# The following are articles & resources from different sources defining the meaning of Differentiated Instruction.

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**What is differentiated Instruction?**

- by Sacramento City Unified School District

Differentiated Instruction is based on the following beliefs:

* Students differ in their learning profiles
* Classrooms in which students are active learners, decision makers and problem solvers are more natural and effective than those in which students are served a "one-size-fits-all" curriculum and treated as passive recipients of information
* "Covering information" takes a backseat to making meaning out of important ideas.

The key to a differentiated classroom is that all students are regularly offered CHOICES and students are matched with tasks compatible with their individual learner profiles.

Curriculum should be differentiated in three areas:

1. Content: Multiple options for taking in information

2. Process: Multiple options for making sense of the ideas

3. Product: Multiple options for expressing what they know

**DIFFERENTIATION FOR ADVANCED LEARNERS**

Differentiation for the advanced learners involves the adjustment of curriculum and instruction by using one or more of the following four dimensions:

**1. Depth**

Depth refers to the concept of challenging learners by enabling them to venture further, deeper, and more elaborately into the area under study.

Questions related to the dimension of depth:

* What details further the understanding of this area of study (i.e., theme, concept, topic, generalization, issue, theory, or principle)?
* How can study of the known be directed towards the unknown, the concrete directed towards the abstract, and the familiar directed towards the unfamiliar?

* What facts, concepts, generalizations, principles, and theories are related to the area of study?
* What patterns and/or trends exist within the area of study?
* What structure(s) and rule(s) characterize the area of study?

**2. Complexity**

Complexity refers to the concept of broadening the learner's understanding of the area or areas under study by asking him/her to make connections, relationships, and associations between, within, and across subjects and disciplines.

Questions related to the dimension of complexity:

* What new relationship can be made within, between, or among the area of the study and any other areas of study?
* How can this subject be viewed from many and varied perspectives? What are the problems and issues within this area of study?
* What might be multiple solutions to a problem identified within the area of study?
* What are the prevailing themes related to the area of study?
* What influence has "time" had on knowledge related to the area of study?

**3. Novelty**

Novelty refers to the concept of gaining a personal understanding of the area under study or constructing meaning of knowledge in an individualized manner.

Questions related to the dimension of novelty:

* How can knowledge in the area of study be interpreted personally?
* How can one restate or express in personally important ways knowledge from this study?
* What type of investigation or experiment can be designed to learn more about the area of study?
* What type or original investigation or experiment can be developed to prove or disprove an idea about this area of study?

**4. Acceleration or Pacing**

Acceleration refers to the concept of altering the pace or speed of learning and providing more sophisticated resources for learning in order to challenge learners.

Questions related to the dimension of acceleration:

* What advanced resources can be used to enhance understanding of the subject under study?
* What are the strategies needed to study the subject at a more sophisticated level?

**What is Differentiated Instruction?**

- by Newport-Mesa Unified School District

Differentiated instruction is the manner in which each teacher modifies the core curriculum and designs strategies to address the unique needs of gifted students. Differentiation of curriculum is dependent on these principles:

- Differentiation is based on the state content standards at each grade
- Differentiation is affected by the dimensions of depth, complexity, novelty, and acceleration
- Differentiation should be an integral part of, rather than an adjunct to, the core curriculum
- Differentiation modifies what students will know (content), how students will think (critical, creative, and problem-solving skills or processes), how students will access and use resources (research skills) and how students will summarize and share their learning (products)
- Differentiation should be available to gifted and advanced students as well as any other student who evidence a readiness for the same experience
- Differentiation can be facilitated through flexible grouping and regrouping of students for each task or group of tasks based on need, interest, and ability
- Differentiation should be provided consistently and should be accompanied by high standards of performance
- Differentiation must include teacher instruction and should not be assumed to be self-taught by students

One way in which differentiated instruction is accomplished is through the integration of depth and complexity of principles theories and generalizations into the core curriculum. NMUSD GATE curriculum is structured around iconic teaching which means that our teachers utilize icons or symbols, which represent the different aspects of depth and complexity.

Below you will find a brief description of the elements of depth and complexity along with their easily identifiable icons that are useful in the classroom.

