereby connecting the word to oral and kinesthetic areas in their brains.

Example:

TEACHER: Our next word is “Ornery.” Say this with me: ornery.
CLASS (together): Ornery.
TEACHER: Who has heard of “ornery?”
SIMON: I have. I’ve heard my grandmother referring to my grandfather as ornery.
TEACHER: Sure. What do you think she means?
SIMON: Maybe grouchy?
GARFUNKEL: Yeah. My mom gets ornery when I don’t clean my room or leave my dirty dishes in the livingroom.
TEACHER: Good. So what definition do we want to proceed with?
GARFUNKEL: How about “grouchy.” (the class agrees)
TEACHER: So when I say ornery, you’ll say—
CLASS (together): Grouchy.
TEACHER: Good. Now what movement shows grouchy?
STUDENTS gesticulate a variety of frowning faces, which their arms crossed.
TEACHER: Good. Now say and do. Ornery.
STUDENTS: Grouchy. (Students say “grouchy” together with frowning faces and crossed arms.)

Application: Using OLA calls for whole-class participation and engagement. To ensure all students actively participate, a norm must call for standing. Likewise, the teacher must set a culture for risk-taking, as acting makes some students feel silly or vulnerable. This also takes a good deal of practice to make OLA routine. Once routine, OLA will be increasingly time-efficient, helping students activate oral and kinesthetic markers for recalling new words.
**Rationale and Overview:** One of the best methods for reading and retaining textbook information is PQ5R, a systematic reading strategy. This technique incorporates active reading with recording of information read.

**Example:**

P = **Preview the Material:** Skim or scan the text. Be aware of and think about:
- The relationship between the title, main headings and subheadings.
- Pictures, graphs, and charts and what they suggest about the purpose of the text.
- Any review or summary questions at the end of the text.

Q = **Question the Material:** Develop questions about the text.
- Turn headings and subheadings into questions; write them down.
- Write down questions related to who, what, when, where, why, and how.
- Write a brief version of any question that appears at the end of the text.

R = **Read the Material:** Read to answer the questions. Pay attention to:
- Pictures, graphs, and charts.
- Main ideas and supporting evidence.
- Structure and relationships identified by such key phrases as also, moreover, furthermore, in addition, although, nevertheless, however, therefore, in conclusion, and consequently.
- New vocabulary: look up and record the definitions of new terms.

R = **Record Key Ideas Found During Reading**
- Write down key ideas found during reading.
- Write the answers to questions.
- Write any new information that seems significant.
- Write reflections about the material.
- Write any new questions.

R = **Recite from the Text:** Look away from the text and try to answer questions about the information.
- Recite information about the headings and subheadings.
- React to the text.
- Generate more questions and answer them.

R = **Review:** Reread the text and notes.
- Skim the text again.
- Redefine the main ideas and their relationships to each other.
- Review questions and answers
- Skim for answers to new questions.
- Answer questions at the end of the section.

R = **Reflect:** Think about the significance of the material. Ask questions such as:
- What is the meaning and significance of the material?
- How can this information be applied?
- How is this information related to what is already known?
- Would other sources have different versions of this material?

**Application:** PQ5R provides elements to use throughout the reading process—before, during and after reading. Elements of PQ5R can be implemented, as could particular elements, depending on the task.

From AVID.
Rationale and Overview: This routine is best used to engage students in active listening while reading a text aloud or when listening to new content. Popcorn reading requires the reader to “cold call” a peer to pick up reading where he/she left off. Before reading, however, students are asked to process the material in three levels of thinking, or the three As: articulate the concept, analyze what was stated, or ask a question.

Example:
While reading aloud in small groups or large groups, or while participating in a group discussion, students must articulate, analyze or ask a question prior to offering new insight. For example, during popcorn reading, students select the next reader. Prior to reading on, the selected student must articulate the idea that was read, analyze what was read, or ask a question about what was read.

