

The Makes Sense Strategies Model

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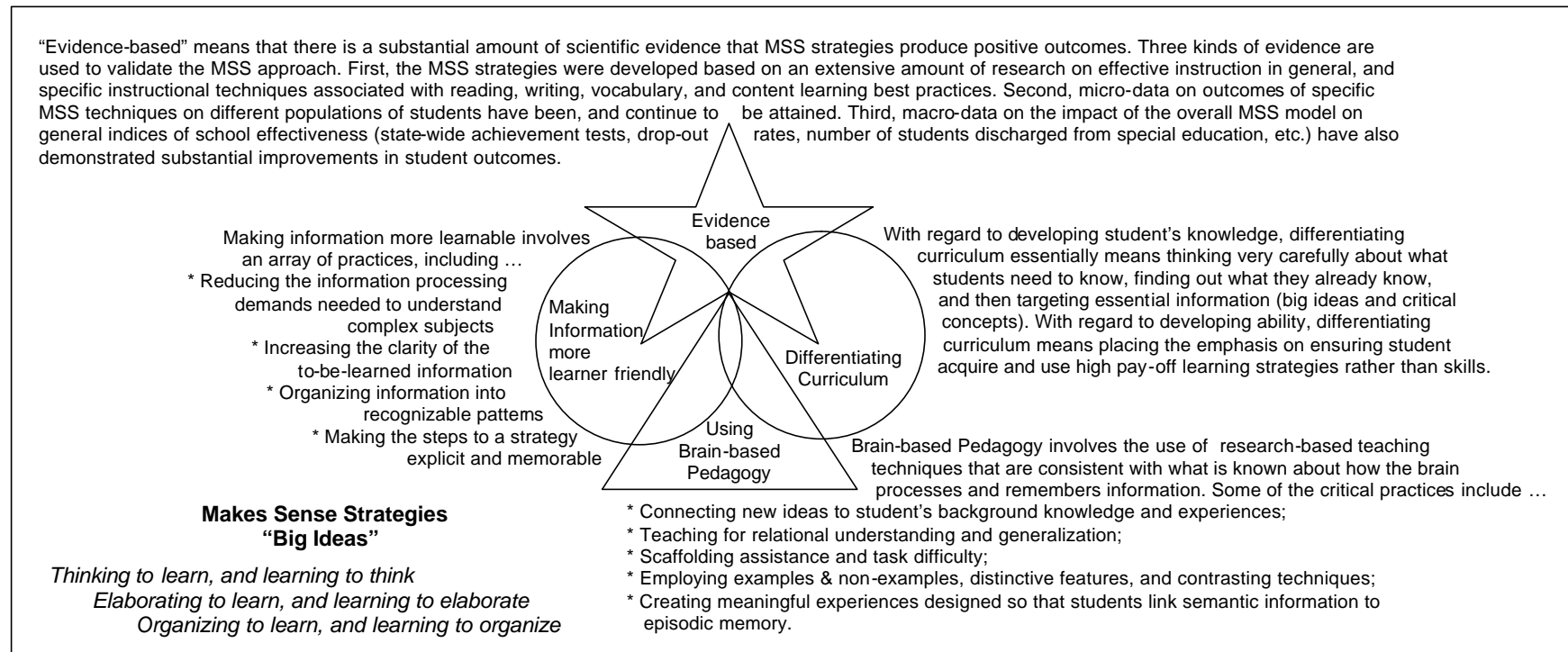
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The Makes Sense Strategies (MSS) model is an approach to teaching based on three fundamental instructional principles:

1. Students learn better when they are actively engaged in processing new information in meaningful ways.
2. Increasing the learn-ability of information or skills is preferable to dumbing it down.
3. Students should not waste time learning trivia.

In part, the Makes Sense approach is a collection of an array of powerful techniques and tools for differentiating curriculum, planning and implementing instruction, and assessing student learning. In part, it's a curriculum because students learn new strategies and thinking skills when teachers employ the MSS strategies. In part, the Makes Sense approach is a teaching philosophy about what students should learn and how it should be taught. MSS also includes strategies and tools for planning, implementing and assessing innovative school reform efforts.

MSS utilizes three interrelated sets of evidence-based practices: Differentiating Curriculum, Increasing the Learn-ability of to-be-learned information, and use of brain-based instructional procedures.



