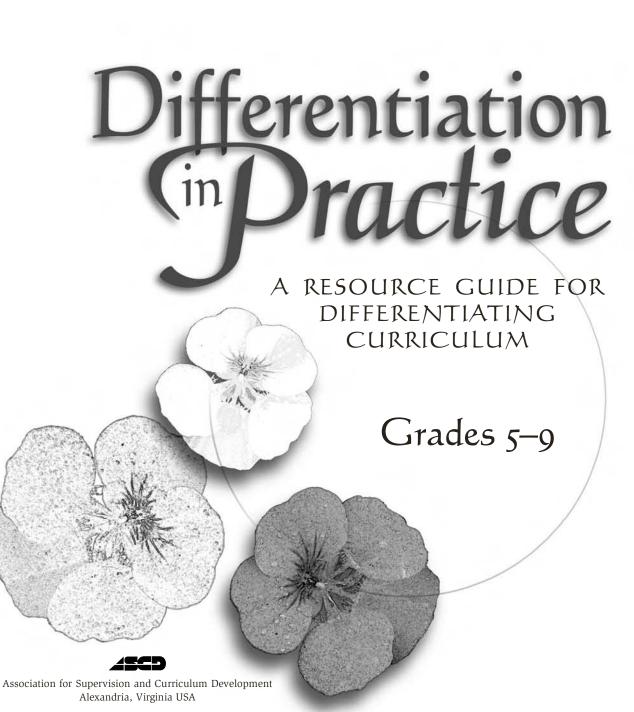


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For the teachers whose interest has given life to our work on differentiated instruction

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For the students who daily inspire that interest

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For the colleagues whose partnership fuels that interest

*

For the administrators who value and support that interest

*

And for those outside of school who care about us so that we may find the energy to care about others.

Differentiation in Practice A Resource Guide for Differentiating Curriculum, Grades 5-9

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Acknowledgments

In a conversation with young learners in her hometown of Stamps, Arkansas, Maya Angelou tells the students that she would like to be an encouragement to them. That simple phrase lingers. It is a powerful wish. Perhaps there is little we can do for one another that's more important than to give encouragement along the journey we call life. Encouragement is a testament to the belief that each of us can become more than we could have envisioned alone. This book is a product of encouragement and the belief it reflects in the human capacity to keep "becoming."

The motivation for this book comes from teachers throughout the world who continue to work to make classrooms a better fit for students, who simply are not a matched set. These teachers' encouragement to "keep the ideas coming" inspired us to extend our thinking and return to the keyboard. Those teachers themselves receive daily encouragement to differentiate instruction, thanks to students who continue to flourish in the context of academically responsive classrooms.

As authors, we have been encouraged by the partnership of the teachers whose differentiated

units provide the substance of this book. In the midst of lives that often seem too busy, and in the face of demands that often seem too many, they not only found it within themselves to share what they teach and how they teach it, but they also seemed to enjoy the opportunity to be part of a professional exchange.

This book has been long in the making. As it has evolved, the conversation and partnership of three colleagues have been especially valuable. Catherine Brighton contributed significantly to early decisions about what the book should become. Holly Hertberg worked extensively with formatting and with decisions about content. Cindy Strickland played the role of "critical friend," providing a keen mind, a sharp eye, and hours of editing as we neared the end of the process. The contributions of time and insight from these three educators have been an encouragement that made both the book and the authors stronger.

Publishing with ASCD is always an encouragement. Their work stems from a belief in high-quality teaching for a full range of learners and a belief in the will of teachers to become stronger

professionals throughout their teaching lives. ASCD staff exemplify the principle of partnership for success. In this particular endeavor, the encouragement of John O'Neil, Anne Meek, Leslie Kiernan, and Sally Chapman has been indispensable.

Finally, for all of us who have worked on this publication, the encouragement of friends and family provides the daily fuel to think and write and think some more and rewrite. That encouragement

inevitably comes at a cost to them. We appreciate their willingness to support our growth.

Differentiation is like jazz. It is continual improvisation, based on solid themes and shared experiences. As authors, we are keenly aware that we are part of a larger jazz ensemble, that we could not play so richly alone, and that we are improved as music makers by the encouragement and partnership of other connoisseurs.

Introduction

This book is part of a series of ASCD publications on differentiating instruction. Each is designed to play a particular role in helping educators think about and develop classrooms that attend to learner needs as they guide learners through a curricular sequence.