## Depth

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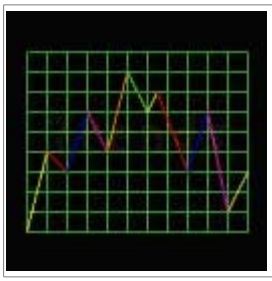
|  | **Identify the Rules**: Through the use of this icon, students are instructed on how to define the organizational elements affecting the specific curriculum that is being studied. This process requires the identification and description of factors, either human-made or natural, which affect the information at hand |
|  | **Statement of Trends**: This icon encourages the identification of changes over time. Students are instructed on how to note factors or events – social, political, economic, geographic – that cause effects to occur or happen |
|  | **Ethical Considerations**: Students are instructed to identify and analyze the possible rights and wrongs of a given idea or event. This allows them to determine the elements that reflect bias, prejudice and discrimination. Through this focus on ethics, students develop the ability to state pro and con arguments in terms of ethics. |
|  | **Note the Patterns**: This icon is used to instruct the students to identify the recurring elements or repeated factors of an event or idea. It also focuses on the order of events which occur. Finally students are asked to identify the pattern and to predict what comes next. |
|  | **Recognize the Details**: This icon involves elaboration of an idea or event.<br>The student's ability to describe something is integral in the learning process thus the teacher encourages the students to elaborate and describe. |
|  | **Language of the Discipline**: Instructors encourage the use of appropriate language when addressing specifics in the curriculum. Part of being a scholar requires the use of appropriate terminology. |
|  | **Define Unanswered Questions**: What ideas are unclear? What information is unclear? What don't we know? What areas have not been explained or proved yet? Do any conclusions need further evidence or support? These are questions which arise when using this icon in discussion of an area of curriculum. |

| Complexity | |
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|  | **Over Time**: Time changes everything. This icon encourages the students to identify and describe the effects that time has on the curriculum being studied.<br>Since some things change throughout time and others do not, students<br>are asked to identify these elements. They are instructed to explain how and why things change or remain the same. |
|  | **Big Idea**: The big idea is in other words a generalization, principle, or theory about the curriculum being studied. The students are directed to make a conclusion from evidence that explain:<br>a collection of facts or ideas<br>a group of facts or ideas with a summary statement<br>identify a rule or general statement based on repeated/recurring observations of<br>data information or collection of ideas |
|  | **Multiple Perspectives**: Students are encouraged to look at ideas and events from different perspectives. It is important for the students to understand that not everybody looks at things the same way. A common technique used to aide the students to look through another's eyes is the use of: Think like a (n)…historian, anthropologist, economist, archeologist, etc. |

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Differentiated Instruction – An Overview

## Created by Marianne Tillman

ifhttp://www.3villagecsd.k12.ny.us/

In order to successfully differentiate classrooms teachers must first:

- recognize the need to differentiate
- build a community of learners that respects individual differences and needs

- become proficient at identifying and understanding the needs of varied learners
- identify key concepts, skills, and principles to be learned
- become proficient at implementing differentiation strategies
- learn how to manage a differentiated classroom

You will know that you are differentiating when you are providing more small group activities and these groups are flexible from activity to activity based on a variety of pre-assessment strategies. There will also be an increase in individual alternatives such as centers, contracts, independent study, and even homework assignments.

You will know that you have been successful at differentiating when: you begin to see yourself as an organizer of learning opportunities rather than the "sage on the stage"; your assessment and instruction become inseparable; you have created a community of learners who respect the individual differences within your classroom and can work independently according to the working conditions developed for your classroom; and finally, all your students, whether they are below, at, or above grade level, are feeling challenged and motivated to reach their maximum potential by learning new, meaningful, and essential concepts, principles, and skills.

## GLOSSARY OF DIFFERENTIATED INSTRUCTION TERMS

Adjusting Questions

This is one of the easiest ways for a teacher to help students meet with success but also a way to challenge higher-level students with the use of open-ended, divergent questions. By asking questions appropriate to a student's readiness or ability level, questions can be adjusted to the level of complexity or abstractness that fits that child. Good questions are worthy of being answered. It is important to give students wait time and to sometimes allow students the opportunity to pair with a partner for discussion before answering a question. Essential, thought-provoking questions can connect a new concept with the content to be learned and drive the success level upward for students by creating important connections between new content and content previously learned.

Anchoring activity

An anchoring activity is exactly what it sounds like – a meaningful activity that is meant to be done by students independently in order to allow the teacher to work with individual students or small groups of students. In other words, students are anchored to an activity. Students must be well versed in the ground rules of working independently. The teacher must make adequate preparations so that students are quite clear about the task, and the instructions for completing the task, and have a plan for monitoring and managing the activity. Examples of anchoring activities may include the following:

- Reading
- Journal Writing
- Keeping a Process Log
- Working on a Portfolio
- Working on a Learning Packet or Task Card
- Working at a Learning or Interest Center
- Practicing skills related to content that students learned in their small group lessons
- Working on an Extension Menu or Cubing activity, or Task Cards

