
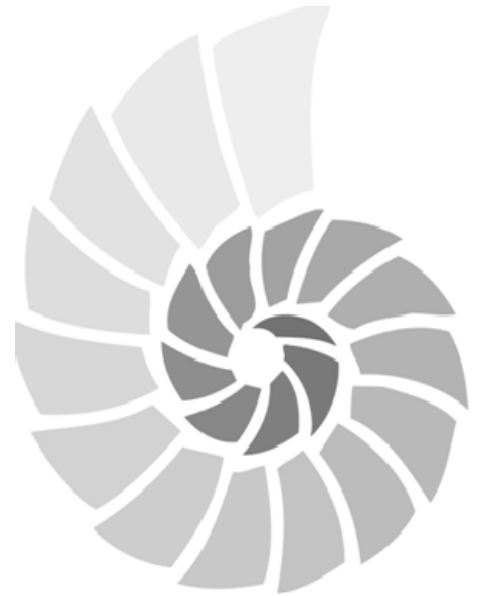


**MULTIPLE
SUBJECT** 
**CREDENTIAL
PROGRAM**



Instructional Planning Handbook



California
Commission on Teacher Credentialing
*To ensure that those who educate the children of
California are academically and professionally prepared*

NCATE
The Standard of Excellence
in Teacher Preparation

College of Education
Department of Teacher Education
California State University, Long Beach

Revised 8/2020



PREFACE

This handbook was prepared for the Faculty, Credential Students, Master Teachers, Principals, and University Supervisors who are part of the Multiple Subject Credential Program at California State University, Long Beach. We hope you find it useful.

Multiple Subject Credential Program

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COLLEGE OF EDUCATION MISSION STATEMENT

Equity & Excellence in Education

The College of Education at CSULB is a learning and teaching community that prepares professional educators and practitioners who promote equity and excellence in diverse urban settings through effective pedagogy, evidence-based practices, collaboration, leadership, innovation, scholarship, and advocacy.

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Section I:

Instructional Strategies for Consideration and Reflection

Active Participation

Active participation is defined as the consistent, ongoing, simultaneous involvement of the minds of all learners with the content. It can be a mental activity (**covert**) and/or an observable, measurable activity (**overt**) typically categorized as an oral activity, written, or using gestures. Typically, active participation is best utilized when both covert and overt strategies are combined. Illustration 1.1 shows actions related to covert and overt active participation strategies.

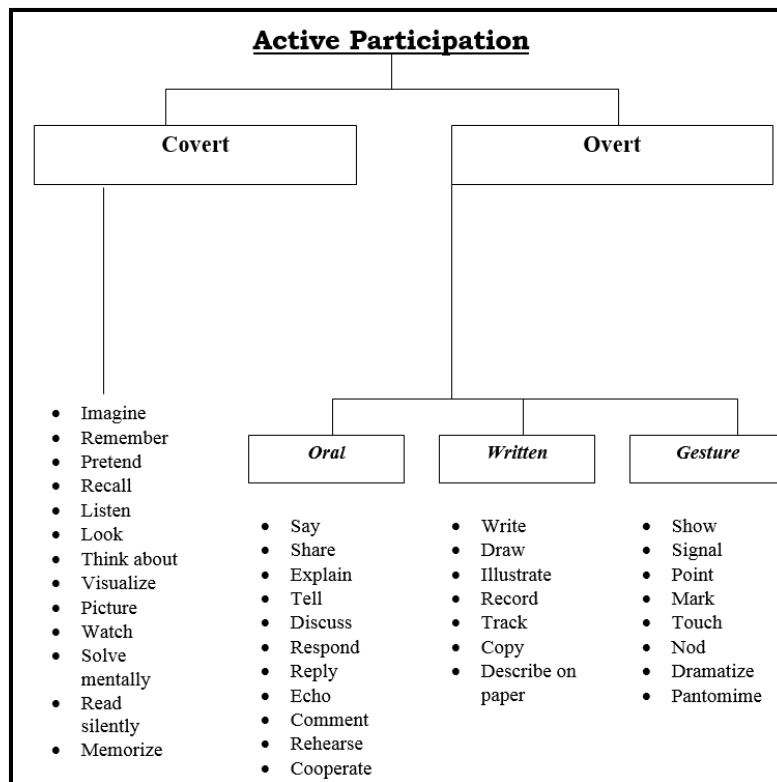


Illustration 1.1

During the course of an instructional sequence or lesson, **active participation** strategies can be utilized several different times for multiple reasons. The purpose of using active participation strategies is either to engage students or to collect formative student data to monitor progress. Often utilizing an active participation strategy will be beneficial under both objectives; to engage the students and collect data to monitor progress of instruction. For example, asking all students to individually write a response on a white board has two purposes: (1) the teacher allows the students to engage with the lesson's content, and (2) the teacher can assess the answers on each white board to immediately determine if there needs to be a change in instruction. Some examples of active participation, like a "Think-Pair-Share" are great for engagement but are difficult to get data from all students. In this example, a teacher may include a variable to impact the students' level of concern. "Think-Pair-Share" is a great way to combine a covert activity ("think") with an overt ("pair" and "share") but

unless the teacher is going to listen to every single pair-share, he/she will not get a thorough assessment of the status of the entire class. To hold students accountable for the conversation, the teacher can use equity sticks, or other random answer generator to choose students to share their answers with the class. This act of choosing a student or students to share randomly is the variable the teacher used to increase the students' **level of concern**.

There are a wide variety of active participation strategies that can be utilized with all ages. It is important to find strategies that are both age-appropriate and offer a level of novelty and interest to the students. Teacher creativity in the use of active participation with students is often met with success. A list of active participation strategies is available in the appendix of this instructional strategies handbook but is meant to be only a beginning point to implementation of active participation. Strategies can be altered, combined, or simplified based on student need and teacher creativity. Your students will appreciate your willingness to try new strategies!

***Teacher Actions That Affect
The Student's Level of Concern***

- **Walking around to look at answers or listen**
- **"Look at me when you are ready to answer."**
- **Deck of cards with names of students - "luck of the draw"**
- **Put names in hat - draw a name**
- **Pick a number - count down class list (ex. every fifth student)**
- **"One of you will be called on....."**
- **"Be ready with your feelings...."**
- **Examine the student's answers at the board - be ready to support it or suggest another**
- **"I'm going to call on four people. Be ready to add to the person's answer before you."**

Related Quotes for Discussion:

"Creating opportunities for learners to share and discuss their thoughts and ideas is a key element of active processing. Vygotsky's (1978) theory of child development emphasizes social constructivism, the need for interactions between children and their social environment in order to acquire the tools in the mind. Many strategies for quick pair-shares can be used to encourage students to interact with each other." (The Motivated Brain, G. Gregory, 2015, p. 80)

"The benefits to the teacher of using all-student response systems are obvious. The teacher gets real-time information about what the class is learning. What is less obvious is that all-student response systems also benefit students directly, because of a strange feature of human learning known as the hypercorrection effect...All-student response systems capitalize on this effect by routinely putting student in the position of committing to an answer and then later finding out whether they were right or wrong... When individuals make a commitment to a course of action, the level of dopamine in the brain increases, and this seems to increase learning. (Embedded Formative Assessment Strategies, D. Wiliam, 2015, p.80)

"When teaching and learning are visible, there is a greater likelihood of students reaching higher levels of achievement. To make teaching and learning visible requires an accomplished "teacher as evaluator and activator", who knows a range of learning strategies to build the students' surface knowledge, deep knowledge and understanding, and conceptual understanding." (Visible Learning for Teachers, J. Hattie, 2012, p.21)

"The most common error is a teacher's ubiquitous 'OK?,' with the assumption that student silence means everything is OK and they understand. For example, 'We've finished the chapter, OK?' or 'Let's move to the next section, OK?' Which student is going to be brave - or brash - enough to say, 'No, that's not OK. You're going too fast!'" (Madeline Hunter's Mastery Teaching, Hunter, 2004, p.77)

My Personal Practice: Turn to the set of active participation strategies offered in the appendix of this handbook. Which strategies do you feel are appropriate for your age group and that allow you to both engage students AND collect data around the success of the lesson? What modifications or alterations would you make to the description of the strategy to make it most effective for your situation?

Related Resources:

Gentile, J.R. (1993). *Instructional Improvement: A Summary and Analysis of Madeline*

Hunter's Essential Elements of Instruction and Supervision. Oxford, OH: National Staff Development Council.

Joyce, B., Weil, M., & Calhoun, E. (2009). *Models of Teaching*. Boston, MA: Pearson Publishing.

Kagan, S., & Kagan, L. (2002). *Multiple Intelligence Structures to Eliminate the Achievement Gap*. San Clemente, CA: Kagan Publishing.

Gregory, G., & Kaufeldt, M. (2015). *The Motivated Brain*. Alexandria, VA: ASCD

Hunter, R. (2004). *Madeline Hunter's Mastery Teaching*. Thousand Oaks, CA: Corwin Press

Walsh, J. & Sattes, B. (2015). *Questioning for the Classroom Discussion*. Alexandria, VA: ASCD

Classroom Management

The underlying principle of classroom management is “management is curriculum.” Just like any other content area that we teach in the realm of academics, management is part of the curriculum for which we are responsible. Classroom management is defined as “concepts and skills needed by the teacher to plan and maintain a learning environment in which students learn those decision-making skills needed to responsible for their own learning and behavior. Harry Wong writes, “Effective teachers manage their classrooms. Ineffective teachers discipline their classrooms.” The effective manager does three things:

1. They teach the behavior they want. A teacher can’t assume that the students should know how he/she wants them to behave in a given situation. You would never hold students accountable for a math concept you hadn’t taught, or spelling words you had never taught. The same applies to management curriculum. A teacher must first teach the behavior before students can be held accountable for its content.
2. They support and promote the behavior they want. Once the behavior has been formally taught, it must be supported and promoted throughout the instructional day.
3. They redirect unproductive behavior.

Establishing and maintaining appropriate classroom rules, procedures, and routines is the foundation of a well-designed classroom management system and are usually individualized based on a teacher’s style.

| Rules | Procedures | Routines |
|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Guidelines for behavior that prevent or encourage behavior by clearly stating student expectations. | Process or method for how things are to be done in the classroom | Process that is completed automatically by the student without being prompted or supervised. |

Rules are guidelines for behavior. Their function is to prevent or encourage behavior by clearly stating student expectations. Although rules can be stated both positively or negatively, it is optimal to state a rule reflecting a positive behavioral expectation. Procedures differ from rules in that they model *how* a behavior is exhibited in the classroom or school setting, not just a statement defining *what* is expected. For example, the task of sharpening one’s pencil may differ for Teacher A than for Teacher B and students need to be taught the procedure expected in the various learning environments. A routine is something the student does automatically without being prompted or supervised and typically originates from a series of established procedures that happen in the same order each day or at each occurrence. For example, Teacher A’s morning routine includes accomplishing the following procedures in order: putting backpack on the designated hook, leaving homework to be checked on corner of desk, and completing the warm-up activity illuminated on the projector. Three separate procedures combined create this Teacher A’s daily morning routine. Teacher B may have a different set of procedures that make up his/her established routine. Students need to learn the new procedures and routines expected every time they begin with a new teacher.

Related Quotes for Discussion:

“What you do on the first days of school will determine your success or failure for the rest of the school year. Student achievement at the end of the year is directly related to the degree to which the teacher establishes good control of the classroom procedures in the very first week of the school year (Harry Wong)

“It takes one fool to backtalk. It takes two fools to make a conversation of it.” (Tools for Teaching, F. Jones, 2005, p. 210)

“Any time that you are working harder at discipline management than the students, you will lose.” (Tools for Teaching, F. Jones, 2005, p.156)

“When thoughts are guided to focus on the positive and constructive, then the self is nourished and enriched. Self-worth is intangible, and much of its cause, as well as its effect, is a matter of choosing thoughts that expand and strengthen the human psyche – rather than constrict or weaken it.” (Marvin Marshall, Discipline without Stress, Punishment, or Rewards, 2005, p.3)

My Personal Practice: Will my classroom management style differ from that of teachers I have observed? If so, what will I do differently and why?

Related Resources:

Brophy, J., & Good, T. L. (1986). Teacher behavior and student achievement. In M.C. Wittrock (Ed.), *Handbook of Research on Teaching*. New York: Macmillan.

Curwin, R.L., Mendler, A.N. (1999). *Discipline with Dignity*. Alexandria, Va: Association for Supervision and Curriculum Development.

Dweck, C. (2006). *Mindset: The New Psychology of Success*. New York, NY: Random House Publishing

Gentile, J.R. (1993). *Instructional Improvement: A Summary and Analysis of Madeline*

Hunter, R. (2004). *Madeline Hunter’s Mastery Teaching*. Thousand Oaks, CA: Corwin Press

Jenson, W.R., Reavis, H.K., & Rhode, G. (1992). *The Tough Kid Book*. Longmont, Co: Sopris West.

Jones, F. (2005). *Tools for Teaching*. (). Santa Cruz, CA: Frederic H. Jones & Associates, Inc.

Kronowitz, E. (2012). *The Teacher’s Guide to Success*. Upper Saddle River, NJ: Pearson Educational, Inc.

Marshall, M. (2005). *Discipline without Stress, Punishments, or Rewards*. Los Alamitos, CA: Piper Press

Wong, H.K., & Wong, R.T. (1998). *The First Days of School*. Mountain View, Ca: Harry K. Wong Publications. Lee Canter Assertive Discipline.

What Students Should Know and Be Able to Do

Teachers should be well-planned for each lesson taught throughout the instructional day. Daily **instructional objectives** are an important component to the planning process. Although there are many ways that instructional objectives are presented across districts, school sites, and classrooms, there are three critical components to consider in preparing an instructional objective. Essential components to an objective include:

1. **Content:** What academic or behavioral content must be learned? (Typically found within the grade level content standards)
2. **Level of Cognition:** What level and type of thinking is expected from students during the lesson? (Many districts use Bloom’s Taxonomy, Webb’s Depth of Knowledge, or Costa’s Levels of Thinking)
3. **Proving Behavior:** What observable and measurable activity or assignment will the students perform that will be an indicator of success? (Proving behaviors can vary greatly to include journaling, collaborative conversations, graphic organizers, role playing, along with more traditional paper/pencil activities)

| Component & Definition | Questions for Teacher Preparation | Example |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Content</p> <p>The <u>specific</u> content, concept, or skills that will be addressed in the lesson.</p> | <p>What knowledge and/or skills do I want my students to walk away with from today’s lesson?</p> | <ul style="list-style-type: none"> ● Proper Nouns ● 13 colonies ● adding fractions with common denominators ● Pythagorean Theorem |
| <p>Level of Cognition</p> <p>The level of rigor and type of thinking that will be expected of students during the lesson.</p> | <p>Does my standard tell me what level of cognition is expected for this content and at this grade level? Does my district or site have expectations about the types of thinking my students should be utilizing during this subject area?</p> | <ul style="list-style-type: none"> ● Know = list, label, match, repeat ● Comprehend= define, restate in own words ● Apply = use, make, solve |
| <p>Proving Behavior</p> <p>The observable and measurable behavior or activity that students will perform to prove mastery of the content.</p> | <p>What is the most appropriate way for me to gauge where my students are with their learning of the content at the appropriate level of cognition? Have I chosen a behavior or activity that will also allow the students to self-assess their success of the learning?</p> | <ul style="list-style-type: none"> ● Draw characters in the story ● Participate in a discussion ● Create a graph ● Annotate text ● Write an essay |

Illustration 1.2: Instructional Objective Components

A template can be utilized to organize the three parts of an objective into a statement that can be useful to use with preparing lessons and sharing with colleagues and students. The illustration below shows a common 3-part objective template:

| |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The learner will _____ (LEVEL OF COGNITION)</p> <p>_____</p> <p>(SPECIFIC CONTENT)</p> <p>by _____ (OBSERVABLE, RELEVANT STUDENT PROVING BEHAVIOR)</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Illustration 1.3: Instructional objective template

In addition to the teacher’s planning of an appropriate objective, it is important that the students also know and understand what is expected for success in the lesson and take ownership of their own progress. The term **learning target** is a commonly utilized variation on an instructional objective. Learning targets (Moss, 2012) add students into the equation by empowering students to take ownership of their learning. An effective learning target starts with a well-written objective but then adds elements specifically for students that:

- Compare where they are with where they need to go;
- Set specific goals for what they will accomplish;
- Choose effective strategies to achieve those goals; and
- Assess and adjust what they are doing to get there as they are doing it

The content and proving behavior are relatively straight forward, what students need to know and be able to do. The level of cognition is often where the objective writing gets more difficult. Beyond knowing what students must know (the content) and be able to do (the proving behavior), the teacher must know how deeply or what kind of thinking is expected in order to meet the content standards. This is difficult because the teacher must use a “backward planning” model to identify the cognitive expectations in the standards, coupled with knowledge of current cognitive levels of students, in order to plan appropriately. The understanding of two commonly known researchers, Benjamin Bloom and Norman Webb, can assist the beginning teacher in tackling the understanding of “level of cognition.”