BERT: Reading “Photosynthesis is a process used by plants and other organisms to convert light energy, normally from the sun, into chemical energy that can be later released to fuel the organisms' activities.” I choose Ernie.
ERNIE: I wonder how light can be turned into energy.
TEACHER: Can anyone make a prediction about that?
OSCAR: Maybe the heat is used to create energy. Like a solar panel.
TEACHER: Good. Anyone want to add to that?
ABBY: Yeah. The heat that the plant takes in acts like food for them. That may be why when plants get too much sun, they wither up. They’ve eaten too much food. I get that way around Thanksgiving, when I eat too much. I’m like a withered flower.
TEACHER: Okay. Let’s read on and see what it says. Abby, let’s listen to see if your comparison is right. Ernie, please read on.
ERNIE: Continues reading.

Application: Popcorn reading with the three As allows students three options to engage with a speaker or reader’s ideas. When one student presents ideas of their own or from a text, other students must listen attentively to ensure they’re prepared for 3A protocol, should they be called upon. When Popcorn Reading, it’s important to enforce a “cold call” mentality; if students get into a pattern, students can disengage. A level of uncertainty warrants students’ active listening.
**Rationale and Overview:** Many students often race through a text without actually stopping to comprehend or actually “read” it. With this in mind, **Marking the Text** asks students to think metacognitively about what they read and identify the types of thinking used while reading. This allows them to go back and reference their reactions to the text, and/or read again in a second reading for deeper annotation.

**Example:**

**KEY:**
* = important, key detail  
! = reaction, agree or disagree, emotional reaction  
↔ = personal connection  
? = question  
i = inference/prediction  
= vocabulary

---

**PROLOGUE**  
*From Shakespeare’s *Romeo and Juliet*

* Two households, both alike in dignity,  
* In fair Verona, where we lay our scene,  
From ancient grudge break to new mutiny,  
? Where civil blood makes civil hands unclean.  
From forth the fatal loins of these two foes  
! A pair of star-cross’d lovers take their life;  
Whose misadventured piteous overthrows  
! Do with their death bury their parents' strife.  
The fearful passage of their death-mark’d love,  
* i And the continuance of their parents' rage,  
↔ Which, but their children's end, nought could remove,  
Is now the two hours' traffic of our stage;  
The which if you with patient ears attend,  
What here shall miss, our toil shall strive to mend.

**Application:** While reading, students are asked to identify various types of thinking. While the six types listed above are general types of thinking used over a variety of reading purposes, others may be added to meet the needs of a given assignment, e.g. underline the author’s claim/thesis, or circle unknown words or important vocabulary.

---

Adapted from AVID.
**Rationale and Overview:** After Marking the Text, teachers may seek deeper thinking pertaining to the content of the text. To do this, students use T4 to determine which of their “marks” are relevant to the reading purpose, then dig more deeply into the text using annotations, or marking the text. This helps students unpack their thinking for later use in discussion or writing. It also gives them the ability to string together thinking, allowing students to build on their level-one thinking, and move toward analysis and inference.

**Example:**

*From Shakespeare’s *Romeo and Juliet*

| Two households, both alike in dignity, |
| * In fair Verona, where we lay our scene, |
| * From ancient grudge break to new mutiny, |
| ? From forth the fatal loins of these two foes |
| ! Whose misadventured piteous overthrows |
| ! The fearful passage of their death-mark’d love, |
| * i Which, but their children’s end, nought could remove, |
| ↔ ! Is now the two hours’ traffic of our stage; |

* Two families are fighting. They hold a grudge.

? What does civil-blood mean? Civil, like behaving kindly?

? What does civil-blood mean? Civil, like behaving kindly?

i Maybe the parent’s bad behavior brought on their children’s death...?

**Application:** T4 helps students learn to differentiate which elements of their reading is important to a given reading purpose. To help student with this, teachers may choose to set a specific reading purpose. Likewise, younger students may have a difficult time generating annotations on their own. To help scaffold this skill, teachers may consider using sentence starters, such as the ones listed below:

**KEY IDEAS:**
- This is saying...
- In other words...
- This is important because...

**REACTION:**
- This makes me feel...
- I agree/disagree because...

**CONNECTION:**
- This makes me think of...
- This connects to the theme or main idea because...

**QUESTION:**
- Why...?
- How...?
- I wonder...?

**INFERENC**E/PREDICTION:**
- I predict...
- This makes me think...

Rationale and Overview: While reading, SOAPSTone can be used to help students consider the context of a text, as well as the rhetorical choices the author employs.