The MSS approach is NOT intended to be a “stand-alone” program that teachers use in lieu of other instructional techniques they have found useful. Rather, the intent is to blend and expand the range of teaching tools in the educator’s instructional tool box and to provide an orientation to the teaching and learning process that makes sense to both teachers and students. For example, many teachers who use tools from Lenz and Deshler’s *Content Enhancement Model* readily assimilate additional tools from the MSS model into their teaching repertoire.

The MSS approach also has a very different orientation to accommodations for students with cognitive disabilities that do not respond well to traditional forms of instruction. Rather than lowering expectations by watering down the content by simplifying the information, avoiding abstract concepts, and reducing the amount of information students are expected to learn, the MSS model focuses on strategies that water-UP the curriculum. As advocated by Deshler, the model focuses on use of evidence-based strategies that are sufficiently robust to impact students with learning difficulties, while at the same, are viewed by teachers as having high utility for all students, not just those with special needs. In other words, the strategies make sense to general education teachers, they like using them, and they like what happens to students’ learning when they do. There are a variety of print and software resources available to support teacher’s use of the strategies.

The MSS model is dynamic, and thus, its development, refinement, and expansion is continuous. Data from research and extensive on-going conversations with teachers who use the MSS strategies guide its on-going evolution.

The Makes Sense Strategies Model provides teaching procedures and tools for six key areas:

- | | | |
|-------------------------|--------------------------|---|
| * Content-area subjects | * Project-based learning | * Creative & Process Writing Strategies |
| * Vocabulary | * Reading Comprehension | * Strategic Instruction |

MSS also provides specific tools and strategies educators use as they collaborate to plan instruction for diverse learners or engage in collaborative problem-solving. Finally, MSS provides selected techniques for facilitating implementation innovation and school reform processes.

Makes Sense Content Strategies

The Makes Sense Content Strategies features an array of specific think-sheets and instructional strategies for teaching ‘BIG IDEAS’ and essential details. One of the things that distinguish the MSS think-sheets from traditional graphic organizers is that the think-sheets have embedded cues designed to both draw teachers’ attention to what is essential to understand about a concept being taught and to cue students to think about the concept in a manner that promotes use of elaboration cognitive learning strategies. These embedded cues can have a remarkable effect on the instruction and learning process.

For intermediate, middle, and high schools, the various social studies and science course of studies mandated by most states reflect expectations that students learn information that usually falls into eleven major categories:

- the significance and/or influence of a famous **person** (or **group**), the person’s characteristics, and what influenced the person’s actions
- what led to an **event**, what happened during the event, and how the event impacted other things
- what led to the development of a **belief** (or **theory**), what the belief is about, and how the belief impacted things
- why a **policy** (i.e., rule, law, regulation, etc.) was needed, what the policy was, its impact, and how various parties reacted to it
- the significance of a **place** and what happened there to make it significant
- geography concepts
- **life-cycles** and processes
- the **composition** and/or **critical features** of something, and how it contributes to problems or solutions to problems
- why an **invention** was needed, how it was developed and evolved, and its impact
- how a **process** unfolds, how various factors influence the process, and how the process influences other things

Development of the Make Sense Strategies approach has been greatly inspired and influenced by ...

Keith Lenz, Don Deshler, Jan Bulgren, & Jean Schumaker’s work with Content Enhancement Routines

Anita Archer’s work with graphic organizers

Mike Pressley’s work with cognitive strategies

- the causes of **conflicts** or **wars**, how they are implemented, and what happened as a result
- components of **issues** and why they have been, or are, issues in our world

An array of research has demonstrated that think-sheets can be powerful tools for helping students make sense of complex subject matter. The MSS model provides an extensive array of topic-specific think-sheets for these eleven categories as well as an array of generic think-sheets that reflect common information structures (whole-to-part hierarchy, cause/effect, compare/contrast, and sequences/cycles).

Many teachers provide students with copies of partially completed think-sheets where main ideas have been previously listed by the teacher; as the lesson is taught and the information about the topic is explored, the teacher and class together determine the most important ideas to note as “essential details” associated with each main idea. The think-sheets are gradually developed over time as the new information is explored with the class. Good teachers scaffold use of the think-sheets so that students gradually learn how to use them independently as they move from assisted to unassisted applications. It’s usually best to begin with simple versions of think-sheets (e.g., one main-idea frames), and as students develop competence and confidence using them, gradually shift to more complex versions of them.