Bloom’s Taxonomy was created in 1948 by psychologist Benjamin Bloom and several colleagues. Originally developed as a method of classifying educational goals for student performance evaluation, Bloom’s Taxonomy has been revised over the years and is still utilized in education today. The original intent in creating the taxonomy was to focus on three major domains of learning: cognitive, affective, and psychomotor. The cognitive domain covered “the recall or recognition of knowledge and the development of intellectual abilities and skills”; the affective domain covered “changes in interest, attitudes, and values, and the development of appreciations and adequate adjustment”; and the psychomotor domain encompassed “the manipulative or motor-skill area.” Despite the creators’ intent to address all three domains, Bloom’s Taxonomy applies only to acquiring knowledge in the cognitive domain, which involves intellectual skill development.

The original Bloom’s Taxonomy contained six developmental categories: knowledge, comprehension, application, analysis, synthesis, and evaluation. The first step in the taxonomy focused on knowledge acquisition and at this level, students recall, memorize, list, and repeat information. In the second tier,

students classify, describe, discuss, identify, and explain information. Next, students demonstrate, interpret, and write about what they've learned and solve problems. In the subsequent step, students compare, contrast, distinguish, and examine what they've learned with other information, and they have the opportunity to question and test this knowledge. Then students argue, defend, support, and evaluate their opinion on this information. Finally, in the original model of Bloom's Taxonomy, students create a new project, product, or point of view. (<http://edglossary.org/blooms-taxonomy/>)

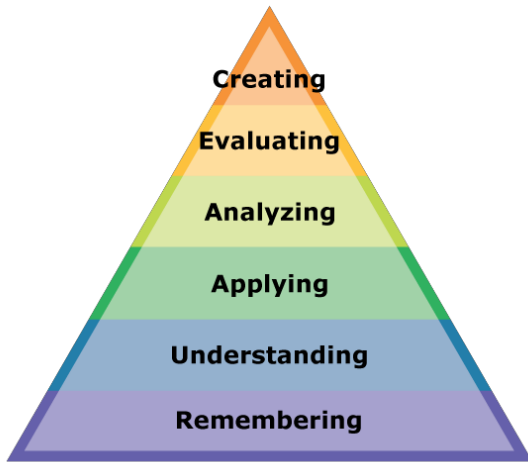


Illustration 1.4: Revised Bloom's Taxonomy

More recently (1990s), "The 'Revised Bloom's Taxonomy,' as it is commonly called, was intentionally designed to be more useful to educators and to reflect the common ways in which it had come to be used in schools. In the revised version, three categories were renamed and all the categories were expressed as verbs rather than nouns. Knowledge was changed to Remembering, Comprehension became Understanding, and Synthesis was renamed Creating. In addition, Creating became the highest level in the classification system, switching places with Evaluating. The revised version is now Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating, in that order." (<http://edglossary.org/blooms-taxonomy/>)

Rigor is another word that is often utilized when discussing content standards and instructional objectives. In the template above, the term "level of cognition" can be utilized to describe the rigor of the lesson. "Depth of Knowledge also referred to as D.O.K., is the complexity or depth of understanding required to answer or explain an assessment related item or a classroom activity. The concept of depth of knowledge was developed through research by Norman L. Webb in the late 1990's. Webb identified four distinct depth of knowledge levels. The complexity of an assessment task is increasingly more difficult as the level often increases requiring multiple steps to complete." The graphic organizer here identifies possible proving behaviors that would accompany each of the DOK levels. <http://teaching.about.com>

Depth of Knowledge (DOK) Levels

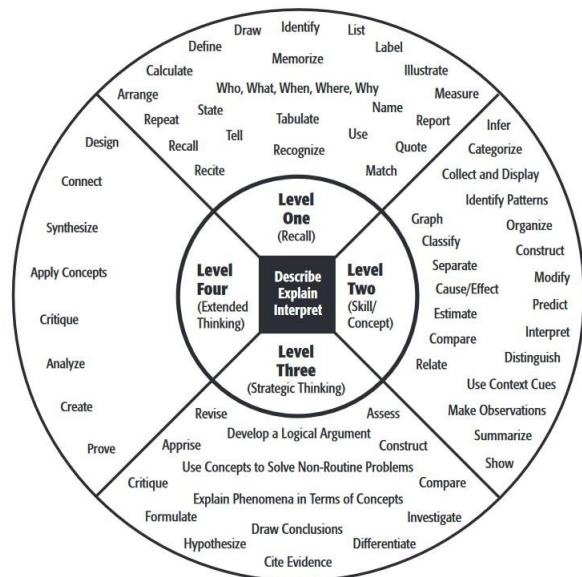


Illustration 1.5: Norman Webb's Depth of Knowledge (DOK) Levels

Related Quotes for Discussion:

“What is it that we want the student to learn? The selection of content, and specific learning outcomes from that content, must be the first decision in determining learning behavior that is appropriate to both the content and the learner. (Madeline Hunter’s Mastery Teaching, Hunter, R., 2004, p.7)

“The practice activity should match the objective. In selecting activities for practice, it is important to analyze them for this congruence. Do the activities have the student practicing the same skill that has been taught, or is it a related skill?” (Madeline Hunter’s Mastery Teaching, Hunter, R., 2004, p.93)

“Most lessons have both content and process objectives. Content objectives identify subject matter (facts, concepts, generalizations, relationships) to be mastered by students, whole process objectives specify skills and procedures students need in order to achieve content objectives or auxiliary social objectives (e.g. cooperation in a learning task).” (Models of Teaching, Joyce, B., 2009, p. 484)

“To reach a destination, you need to know exactly where you are headed, plan the best route to get there, and monitor your progress along the way. When teachers take the time to plan lessons that focus on essential knowledge and skills and to engage student in critical reasoning processes to learn that content meaningfully, they enhance achievement for all students.” (Learning Targets, Moss, C., 2012, p. 13)

“When we ask teachers about their learning intentions for a particular lesson, it is common for them to reply by saying, ‘I’m going to have the students do this.’ In other words, teachers respond in terms of the activities in which they plan to engage their students.’ This is, of course, entirely understandable. The only way that teachers get student to learn is by engaging them in activities. However, if the teachers select activities without a clear view of the learning that is intended, it is far less likely that the student will learn what they need to learn. By engaging in an activity, students usually learn something, but not all outcomes of learning are equally valuable. By being clear about what it is we want students to learn – in Stephen Covey’s words, by ‘starting with the end in mind’ (Covey, 1989) – it is more likely that our students will learn what we need them to learn.” (Embedding Formative Assessment, Wiliam, D., 2015, 27)

My Personal Practice: What information will I need to gather and what resources will I need to utilize to prepare objectives that are appropriate for my students?

Related Resources:

- Bloom, B. S. (Ed.) (1984). *Taxonomy of Educational Objectives*. New York: Longman.
- Fisher, D. & Frey, N. *Better Learning Through Structured Teaching*. (2015). Alexandria, VA: ASCD
- Gentile, J.R. (1993). *Instructional Improvement: A Summary and Analysis of Madeline Hunter's Essential Elements of Instruction and Supervision*. Oxford, OH: National Staff Development Council.
- Hunter, R. (2004). *Madeline Hunter's Mastery Teaching*. Thousand Oaks, CA: Corwin Press
- Joyce, B., Weil, M., & Calhoun, E. (2009). *Models of Teaching*. Massachusetts: Pearson.
- Kronowitz, E. (2012). *The Teacher's Guide to Success*. Upper Saddle River, NJ: Pearson Educational, Inc.
- Mager, R.F. (1997). *Preparing Instructional Objectives* (3rd ed.). Atlanta, Ga: CEP Press.
- Moss, C. (2012). *Learning Targets*. Alexandria, VA: ASCD
- William, D. & Leahy, S. (2015). *Embedding Formative Assessment*. West Palm Beach, FL: Learning Sciences International

Task Analysis

Teacher planning includes several levels of preparation. **Task analysis** is the process of stating an objective and then factoring out the learnings that are essential to that objective. Task analysis can include long-term planning goals (i.e. scope and sequence and units of study) and short-term planning goals (i.e. daily objectives and lesson input). Districts and/or teachers use grade level content standards to design what an entire year of instruction should include within any given subject. This is typically called a **scope and sequence** document. From this point, district and/or teachers break the annual plan into appropriate units of study. Finally, each unit will be organized by the teacher into manageable daily objectives (or learning targets). Each objective can further be dissected into “bite-sized” information throughout the lesson delivery. No matter the size of the task you plan to analyze, Madeline Hunter provides four simple steps to task analysis (Gentile, 1993):

1. **Formulate** an instructional objective that you wish students to achieve
2. **Clarify** the meaning of that objective to determine what it is and what it isn't (includes analyzing the appropriate level of cognition for the objective related to the standards)
3. **List** essential sub-objectives which appear to be a prerequisite to the major objective through brainstorming. **Purge** anything on the list that does not meet this definition.
4. **Order** the essential sub-objectives in an appropriate sequence for instruction

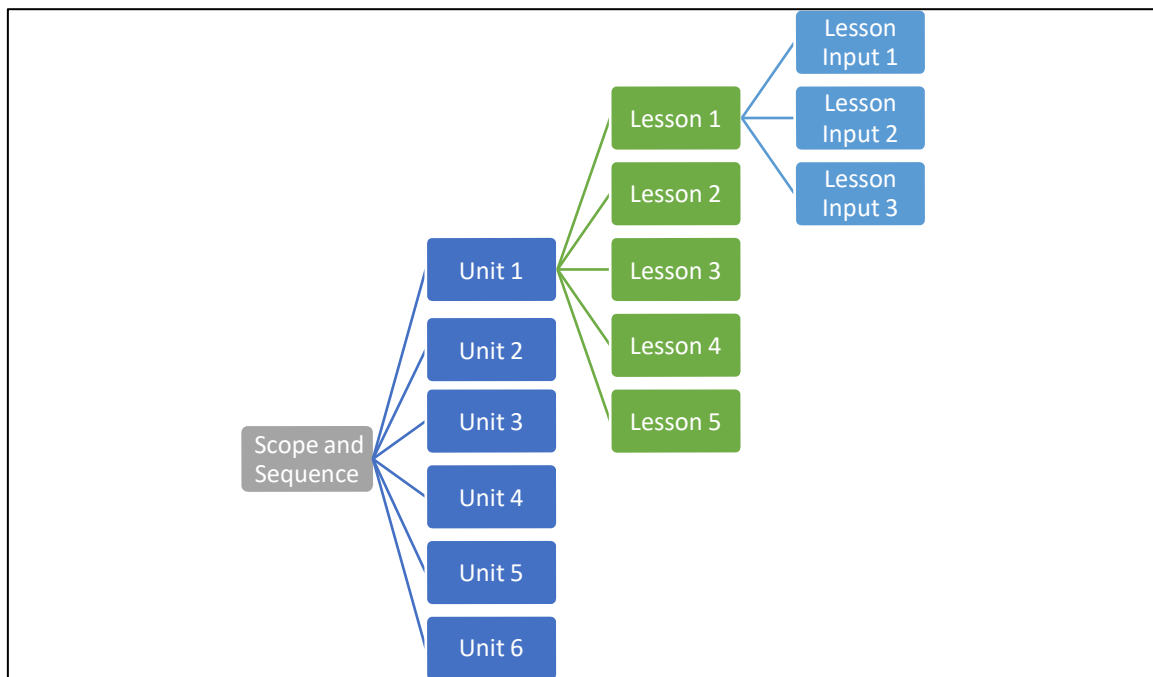


Illustration 1.6: Task Analysis Process

Successful use of task analysis has many benefits that include (1) an increase in the probability of success, (2) an opportunity to pre-plan exactly what knowledge is needed to successfully reach the objective, (3) specificity in reporting to all stakeholders (parents, students, administration), (4) information related to decision making for next steps.

Related Quotes for Discussion:

“First, we must determine which information is basic or essential to students’ understanding of the content or process and then separate that information from information that may be desirable but is supplementary and can be acquired later. That basic information must be organized, so it becomes the scaffolding, or advance organizer, to which student can add more complex information.” (Madeline Hunter’s Mastery Teaching, Hunter, 2004, p.48)

“Organization facilitates understanding and retention. The research has shown that when information is organized, the retention of that information increases rather dramatically. Research also shows that it doesn’t matter whether the teacher or student organizes the information. Either way the effect is the same. In many cases, the teacher, having greater mastery of content, would be the one to provide the organizational structure. In some cases, however, having the students (where appropriate) provide their own organizational structure is very beneficial to learning and remembering.” (Madeline Hunter’s Mastery Teaching, Hunter, 2004, p.49)

“The effective teacher recognizes academic instruction as central to his or her role. This focus on instruction guides not only the teacher’s own planning and classroom behavior, but also comes across clearly to students and represents the major element in a robust learning environment. A teacher may say to students, ‘It is my job to see that you succeed.’ or, ‘I want you to prepared for life beyond the schoolhouse door.’ Although effective teachers believe that students must be challenge, they also realize that students need to experience success.” (Qualities of Effective Teachers, Stronge, 2007, p. 53)

My Personal Practice: What resources does my district offer to support with task analysis? How can I find out if my school site colleagues work together to create scope and sequence documents, unit plans, or daily lessons?

Additional Resources:

Bloom, B. S. (Ed.) (1984). *Taxonomy of Educational Objectives*. New York: Longman.

Fisher, D. & Frey, N. *Better Learning Through Structured Teaching*. (2015). Alexandria, VA: ASCD

Gentile, J.R. (1993). *Instructional Improvement: A Summary and Analysis of Madeline Hunter’s Essential Elements of Instruction and Supervision*. Oxford, OH: National Staff Development Council.

Hunter, R. (2004). *Madeline Hunter’s Mastery Teaching*. Thousand Oaks, CA: Corwin Press

Lesson Design

Planning instruction can be a complicated facet of the teaching profession. There are many models of instruction and each are utilized for various reasons. The classic definition of teaching is the design and creation of environments. Students learn by interacting with those environments and they study how to learn (Dewey, 1916). “A model of teaching is a description of a learning environment, including our behavior as teachers when that model is used.” (Models of Teaching, B, Joyce, 2009, p.24). As a novice teacher, the first model of teaching to master would be direct instruction. A variation of direct instruction is typically an expectation for lesson design and delivery in many school districts and school sites. Therefore, understanding the basics of direct instruction will allow you adapt to any lesson design expectations.