**Example:**

<table>
<thead>
<tr>
<th></th>
<th>Analysis</th>
<th>Textual Support</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Speaker</strong>&lt;br&gt;What does the reader know about the writer?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Occasion</strong>&lt;br&gt;What are the circumstances surrounding this text?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Audience</strong>&lt;br&gt;Who is the target audience?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Purpose</strong>&lt;br&gt;Why did the author write this text?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subject</strong>&lt;br&gt;What is the topic?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tone</strong>&lt;br&gt;What is the author’s tone or attitude?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Application: SOAPSTone is a graphic organizer that can be applied to many texts. While reading, it helps students consider the rhetorical choices an author makes to communicate his/her message to a given audience. For this reason, it may be best suited for non-fiction text, but can be used for more fictional, literary works, as well.

Adapted from AVID.
Rationale and Overview: Used as a protocol to help students make meaning of text in a collaborative way, the 4A Protocol, adapted from the National School Reform Faculty, allows students to consider their feelings toward the author’s message, as well as identifying the assumptions the author holds. In this way, students step beyond their own reactions and first consider the perspective of the author.

Example:
1. To use this protocol, students should be organized in dyads or triads. While students silently read the text, they Mark the Text and use T4 to annotate, answering the following four questions:
   - What are the author’s ASSUMPTIONS?
   - What do you AGREE with in the text?
   - What do you want to ARGUE with in the text?
   - What parts of the text do you want to ASPIRE to?
2. Following students’ silent reading time, students then share their annotations in a round, identifying their assumptions. Each person must share their annotation for the question at hand, before moving onto the next question, and in doing so, must cite the text (including page or paragraph numbers, when appropriate) as evidence. It is important that each person is granted the time to share their thoughts without interruption.
3. Once the first round of assumptions is complete, teachers should provide students time for small group discussion. During this time, open conversation may follow where students can clarify, connect, elaborate or question each other’s ideas.
4. After assumptions have been exhausted, repeat steps 2 and 3 for Agree, Argue and Aspire, providing first uninterrupted time to share then small group discussion.
5. End the rounds with a whole class discussion framed upon a relevant question. This question may be teacher-generated or student-generated, but should build upon the content of the small-group discussions.

Application: Using protocols such as 4A gives structure to small group discussion and helps students deconstruct a text through a few different lenses to focus discussion. The As used in this protocol may also be adjusted to meet the needs of the students and task. For younger students, for example, ARTICULATE may be an A, asking for students to articulate the author’s argument. Other verbs may include, APPLY, ANALYZE, ASSESS or ALTER. Following discussion, students may be tasked to write about their discussions, highlighting one A (either directed by the teacher or left to the students’ choice), or they may be asked to reflect on the content or process of the discussion.
Rationale and Overview: Traditionally, the writing process was taught in a linear fashion. More recently, research (National Writing Project, 2003) has suggested a cyclical nature to the traditional writing process—not one that merely begins with prewrite and ends with draft in five “easy” steps. In keeping in accordance with a cyclical writing process, writing is revisited and reworked until a product is finalized. Elements may be added to increase the complexity of the written work, then revised and restructured to meet the needs of the audience and purpose, given the addition of new material.

**Example:**

Application: To think of writing as a cycle enables students to develop a writing process that works for them, rather than fitting themselves and their thinking into a linear. In a writing cycle, the writing process can begin with prewriting or reflection, progress to drafting, introduce new elements, move back to prewrite, jump forward to revision and editing, then end with publishing. Adding reflection increases students’ metacognition, essentially helping them to see process and product as equal elements of producing writing.

Rationale and Overview: To assist students in deconstructing and interpreting a prompt, RAMPO may be used. While it can and should be used routinely in class, soon this mnemonic device will provide students a framework for making meaning of prompts when working independently.