Assessment

Many teachers think of assessment as "summative", that is, something we determine at the end of teaching. In a differentiated classroom we need to think of assessment as diagnostic and informative. In order to be informed about how learning is progressing teachers need to think of assessment as on going and varied and ideally embedded in the curriculum (a lab report is a good example). By varying the types of assessment procedures all children can be given an opportunity to show their learning. It is also helpful to think of assessment along a continuum that begins with what is to be taught and ends with opportunities to show learning has taken place. Pre-assessment, checks for understanding along the way (this could be a simple thumbs-up or an exit card with a question about what was leaned today or what a student didn't understand today), teacher observation and questions, on-going assignments, peer and self assessment, quizzes, tests, performance and alternative assessments, all contribute to fully understanding a student's grasp of material.

Choice Activities

Choice can be a great motivator for students to participate. Students can be given options based on learning style or interest. They may also be given content choices as to what will be learned (ideas, concepts, facts, rules, principles) or how what they will learn will be enriched (depth, complexity, novelty, or acceleration).

The processes for how content will be learned may include the learning activities, questions, thinking skills, and methods such as problem-based learning, Socratic method, simulations, independent study, centers, videos, texts, expert mentors, or small groups.

The outcome of learning can provide opportunities for products that show the content or skill that has been learned. Options for showing learning in a preferred

learning style or talent area or with a partner/group may improve motivation for many students.

**Centers**

Centers can be found in many shapes, sizes, and locations in a classroom. They contain materials and activities meant to reinforce or enrich content and skills being learned. They can also serve to reinforce concepts previously learned. Centers can be based on interest and serve to motivate students exploration of new topics through choice. Centers allow students to work at their own pace. Teachers need to be sure that students can work independently, without disturbing classmates. Examples of centers may include: computer, writing, art, listening, reading, science or math centers. Centers should be clearly organized (directions), focus on learning goals and essential questions, provide for learning preferences, and allow for keeping track of student work through the use of Learning Logs, Journals, or some type of end-product. Even students can create centers for other students! Learning Contracts work well with centers. (Centers are different from stations in that stations are part of a whole concept, topic, or theme being taught. Students rotate through the stations in steps as part of a unit of instruction. Centers, on the other hand, exist as separate entities devoted to providing alternative activities to students.)

**Curriculum Compacting**

The most important thing to remember about curriculum compacting is that it is not meant to provide an opportunity for busy work or leisure time. It is meant to give students time to accomplish meaningful work rather than relearning material they may already know. Compacting can be used in any subject area in which the teacher can assess competency or knowledge about a given topic to be studied. It is also most useful for high-ability learners or any student with an unusual knowledge base on a given topic. By giving students a chance to show what they know we can then provide them with interesting, creative, and challenging work equal to their ability. Compacting means that the teacher needs to:

1. Pre-assess all or some of the students for pre-existing knowledge and understanding of the selected learning objectives. “The most difficult first” strategy is another method for allowing students to prove mastery. (The classroom teacher will have to decide who to test and what constitutes mastery – 90%, 95%?).
2. Provide extension activities and lessons for more in-depth learning of the topic or, in some cases, accelerate the student through the material.
3. Keep records of student progress and what the student is learning in place of the mastered material.
4. Be sure that students understand the rules for working on alternate activities.

**Cubing and Extension Menus**

Both of these strategies serve the same purpose and that is to provide alternate activities to students who have finished their work or are doing alternative work while you are meeting with small groups. Cubes and extension menus can also be part of learning/interest centers. The menu boxes or the sides of the cube provide possible activities for students to complete. A "menu of possibilities" can be organized around a current topic of study or provide extension activities related to a topic. Students must know the rules for working independently. The following is an example of a menu of alternative activities, covering many different subject areas, created by our own teachers at a Differentiation workshop.

## *Elementary Extension Menu Example*

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| Make a book of math word problems on a topic we are currently studying for your classmates to solve.  | Create an award for your favorite book or book character that would encourage others to read the book.  | Create a comic strip to describe the attributes of your favorite mammal.  |
| Create a timeline chain showing the order of events of the life of a famous person. Use one link for each major event.  | Student Choice | Illustrate a flipbook about the life cycle of a butterfly.  |
| Create a Venn diagram comparing our culture with a different culture. | Survey your classmates about their favorite _____. Create a graph displaying your findings. | Recreate the flag of a city or state. On the back write important facts about the state or city.  |