A popular model of direct instruction comes from the work of Madeline Hunter as part of the Essential Elements of Effective Instruction (EEEI) curriculum documents. The EEEI lesson structure includes nine components for lesson delivery outline below in table 1.7. The table describes keys purposes for each of the lesson components and key phrases that assist both students and teacher to stay aligned with the lesson outcome.

| COMPONENT | LESSON COMPONENT PURPOSE | POSSIBLE TEACHER PROMPT |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Anticipatory Set | Draws all students' focus to the lesson by utilizing background knowledge that will connect to the learning by using active participation strategies | Think back... Remember... Tell your partner... Write on your response board... |
| Objective | Engages the students in understanding what they will know and be able to do as a result of the lesson | By the end of the lesson... Today you will... |
| Purpose | Establishes the importance of the learning, usefulness, and why | The reason you need to know this... Why do you think you need to know this? |
| Input | Gives students the information they need to know | The first thing you need to know... The next step is... |
| Model | Shows students what it will look like. | Watch me as I show you... Let me show you... Listen to me explain my thinking as I work through this problem as an example. |
| Check for Understanding | Monitors student understanding of the input by using active participation strategies | Before we go any further, let's look at where we are at with our learning. Show me on your white board... Let's check to make sure we are all together. Show me a thumbs up if _____ or show me a thumbs down if _____... Respond to this statement with your opinion on your white board. I'm going to give you three minutes to respond on your white board. When you are ready, show me your answer. |
| Guided Practice | Provides opportunity for repetition and feedback | Let's try one together... Now you try, while I watch... |
| Closure | Provides opportunity for students to summarize the learning that was achieved in the lesson using active participation strategies** | It's important that we can summarize what we learned in today's lesson. On a sticky note, write down what you think were the most important learnings from today's lesson? To summarize our learning, please take your highlighter and identify the most important components to our learning today. Turn to your desk partner and see if you highlighted the same things. |
| Independent Practice | Provides an opportunity for practice and repetition without feedback | Now it is your turn to try it on your own... It is your turn to show what you know... |

While preparing to write a lesson, you may find that the template below is helpful. The template includes teacher questions related to each component that will help you to think about what type of information or activity you will need to plan to achieve the purpose of the lesson component. Planning a lesson does not follow the same sequence as delivering a lesson. When planning, you will always start by writing a “terminal objective” which refers to what you want the students to know and be able to do by the end of the lesson. Next, you will develop the body of the lesson. The body of the lesson will move horizontally along the lesson plan. The lesson’s input, model, check for understanding, and guided practice sections may repeat several times in order to categorize information into smaller sections for students to digest and teachers to continuously monitor progress of the learning. Finally, you will plan the introduction to the lesson. You will determine how you will engage students in the learning, share the learning objective and purpose, and get students involved in understanding the success criteria of the lesson.

CalTPA Aligned Lesson Plan Template

| | |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lesson Preparation | Content Standard: |
| | Objective/Learning Goal: <i>What will I have students learn and what activity will I have students do that will serve as “proof” that they have learned? What is the level of thinking required of students in this lesson (Bloom’s Taxonomy)?</i> |
| | Student Resources: <i>What do I know about my students’ funds of knowledge, cultural and linguistic resources, and prior experience and interests as it relates to this learning goal?</i> |
| | Academic Language/Vocabulary: <i>What is the key academic vocabulary students will need in order to be successful in this lesson? List and define all terms here.</i> |
| | Resources, materials, educational technology: <i>What resources, materials, and educational technologies will I need for this lesson?</i> |
| | Anticipatory Set: <i>What question or activity have I planned to begin the lesson that will help students focus on the lesson and activate prior academic knowledge?</i> |
| Introduction | Telling Objective: <i>How will I state the learning objective/goal to my students?</i> |
| | Purpose: <i>What will I tell students about why this lesson is important and how it fits into prior and future learning?</i> |
| | |

| | Input  <i>What information will students need to get in this lesson that is necessary to their achievement of the lesson objective/learning goal?</i> <i>Task Analysis/Scaffolding: What is the most logical order for this information to be presented to the students?</i> <i>What strategy will I use to deliver the information? (Direct teaching, discovery, cooperative learning, etc.)</i> List content and strategy here. | Model  <i>Which part of the lesson will need examples or need to be modeled?</i> <i>How will I do this?</i> | Check for Understanding/Active Participation  <i>What questions will I ask or what activities will I do AT THIS STEP OF THE LESSON to determine if students understand the information?</i> <i>What data will I collect?</i> <i>What criteria will I use to determine if I can move on to the next step of my lesson? (This is informal assessment)</i> | Lesson Adaptations <i>What adaptations do I need to consider for this step of the lesson to make the instruction appropriate for my students who:</i> <ul style="list-style-type: none"> <input type="checkbox"/> have a disability/IEP/504 plan <input type="checkbox"/> are English Learners <input type="checkbox"/> GATE <input type="checkbox"/> have life experience outside of school that may result in the need for additional support |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lesson Body | 1. | 1. | 1. | 1. |
| | 2. | 2. | 2. | 2. |
| | 3. | 3. | 3. | 3. |
| | 4. | 4. | 4. | 4. |
| | 5. | 5. | 5. | 5. |
| | Guided Practice: <i>What practice have I planned for the students to assimilate all of the steps from the lesson into the product/process/performance outlined in the learning goal/objective? At this stage of the lesson, the teacher assists as needed.</i> | Assessment: <i>Based on students' responses to the guided practice activity, what data will I collect and how will I use that data to inform if students are ready for the independent practice part of the lesson. What tool(s) will I use to allow students to self-assess their own learning at this step of the lesson?</i> | | |
| Closure | Independent Practice: <i>What practice have I planned for the students to assimilate all of the steps from the lesson into the product/process/performance outlined in the learning goal/objective on their own?</i> | | Assessment: <i>Based on students' responses to the independent practice activity, what data will I collect and how will I use that data to inform my next lesson in this subject area? THIS IS MY FORMAL ASSESSMENT FOR THIS LESSON. Will any of my students require an adaptation to the independent practice activity?</i> | |
| | | | | |
| | Closure: <i>What question will I ask or what activity will students do to summarize to check their perceptions of the learning?</i> | | | |
| | | | | |

Related Quotes for Discussion:

“The source of input should be based on the objective (learning outcome) of the lesson. If we want student to develop social interaction skills, we’ll probably want them working together rather than listening to a lecture. If the ability to identify similarities and differences is paramount, then an activity requiring them to do so is warranted. If the initial acquisition of a new formula is the focus, a skilled teacher presentation may be most effective.” (Embedding Formative Assessment, Wiliam, D., 2015, 74)

“For maximum engagement, the level of difficulty of what we are having the student do must be correct. In the given curricular area, where does their prior learning leave off and new learning need to begin? At this point the level of task difficulty is correct. Students who are given work that they find unchallenging often spend much time off task doing other things, most of which we would rather they not do. If the task is too difficult, then obviously the student cannot engage in it and, again, tend to wander off into other activities.” (Madeline Hunter’s Mastery Teaching, Hunter, 2004, p.120)

There are, of course, times when teachers need to check that students are secure in the knowledge they need in order to move on. But in general, question-and-answer session where the teacher just, in effect, inventories the knowledge the student hold in their heads in a rapid-fire, short-answer questions (to which the teacher already knows the answer) represent wasted opportunities to explore students’ thinking. (Madeline Hunter’s Mastery Teaching, Hunter, 2004, p.7)

“While having students raise their hands to show they have an answer does not make much sense, it is useful to have students give other sorts of signals to provide you with information about the kinds of contributions they want to make to the discussion. For example, some schools train their student to use different hand signals as whole-class discussions to show that they want to build on something someone else has said, as someone to explain something they have said, or put forward a different view from a previous speaker. When students use these kinds of signals, you can choose from those who are signaling, and those who are not, to create much more logically sequenced, organized, and effective classroom discussions.” (Embedding Formative Assessment, Wiliam, D., 2015, 70)

“Good planning sets the stage for good teaching, which in turn fosters optimal learning. Teachers who know how to plan know precisely what they want to accomplish – or more exactly, what they want their students to accomplish. Poor planning results in no one, including the teacher, having a clear understanding of what is to be accomplished. Effective instruction starts with an organized instructional plan.” (Powerful Lesson Planning Models, Skowron, 2001, p. 2)

My Personal Practice: How long do you expect to spend planning for a single lesson? How did you arrive at this number? How might this number change as your years of experience in the profession grows?

Related Resources:

Fisher, D. & Frey, N. Better Learning Through Structured Teaching. (2015). Alexandria, VA: ASCD

Hunter, R. (2004). Madeline Hunter's Mastery Teaching. Thousand Oaks, CA: Corwin Press

Joyce, B., Weil, M., & Calhoun, E. (2009). *Models of Teaching*. Massachusetts: Pearson.

Skowron, J. (2001). Powerful Models of Teaching. Arlington Heights, IL: SkyLight Professional Development

Motivation

As teachers, it is our job to motivate students. That may seem tough at times. Are all students intrinsically motivated to be at school, in your classroom, ready to learn? No, probably not but that is not an excuse for teachers to say, “Well, I can’t force them to learn.” True, we can’t force students to enjoy and want to learn the content we’re teaching but there are certainly many factors and strategies that teachers can use to enhance student motivation every day and with every student.

We will define motivation as, “a state of need or desire that activates the person to do something that will satisfy the need or desire.” (Hunter, 2004). Motivation theory suggest four distinct strategies for student motivation. Intrinsic motivation is not inherently good and extrinsic motivation is not inherently bad. Both are effective. The difference is that an intrinsically motivated activity will always be rewarded. Extrinsically motivated activities are rewarded in some instances, but not in others.

The table below compares the basics of extrinsic and intrinsic motivation.

| Extrinsic Motivation | Intrinsic Motivation |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • Not all bad • Students learn for external reinforcers • Rewarded in some cases, but not in others • Controlled by the environment | <ul style="list-style-type: none"> • Not all good • Students learn for the pleasure of learning • Always rewarded • Controlled by the individual |

Obviously, we do not need to discuss strategies to get students to be intrinsically motivated. If a student is intrinsically motivated, the reward is always there for the individual. The strategies of importance pertain to extrinsically motivating students. The hope is always that once a student feels pleasure in the learning, their desire to learn more will become intrinsic and the need for extrinsic motivators will not be necessary.

| Motivation Myths |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> 1. Motivation and like are synonyms. 2. You can’t learn what you don’t like. 3. Intrinsic motivation is more important than extrinsic motivation. |

All these statements are myths. Motivation is learned. That which is learned, can be taught. Teaching is the business of teachers. Once you believe in this statement, the following four motivational strategies can and should become second nature in the classroom:

| Motivation Strategy | Implementation |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Level of Concern refers to how much the student cares about the learning. There is a helpful anxiety (desire to do well) and there is a harmful anxiety (feeling threatened). The amount of work, time, and visibility will affect a student’s level of concern.</p> <p>Too much or too little of anything and the students likely will become</p> | <p>Amount of work: An excessive or impossible amount of work (in the eyes of the student) will discourage students from beginning the daunting task. Too little work or work that is too easy may invoke a feeling of procrastination</p> <p>Amount of Time: Too much time allotted to an assignment or activity promotes procrastination. Too little time allotted to an assignment or activity_____feelings of helplessness.</p> <p>Amount of Visibility: Constantly hovering over students causes anxiety in some students. Concentration is hard to acquire while someone is staring at your every</p> |

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>unproductive. To get the most motivated worker, teachers needs to balance the:</p> <ul style="list-style-type: none"> • Amount of work • Amount of time • Amount of visibility | <p>move. However, complete autonomy and isolation may allow students to get off track easily and feel as though the learning is not important enough to be monitored.</p> <p>For every student, in every lesson, every day, finding the “just right” balance in level of concern varies.</p> |
| <p>Knowledge of Results refers to the relationship between when a student completes an assignment or activity and how quickly he/she knows how they did. Even in a behavioral situation, a student will be motivated to learn from the mistake, the quicker it is addressed.</p> <p>Immediate and specific results are important for motivation factors</p> | <p>Give brief quizzes can be corrected easily and returned promptly or daily proving behaviors that can provide data for daily instruction. Online systems are efficient and valuable because they provide students will immediate and objective feedback.</p> <p>Warning: Steer clear of returning papers with only a letter grade attached to it. Specific feedback can help students to take ownership of the learning and motivated to move forward. (See Dylan Wiliam’s <i>Embedded Formative Assessment Strategy 3: Providing Feedback That Moves Learning Forward</i> for details in this component)</p> <p>Self-Assessment by student’s own progress with the use of graphs, rubrics, and learning target accomplishments can greatly impact motivation in this area. (See Dylan Wiliam’s <i>Embedded Formative Assessment Strategy 5: Activating Students as Owners of their Own Learning</i> for details in this component)</p> |
| <p>Success If Students come: NOT KNOWING and leave still NOT KNOWING = low motivation results KNOWING and leave KNOWING the same content = low motivation results NOT KNOWING and leave KNOWING something new = high motivation results</p> | <p>Success promotes self-confidence. It comes from the student knowing that he is capable, that he can achieve today what seemed impossible the day before. Beware, however, of planning an environment which will guarantee success each time. In this case, the student may attribute the success to the teacher, instead of him/herself. Strive to present the material in even small steps in the beginning, graduating to more rigorous tasks.</p> <p>Instill a “growth mindset” in your students as opposed to a “fixed mindset.” (See Carol Dweck’s work on <i>Growth Mindset for details in this component.</i>)</p> |
| <p>Interest Novelty and interest, whether fleeting or long-lasting, will support higher levels of motivation</p> | <p>Use varied techniques when delivering content.</p> <ul style="list-style-type: none"> • Change the tone of your voice, change the lighting in the room, use music as appropriate, bring in realia. • Be enthusiastic about the subject • Connect content to personal experiences and interests of the students • Use real student’s work as models <p>Note: If you are not sure what interests are age-appropriate, ask. Students themselves are the best resource so take the time to find out and get to know your students. Interest Surveys or journal writing are helpful clues to learn about student’s interests. Parents are another great resources. Ask parents during Back to School Night or parent conferences about what their kids enjoy. Parents love to know that you take interest in the “whole child” and will be more than willing to share if you take the time to learn.</p> |

Related Quotes for Discussion:

“Choice is empowering and engaging. The notion of a sense of control is equally as motivating. Innate in most learners, self-directed learning encompasses both of these critical elements of a brain-friendly classroom. “In its broadest meaning, “self-directed learning” describes a process by which individuals take the initiative, with or without the assistance of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes” (Knowles, 1975, p.18). Dopamine release is part of the reason that self-directed learning is so engaging. It is the predictive power of success that causes the learner to focus attention and release dopamine. If the experience is new and novel, the learner is able to focus more completely.” (The Motivated Brain, Gregory, 2015, p.126)

“When students are at a crystallizing moment of learning, they experience a point where attention, high interest, positive feelings, and a connection to prior successes collide. This is informally referred to as the “sweet spot” – that place where a combination of factors results in a maximum response for a given amount of effort. Skillful teachers seek the sweet spot for learning in their students by surveying prior knowledge or experience, identifying what created prior success for them, and predicting what degree of interest they might have in the task.” (The Motivated Brain, Gregory, 2015, p.131)

“An activity is authentic when it has a high level of meaning for the student or is directly related to their lives, either inside or outside of school. Brain research shows that we learn very quickly and efficiently that which makes sense to learn. By teaching the skills student need to master while they are doing an authentic task – something we would do in the world outside of school- interest in the learning increases.” (Madeline Hunter’s Mastery Teaching, Hunter, R., 2004, p.27)

“The only thing that matters with feedback is the reaction of the recipient. That’s it. Feedback - no matter – how well designed – that the student doesn’t act upon is a waste of time. This may seem obvious, but hundreds of researchers have ignored this basic truth, and tried instead to find out whether feedback should be immediate or delayed? Should it be specific or general? Should it be verbal or written? It comes down to the simple truth that the most effective feedback is just feedback that our students will actually use in improving their own learning.” (Embedding Formative Assessment, Wiliam, D. & Leahy, S., 2015, 107)

“Teachers do not create learning; only learners create learning. What teachers can do is create the circumstances within which learners learn.” (Embedding Formative Assessment, Wiliam, D. & Leahy, S., 2015, p.196)

“We could ask that students need to be ‘ready’ and motivated, and come to school well fed, having been supported at home to do their homework, and are attentive and calm. This would be wonderful, but a major role of schooling is to help student to acquire these habits; we should not discriminate against students whose parents may not know how to help them to do so.” (Visible Learning for Teachers, Hattie, J. 2012, 170)

My Personal Practice: What do I know about my students that I should consider during my lesson planning that will enhance motivation?