Example:

<table>
<thead>
<tr>
<th>Role: From which perspective am I being asked to write/argue? Should I write this paper or address this prompt as a typical student or as someone else? What content am I expected to cover in this assignment?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audience: Who is my audience? Who am I writing/speaking this paper for – an organization, the mayor, a family member, or some other individual or group? What kind of language (formal, conversational, etc) is most appropriate for my audience? What does my audience know and/or believe?</td>
</tr>
<tr>
<td>Purpose: According to the definition on the handout, “Organizational Words in Writing Prompts,” what am I supposed to do? What are the verbs or action words stated in the prompt? What are the details that follow the verb and clarify the task?</td>
</tr>
<tr>
<td>Organization: What is the best way to organize my writing? Strongest point first, chronologically, opposing viewpoint first, or other? What makes sense for my final product? Are there clues in the prompt that will help me organize my paper? Does the prompt require me to use sources?</td>
</tr>
</tbody>
</table>

Application: RAMPO is a strategy that can be used in any number of writing contexts. To begin, RAMPO may be used as a whole class strategy, to be done as a group. With practice, students should be encouraged to deconstruct the prompt with peers in the absence of the teacher’s direction. Last, they should be expected to use RAMPO independently. With routine use, this strategy will become habitual, assisting students in isolating the important elements of a prompt.

Adapted from AVID.
Essential Skill 1: Organizational Words in Writing Prompts

Following are organizational words in writing prompts for both in-class writing ("essay examinations") and out-of-class assignments. This page will help you to interpret them.

**Analyze**  
Examine carefully to determine why. Separate or distinguish the elements of anything complex. Break the idea into parts, and explain the various parts.

**Assess**  
Examine critically, and estimate the merit, significance, or value.

**Compare/Contrast**  
Point out how things are similar and how they are different. (Sometimes, "compare" means both "compare and contrast.")

**Criticize/Critique**  
Discuss the good and bad elements in a text, a film, or something else. Give evidence to justify your claims.

**Define**  
Give the meaning of a term with enough detail to show that you really understand it.

**Describe**  
Explain or write about; put in words a picture or an account. Tell how something looks, how something happened. Include how, where, who, and why.

**Diagram**  
Make a drawing or outline of something and label its parts.

**Discuss**  
Give reasons with details. Explore from different perspectives. Look at the pros and cons.

**Effect**  
Whatever is produced by a cause; something made to happen by a person or thing; result.

**Enumerate**  
Count off or list examples, reasons, causes, or effects—one by one.

**Evaluate**  
Using evidence, discuss the strengths and weaknesses.

**Explain**  
Make clear or interpret the reasons why something exists or is happening.

**Identify**  
List and explain.

**Illustrate**  
Make the point or idea clear by giving examples.

**Interpret**  
Give the meaning of; use examples and personal comments to make clear.

**Justify**  
Give reasons for your claim (in an academic argument).

**List**  
List without details.

**Outline**  
Make an organized listing of the important points of a subject. (This outline does not always have to look like the formal outline you may write for your English papers.)

**Relate**  
Show the connections between things or how one thing causes another.

**Respond**  
State your overall reaction (response) to the content, and then support your response with specific reasons and examples, often referring back to the reading.

**Solve**  
Come up with a solution based on given information and your knowledge.

**State**  
Give the main points in brief, clear form.

**Summarize**  
Organize and bring together the main points, keeping out personal opinions.

**Support**  
Back up the statements with evidence.

**Synthesize**  
Pull together parts to make a whole—this requires looking for common attributes among the parts in order to link them together.

From AVID.
Rationale and Overview: Another routine adapted from Harvard’s Project Zero is Claim Support Explain. The acronym, (Q)CSE(Q) shows an option of asking questions before and after the CSE. This is a means to help students make their initial claim, provide relevant evidence, and extend their reasoning.

Example:
**QUESTION:** Who is the most favored winner of the 2014 World Cup? Predict.
**CLAIM:** The Netherlands possess the talent to take home the Cup.
**SUPPORT:** In their first match, the Dutch trounced Spain 5 to 1, and van Persie scored two goals.
**EXPLAIN:** Robin van Persie has demonstrated loads of talent in the first round of games, scoring a goal that very well may be one of the best in all of the Cup. With such talent in the attack, the Netherlands are poised to get positive results. The skill of van Persie, as well as their forward, Arjen Robben—who also scored against Spain—make up a dangerous threat for any opponent. Paired with a solid defense, and the fact that they do not house the pressure of Brazil to win on home turf, the Dutch may very well beat all others.
**QUESTION:** Can a dangerous offense be enough to win an entire tournament? Explain.