**Flexibility**

Flexibility may be the key element to effectively implementing differentiated instruction. Flexibility implies the ability to make adjustments and that's what differentiated instruction is all about. This flexibility may manifest itself in the form of the flexible use of time, materials, approaches or groups. Flexible groups can be determined by readiness, interest, skill, student, teacher, or by learning style. Flexible grouping requires pre-assessment in order to make decisions about students' instructional needs. Examples of pre-assessment strategies may include: pretests created by the teacher or the use of a post-assessment test prior to beginning a new topic/unit; KWL charts; writing prompts; questioning; "exit cards"; debates; focus groups; teacher

observation/checklists; student demonstrations and discussions; questionnaires; interviews; student products and work samples; and portfolios. By varying groups, the teacher can ensure that all students will learn how to work collaboratively and cooperatively. By assigning different roles within groups students will also learn how to work independently and with responsibility towards a group of their peers. The ways to group students is endless – in fact there is a video entitled *Small Group Activities for Differentiating Instruction* available through The Office of Teaching and Learning (created by Teacher Education Resources).

**Grouping**

The key to grouping in a differentiated classroom is flexibility. Groups will vary with topic (based on preassessment), interest, learning style, readiness, ability, etc. In order for small groups to function there must be adequate preparation for students in role responsibilities and opportunities for reflecting on the success of a group's efforts through established criteria. Groups can vary from pairs, triads, groups of four, or even larger groups for instructional purposes. For a teacher's manual and video entitled "Small Group Activities for Differentiating Instruction" please call "The Office of Teaching and Learning. (Here is a listing of some of the grouping ideas: "Numbered Heads", "Russian Roulette", "Stand and Share", "Spontaneous Lectures", "Inside-Outside Circles", "Group Reporters", "Jigsaw", "K-W-L", "Solution Sort", "Three Step Interviews", and 15 more ideas for reviewing, assessing, motivating, debriefing, problem solving, etc.

**Independent Study**

An independent study is correctly defined as "an opportunity to choose and investigate a topic of your own interest for the purpose of creating something new with the gathered information". Prior to beginning an independent study the classroom teacher needs to be sure that his/her students are proficient in a number of skills required to complete such a project. Practice and instruction at using these skills is important. Note taking, outlining, interview skills, letter writing skills, research skills to locate, record and organize information are essential to a successful independent study. Before beginning such a study you might want to conduct an interest inventory to help students select a topic for study. Keeping a Process Log, developing a timeline to help students stay on track, providing product options for presenting the learned information, and developing an evaluation with students so that expectations are clear, are all valuable ways to help students complete a productive independent study.

**Learning Contracts**

A contract is an agreement made between the teacher and the student in which the student agrees to accomplish certain assignments. This is a way to match student readiness with the skills and content being taught. It also means that students must be able to plan and organize themselves in order to complete work that may be interdisciplinary, problem-based, or require research. This strategy is often used to extend learning at a higher level or to integrate thinking skills into assignments for those students

whose work may be being compacted (see compacting). An Extension Menu can also be used as a contract. You may ask various students to complete a set number of extension boxes in a day or in a week, depending on their pace and/or ability. Most importantly, vary the length of the contract so that it matches a student's readiness to handle such responsibility.

**Literature Circles**

Literature Circles is an excellent strategy for getting students together to talk about a book they are reading. This strategy can help students build comprehension and verbal expression. Once a book group is formed students read at a set pace and come together for discussions. At each meeting children are assigned a different role. Roles can have many titles but students must come prepared to share with their group. Some examples of roles are: "The Connector" who looks for connections between the book, its characters and their own lives or other books they may have read. "Discussion Director" must develop questions for discussion and help keep the group on track. "The Illustrator' creates visuals that show the steps of how a character did something, creates a storyboard for the events of the story, or illustrates meaningful passages from the book. "The Quotable Quoter" selects parts of the story to share with the group. They can be good parts, funny parts, scary parts, interesting parts, or serve to provide examples of figurative language, metaphor, hyperbole, etc. "The Summarizer" writes a brief summary or gives the highlights of the assigned section. "The Word Wizard" looks out for interesting and new words to share with the group. These are just a few of the jobs. Students and teachers can create their own job titles. Book selections can be made related to themes being studied or interest based. Best of all, book selection can be based on choice or ability.

**Socratic Seminar**

Socratic seminars are conversations that are stimulated by open-ended questions related to a selected reading. Closure may never be attained but independent thinking may be stimulated.

**Tiered Lessons/Activities**

This is an important way to allow students to work with the same concepts and essential ideas but at different levels of complexity, number of steps, concreteness vs. abstractness, and levels of independence. By developing activities along a continuum of complexity or abstractness you are allowing students to work on similar concepts but in such a way as to be accessible to low performing students and more challenging for high ability students. By beginning where they are, students will work at a level that builds on their prior knowledge but still provides for individual growth.