Related Resources:

Costa, A.L. & Kallick, B. (2009). *Habits of Mind Across the Curriculum: Practical and Creative Strategies for Teachers*. Alexandria, VA: ASCD

Dweck, C. (2006). *Mindset: The New Psychology of Success*. New York, NY: Random House Publishing

Gentile, J.R. (1993). *Instructional Improvement: A Summary and Analysis of Madeline*. Topeka, Kansas: National Staff Development Council

Gregory, G. & Kaufeldt, M. (2015). *The Motivated Brain: Improving Student Attention, Engagement, and Perseverance*. Alexandria, VA: ASCD

Hattie, J. (2012). *Visible Learning for Teachers: Maximizing Impact on Learning*. New York, NY: Routledge

Hunter, R. (2004). *Madeline Hunter's Mastery Teaching*. Thousand Oaks, CA: Corwin Press

William, D. & Leahy, S. (2015). *Embedding Formative Assessment*. West Palm Beach, FL: Learning Sciences International

Monitor and Adjust Process

The monitor and adjust process may seem easily defined within in the title of the strategy. It also may seem like one quick teacher action. To monitor and adjust is actually more detailed than one expects and takes constant teacher observation and reflection throughout instruction. The process begins with the teacher's role to **monitor** student progress towards the objective. During this monitoring period, the teacher is making decisions about how to proceed with instruction. Questions that may enter the teacher's mind at this point include:

Is the entire class ready to move on to the next piece of instruction?

Are there students who could use an opportunity to talk about the content?

Are there students who could benefit if the lesson is retaught?

Would adding manipulatives or visuals help scaffold the learning for some or all of the students?

Is the modeling I provided during direct instruction sufficient?

Are there students who are advancing through the content ahead of the majority?

Monitoring the learning of the students is only the first step in the monitor and adjust process. Based on the teacher's observations and reflections on learning, **adjustment** to the instruction may need to be made immediately. The adjust phase of the process is most effective when adjustments have been anticipated but can also be effective "off the cuff." It is not an adjustment to instruction to simply repeat the lesson or instruction again. The different aspects of differentiation are typically in effect when adjustments are needed. Carol Ann Tomlinson has authored several books about the differentiated instruction. Tomlinson has created a graphic organizer to help teachers think about different variations and avenues to achieve the appropriate differentiated instruction for the situation.

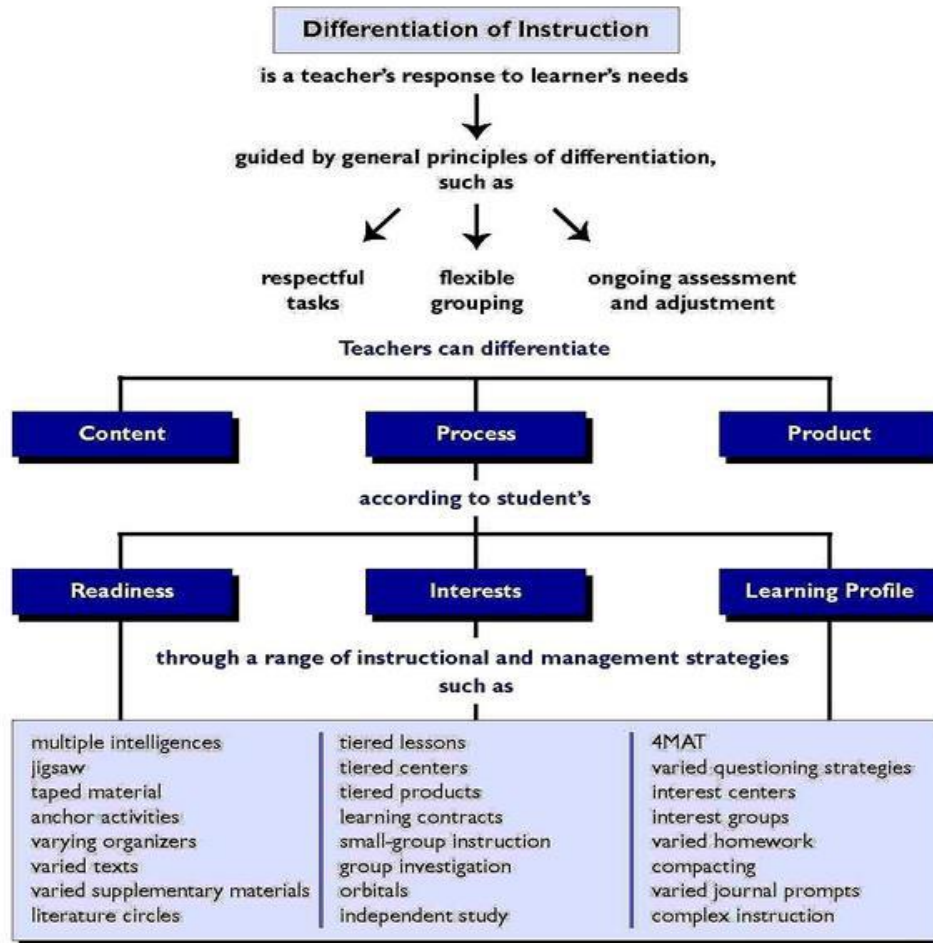
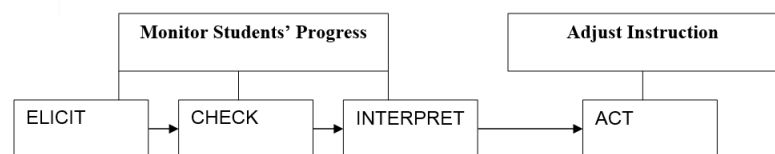


Illustration 1.7: Tomlinson's Differentiation of Instruction

Being able to monitor and adjust is a multi-step skill that appears to happen in a blink of an eye. A teacher follows four specific steps each and every time the monitor and adjust process is used in the classroom.

- 1) **Elicit:** The teacher elicits an overt active participation strategy. The strategy chosen must be a strategy where data could be gathered and that the teacher takes precautions that each student's response is his/her own and not copied/mimicked from a classmate (i.e. if a thumbs up/down strategy is used, it must be "heart-centered" (privately held close to the chest)
- 2) **Check:** The teacher then checks that everyone in the class is correctly eliciting one of the desired overt behaviors.
- 3) **Interpret:** The teacher must interpret the data that is gathered from the class. How many students provided the correct response? How many did not?
- 4) **Act:** the teacher will finally act upon the results of the data. A good measure of practice is that if 80-85% of the students gave a correct response, the teacher may continue you with the whole group lesson but remember to return to those students who need extra support afterwards. If less than 80-85% of the students were successful, the input needs to be retaught using an appropriate differentiation strategy.

Monitor and Adjust Process



My Personal Practice: How can I ensure that the data I have gathered during instruction tells me an accurate story to make decisions about next steps for instruction?

Related Quotes for Discussion:

“Teachers may adapt one or more of the curricular elements (content, process, product) based on one or more of the student characteristics (readiness, interest, learning profile) at any point in a lesson or unit.” (Differentiated classroom, Tomlinson, C., 1999, p.11)

“When teachers become more deliberate in the ways they check for understanding, they model the metacognitive awareness learners to develop. Metacognition is the ability of learners to “predict their performances on various tasks... and to monitor their current levels of mastery and learning (National Research Council, 2000, p. 12). While it may appear that checking for understanding is a teacher-centered strategy, in truth it empowers students to take responsibility for their own learning through monitoring and goal setting. When teachers make checking for understanding a routine part of the learning environment, they demonstrate the many ways in which to recognize that learning has occurred. Importantly, the teacher who checks for understanding transmits the message that the goal of the classroom is not just to get a grade but to learn (National Research Council, 2000).” (Checking for Understanding, Fisher, D. & Frey, N. 2007, p.135)

“All good teachers recognize that classes don’t learn, students do. Nonetheless, how best to differentiate instruction and individualize for the range of student needs and abilities in the classroom is an ongoing challenge. Effective teachers tend to recognize individual and group differences among their students and accommodate those differences in their instruction (Tomlinson, 2003). They adapt instruction to meet student needs, which requires careful assessment and planning for all students in the classroom, as well as the ability to select from a range of strategies to find the optimal match to the context (Cawelti, 2004; Tomlinson 1999).” (Qualities of Effective Teachers, Stronge, J., 2007, p.70)

Related Resources:

Fisher, D. & Frey, N. (2007). *Checking for Understanding: Formative Assessment Techniques for Your Classroom*. Alexandria, VA: ASCD.

Gentile, J.R. (1993). *Instructional Improvement: A Summary and Analysis of Madeline Hunter’s Essential Elements of Instruction and Supervision*. Oxford, OH: National Staff Development Council.

Hunter, R. (2004). *Madeline Hunter’s Mastery Teaching*. Thousand Oaks, CA: Corwin Press

Stronge, J. (2007). *Qualities of Effective Teachers*. Alexandria, VA: ASCD

Tomlinson, C.A. (1999). *The Differentiated Classroom: Responding to the Needs of all Learners*. Alexandria, Va: Association for Supervision and Curriculum Development.

Walsh, J. & Sattes, B. (2015). *Questioning for the Classroom Discussion*. Alexandria, VA: ASCD

Section II:

Glossary of Key Pedagogical Terms for the Teaching Profession

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| 5E Inquiry Model | <p>An instructional model that begins with students’ current knowledge and their new ideas that relate to the current knowledge. The connections between prior knowledge and new ideas slowly form concepts. According to Herbart, the best pedagogy allows students to discover relationships among their experiences. The next step involves direct instruction where the teacher systematically explains ideas that the student could not be expected to discover. Finally, the teacher provides opportunities for the student to demonstrate their understanding.</p> <p>https://bscs.org/bscs-5e-instructional-model</p> |
| 504 Plan | <p>Section 504 of the Rehabilitation Act of 1973, a federal civil rights law that prohibits discrimination against individuals with disabilities and protects students from being denied participation in school programs, services, or activities solely on the basis of disability. Much like an IEP, a 504 Plan is a written document detailing the services, accommodations, and modifications that can help students with learning and attention issues learn and participate in the general education curriculum. Section 504 defines disability on a broader basis than does IDEA. That’s why students who aren’t eligible for an IEP may qualify for a 504 Plan. Students who meet the definition of a person with a disability under Section 504 are those who have a physical or mental impairment that substantially limits one or more major life activities, have a record of such an impairment, or are regarded as having such an impairment. The 504 Plan should include a description of the disability, the major life activity limited, the basis for determining the disability and its educational impact, necessary accommodations, and placement in the least restrictive environment</p> <p>California Commission on Teacher Credentialing (2019). CalTPA Performance Assessment Guide. http://www.ctcexams.nesinc.com/Content/Docs/CalTPA_Glossary.pdf</p> |
| Academic Language Development | <p>Refers to the oral, written, auditory, and visual language proficiency required to learn effectively in schools and academic programs—in other words, it’s the language used in classroom lessons, books, tests, and assignments, and it’s the language that students are expected to learn and achieve fluency in. Frequently contrasted with “conversational” or “social” language, academic language includes a variety of formal language skills—such as vocabulary, grammar, punctuation, syntax, discipline-specific terminology, or rhetorical conventions—that allow students to acquire knowledge and academic skills while also successfully navigating school policies, assignments, expectations, and cultural norms. Even though students may be highly intelligent and capable, for example, they may still struggle in a school setting if they have not yet mastered certain terms and concepts, or learned how to express themselves and their ideas in expected ways. Accommodation.</p> <p>http://www.ctcexams.nesinc.com/Content/Docs/CalTPA_Glossary.pdf</p> |

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| Academic Vocabulary | <p>General <i>academic vocabulary</i> is used to refer to words that appear in texts across several disciplines or <i>academic domains</i>. For example, Townsend (2009) <i>defined</i> general <i>academic vocabulary</i> as words “which are used across content areas, have abstract definitions, and are a challenge to master”</p> <p>http://onlinelibrary.wiley.com/doi/10.1598/JAAL.54.1.1/pdf</p> |
| Accommodations | <p>An accommodation is a specific change to instruction for a student with a disability. An accommodation changes the way a student receives information or is tested on the information without changing the learning goal or standard. Another way of thinking about accommodations is that they change <i>how</i> a student learns but not what they learn. An example of an accommodation is allowing a student with Attention Deficit Hyperactivity Disorder (ADHD) to take breaks during a test. They are still taking the same test with the same objectives, but how they accomplish the task is different.</p> <p>http://study.com/academy/lesson/modifications-for-special-education-students- definition-checklist-quiz.html</p> |
| Adaptations | <p>Changes made by a teacher to lesson or assessment components, usually to the lesson format or to a test, that allow students to participate effectively in the lesson or the assessment. For example, adaptations can include use of different or additional resources, assistance from another student or adult, or additional time.</p> <p>http://www.ctcexams.nesinc.com/Content/Docs/CalTPA_Glossary.pdf</p> |
| Assessment | <p>The formal or informal process of collecting evidence about student progress, analyzing and evaluating progress, communicating about progress, and adjusting teaching practices based on reflection on a teacher’s practice. There are multiple forms of assessment, including achievement or other standardized tests, exercises or assignments that enable teachers to measure student progress, and student work, and assessments may include feedback from parents or other family members. For additional information, see “Assessment” on the California Department of Education website.</p> <p>http://www.ctcexams.nesinc.com/Content/Docs/CalTPA_Glossary.pdf</p> |
| Asset | <p>An asset-based approach focuses on strengths. It views diversity in thought, culture, and traits as positive assets. Teachers and students alike are valued for what they bring to the classroom rather than being characterized by what they may need to work on or lack, and therefore are considered assets.</p> <p>http://www.ctcexams.nesinc.com/Content/Docs/CalTPA_Glossary.pdf</p> |
| Assistive Technology | <p>Any item, piece of equipment, software program, or product system that is used to increase, maintain, or improve the functional capabilities of persons with disabilities.</p> <p>http://www.ctcexams.nesinc.com/Content/Docs/CalTPA_Glossary.pdf</p> |
| Bloom’s Taxonomy | <p>A classification system used to define and distinguish different levels of human</p> |

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| | <p>cognition—i.e., thinking, learning, and understanding. Educators have typically used Bloom’s taxonomy to inform or guide the development of assessments (tests and other evaluations of student learning), curriculum (units, lessons, projects, and other learning activities), and instructional methods such as questioning strategies. Bloom’s taxonomy was originally published in 1956 by a team of cognitive psychologists at the University of Chicago. It is named after the committee’s chairman, Benjamin Bloom (1913–1999). The original taxonomy was organized into three domains: Cognitive, Affective, and Psychomotor. Educators have primarily focused on the Cognitive model, which includes six different classification levels: <i>Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation</i>. In 2001, another team of scholars released a revised version of Bloom’s taxonomy called <i>A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom’s Taxonomy of Educational Objectives</i>. The “Revised Bloom’s Taxonomy,” as it is commonly called, was intentionally designed to be more useful to educators and to reflect the common ways in which it had come to be used in schools.</p> <p>http://edglossary.org/blooms-taxonomy/</p> |
| <p>California Alternate Assessments (CAAs)</p> | <p>The California Alternate Assessments (CAAs) for English language arts/literacy (ELA) and mathematics are given in grades three through eight and grade eleven. The CAAs, a part of the California Assessment of Student Performance and Progress system, have replaced the California Alternate Performance Assessment (CAPA) for ELA and CAPA for mathematics, which were eliminated in 2015. Only eligible students may participate in the administration of the CAAs. The CAPA for science in grades five, eight, and ten will continue to be administered until a replacement assessment is available. CAAs items are aligned with alternate achievement standards, which are linked with the Common Core State Standards (CCSS) for students with significant cognitive disabilities. The goals of the CAAs are to ensure that students with significant cognitive disabilities achieve increasingly higher academic outcomes and leave high school ready for postsecondary options.</p> <p>http://www.cde.ca.gov/ta/tg/ca/altassessment.asp</p> |
| <p>California Standards for the Teaching Profession (CSTP)</p> | <p>The California Standards for the Teaching Profession (CSTP) are intended to provide a common language and a vision of the scope and complexity of the profession by which all teachers can define and develop their practice. The standards seek to serve and support professional educators in fulfilling their professional roles and responsibilities from pre-service teacher to experienced practitioner. The standards are not set forth as regulations to control the specific actions of teachers, but rather to guide teachers as they develop, refine, and extend their practice. The CSTP have been used for a variety of purposes, including the following: (1) to prompt reflection about student learning and teaching practice; (2) to formulate professional goals to improve teaching practice in support of student learning; and (3) to guide, monitor, and assess the progress of a teacher’s practice toward professional goals.</p> <p>http://www.ctc.ca.gov/educator-prep/standards/CSTP-2009.pdf</p> |
| <p>Common Core State Standards</p> | <p>The Common Core is a set of high-quality academic standards in mathematics and English language arts/literacy (ELA). These learning goals outline what a student should</p> |