These basic think-sheets can also be used in conjunction with specific activities employed at the beginning of a lesson as “think-ahead” tools for activating students’ background knowledge about a topic as well as creating anticipation and interest in the upcoming lesson. Likewise, they can be used as “think-back” tools at the end of a lesson for facilitating interactive reviews and reflection about the recently taught information.

The Content-area think-sheets focus on big ideas and critical features of key concepts taught in social studies or science.

Social studies instruction often focuses on the “march through history.” Students learn about what life was like in a given period time, economic and political influences, significant events that occurred, and how these events led to new developments. Students are typically expected to learn a host of facts and dates to demonstrate their understanding of a period. The “Makes Sense” approach to social studies instruction provides an alternative to this approach by combining instruction in generative ideas with thematic instruction.

Think-sheet type	Social Studies Example	Science Example
Famous person	<i>Thomas Jefferson</i>	<i>Einstein</i>
Notable Group	<i>ACLU</i>	<i>Genetic researchers</i>
Important Place	<i>Harper’s Ferry</i>	<i>Nucleus</i>
Belief/Theory	<i>Civil rights</i>	<i>Evolution</i>
Important Event	<i>Freedom March</i>	<i>Metabolize</i>
Key Policy	<i>1st Amendment</i>	<i>Cloning restrictions</i>
Important Process	<i>How a bill becomes a law</i>	<i>Weather cycle</i>
Geography	<i>Argentina</i>	<i>Geology</i>
Inventions	<i>Cotton Gin</i>	<i>Nuclear reactor</i>
War Patterns	<i>Iraq War</i>	<i>Psychological warfare</i>
Issue	<i>Liberal vs. conservative position on the role of government</i>	<i>Use of human embryonic tissue to develop new medicines</i>

Generative-idea instruction focuses on helping students develop sophisticated understanding of the bigger picture of how life tends to work or unfold. Although different iterations of the idea show up across time and place, these ideas are generalizable – that is, they reflect basic truths about life that remain true, regardless of time or place. Generative ideas “define the moment” – that is, much of what is happening at any point in time is interconnected to a generative idea.

Thematic instruction involves identifying a central theme linked to your course of study and then using it as a basis for relating all essential-to-be-learned information to it. The theme serves as a bridge for helping students develop relational understanding and interconnections among ideas and various details.

Some of the content-area think-sheets (Geography, Inventions, War patterns) are thematic in nature. The Geography think-sheets focus on big ideas primarily related to the dynamic relationship of the specific geography of a region and the people who live there. The Inventions think-sheets focus on big ideas associated with the development, impact, and evolution of *physical inventions* (such as gadgets, tools, or new chemicals), *process inventions* (an organizing technique or

procedure for of doing things, such as creating established plans or strategies), and *policy inventions* (e.g., regulations, laws, or guidelines that establish parameters for human endeavor).

The Conflict / War-patterns think-sheets focus on big ideas related to why countries resort to war, specific patterns that are always manifested when wars are fought, and predictable long-term affects of wars, depending on the specific actions taken by the victor following a war.

All of the thematic think-sheets (Geography, Inventions, Conflicts) can be applied to helping students understand how a set of highly generative ideas are manifested at any place at any point in time, including the present. The ultimate goal is NOT for students to remember the specific details of how a generative idea is manifested for a particular invention, conflict, or geographical region, but rather to thoroughly understand the generative idea itself.