Application: (Q)CSE(Q) invites students to articulate their opinions in a way that also requires evidence and extended reasoning. Teachers may use this to prepare for a class discussion, such as a Socratic seminar, where students will assert their claims and be expected to provide evidence. Teachers can also use claim, support and explain to introduce the different elements of a body paragraph.

**Rationale and Overview:** Exit slips can be used as a means of formatively assessing student knowledge, skills, and behaviors. For a Productivity Exit Slip, students are asked to rank their productivity for a given task or activity. This empowers them to think of what productivity looks like and sounds like, as well as the self-evaluation of these look-fors with themselves and their interactions with peers.

**Example:**

<table>
<thead>
<tr>
<th>Name:</th>
<th>Date:</th>
<th>Period:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACTIVITY DESCRIPTION:</strong> What were you expected to do or learn?</td>
<td><strong>ACTIONS DESCRIPTION:</strong> What did you do? How did your actions impact others?</td>
<td><strong>SELF-EVALUATION (BAME)</strong></td>
</tr>
<tr>
<td>0-15 MINUTES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-30 MINUTES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-45 MINUTES</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Application:** The teacher may guide students in making a rubric with students prior to self-evaluation. Similarly, the class may generate a chart listing what productivity looks like and sounds like. These can then help create a foundation against which students can score themselves. One such productivity rubric may look like this:

<table>
<thead>
<tr>
<th>Beginning</th>
<th>Approaches</th>
<th>Meets</th>
<th>Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>I did not complete my responsibilities. My behavior dragged down my group and made it difficult to complete work or accomplish their tasks to the best of their abilities.</td>
<td>I completed my responsibilities, but did so in a rushed manner, that does not show my best work, nor the best work of my group. At times, my behavior detracted from the productivity of my group.</td>
<td>I completed my responsibilities to the best of my abilities. I worked mostly independently, and did not detract from the productivity of my group. My work is “wall worthy” and demonstrates my best.</td>
<td>I worked interdependently with my group, highlighting my strengths and the strengths of others. I completed my responsibilities to the best of my ability. My work is wall worthy.</td>
</tr>
</tbody>
</table>
Rationale and Overview: While formative assessments often evaluate students’ skill and knowledge, equally important are students’ dispositions toward a task or concept. The Disposition Toward Learning Exit Slip asks students to first, explain their understanding of a given concept, then second, gauge their feelings toward a said concept. Knowing students’ feelings helps teachers better understand their confidence. Once confidence is built, mastery can follow.

Example:
Name: Date: Period:

Today’s exit ticket will show:

This is best described as (summarize, sketch or explain):

Circle the phrase that best describes your attitude toward this concept:

| HELP ME! | Need more practice | Pretty comfortable | Very confident |

Application: At the end of a given lesson, in which students are engaged in initial or on-going learning, teachers may use the Disposition toward Learning Exit Slip as a gauge of their students’ feelings toward newly presented content. The barometer at the bottom of the slip may be adjusted to a series of smiley faces, as can the description question.
Formative Assessment

Rationale and Overview: When students’ think reflectively or metacognitively about an activity or task, often they learn from their mistakes and strengthen their skills. With Plus Minus Change, students are encouraged to think of both process and product, and draw evaluative conclusions about their skills and knowledge.

Example:

Name: __________________ Date: __________ Period: __________

Assignment or Task: ____________________________________________________________

PLUS: What did you do well?

MINUS: What was a challenge or difficult for you?

CHANGE: What would you do differently next time?

Application: While teachers may initially prompt students with the above questions to encourage reflection on a given activity or assignment, Plus Minus Change can quickly turn to a quick formative assessment, articulated with brief symbols (+, - and Δ). While it can be completed as an exit slip, Plus Minus Change can be used in small- and large-group reflection, as well.