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| (CCSS) | <p>know and be able to do at the end of each grade. The standards were created to ensure that all students graduate from high school with the skills and knowledge necessary to succeed in college, career, and life, regardless of where they live.</p> <p>http://www.corestandards.org/about-the-standards/</p> |
| Culturally Response Teaching | <p>A teacher’s use of strategies that support a constructivist view of knowledge, teaching, and learning assists students in constructing knowledge, building on their personal and cultural strengths, and examining the curriculum from multiple perspectives, thus creating an inclusive classroom environment.</p> <p>https://educationnorthwest.org/sites/default/files/resources/culturally-responsive-teaching.pdf</p> |
| Differentiation | <p>Differentiation means tailoring instruction to meet individual needs. Whether teachers differentiate content, process, products, or the learning environment, the use of ongoing assessment and flexible grouping makes this a successful approach to instruction.</p> <p>http://www.readingrockets.org/article/what-differentiated-instruction</p> |
| Discovery Learning | <p>Discovery learning is an inquiry-based, constructivist learning theory that takes place in problem solving situations where the learner draws on his or her own past experience and existing knowledge to discover facts and relationships and new truths to be learned.</p> <p>Students interact with the world by exploring and manipulating objects, wrestling with questions and controversies, or performing experiments. As a result, students may be more likely to remember concepts and knowledge discovered on their own.</p> <p>https://www.learning-theories.com/</p> |
| Educational Technology | <p>Any digital/virtual tool used to impact the teaching/learning process within an educational environment.</p> <p>http://www.ctcexams.nesinc.com/Content/Docs/CalTPA_Glossary.pdf</p> |
| English Language Development Standards (CA ELD) | <p>The California English Language Development Standards (CA ELD Standards) reflect recent and emerging research and theory and are intended to support language development as English learners (ELs) engage in rigorous academic content. The CA ELD Standards provide a foundation for ELs in kindergarten through grade 12 (K–12) in California schools so that each EL is able to gain access to academic subjects, engage with them, and meet the state’s subject-matter standards for college and career readiness. The Proficiency Level Descriptors (PLDs) provide an overview of the stages of English language development through which English learners (ELs) are expected to progress as they gain increasing proficiency in English as a new language. The PLDs depict student knowledge, skills, and abilities across a continuum, identifying what ELs know and can do at early stages and upon exit from each of three proficiency levels: Emerging, Expanding, and Bridging.</p> <p>http://www.cde.ca.gov/sp/el/er/documents/eldstndpublication14.pdf</p> |

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| English Language Proficiency | <p>The level of knowledge, skills, and ability that students who are learning English as a new language need in order to access, engage with, and achieve in grade-level academic content. For California, these are delineated in the California English Language Development (CA ELD) Standards.</p> <p>http://www.ctcexams.nesinc.com/Content/Docs/CalTPA_Glossary.pdf</p> |
| Essential Questions | <p>Wiggins and McTighe define essential questions as “questions that are not answerable with finality in a brief sentence... Their aim is to stimulate thought, to provoke inquiry, and to spark more questions — including thoughtful student questions — not just pat answers” (106).</p> <p>http://www.huffenglish.com/understanding-by-design-essential-questions/</p> |
| Formal Assessment | <p>Refers to collecting and analyzing student assessment results to provide information about students’ current levels of achievement or performance after a period of learning has occurred. Results of formal assessment are used to plan further instruction and provide detailed feedback to students to direct growth and development based on content-specific learning goal(s) of the instruction. Formal assessments use a rubric, shared with students prior to the assessment, to gauge and evaluate student achievement or demonstrated performance. A formal assessment requires students to demonstrate the extent to which they have gained specific skills, competencies, and/or content knowledge through a product, process, or performance.</p> <p>http://www.ctcexams.nesinc.com/Content/Docs/CalTPA_Glossary.pdf</p> |
| Formative Assessment | <p>Formative assessment is commonly referred to as assessment for learning, in which the focus is on monitoring student response to and progress with instruction. Formative assessment provides immediate feedback to both the teacher and student regarding the learning process.</p> <p>http://www.education.com/reference/article/formative-and-summative-assessment/</p> |
| Funds of Knowledge | <p>Defined by researchers Luis Moll, Cathy Amanti, Deborah Neff, and Norma Gonzalez “to refer to the historically accumulated and culturally developed bodies of knowledge and skills essential for household or individual functioning and well-being” (Moll, Amanti, Neff, & Gonzalez, 1992, p. 133). 5 When teachers shed their role of teacher and expert and, instead, take on a new role as learner, they can come to know their students and the families of their students in new and distinct ways. With this new knowledge, they can begin to see that the households of their students contain rich cultural and cognitive resources and that these resources can and should be used in their classroom in order to provide culturally responsive and meaningful lessons that tap students’ prior knowledge. Information that teachers learn about their students in this process is considered the student’s funds of knowledge.</p> <p>http://www.ctcexams.nesinc.com/Content/Docs/CalTPA_Glossary.pdf</p> |
| Gifted and | <p>The California Department of Education (CDE) administers the Gifted and Talented Education (GATE) Program, which provides funding for local educational agencies (LEAs)</p> |

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| Talented Education (GATE) | <p>to develop unique education opportunities for high-achieving and underachieving pupils in the California public elementary and secondary schools. Each school district's governing board determines the criteria it will use to identify students for participation in the GATE program.</p> <p>http://www.cde.ca.gov/sp/gt/gt/</p> |
| Growth Mindset | <p>"In a growth mindset, people believe that their most basic abilities can be developed through dedication and hard work—brains and talent are just the starting point. This view creates a love of learning and a resilience that is essential for great accomplishment," writes Dweck. Students who embrace growth mindsets—the belief that they can learn more or become smarter if they work hard and persevere—may learn more, learn it more quickly, and view challenges and failures as opportunities to improve their learning and skills.</p> <p>http://edglossary.org/growth-mindset/</p> |
| Higher Order Thinking | <p>A concept popular in American education reform that distinguishes critical-thinking skills from low-order learning outcomes, such as those attained by rote memorization. HOTS include analysis, synthesis, evaluation, interpretation, and transfer. HOTS are based on various taxonomies of learning, such as that propagated by Benjamin Bloom in his Taxonomy of Educational Objectives: The Classification of Educational Goals (1956).</p> <p>http://www.ctcexams.nesinc.com/Content/Docs/CalTPA_Glossary.pdf</p> |
| Individualized Education Program (IEP) | <p>An IEP defines the individualized objectives of a child who has been determined to have a disability, as defined by federal regulations. The IEP is intended to help children reach educational goals more easily than they otherwise would. In all cases the IEP must be tailored to the individual student's needs as identified by the IEP evaluation process, and must especially help teachers and related service providers (such as paraprofessional educators) understand the student's disability and how the disability affects the learning process. The IEP describes how the student learns, how the student best demonstrates that learning and what teachers and service providers will do to help the student learn more effectively. Developing an IEP requires assessing students in all areas related to the known disabilities, simultaneously considering ability to access the general curriculum, considering how the disability affects the student's learning, forming goals and objectives that correspond to the needs of the student, and choosing a placement in the least restrictive environment possible for the student</p> <p>https://en.wikipedia.org/wiki/Individualized_Education_Program</p> |
| Individuals with Disabilities Education Act (IDEA) | <p>The Individuals with Disabilities Education Act (IDEA) ensures that all children with disabilities are entitled to a free appropriate public education to meet their unique needs and prepare them for further education, employment, and independent living</p> <p>http://www.apa.org/about/gr/issues/disability/idea.aspx</p> |
| Informal | Observing and documenting student learning and adjusting instruction to provide in- |

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| Assessment | <p>the-moment feedback to students while teaching. Informal assessments may involve a range of strategies (e.g., purposeful questions to check for understanding during the lesson; observation notes taken by the teacher while students are engaged in instructional activities; student-created representations of learning [written work, visuals, graphics, models, products, performances]; student peer review and critique; student and group reflection on the qualities of their own product, process, or performance; homework; “do nows”; exit slips).</p> <p>http://www.ctcexams.nesinc.com/Content/Docs/CalTPA_Glossary.pdf</p> |
| Learning Target/Learning Goal | <p>A shared learning target unpacks a "lesson-sized" amount of learning—the precise "chunk" of the particular content students are to master (Leahy, Lyon, Thompson, & Wiliam, 2005). It describes exactly how well we expect them to learn it and how we will ask them to demonstrate that learning. Although teachers derive them from instructional objectives, learning targets differ from instructional objectives in both design and function.</p> <p>http://www.ascd.org/publications/educational-leadership/mar11/vol68/num06/Knowing-Your-Learning-Target.aspx</p> |
| Least Restrictive Environment (LRE) | <p>LRE is part of the Individuals with Disabilities Education Act (IDEA). IDEA says that children who receive special education should learn in the least restrictive environment. This means they should spend as much time as possible with peers who do not receive special education. IDEA says two things about LRE that are important to understand when working with the IEP team: (1) Your child should be with kids in general education to the “maximum extent that is appropriate.” (2) Special classes, separate schools or removal from the general education class should only happen when your child’s learning or attention issue— his “disability” under IDEA—is so severe that supplementary aids and services can’t provide him with an appropriate education. A key word here is “appropriate.” It refers to what’s suitable or right for your child. Sometimes, putting a child in a general education classroom isn’t suitable because a specific service or program can’t be provided there.</p> <p>https://www.understood.org/en/school-learning/special-services/special-education-basics/least-restrictive-environment-lre-what-you-need-to-know</p> |
| Modifications | <p>A modification changes the learning goal or objective. This goes beyond changing how the student learns or is tested and effectively changes <i>what</i> they are actually learning. A modification could change the instructional level, the content or curriculum covered, the performance criteria (objective), or the assignment structure. An example of a modification would be reducing the amount of spelling words a student is required to learn or changing an essay assignment into a poster project.</p> <p>http://study.com/academy/lesson/modifications-for-special-education-students-definition-checklist-quiz.html</p> |
| Multi-Tiered Systems of Support | <p>a systemic, continuous improvement framework in which data-based problem-solving and decision making is practiced across all levels of the educational system for</p> |

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| (MTSS) | <p>supporting students. The framework of MTSS is a “way of doing business” which utilizes high quality evidence-based instruction, intervention, and assessment practices to ensure that every student receives the appropriate level of support to be successful. A Multi-Tiered System of Supports helps schools and districts to organize resources through alignment of academic standards and behavioral expectations, implemented with fidelity and sustained over time, in order to accelerate the performance of every student to achieve and/or exceed proficiency.</p> <p>http://www.cde.state.co.us/mtss/whatismtss</p> |
| Next Generation Science Standards (NGSS) | <p>Within the Next Generation Science Standards (NGSS), there are three distinct and equally important dimensions to learning science. These dimensions are combined to form each standard – or performance expectation – and each dimension works with the other two to help students build a cohesive understanding of science over time. The three dimensions include: (1) Crosscutting Concepts, (2) Science and Engineering Practices, and (3) Disciplinary Core Ideas.</p> <p>http://www.cde.ca.gov/pd/ca/sc/ngssstandards.asp</p> |
| Prior Academic Knowledge | <p>Prior knowledge is the knowledge the learner already has before they meet new information.</p> |
| Response to Intervention (RTI) | <p>Response to Intervention (RTI) is a multi-tier approach to the early identification and support of students with learning and behavior needs. The RTI process begins with high-quality instruction and universal screening of all children in the general education classroom. Struggling learners are provided with interventions at increasing levels of intensity to accelerate their rate of learning. These services may be provided by a variety of personnel, including general education teachers, special educators, and specialists. Progress is closely monitored to assess both the learning rate and level of performance of individual students. Educational decisions about the intensity and duration of interventions are based on individual student response to instruction. RTI is designed for use when making decisions in both general education and special education, creating a well-integrated system of instruction and intervention guided by child outcome data.</p> <p>http://www.rtinetwork.org/learn/what/whatisrti</p> |
| Rubric | <p>A tool for scoring student work or performances, typically in the form of a table or matrix, with criteria that describe the dimensions of the outcomes down the left vertical axis and levels of performance across the horizontal axis. The performance being scored by a rubric may be given an overall score (holistic rubric scoring), or criteria may be scored individually (analytic rubric scoring). Rubrics may also be used for communicating expectations for performance.</p> <p>http://www.ctcexams.nesinc.com/Content/Docs/CalTPA_Glossary.pdf</p> |
| Scaffolding | <p>Refers to a variety of instructional techniques used to move students progressively toward stronger understanding and, ultimately, greater independence in the learning process. The term itself offers the relevant descriptive metaphor: teachers provide successive levels of temporary support that help students reach higher levels of</p> |

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| | <p>comprehension and skill acquisition that they would not be able to achieve without assistance. Like physical scaffolding, the supportive strategies are incrementally removed</p> <p>http://www.ctcexams.nesinc.com/Content/Docs/CalTPA_Glossary.pdf</p> |
| Self-Assessment | <p>Refers to students evaluating their own learning, based on criteria, and objectively reflecting on and critically evaluating their progress and academic development in the content area.</p> <p>http://www.ctcexams.nesinc.com/Content/Docs/CalTPA_Glossary.pdf</p> |
| Social Identity | <p>The cultural identities of students⁷ are constructed from their experiences with the 12 attributes of culture identified by Cushner, McClelland, and Safford (2000): ethnicity/nationality, social class, sex/gender, health, age, geographic region, sexuality, religion, social status, language, ability/disability, and race. Students' cultural identities are defined by these experiences, and students learn these identities within a culture through socializing agents (Campbell, 2004). Therefore, teachers must understand that these cultural identities define who the students are.</p> <p>http://www.ctcexams.nesinc.com/Content/Docs/CalTPA_Glossary.pdf</p> |
| Social-emotional Learning | <p>Includes the student's experience, expression, and management of emotions and the ability to establish positive and rewarding relationships with others (Cohen et al., 2005). It encompasses both intrapersonal and interpersonal processes.</p> <p>http://www.ctcexams.nesinc.com/Content/Docs/CalTPA_Glossary.pdf</p> |
| Standards for Mathematical Practice (SMP) | <p>The Standards for Mathematical Practice describe ways in which developing student practitioners of the discipline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years. The Standards for Mathematical Content are a balanced combination of procedure and understanding. Expectations that begin with the word "understand" are often especially good opportunities to connect the practices to the content. Students who lack understanding of a topic may rely on procedures too heavily.</p> <p>Without a flexible base from which to work, they may be less likely to consider analogous problems, represent problems coherently, justify conclusions, apply the mathematics to practical situations, use technology mindfully to work with the mathematics, explain the mathematics accurately to other students, step back for an overview, or deviate from a known procedure to find a shortcut. In short, a lack of understanding effectively prevents a student from engaging in the mathematical practices.</p> <p>http://www.corestandards.org/Math/Practice/</p> |
| STEM | <p>The simplest definition is what it stands for, which is science, technology, engineering, and mathematics. There are many organizations that are dedicated to this topic and they define this with their own objectives. The ultimate goal of STEM education is to</p> |