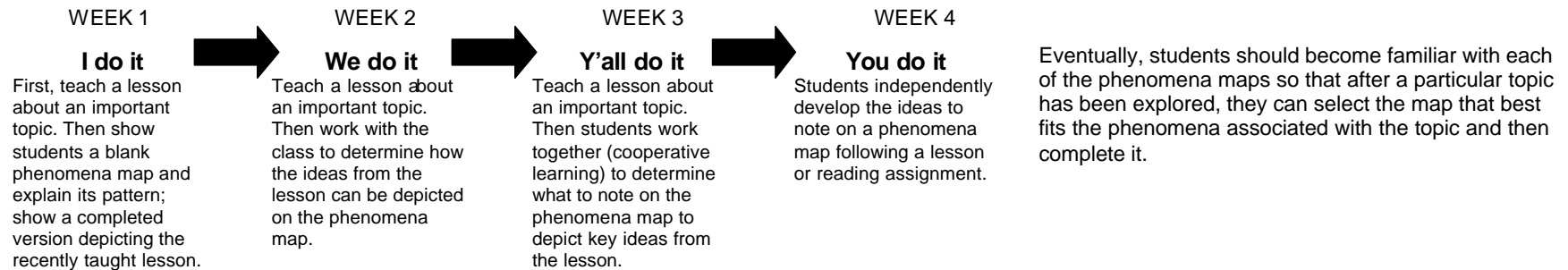
Phenomena Maps are visual devices designed to depict patterns of how common, but important, events tend to occur. The pattern depicted by each phenomena map is inherently a generative idea about how life tends to unfold. Students learn the patterns and then learn iterations of the patterns as they occur throughout history. Understanding a particular pattern associated with a given phenomena makes it easier for students to understand some aspect of history that involves the phenomena. For example, if students understand the pattern of how revolutions tend to unfold (depicted by the "*Tension*Reaction*" phenomena map), then learning about a specific unfamiliar revolution is greatly enhanced. More importantly, the revolution phenomena map can greatly enhance students' understandings of revolutions in general. Everyone develops schemas of understanding about particular phenomena. Schemas often initially reflect superficial understandings fraught with erroneous information and gradually become refined as more becomes learned about a topic. Thus, schemas are continuously being reformed or reconstructed as greater understanding of the phenomena develops.

Naturally, some learners are much better at developing sophisticated schemas about particular phenomena than other learners. Likewise, some learners may fail to notice or comprehend the pattern associated with a given phenomena and thus develop poorly conceptualized schemas composed of erroneous understandings.

Schemas are dynamic (constantly changing as more becomes known about a topic). Although phenomena maps reflect an established format for understanding a type of event (thus remain inert), their use can serve as effective launching pads for helping students more readily develop sophisticated schemas about a particular phenomena. The phenomena maps potentially allow students to skip the initial stages of schema development where understandings tend to be so erroneous and superficial. The phenomena maps depicted by MSS think-sheets include:

Tension*Reaction	Various sources of tension build to cause a reaction resulting in changes that create new tensions
Risk Taking	Some tensions promote risk-taking, others inhibit it, resulting in both anticipated and unanticipated changes and new tensions or challenges
Problem Solving	Problems have multiple solutions that always produce both desired and undesired outcomes and new tensions
Problem*Solution	Problems are composed of sub-problems and sub-solutions, each with distinctive features
Chaos*Control	Humans attempt to control variables that affect our lives; both too little and too much attempt at control produces chaos; the idea level of control changes as factors change
Data Spinning	When confronted with data that conflicts with existing beliefs or goals, there is a tendency to intentionally or unintentionally change (spin) the data to make it conform to existing beliefs or goals rather than change them so they align with the new data
Yin*Yang Perspectives	Different people view a phenomena (person, event, belief, policy, etc.) in different ways, depending their goals, beliefs, and prior experiences
ASN	A phenomena will have some distinctive features that are always present, and some that are sometimes present or associated with it; likewise, there are distinctive features of other phenomena that are never present in the phenomena of concern

The best approach for using phenomena maps is to scaffold their application so that students eventually learn to independently use the think-sheets when studying.



Makes Sense Vocabulary Strategies

These think-sheets are designed to help students learn and remember new vocabulary terms and abstract concepts. The design of the MS vocabulary strategies are based on a number of evidence-based practices for teaching vocabulary. These include:

- * analysis of definition's gist and details
- * key-word mnemonics
- * real-world connections
- * perspective taking
- * word hunt
- * critical features analysis
- * paired-associates
- * background knowledge connections
- * influence & impact
- * semantic mapping
- * semantic features analysis
- * then & now relevancy
- * synetics & comparisons
- * examples vs. non-examples
- * mind mapping

The think-sheets can be used to pre-teach vocabulary at the beginning of a lesson or as note taking guides as the meaning of new term or concept is taught during the lesson. However, the think-sheets often work best as devices for anchoring students' understanding of the new term after the meaning of the new term has been first taught within the context of a lesson. For example, if the new term is "exploitation," it is usually best for students to learn what exploitation means within the context of reading about and discussing it (e.g., reading Charles Dickens' *Great Expectations* and discussing how the story illustrates the exploitation of children). After students develop some contextualized understanding of the term, then a think-sheet can be developed to more fully explore the meaning of the term and note its gist and critical features.

The best approach for using the vocabulary think-sheets is to scaffold their application so that students eventually learn to independently use them when studying.

While some of the vocabulary think-sheets may be used to address multiple terms on a single page, most are used to facilitate analysis of a single term. Thus, these think-sheets are best reserved for use with those terms that are most critical for students to understand within a unit.

Project Learning

Effective teachers often create opportunities for students to learn about important concepts via student-centered projects. The MSS Project strategies are designed to address different tasks in which students must engage when planning their project, conducting research to learn about their topic, planning and

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implementing presentations to communicate what they learned, as well as evaluating how well they addressed these various tasks. A brief description of each is provided below.

Topic Analysis Matrix	Used to determine the topic about which to investigate
DRAFT Planning	Used to identify specific tasks and develop implementation plans
Information Sources	Used to help students consider a wide array of alternative sources of information for learning more about their topic
TESTS Planning	Used to help students design experiments
Presentation Planning	Prompts students to consider an array of critical variable for planning a presentation about their topic
Presentation Options	Provides an extensive array of ideas for varied and unusual ways for making a presentation about their topic
Goal Setting	Used for making commitments to excellence and target specific collaboration techniques and habits of the mind to practice and perfect when working together on their project
Presentation Goals	Prompts students to develop specific goals related to developing and making a presentations
Collaboration Evaluation	Used by teachers, peers, or selves when <i>rating use</i> of specific collaborative behaviors
Collaboration Observation	Used by teachers, peers, or selves when focusing on <i>observation</i> of collaborative behaviors
Thinking Skills Evaluation	Used by teachers, peers, or selves when focusing on <i>rating use</i> of specific thinking skills
Thinking Skills Observation	Used by teachers, peers, or selves when focusing on <i>observation</i> of thinking skills
Evaluation of Presentation	Used by teachers, peers, or selves when focusing on <i>rating</i> how well specific features of a presentation
End-of-Project Evaluation	Used by teachers, peers, or selves when <i>rating</i> individual student's contribution to the project across several dimensions

Makes Sense Reading Strategies

Extensive research has demonstrated that graphic organizers and think-sheets can be powerful tools to facilitate comprehension of both fiction and non-fiction text. The MSS model provides an array of specialized think-sheets specifically designed to address common areas of reading comprehension: (e.g., story grammar, character analysis, problem analysis, story sequence). As in previously described think-sheets, the reading think-sheets contain embedded cues. In this case, the cues prompt the use of a series of powerful cognitive learning strategies (summarizing, generating questions, forming inferences and/or predictions, perspective-taking, and text perusing). In addition, the content and vocabulary think-sheets also serve as powerful tools for facilitating content-area reading comprehension.

Makes Sense Writing Strategies

A considerable amount of scientific evidence supports the use of that graphic organizers and think-sheets to help students identify and organize their ideas when writing. The MSS model includes strategies and think-sheets specifically designed to promote process writing in the following modes:

* Descriptive * Narrative * Expository * Persuasive

The think-sheets in each mode are developmentally sequenced from simple-to-sophisticated applications. Students should master applications of the simple versions before attempting to use the more complex versions.

<i>Establish the PATH you plan to take when writing.</i>	
Purpose	What do you hope will happen when someone reads your essay?
Audience	Who will be reading your essay?
Thesis	Will this be a descriptive, narrative, expository, or persuasive essay?
Hook	What are some ideas about how to make the reader interested in your message?

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These think-sheets are designed for use in conjunction with instruction in the application of three process-writing strategies: PATH, PLANS, and SCOPE. The PATH strategy is used initially to help the writer establish intent. Each of the developmentally sequenced process writing think-sheets includes a section at the top where students list PATH-related information.

Students use PLANS to note and organize ideas on the writing think-sheets and then use the think-sheet as a guide when producing a draft of the essay.

Students apply the SCOPE strategy when editing the draft of the essay, and then again when proofing the final draft.