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| | <p>encourage students to take an interest in STEM subjects at an early age. This should be beneficial to them when they enter the jobs market, and in turn it should benefit the greater economy. It is a simple definition with a straight forward goal.</p> <p>http://www.stemschool.com/articles/what-is-stem-education</p> |
| Summative Assessment | <p>Summative assessment is commonly referred to as assessment of learning, in which the focus is on determining what the student has learned at the end of a unit of instruction or at the end of a grade level (e.g., through grade-level, standardized assessments). Summative assessment helps determine to what extent the instructional and learning goals have been met.</p> <p>http://www.education.com/reference/article/formative-and-summative-assessment/</p> |
| Teacher Performance Expectations | <p>The TPEs are research-based and aligned to national teaching standards expectations. They link to expectations set forth in California's adopted content standards for students. They require beginning teachers to demonstrate the knowledge, skills, and abilities to provide safe, healthy, and supportive learning environments to meet the needs of each and every student and to model digital literacy and ethical digital citizenship. In addition, the TPEs explicitly require beginning teachers to know and be able to apply pedagogical theories, principles, and instructional practices for the comprehensive instruction of English learners. They know and can apply theories, principles, and instructional practices for English Language Development to assist students to achieve literacy in English within the content area(s) of their credential(s). They create inclusive learning environments, in person or online, and use their understanding of all students' developmental levels to provide effective instruction and assessment for all students, including students with disabilities in the general education classroom.</p> <p>http://www.ctc.ca.gov/educator-prep/standards/adopted-TPEs-2016.pdf</p> |
| Universal Design for Learning (UDL) | <p>A set of principles for curriculum development that give all individuals equal opportunities to learn. UDL provides a blueprint for creating instructional goals, methods, materials, and assessments that work for everyone--not a single, one-size-fits-all solution but rather flexible approaches that can be customized and adjusted for individual needs. The three principles of UDL are: (1) Provide Multiple Means of Representation, (2) Provide Multiple Means of Action and Expression, and (3) Provide Multiple Means of Engagement</p> <p>http://www.udlcenter.org/aboutudl/whatisudl</p> |
| Webb's Depth of Knowledge (DOK) | <p>Depth of Knowledge also referred to as D.O.K., is the complexity or depth of understanding required to answer or explain an assessment related item or a classroom activity. The concept of depth of knowledge was developed through research by Norman L. Webb in the late 1990's. Webb identified four distinct depth of knowledge levels. The complexity of an assessment task is increasingly more difficult as the level often increases requiring multiple steps to complete.</p> <p>http://teaching.about.com/od/A-ITeachingGlossary/g/Depth-Of-Knowledge.htm</p> |

Section III:

Teacher Preparation Alignment

Overview: Upon completion of your preliminary credential program and in tandem with your first teaching position, you will be expected to complete an approved Induction Program in order to receive your clear credential during your first and second year as the teacher of record. Once in the teaching profession, you will transition from utilizing the [Teacher Performance Expectations](#) (TPE) to the [California Standards for the Teaching Profession](#) (CSTP). A full comparison of these standards' is located in the appendix. Although these two sets of standards are aligned in overall content, the transition illuminates the differences in expectations of a teacher-in-training and those of a novice teacher-of-record. Prior to completion of your preliminary credential program, you will complete an "Individual Plan for Transition to Induction" document with your university supervisor that will accompany you to your intake meeting with your Induction Coordinator or Support Provider. This transition document will help to make your Induction experience to be tailored to your individual needs.

In preparing for the adventure of looking for and securing full-time employment in teaching, there are several tips to keep in mind while researching districts for your first teaching assignment. Depending on the climate of the job market in your preferred geographical area, you may or may not have the luxury to make decisions about your first teaching job based on the available Induction Programs in the area, it is helpful to be armed with knowledge about Induction.

KNOW...

- Not all districts offer an Induction Program.
- Not all Induction Programs:
 - have the same application or enrollment process.
 - have the same fees to participate.
 - are equal in length or rigor.
 - follow the same curriculum or the same criteria for completion.
 - are accredited for ALL credentials areas.
- But... all Induction Programs must be accredited by the state of California and must follow the same set of standards!

DO...

Research Induction scenario prior to your different interviews:

- Does the district offer an Induction Program for your credential?
- Is there a fee to participate?
- When is the expected start date?

Once you've accepted your first teaching assignment, you will need to inquire about the following components regarding your upcoming Induction experience:

- How, when, and to whom do you enroll in the Induction Program?
- What materials will be required as part of your enrollment paperwork?
- If they DO offer a program in your credential area, you need to know if it is mandatory to participate in the district program or if you may enroll elsewhere.
- If a district does not offer a program for the credential you need to clear, they will provide you with a CL855 letter to take to another institution for enrollment. They may also be able to help you find another option.
- Enroll immediately! Programs WILL fill!



INDIVIDUAL PLAN FOR TRANSITION TO INDUCTION
California State University, Long Beach

Directions: With your University Supervisor and/or Master Teacher, discuss your student teaching experience and evaluation(s), the Teacher Performance Expectations (TPE) and corresponding Teacher Performance Assessment (TPA) results, and university course content and grades. Reflect upon **strengths, potential areas of growth**, and **professional interests** leading into your first teaching position. Use the space below (and additional pages as needed) to write detailed notes in each area that can be shared with your future Induction Program Coordinator. Be sure to address areas of professionalism, lesson design and assessment, lesson implementation and assessment, and classroom management. Your documented reflection on this form will support the creation of an Individualized Learning Plan (ILP) during your Induction experience.

Identify your top three strengths and describe evidence to support your claim:

Identify three potential areas of growth and describe evidence to support your claim:

Identify three professional areas of interest. Think about potential topics for further exploration or study related to the field of education:

TPE 1: Engaging and Supporting All Students in Learning

1. Apply knowledge of students, including their prior experiences, interests, and social-emotional learning needs, as well as their funds of knowledge and cultural, language, and socioeconomic backgrounds, to engage them in learning.
2. Maintain ongoing communication with students and families, including the use of technology to communicate with and support students and families, and to communicate achievement expectations and student progress.
3. Connect subject matter to real-life contexts and provide active learning experiences to engage student interest, support student motivation, and allow students to extend their learning.
4. Use a variety of developmentally and ability-appropriate instructional strategies, resources, and assistive technology, including principles of Universal Design of Learning (UDL) and Multi-Tiered System of Supports (MTSS) to support access to the curriculum for a wide range of learners within the general education classroom and environment.
5. Promote students' critical and creative thinking and analysis through activities that provide opportunities for inquiry, problem solving, responding to and framing meaningful questions, and reflection.
6. Provide a supportive learning environment for students' first and/or second language acquisition by using research-based instructional approaches, including focused English Language Development, Specially Designed Academic Instruction in English (SDAIE), scaffolding across content areas, and structured English immersion, and demonstrate an understanding of the difference among students whose only instructional need is to acquire Standard English proficiency, students who may have an identified disability affecting their ability to acquire Standard English proficiency, and students who may have both a need to acquire Standard English proficiency and an identified disability.

7. Provide students with opportunities to access the curriculum by incorporating the visual and performing arts, as appropriate to the content and context of learning.
8. Monitor student learning and adjust instruction while teaching so that students continue to be actively engaged in learning.

CSTP 1: Engaging and Supporting All Students in Learning

- 1.1 Using knowledge of students to engage them in learning
- 1.2 Connecting learning to students' prior knowledge, backgrounds, life experiences, and interests
- 1.3 Connecting subject matter to meaningful, real-life context
- 1.4 Using a variety of instructional strategies, resources, and technologies to meet students' diverse learning needs.
- 1.5 Promoting critical thinking through inquiry, problem-solving, and reflection
- 1.6 Monitoring student learning and adjusting instruction while teaching

TPE 2: Creating and Maintaining Effective Environments for Student Learning

1. Promote students' social-emotional growth, development, and individual responsibility using positive interventions and supports, restorative justice, and conflict resolution practices to foster a caring community where each student is treated fairly and respectfully by adults and peers.
2. Create learning environments (i.e., traditional, blended, and online) that promote productive student learning, encourage positive interactions among students, reflect diversity and multiple perspectives, and are culturally responsive.
3. Establish, maintain, and monitor inclusive learning environments that are physically, mentally, intellectually, and emotionally healthy and safe to enable all students to learn, and recognize and appropriately address instances of intolerance and harassment among students, such as bullying, racism, and sexism.
4. Know how to access resources to support students, including those who have experienced trauma, homelessness, foster care, incarceration, and/or are medically fragile.
5. Maintain high expectations for learning with appropriate support for the full range of students in the classroom.
6. Establish and maintain clear expectations for positive classroom behavior and for student-to-student and student-to-teacher interactions by communicating classroom routines, procedures, and norms to students and families.

CSTP 2: Creating and Maintaining Effective Environments for Student Learning

- 2.1 Promoting social development and responsibility with a caring community where each student is treated fairly and respectfully
- 2.2 Creating physical or virtual learning environments that promote student learning, reflect diversity, and encourage constructive and productive interactions among students
- 2.3 Establishing and maintaining learning environments that are physically, intellectually, and emotionally safe
- 2.4 Creating a rigorous learning environment with high expectations and appropriate support for all students
- 2.5 Developing, communicating, and maintaining high standards for group behavior
- 2.6 Employing classroom routines, procedures, norms, and supports for positive behavior to ensure a climate in which all students can learn
- 2.7 Using instructional time to optimize learning

TPE 3: Understanding and Organizing Subject Matter for Student Learning

1. Demonstrate knowledge of subject matter, including the adopted California State Standards and curriculum frameworks.
2. Use knowledge about students and learning goals to organize the curriculum to facilitate student understanding of subject matter, and make accommodations and/or modifications as needed to promote student access to the curriculum.
3. Plan, design, implement, and monitor instruction consistent with current subject-specific pedagogy in the content area(s) of instruction, and design and implement disciplinary and cross-disciplinary learning sequences, including integrating the visual and performing arts as applicable to the discipline.
4. Individually and through consultation and collaboration with other educators and members of the larger school community, plan for effective subject matter instruction and use multiple means of representing, expressing, and engaging students to demonstrate their knowledge.
5. Adapt subject matter curriculum, organization, and planning to support the acquisition and use of academic language within learning activities to promote the subject matter knowledge of all students, including the full range of English learners, Standard English learners, students with disabilities, and students with other learning needs in the least restrictive environment.
6. Use and adapt resources, standards-aligned instructional materials, and a range of technology, including assistive technology, to facilitate students' equitable access to the curriculum.
7. Model and develop digital literacy by using technology to engage students and support their learning, and promote digital citizenship, including respecting copyright law, understanding

fair use guidelines and the use of Creative Commons license, and maintaining Internet security.

8. Demonstrate knowledge of effective teaching strategies aligned with the internationally recognized educational technology standards.

CSTP 3: Understanding and Organizing Subject Matter for Student Learning

- 3.1 Demonstrating knowledge of subject matter, academic content standards, and curriculum frameworks
- 3.2 Applying knowledge of student development and proficiencies to ensure student understanding of subject matter
- 3.3 Organizing curriculum to facilitate student understanding of the subject matter
- 3.4 Utilizing instructional strategies that are appropriate to the subject matter
- 3.5 Using and adapting resources, technologies, and standards-aligned instructional materials, including adaptive materials, to make subject matter accessible to all students.
- 3.6 Addressing the needs of English learners and students with special needs to provide equitable access to the content

TPE 4: Planning Instruction and Designing Learning Experiences for All Students

1. Locate and apply information about students' current academic status, content-and standards-related learning needs and goals, assessment data, language proficiency status, and cultural background for both short-term and long-term instructional planning purposes.
2. Understand and apply knowledge of the range and characteristics of typical and atypical child development from birth through adolescence to help inform instructional planning and learning experiences for all students.
3. Design and implement instruction and assessment that reflects the interconnectedness of academic content areas and related student skills development in literacy, mathematics, science, and other disciplines across the curriculum, as applicable to the subject area of instruction.
4. Plan, design, implement and monitor instruction, making effective use of instructional time to maximize learning opportunities and provide access to the curriculum for all students by removing barriers and providing access through instructional strategies that include:
 - appropriate use of instructional technology, including assistive technology;
 - applying principles of UDL and MTSS;
 - use of developmentally, linguistically, and culturally appropriate learning activities, instructional materials, and resources for all students, including the full range of English learners;
 - appropriate modifications for students with disabilities in the general education classroom;
 - opportunities for students to support each other in learning; and
 - use of community resources and services as applicable.
5. Promote student success by providing opportunities for students to understand and advocate for strategies that meet their individual learning needs and assist students with specific learning needs to successfully participate in transition plans (e.g., IEP, IFSP, ITP, and 504 plans.)

6. Access resources for planning and instruction, including the expertise of community and school colleagues through in-person or virtual collaboration, co-teaching, coaching, and/or networking.
7. Plan instruction that promotes a range of communication strategies and activity modes between teacher and student and among students that encourage student participation in learning.
8. Use digital tools and learning technologies across learning environments as appropriate to create new content and provide personalized and integrated technology-rich lessons to engage students in learning, promote digital literacy, and offer students multiple means to demonstrate their learning.

CSTP 4: Planning Instruction and Designing Learning Experiences for All Students

- 4.1** Using knowledge of students' academic readiness, language proficiency, cultural background, and individual development to plan instruction
- 4.2** Establishing and articulating goals for student learning
- 4.3** Developing and sequencing long-term and short-term instructional plans to support student learning
- 4.4** Planning instruction that incorporates appropriate strategies to meet the learning needs of all students
- 4.5** Adapting instructional plans and curricular materials to meet the assessed learning needs of all students

TPE 5: Assessing Student Learning

1. Apply knowledge of the purposes, characteristics, and appropriate uses of different types of assessments (e.g., diagnostic, informal, formal, progress-monitoring, formative, summative, and performance) to design and administer classroom assessments, including use of scoring rubrics.
2. Collect and analyze assessment data from multiple measures and sources to plan and modify instruction and document students' learning over time.
3. Involve all students in self-assessment and reflection on their learning goals and progress and provide students with opportunities to revise or reframe their work based on assessment feedback.
4. Use technology as appropriate to support assessment administration, conduct data analysis, and communicate learning outcomes to students and families.
5. Use assessment information in a timely manner to assist students and families in understanding student progress in meeting learning goals.
6. Work with specialists to interpret assessment results from formative and summative assessments to distinguish between students whose first language is English, English learners, Standard English learners, and students with language or other disabilities.
7. Interpret English learners' assessment data to identify their level of academic proficiency in English as well as in their primary language, as applicable, and use this information in planning instruction.

8. Use assessment data, including information from students' IEP, IFSP, ITP, and 504 plans, to establish learning goals and to plan, differentiate, make accommodations and/or modify instruction.

CSTP 5: Assessing Students for Learning

- | | |
|-----|-----------------------------------------------------------------------------------------------------------|
| 5.1 | Applying knowledge of the purposes, characteristics, and uses of different types of assessments |
| 5.2 | Collecting and analyzing assessment data from a variety of sources to inform instruction |
| 5.3 | Reviewing data, both individually and with colleagues, to monitor student learning |
| 5.4 | Using assessment data to establish learning goals and to plan, differentiate, and modify instruction |
| 5.5 | Involving all students in self-assessment, goal setting, and monitoring process |
| 5.6 | Using available technologies to assist in instruction, analysis, and communication of student learning |
| 5.7 | Using assessment information to share timely and comprehensible feedback with students and their families |

TPE 6: Developing as a Professional Educator

1. Reflect on their own teaching practice and level of subject matter and pedagogical knowledge to plan and implement instruction that can improve student learning.
2. Recognize their own values and implicit and explicit biases, the ways in which these values and implicit and explicit biases may positively and negatively affect teaching and learning, and work to mitigate any negative impact on the teaching and learning of students. They exhibit positive dispositions of caring, support, acceptance, and fairness toward all students and families, as well as toward their colleagues.
3. Establish professional learning goals and make progress to improve their practice by routinely engaging in communication and inquiry with colleagues.
4. Demonstrate how and when to involve other adults and to communicate effectively with peers and colleagues, families, and members of the larger school community to support teacher and student learning.
5. Demonstrate professional responsibility for all aspects of student learning and classroom management, including responsibility for the learning outcomes of all students, along with appropriate concerns and policies regarding the privacy, health, and safety of students and families. Beginning teachers conduct themselves with integrity and model ethical conduct for themselves and others.
6. Understand and enact professional roles and responsibilities as mandated reporters and comply with all laws concerning professional responsibilities, professional conduct, and moral fitness, including the responsible use of social media and other digital platforms and tools.