Follow your writing PLANS

Preview ideas – list key words to use in your essay

List ideas on a think-sheet

Assign order

Note ideas in complete sentences

State a conclusion

Makes Sense Instructional Planning Strategies

A major component of the MS Content Strategies is of a series of instructional planning strategies for teachers. Although teachers can independently use these planning think-sheets, they are best used when pairs or teams of teachers are collaborating to plan instruction. Like the think-sheets for students, the instructional planning think-sheets also contain embedded cues. These cues, however, prompt teachers through the complex reflective process of planning instruction for diverse-ability learners. The prompts cue teachers to consider a range of powerful evidence-based instructional strategies. These planning think-sheets can have a dramatic impact on the quality of instruction that is subsequently delivered.

“Use your SCOPE to find and fix errors”

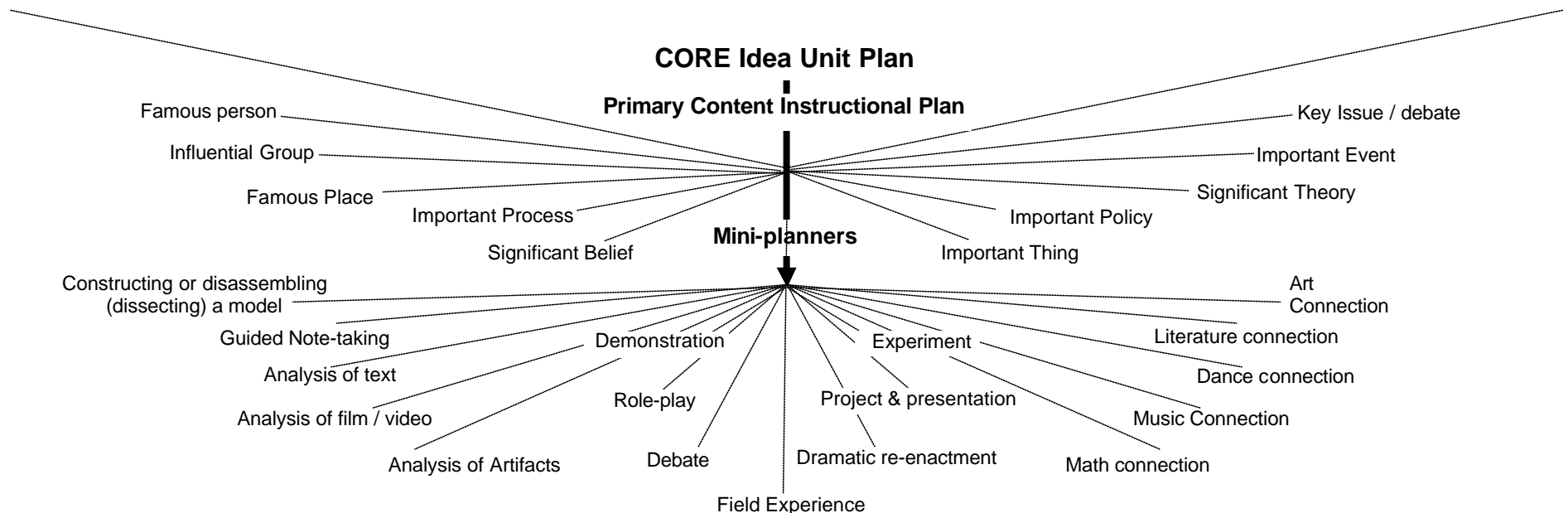
Spelling

Capitalization

Omissions

Punctuation

Ear (read your essay out loud – listen for sentence fragments and run-ons, and grammatical errors)



These planning think-sheets are designed to help teachers identify the “core” idea of a unit and how to plan meaningful lessons around it. The Primary Content Instructional Plan is a think-sheet designed to cue teachers to make decisions about critical aspects of the upcoming lesson. These critical aspects reflect an extensive body of effective instruction research concerning lesson structure. Use of this think-sheet leads teachers to identify primary activities or instructional modes (e.g., demonstration, role-play, analysis of text, etc.) which in turn leads teachers to specific mini-planners. Each mini-planner provides cues to consider critical components of how to implement the mode of instruction and to identify accommodations that may be needed. During the planning process, teachers complete both the primary plan and one or two of the mini-planners.

One of the greatest challenges to collaborative planning and co-teaching formats is creating sufficient time for planning. Observations of teachers engaged in planning processes indicates that a great deal of time is required for teachers to grapple with understanding students needs and the curriculum they are expected to teach, developing instructional objectives, and forming specific plans for how the instruction will be provided and how assessment will take place. The think-sheets tend to provide a organized framework for planning that can significantly reduce the cognitive demands needed to engage in the process. Although the instructional planning think-sheets prompt teachers to consider a wide range of important factors when planning lessons, the prompts allows the collaborators to quickly focus on critical decisions; the planners require minimal writing on the teachers part, and thus can be completed in a minimal amount of time. Teachers fluent at using the planners informally report that the planning time needed can be reduced by 50-75%.

The think-sheets in this section below are designed to facilitate the planning process on two levels: (a) planning instructional units and lesson plans, and (b) planning for school-wide incremental change.

CORE Idea Unit Plan	This think-sheet is designed to help teachers differentiate the curriculum in order to target core ideas associated with a content unit of study. For each core idea identified, teachers develop one or two “big picture” questions that students should be able to answer if they truly understand the core idea, identify the best way to organize the main ideas and essential details associated with the core idea, and finally, identify key concepts, terms, people, places or events associated with the core idea that are essential to learn.
Content Lesson Plan	This lesson plan is designed to help teachers design effective content lessons., Prompts are provided throughout the think-sheet to help teachers identify how they plan to employ instructional routines at the beginning of a lesson to activate knowledge and create anticipation for learning, routines for providing explicit instruction in the main ideas and essential details during lesson, and routines for facilitate reflective reviews at the end of the lesson. Included also are prompts to help teachers both design meaningful activities to enhance students understanding of the key concepts, and how to design effective evaluation instruments to assess students’ learning of the essential information.
Content Assessment	This think-sheet is designed to help teachers assess critical ideas that have been differentiated. The think-sheet cues teachers to consider critical aspects of both the <u>kind of knowledge</u> students are expected to possess about a critical concept, and the <u>manner</u> in which this knowledge will be demonstrated.
Content-area Reading Lesson Plans	This lesson plan is designed to help teachers design effective reading comprehension lessons involving use of think-sheets when reading information books (i.e., textbooks). The lesson plan prompts teachers to identify specific content-learning objectives and match these with appropriate plans for scaffolded use of the think-sheets. The plan also provides cues to helping teachers plan the lesson sequence. Project-based Learning think-sheets
CORE Strategy Unit Plan	This think-sheet is designed to help teachers plan a unit of instruction for a specific learning strategy relative to four stages of learning: Orientation, Acquisition, Proficiency, and Generalization. Specific prompts are provided to help teachers identify key elements of instruction for each level of learning.
Strategy Lesson Plan	This lesson plan is designed to help teachers design effective lessons in a specific learning strategy. The think-sheet features prompts for developing instructional plans that address different dimensions of strategic knowledge. Included are prompts to help teachers plan for scaffolding both assistance and complexity of tasks.

Reading Comprehension Lesson Plan This lesson plan is designed to help teachers design effective reading comprehension lessons that involve use of think-sheets. The lesson plan prompts teachers to identify specific reading cognitive strategies to be emphasized during the lesson, to match the reading ability of the student(s) with that of the to-be-read prose, as well as plan for scaffolded applications of the think-sheet.

Effective teachers always begin their lessons by engaging students in activities designed to both promote anticipation for learning and activating students' background knowledge about the topic. Likewise, good teachers provide closure to lessons using activities designed to facilitate student review, reflection, and extensions of understanding about what they have been learning. The think-sheets in the following section are designed for facilitating these kinds of activities. Below are descriptions of some of the think-sheets found in this section.

Two examples of Knowledge Activation think-sheets

- KEW** The KEW think-sheet is applied at the beginning of the lesson and focuses on three elements: **Know** (What do you already know about this topic; what are some words you think of that might be connected to this topic?); **Expect to learn** (What do you expect to learn when we study about this topic? What kinds of things do we usually learn about when we study topics like this one?) **Wonder about** (What do you wonder about this topic? What questions might be answered when this topic is studied? What would you like to learn about this topic?)
- 1st TRIP** 1st TRIP is a think-sheet designed to promote text-chapter perusal so that students become familiar with a chapter before attempting to read it. Students use the TRIP steps to complete the think-sheet: **Title** (paraphrase the title), **Relationships** (use information from the introduction, summary, headings and subheading to construct a web depicting the relationships or organization of the chapter, **Identify questions** (find questions that authors provided in the introduction, margins and at the end of the chapter and paraphrase them), and **Perspective** (put the chapter in perspective of the whole unit in terms of where we've been, where we are, and where we're headed next after this chapter).