7. Critically analyze how the context, structure, and history of public education in California affects and influences state, district, and school governance as well as state and local education finance.

CSTP 6: Developing as a Professional Educator

- 6.1 Reflecting on teaching practice in support of student learning
- 6.2 Establishing professional goals and engaging in continuous and purposeful professional growth and development
- 6.3 Collaborating with colleagues and the broader professional community to support teacher and student learning
- 6.4 Working with families to support student learning
- 6.5 Engaging local communities in support of the instructional program
- 6.6 Managing professional responsibilities to maintain motivation and commitment to all students
- 6.7 Demonstrating professional responsibility, integrity, and ethical conduct

Section IV:

Appendix

4a: Active Participation Toolbox

A-B Partner Teach

With designated roles in place, the teacher can ask A-B partners to complete various tasks in an effective, efficient time frame.

- Partner A, tell Partner B the two most important things you have learned so far about _____. Partner B add two more details after Partner A has shared.
- Partner A, define _____ in your own words. Partner B will then give two examples of _____.
- Partner B, list 3 sources of _____. Partner A, list 3 sources of _____.

Attentive Listening

Students put their pencils down during the teacher input and are not allowed to take notes as the teacher is giving content information. After each step of input, (every 2-3 minutes) the teacher stops giving instruction. The students pick up pencils and write the crucial input given in the last few minutes in their notebooks.

Color-Coded Choices

Put colored sticker dots on students' desks, 3x5 cards, or nametags. Each color represents a possible answer to a question from the teacher. Student puts their finger on the answer they choose.

- "If you think it is a fact, cover red dot with your index finger. On green, if you think it is an opinion."
- "If you choose 'A' cover the red dot. 'B' cover the yellow dot...etc."
- "Cover the red dot if your answer was _ . Cover the blue dot if your answer was _ . Cover yellow dot if you got _."
- "Vote by covering the appropriate dot. Blue if... Green if...etc."

Clock Appointments

Students make appointments with other students at various times directed by teacher. As teacher calls a specific appointment time, students meet with their designated appointment and discuss a given question or topic posed by teacher.



*"Please find your 3:00 appointment.
Discuss your thoughts to the question
on the board."*

Exit Slip/ Evidence Bag

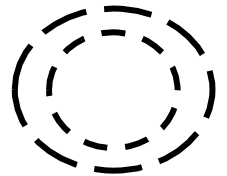
- 1 - What made learning easy for you today?
- 2 – What made learning difficult for you today?
- 3 – What do you still need to know before we move on?
- 4 – What did you learn today?
- 5 – What should our next steps be?

Students can answer self-selected question/s or teacher selected question/s using sticky notes, white boards, scraps of paper, journals, etc.

Fishbowl

This strategy provides students an opportunity to engage in formal discussion and to experience roles both as participant and as active listener; students also have the responsibility of supporting their opinions and response using specific textual evidence.

- Students are asked to engage in a group discussion about a specific topic – there will be two circles:
- Inner circle students will model appropriate discussion techniques... while the
- Outer circle students will listen, respond and evaluate.



Four Corners

The teacher posts *questions, quotations, photos, etc.* in each of the corners of the room. The teacher assigns each student to a corner... or students choose.

- Once in the corner, the students discuss the focus of the lesson in relation to the question, quote, etc...
- At this time, students may take notes, report out, or move to another corner and repeat the process...
- After students have moved or completed the activity, they should be encouraged to reflect on changes in their understanding of the content

Gallery Walk

- Select several “quotable quotes,” important passages, or concepts from a text and place each quote or passage on a separate piece of butcher or chart paper and hang them throughout the room.
- Ask students to quietly take a “gallery walk,” reading each poster carefully and talking to no one.
- Have each student select one that interests or intrigues them – one that they would like to talk more about.
- Ask the students to return to their seats and write about the selected quote.
- Then ask students to take their writing and stand by the quote or passage they have selected. Distribute a marker to each group. Using their free-writing as a point of departure for discussion, they form a discussion group, sharing and piggy backing ideas. Their thoughts are recorded on the chart paper.
- Each group shares their charted responses with the entire class and invites the larger class to add comments or to ask questions. After each group shares, students are given time to write their own responses for each quote or passage.

Graphic Organizers

A graphic organizer is a communication tool that uses visual symbols to express knowledge, concepts, thoughts, or ideas, and the relationships between them. The main purpose of a graphic organizer is to provide a visual aid to facilitate learning and instruction. Many districts use Thinking Maps© but other common graphic organizers include Venn Diagrams and concept maps.

Hand Signals

Teacher asks for a response from class with a private gesture with the hands. Most effective to teacher (as a check for understanding) when students keep gestures close to their chest so other students can't see their answer. Examples include:

- Thumbs up/down
- Open/closed fist
- One finger/two fingers
- Arms crossed/uncrossed

Idea Wave

- Each student lists 3 to 5 ideas about the assigned topic.
- A volunteer begins the "idea wave" by sharing one idea
- The student to the right of the volunteer shares one idea; the next student to the right shares one idea.
- The teacher directs the flow of the "idea wave" until several different ideas have been shared.
- At the end of the formal "idea wave," a few volunteers who were not included can contribute an idea.

Jigsaw

- Students read different passages from the same text (or selections from several texts) becoming the expert with the specified text.
- The "experts" lead discussion or share the information from their specific reading with a specific group or the entire class.

K – W – W – L

What I Know – Where I learned it – What I want to know - What I Learned

This strategy helps students organize, access, and reflect on learning which increases comprehension and engagement.

- To activate prior knowledge ask, "What do I know?"
- To acknowledge source ask, "Where did I find the information?"
- To set purpose ask, "What do I want to know?"
- To reflect on a new learning ask, "What did I learn?"

Numbered Heads

- Students number off in teams, one through four.
- Teacher asked a series of questions, one at a time.
- Students discuss possible answers to each question, for a set amount of time (30-90 seconds).
- Teacher calls a number (1-4), and all students with that number raise their hand, ready to respond.

Learning from A to Z

- The objective of this activity is to provide words, phrases, or sentences that are related to the topic that is being studied.
- While taking notes on a topic or during an academic conversation, the students listen for important words that start with each word of the alphabet.
- After the instruction is provided, the students have the ability to share with peers words that they wrote down in their A-Z list and fill-in any gaps or discuss their choices

Post-It Voting

Students use sticky notes with their initials to vote or comment and put up in designated area of white board or voting chart. Can be used:

- used to give rubric scores for an anchor paper
- Multiple Choice answers
- Categorizing information/input
- Collect class data for upcoming unit of study (pre-test option)

Quick-write / Reflection

Use a quick-write to activate background knowledge, clarify issues, facilitate making connections, and allow for reflection.

- Students write for a short, specific amount of time about a designated topic related to...

Socratic Seminar

Use a Socratic Seminar to help students facilitate their own discussion and arrive at a new understanding in which they learn to formulate questions and address issues in lieu of just stating their opinions. Students engage in a focused discussion in which they ask questions of each other on a selected topic; questions initiate the conversation which continues with a series of responses and further questions.

Spectrum

- Use a spectrum when asking for student *opinions on a topic or question*.
- Place a line on the chalkboard or masking tape on the floor in front of the room.
- Label one end of the line “Strongly Agree” and the other end “Strongly Disagree.”
- Students line up according to their opinion on the topic, most important/least important, greatest effect/least effect, expert/knowledge line (level of student expertise.)

Talking Chips

Students are in small groups.

Pose a question for students to discuss.

- Each member is given a “chip” (small piece of construction paper or a “real chip”)
- Each student takes turns “talking” by placing their
- CHIP into the center of the table.
- The first person to talk may only talk at that time – and may not speak again until all in the group members have placed their “chip” in the middle.

Think - Pair - Share

- THINK: Take a minute to first silently and independently think about your own answer to the question(s).
- PAIR: turn and face your partner so you can discuss your answers face to face. Listen carefully to your partner’s answers, and pay attention to similarities and differences in your answers. Ask for clarifications.
- SHARE: Be prepared to share your opinions with the class.

What’s the Same/Different?

This strategy involves simply asking students to compare two or more items and describe how they are the same or different. Excellent as an anticipatory set to activate prior knowledge or build background knowledge. Examples include:

- protagonists and antagonists
- leaders and followers
- rectangles and squares
- narrative writing and persuasive writing
- verbs and adverbs
- evaporation and absorption
- hills and valleys

Whip Around

Teacher whips around the room quickly until getting an oral answer/comment from each student. Hint: Students should write down an answer to a question on scratch paper ahead of time so no extra think time is needed during the whip around.

Word Summaries

Students write or orally discuss input from a lesson or knowledge about a topic by summarizing information as directed by the teacher. Examples include:

- Use exactly 3 words to describe the definition of an adverb.
- Choose exactly 5 adjectives to describe the attributes of a square.
- In no more than 20 words, summarize the
- Most important aspects from today’s lesson.
- Use 10 words to introduce the main character in the story to a partner

4b: Horizontal Lesson Template

Horizontal Lesson Template (Direct Instruction)

| | | | | | | |
|---------------------------------------|--|--------------------------------------|-------------------|----------------------------------|--------------------------|----------------|
| Terminal Objective (plan 1st): | | | | | | |
| Content Standards Reference: | | | | | | |
| Introduction (plan last) | | Body of Lesson (plan 2nd) | | | | |
| Anticipatory Set ↓ | | Input → (content/strategy) | Modeling → | Check for Understanding → | Guided Practice → | Who? |
| Objective ↓ | | | | | | |
| Purpose | | | | | | Closure |
| Independent Practice: | | | | | | |

4c: Sample Lesson Plans

Vocabulary Strategies Lesson

| | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Terminal Objective: Given a non-fiction article and appropriate graphic organizers, students will analyze vocabulary words by using strategies (word structure, context clues, apposition, and prior knowledge) and discussing word meanings with peers | | | | | |
| Content Standard Reference: CCSS ELA 3.L.3, 3.L.4, 3.L.5 ELD Mode of Language-Interpretive: Expanding/Bridging ELD Knowledge of Language-Metalinguistic Awareness: Bridging | | | | | |
| <i>Introduction</i> | | <i>Body of Lesson</i> | | | |
| Anticipatory Set What do you do when you come across words you don't know when you are reading? AP: white boards | Input | Model | Check for Understanding | Guided Practice | Who? |
| | 1. Explain tools and process for lesson | 1. Show circle Map and create tree map for notes | 1. Point to various tools for lesson and discuss with partner | 1. X | |
| | 2. Word Structure | 2. Distribute affixes "cheat sheets" and model sample | 2. Highlight known affixes | 2. Worksheet to practice | |
| Telling Objective and Purpose Today we are going to learn 4 new vocabulary strategies to help us figure out what a word means without using the dictionary to help us. You will know you are successful if you are able to use your new strategies while reading an article | 3. Context Clues | 3. Show a sample sentence. Copy a sentence on white board and solve together | 3. When I walk around, how will I know that you have found some context clues in the sentence? | 3. Practice using sample sentences | |
| | 4. Apposition | 4. Show a sample sentence | 4. What clues in a sentence tell you it might include apposition? | 4. Practice using sample sentences | |
| | 5. Prior Knowledge | 5. Model with silly restaurant menu items "Blizzard" "Lava Cake" "Blooming Onion" | 5. How are context clues and PK similar? | 5. X | |
| | 6. Candy Engineer Article | 6. Use circle map to model how to find meaning to new vocabulary words | 6. Explain directions to a partner | 6. Use circle map to determine new vocabulary words from article | Closure: Exit Slip: On a post it, what will you personally commit to trying the next time you come across a word in your reading that you don't know? |
| 7. Explain Mix/Freeze/Match | 7. Model Mix/Freeze/Match | 7. Confirm understanding using T/P/S | 7. Mix/Freeze/Match Activity (Accountability/Level of Concern) | | |
| Independent Practice: Student will use circle maps to analyze new vocabulary words using an article from the newspaper for homework | | | | | |

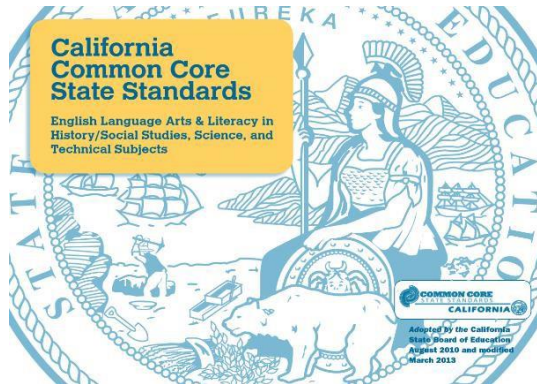
Procedure Lesson: Entering the Classroom

| Terminal Objective: Given a step-by-step tutorial, students will know the steps to enter the classroom according to the prescribed procedure without error. | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Introduction | Body of Lesson | | | | |
| Anticipatory Set | Input → (content/strategy) | Modeling → | Check for Understanding → | Guided Practice → | Who? |
| <p>Think for a minute about this scenario. You are outside a movie theater. You are waiting for the ticket booth to open. There is a large group of people waiting, but there is no line. Finally one ticket window opens and everyone runs to it. What problems will start to arise? <i>Lead students to discuss pushing, shoving, people getting hurt, people having a difficult time actually buying a ticket, or hearing any announcements because of the chaos.</i> Just like there are steps we have to follow to enter the movie theater, there are steps we have to follow to enter our classroom.</p> <p style="text-align: center;">↓</p> | <ol style="list-style-type: none"> 1. Students will line up single file, against the wall outside of the classroom (<i>line up</i>) 2. Students will greet the teacher at the door (<i>greet teacher</i>) 3. Students will take the most direct route to their seats (<i>go directly to seat</i>) 4. Upon arriving at their seats, students will quietly pull out their own chair and sit down immediately (<i>sit down quietly</i>) | <ol style="list-style-type: none"> 1. Teacher shows/explains location of line-up site, and has a small group come up to demonstrate what a single-file line means. 2. Teacher shows how teacher and student will greet one another. We will shake hands and say "Good Morning" or "Hello." Teacher has volunteers demonstrate how it will look and sound. 3. Teacher shows what "take the most direct route" means. Teacher asks for volunteers who can demonstrate the most direct route to their seats. 4. Teacher uses a desk and chair to demonstrate "sit down quietly." | <ol style="list-style-type: none"> 1. Visualize where you will be lining up outside. Point to wall that you are picturing in your mind. 2. Turn to your partner and pretend that one of you is the teacher and one is the student. Practice greeting one another. 3. Imagine yourself walking in the most direct route to your seat. Discuss your direct route with your partner and see if you agree. 4. Give me a thumbs up or a thumbs down (heart-centered) if I modeled sitting down quietly. <i>Teacher may model it incorrectly first and see if students recognize mistakes.</i> | <p style="text-align: center;">Closure</p> <p>Imagine that we have a new student arriving tomorrow. If I ask you to explain how we enter this classroom to the new students, what will you say? Have partners review.</p> | |
| <p style="text-align: center;">Objective</p> <p>Today you will learn the steps you will follow to enter the classroom. By the end of the lesson you will all show me that you can perform each step.</p> <p style="text-align: center;">↓</p> | | | | | |
| <p style="text-align: center;">Purpose</p> <p>Why do you think we need a step-by-step plan for entering our classroom? <i>Lead students to discuss safety issues, respect issues, wasted instructional time, etc. Also refer back to anticipatory set.</i></p> | | | | | |
| Independent Practice: Students will demonstrate this procedure each morning as they enter the classroom. | | | | | |