Two examples of Reflective Review think-sheets

- WHOA** The WHOA think-sheet is used at the end of the lesson to facilitate reflective reviews of the recent lesson. Teachers can use an overhead projector to project a transparency of the think-sheet, and then use it to facilitate a class-wide reflective review. Another way to use the think-sheet is to assign each group the task of formulating a response to a different part of WHOA. For example, Group 1 might formulate a response to the "W" prompt, "*What are we learning? Why?*" whereas Group 2 formulates a response to the second prompt, "*How is this similar or different than what you already knew?*" and so forth. Later, each group shares with the class the response they formulated.
- Strategy Logs** The Strategy Log provides prompts specifically designed to promote reflection about key metacognitive elements associated with learning a strategy. It can be applied in a manner similar to that of the WHOA or CROWN routines, or it can be used to prompt individually written reflections in the form of learning logs.

Collaborative Problem-solving

All of the think-sheets previously discussed have addressed planning, teaching, and/or assessing instruction. The MSS model also includes SOLVE, a collaborative problem-solving strategy collaborators use designed to enable them to move beyond "surface level" issues and focus more on the deeper, underlying aspects of a problematic situation. These strategies are based on the assumption that all problems have multiple, interacting factors, and multiple interacting solutions.

Innovation Implementation & Assessment

While the use of graphic organizers and think-sheets have an important role in the Makes Sense Strategies model, their use reflects only a portion of the model's over-all approach to teaching. Many teachers employ selected MSS strategies but use only a few of the think-sheets. Thus, there is no single "correct way" to implement the MSS model. Each teacher, school, or district reflects unique know ledge, levels of expertise, experiences and contexts, and thus they begin using the strategies in different ways. Although patterns in the manner in which teachers implement the model have emerged, a teacher's

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or team of teachers) journey toward implementation is also a dynamic and unique one and is greatly influenced by a variety of factors. Implementation of the model is an evolutionary process that takes place over several years. MSS research as well as those of others involved with school reform and change processes have identified principles and best practices for promoting innovation, so these have been integrated into the MSS implementation strategies.

The think-sheets described below provide are designed for facilitating implementation of the Makes Sense Strategies model or other school reform efforts. These think-sheets are designed for use by key players (teachers, coordinators, administrators) to facilitate the process of incremental change toward school improvement.

WISE Decision Making	The WISE Decision Making think-sheet is designed to help educators make critical decisions about specific aspects of a school environment to change.
STEPS Goal Setting	The STEPS Goal Setting think-sheet is designed to help educators develop specific goals and realistic plans for attaining them.
District Analysis	This think-sheet is designed to help a collaborating team identify the factors within a school district (i.e., administrative support, budgetary constraints, politics, school board) that either inhibit or enhance and support effective school reform efforts as well as develop the rudiments of a plan for addressing these factors.
School Climate	The School Climate Analysis think-sheet is designed to help a collaborating Analysis team identify the factors within a school building (e.g., principal support, other initiatives that compete for teacher's time, building-level politics, personalities and goals of key stakeholders, parental support) that either inhibit or enhance and support effective school reform efforts as well as develop the rudiments of a plan for addressing these factors.
Personal Factor Matrix	This self-assessment think-sheet is designed to help key stake-holders (i.e., teachers implementing the change) identify critical personal factors that ultimately impact the nature of the implementation plans as well as its subsequent success. along three dimensions (Opportunity, Motivation, and Ability) in relation to three areas where the charge should be targeted: Differentiating Curriculum, Enhancing the Learn-ability of Subjects, and Using Brain-based Instructional Techniques.
Implementation Assessment Matrix	This instrument is used to assess the degree to which the Makes Sense Strategies (MSS) are being implementing within a school or by an individual teacher. The instrument addresses four key areas of implementation: Multiplicity (the number of different MSS tools a teacher is using), Range (the number of different curriculum areas a specific MSS tool is being applied, Integrity (the effectiveness in which the tool is being used during instruction) and Diligence (the degree to which the toll is being used on an on-going basis).
Action Research Planner	This think-sheet is used by implementation teams or individual teachers to plan action research studies that will be implemented within their own classrooms to assess the relative impact of the MSS strategies on student performance in specific areas.