Pre-writing Using Graphic Organizer

| | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Terminal Objective (plan 1st): Students will use a combination of drawing, dictating, and writing to compose and sequence a single fictional event by completing a graphic organizer that includes a topic and three corresponding details. | | | | | |
| Content Standards Reference: WK.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic WK.3 Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened. SLK.4 Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. SLK.5 Add drawings or other visual displays to descriptions as desired to provide additional detail. | | | | | |
| Introduction (plan last) | Body of Lesson (plan 2nd) | | | | |
| Anticipatory Set Teacher reads The Wind Blew to the students and activates prior knowledge about the effects of windy weather. ↓ | Input → (content/strategy) | Modeling → | Check for → Understanding | Guided Practice → | Who? |
| Objective (as stated to students) “Today we are going to start a writing activity but before we can start writing, we need to complete a pre-writing activity.” ↓ | 1. Developing a topic | 1. Orally share an idea for a topic on graphic organizer (windy day on a farm) | 1. Think/Pair/Share | 1. Students decide their own topic and share orally | |
| | 2. Determining supporting details | 2. Orally share three silly ideas to include as details (pig, tractor, and farmer blew away) | 2. Gestures: “Show me how many details I added to my topic?” | 2. Students determine three supporting details | |
| | 3. Introduce graphic organizer and procedures for using graphic organizer | 3. Model using a graphic organizer | 3. Choral response | 3. X | |
| | 4. Explain level of detail expected for proving behavior | 4. Draw and talk about details while adding them to graphic organizer | 4. X | 4. X | |
| Purpose “Pre-writing helps us to organize our thoughts before we start to write. Using the tool I’m going to show you with pictures is an easy way to think about our writing.” | 5. Reviews entire process | 5. Point to each part of the graphic organizer and orally retell the process for student to follow | 5. Gestures: Students point to each part of the graphic organizer while teacher discusses | 5. Students complete graphic organizer with pictures related to topic and three details | |
| Independent Practice: Students will use pre-writing graphic organizer as they write a corresponding story during the remaining days of the week. | | | | | |
| | | | | | Closure Students return to the rug for a final student activity about the topic and three details each chose in their pre-writing activity |

4d: Sample Standards – CCSS ELA and Math

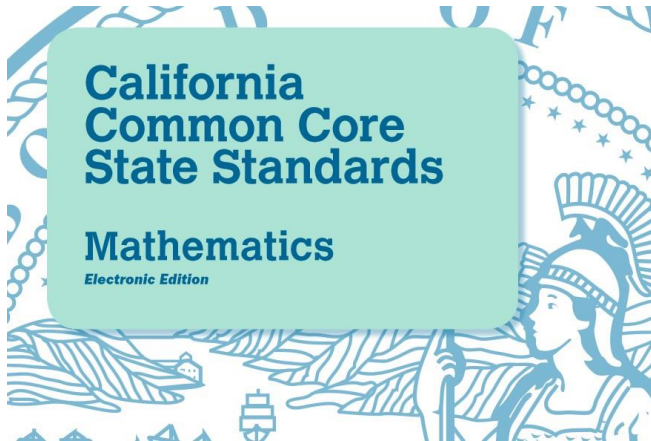


RI

Reading Standards for Informational Text K–5

| | Kindergartners | Grade 1 Students | Grade 2 Students |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Key Ideas and Details | 1. With prompting and support, ask and answer questions about key details in a text. | 1. Ask and answer questions about key details in a text. | 1. Ask and answer such questions as <i>who</i> , <i>what</i> , <i>where</i> , <i>when</i> , <i>why</i> , and <i>how</i> to demonstrate understanding of key details in a text. |
| | 2. With prompting and support, identify the main topic and retell key details of a text. | 2. Identify the main topic and retell key details of a text. | 2. Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text. |
| | 3. With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text. | 3. Describe the connection between two individuals, events, ideas, or pieces of information in a text. | 3. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text. |
| Craft and Structure | 4. With prompting and support, ask and answer questions about unknown words in a text. (See grade K Language standards 4–6 additional expectations.) CA | 4. Ask and answer questions to help determine or clarify the meaning of words and phrases in a text. (See grade 1 Language standards 4–6 for additional expectations.) CA | 4. Determine the meaning of words and phrases in a text relevant to a <i>grade 2 topic or subject area</i> . (See grade 2 Language standards 4–6 for additional expectations.) CA |
| | 5. Identify the front cover, back cover, and title page of a book. | 5. Know and use various text structures (e.g., sequence) and text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text. CA | 5. Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently. |
| | 6. Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text. | 6. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text. | 6. Identify the main purpose of a text, including what the author wants to answer, explain, or describe. |
| Integration of Knowledge and Ideas | 7. With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts). | 7. Use the illustrations and details in a text to describe its key ideas. | 7. Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text. |
| | 8. With prompting and support, identify the reasons an author gives to support points in a text. | 8. Identify the reasons an author gives to support points in a text. | 8. Describe how reasons support specific points the author makes in a text. |
| | 9. With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures). | 9. Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures). | 9. Compare and contrast the most important points presented by two texts on the same topic. |

| | Grade 3 Students | Grade 4 Students | Grade 5 Students |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Integration of Knowledge and Ideas | 7. Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur). | 7. Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears. | 7. Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. |
| | 8. Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence). | 8. Explain how an author uses reasons and evidence to support particular points in a text. | 8. Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s). |
| | 9. Compare and contrast the most important points and key details presented in two texts on the same topic. | 9. Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably. | 9. Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably. |
| if Reading and text Complexity | 10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2–3 text complexity band independently and proficiently. | 10. By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range. | 10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently. |



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Grade 1

Operations and Algebraic Thinking

1.OA

Represent and solve problems involving addition and subtraction.

1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.²
2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Understand and apply properties of operations and the relationship between addition and subtraction.

3. Apply properties of operations as strategies to add and subtract.³ *Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)*
4. Understand subtraction as an unknown-addend problem. *For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.*

Add and subtract within 20.

5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).

Work with addition and subtraction equations.

7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? $6 = 6$, $7 - 8 = 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.*
8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = \square - 3$, $6 + 6 = \square$.*

Number and Operations In Base Ten

1.NBT

Extend the counting sequence.

1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

Understand place value.

2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
 - a. 10 can be thought of as a bundle of ten ones—called a “ten.”
 - b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
 - c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

² See Glossary, Table 1.

³ Students need not use formal terms for these properties.

Structuring the Standards for Mathematical Practice¹

Overarching habits of mind of a productive mathematical thinker

1. Make sense of problems and persevere in solving them.
6. Attend to precision.

2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.

Reasoning and explaining

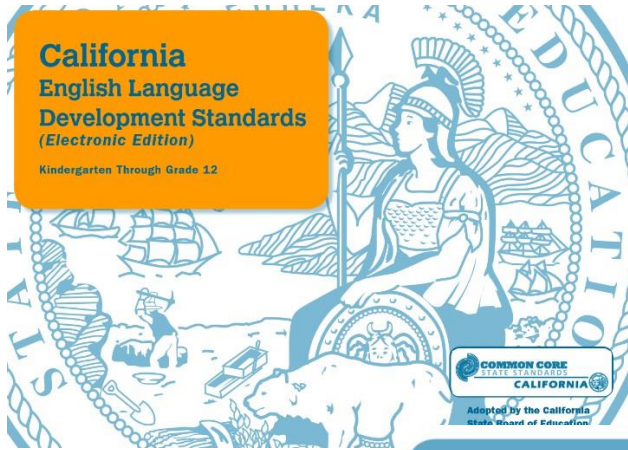
4. Model with mathematics.
5. Use appropriate tools strategically.

Modeling and using tools

7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Seeing structure and generalizing

4e: Sample Standards – English Language Development Standards



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Section 1: Overview

Goal: English learners read, analyze, interpret, and create a variety of literary and informational text types. They develop an understanding of how language is a complex, dynamic, and social resource for making meaning, as well as how content is organized in different text types and across disciplines using text structure, language features, and vocabulary depending on purpose and audience. They are aware that different languages and variations of English exist, and they recognize their home languages and cultures as resources to value in their own right and also to draw upon in order to build proficiency in English. English learners contribute actively to class and group discussions, asking questions, responding appropriately, and providing useful feedback. They demonstrate knowledge of content through oral presentations, writing tasks, collaborative conversations, and multimedia. They develop proficiency in shifting language use based on task, purpose, audience, and text type.

Critical Principles for Developing Language and Cognition in Academic Contexts: While advancing along the continuum of English language development levels, English learners at all levels engage in intellectually challenging literacy, disciplinary, and disciplinary literacy tasks. They use language in meaningful and relevant ways appropriate to grade level, content area, topic, purpose, audience, and text type in English language arts, mathematics, science, social studies, and the arts. Specifically, they use language to gain and exchange information and ideas in three communicative modes (collaborative, interpretive, and productive), and they apply knowledge of language to academic tasks via three cross-mode language processes (structuring cohesive texts, expanding and enriching ideas, and connecting and condensing ideas) using various linguistic resources.

| Part I: Interacting in Meaningful Ways | Corresponding CA CCSS for ELA/Literacy* |
|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| A. Collaborative | |
| 1. Exchanging information and ideas with others through oral collaborative discussions on a range of social and academic topics | ● SL.4.1, 6; L.4.1, 3, 6 |
| 2. Interacting with others in written English in various communicative forms (print, communicative technology, and multimedia) | ● W.4.6; L.4.1, 3, 6 |
| 3. Offering and supporting opinions and negotiating with others in communicative exchanges | ● SL.4.1, 6; L.4.1, 3, 6 |
| 4. Adapting language choices to various contexts (based on task, purpose, audience, and text type) | ● W.4.4-5; SL.4.1, 6; L.4.1, 3, 6 |

*The California English Language Development Standards correspond to the California Common Core State Standards for English Language Arts and Literacy in History/Social Science and Technical Subjects (CA CCSS for ELA/Literacy). English learners should have full access to opportunities to learn ELA, mathematics, science, history/social studies, and other content at the same time they are progressing toward full proficiency in English.

4d: Sample Standards – Next Generation Science Standards



Curriculum & Instruction | Testing & Accountability | Finance & Grants | Data & Statistics | Specialized

Home / Professional Learning / Curriculum Areas / Science

NGSS for California Public Schools, K-12

Learning Progressions for Elementary (K-5), Middle (6-8) and High School (9-12) Science.

<http://www.cde.ca.gov/pd/ca/sc/ngssstandards.asp>

K-PS2 Motion and Stability: Forces and Interactions

| K-PS2 Motion and Stability: Forces and Interactions | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Students who demonstrate understanding can: | | |
| <p>K-PS2-1. Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object. [Clarification Statement: Examples of pushes or pulls could include a string attached to an object being pulled, a person pushing an object, a person stopping a rolling ball, and two objects colliding and pushing on each other.] [Assessment Boundary: Assessment is limited to different relative strengths or different directions, but not both at the same time. Assessment does not include non-contact pushes or pulls such as those produced by magnets.]</p> <p>K-PS2-2. Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.* [Clarification Statement: Examples of problems requiring a solution could include having a marble or other object move a certain distance, follow a particular path, and knock down other objects. Examples of solutions could include tools such as a ramp to increase the speed of the object and a structure that would cause an object such as a marble or ball to turn.] [Assessment Boundary: Assessment does not include friction as a mechanism for change in speed.]</p> | | |
| The performance expectations above were developed using the following elements from the NRC document <i>A Framework for K–12 Science Education</i> : | | |
| Science and Engineering Practices | Disciplinary Core Ideas | Crosscutting Concepts |
| <p>Planning and Carrying Out Investigations Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions.</p> <ul style="list-style-type: none"> With guidance, plan and conduct an investigation in collaboration with peers. (K-PS2-1) <p>Analyzing and Interpreting Data Analyzing data in K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations.</p> <ul style="list-style-type: none"> Analyze data from tests of an object or tool to determine if it works as intended. (K-PS2-2) <p>Connections to Nature of Science</p> <p>Scientific Investigations Use a Variety of Methods</p> <ul style="list-style-type: none"> Scientists use different ways to study the world. (K-PS2-1) | <p>PS2.A: Forces and Motion</p> <ul style="list-style-type: none"> Pushes and pulls can have different strengths and directions. (K-PS2-1),(K-PS2-2) Pushing or pulling on an object can change the speed or direction of its motion and can start or stop it. (K-PS2-1),(K-PS2-2) <p>PS2.B: Types of Interactions</p> <ul style="list-style-type: none"> When objects touch or collide, they push on one another and can change motion. (K-PS2-1) <p>PS3.C: Relationship Between Energy and Forces</p> <ul style="list-style-type: none"> A bigger push or pull makes things speed up or slow down more quickly (secondary to K-PS2-1) <p>ETS1.A: Defining Engineering Problems</p> <ul style="list-style-type: none"> A situation that people want to change or create can be approached as a problem to be solved through engineering. Such problems may have many acceptable solutions. (secondary to K-PS2-2) | <p>Cause and Effect</p> <ul style="list-style-type: none"> Simple tests can be designed to gather evidence to support or refute student ideas about causes. (K-PS2-1),(K-PS2-2) |
| <p>Connections to other DCIs in kindergarten: K.ETS1.A (K-PS2-2); K.ETS1.B (K-PS2-2)</p> <p>Articulation of DCIs across grade-bands: 2.ETS1.B (K-PS2-2); 3.PS2.A (K-PS2-1),(K-PS2-2); 3.PS2.B (K-PS2-1); 4.PS3.A (K-PS2-1); 4.ETS1.A (K-PS2-2)</p> <p>California Common Core State Standards Connections: <i>ELA/Literacy</i> – RI.K.1 With prompting and support, ask and answer questions about key details in a text. (K-PS2-2) W.K.7 Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (K-PS2-1) SL.K.3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (K-PS2-2) <i>Mathematics</i> – MP.2 Reason abstractly and quantitatively. (K-PS2-1) K.MD.1-2 Describe and compare measurable attributes. (K-PS2-1)</p> | | |

K-PS3 Energy

| K-PS3 Energy | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Students who demonstrate understanding can: | | |
| <p>K-PS3-1. Make observations to determine the effect of sunlight on Earth's surface. [Clarification Statement: Examples of Earth's surface could include sand, soil, rocks, and water] [Assessment Boundary: Assessment of temperature is limited to relative measures such as warmer/cooler.]</p> <p>K-PS3-2. Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.* [Clarification Statement: Examples of structures could include umbrellas, canopies, and tents that minimize the warming effect of the sun.]</p> | | |
| The performance expectations above were developed using the following elements from the NRC document <i>A Framework for K–12 Science Education</i> : | | |
| Science and Engineering Practices | Disciplinary Core Ideas | Crosscutting Concepts |
| <p>Planning and Carrying Out Investigations Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions.</p> <ul style="list-style-type: none"> Make observations (firsthand or from media) to collect data that can be used to make comparisons. (K-PS3-1) <p>Constructing Explanations and Designing Solutions Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.</p> <ul style="list-style-type: none"> Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem. (K-PS3-2) <p>Connections to Nature of Science</p> <p>Scientific Investigations Use a Variety of Methods</p> <ul style="list-style-type: none"> Scientists use different ways to study the world. (K-PS3-1) | <p>PS3.B: Conservation of Energy and Energy Transfer</p> <ul style="list-style-type: none"> Sunlight warms Earth's surface. (K-PS3-1),(K-PS3-2) | <p>Cause and Effect</p> <ul style="list-style-type: none"> Events have causes that generate observable patterns. (K-PS3-1),(K-PS3-2) |
| <p>Connections to other DCIs in kindergarten: K.ETS1.A (K-PS3-2); K.ETS1.B (K-PS3-2)</p> <p>Articulation of DCIs across grade-bands: 1.PS4.B (K-PS3-1),(K-PS3-2); 2.ETS1.B (K-PS3-2); 3.ESS2.D (K-PS3-1); 4.ETS1.A (K-PS3-2)</p> <p>California Common Core State Standards Connections: <i>ELA/Literacy</i> – W.K.7 Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (K-PS3-1),(K-PS3-2) <i>Mathematics</i> – K.MD.2 Directly compare two objects with a measurable attribute in common, to see which object has "more of/less of" the attribute, and describe the difference. (K-PS3-1),(K-PS3-2)</p> | | |

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