How to Differentiate Instruction in Mixed-Ability Classrooms (Tomlinson, 2001) explains the basic framework of differentiation. Such a framework allows teachers to plan in consistent and coherent ways. The Differentiated Classroom: Responding to the Needs of All Learners (Tomlinson, 1999a) elaborates on the framework and describes classroom scenarios in which differentiation is taking place. A third book, Leadership for Differentiating Schools and Classrooms (Tomlinson & Allan, 2000), discusses how to link what we know about school change with the goals of differentiation and seeks to provide guidance for educational leaders who want to be a part of promoting and supporting responsive instruction. In addition to these books, an ASCD Professional Inquiry Kit called Differentiating Instruction for Mixed-Ability Classrooms (Tomlinson, 1996) guides educators, in an inductive manner, to explore and apply key principles of differentiation.

Three video programs, all produced by Leslie Kiernan and ASCD, give progressively expansive images of how differentiation actually looks in the classroom. Differentiating Instruction (1997) shows brief applications of differentiating content, process, and products according to student readiness, interest, and learning profile in primary, elementary, middle, and high school classrooms. It also illustrates a number of instructional strategies used for purposes of differentiating or modifying instruction. At Work in the Differentiated Classroom (2001) shows excerpts from a month-long unit in a middle school classroom as means of exploring essential principles of differentiation, examines management in differentiated settings from primary grades through high school, and probes the role of the teacher in a differentiated classroom. A Visit to a Differentiated Classroom (2001) takes viewers through a single day in a multi-age, differentiated elementary classroom. Each of these materials attempts to help educators think about the nature of classrooms that are defensibly differentiated and move toward development of such classrooms. Each of the publications plays a

different role in the process of reflection, definition, and translation.

This book uses yet another lens to examine differentiation and support its implementation in classrooms. It presents a series of actual curricular units developed by teachers who work hard to differentiate instruction in their classrooms. The book thus moves from defining and describing differentiation to providing the actual curriculum used to differentiate instruction.

Differentiation and the Middle Grades

It can be argued that the middle-grade years constitute the greatest learner variability of any segment in school. Dissimilar rates of growth are a defining element of middle school. Students of the same age vary tremendously in intellectual development, as they do in physical, emotional, and moral development. Schools that aspire to be successful in educating young adolescents must vigorously attend to their varying needs, interests, and readiness levels (National Middle School Association, 1995). Such schools will begin where learners are, understanding and addressing their individual needs, interests, and modes of learning.

Given the developmental diversity in any middle-level classroom, gearing curriculum to students' levels of understanding is a daunting task. In addition to different rates of development and learning styles, varying cultural backgrounds and prior experience must be taken into account. Efforts to reduce tracking and to include students with special needs in regular classes increase the diversity even further. . . . Both content and methods must

be individualized. (National Middle School Association, 1995, pp. 21–22)

Ironically, the prospect of teaching with the inevitable diversity that typifies middle school is one of the factors that makes it easy for teachers to "slip into a teaching mode in which all students in a class are expected to be doing or learning the same things at the same time according to a single mode of instruction" (Stevenson, 1992, p. 20). Nonetheless, middle school experts caution that reliance upon such instruction is ill-suited to the population middle schools exist to serve.

In order for all students to experience successes that matter to them, schoolwork must accommodate individual differences of talent and development. Students are developmentally unequal. Therefore, educators must ensure that for a substantial portion of their school lives, students will be able to see their success along a variety of paths. Teachers' expectations must reflect an understanding of differences. Some portions of curriculum must accommodate individual choices. Ways of presenting knowledge must complement disparities in youngsters' talents or dispositions for revealing their knowledge. (Stevenson, 1992, p. 122)

Turning Points, 2000 (Jackson & Davis, 2000), a 10-year update on the original Turning Points document that defined the key principles and practices of effective middle level schools, presents seven recommendations essential to ensuring success for each middle schooler in a new century. The document's explanation of one of those principles notes, in part, that "classes should include students of diverse needs, achievement levels, interests, and

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learning styles, and instruction should be differentiated to take advantage of the diversity, not ignore it" (Jackson & Davis, 2000, p. 23). This same landmark report calls for concept-based teaching that helps adolescent learners structure what they learn in effective and memorable ways and for classrooms procedures and processes designed to help young adolescents become more self-sufficient and confident learners.

It is difficult to imagine a setting with greater potential to realize the joy that should be implicit in learning than a middle school classroom, with learners bringing to school a spectrum of dreams for the future and a full supply of energy. Each of these students has one foot in the world of childhood and one on the brink of adulthood, combining the fullness of creativity and the infinite possibilities ahead. It is difficult to imagine a setting more pained and unnatural than a middle school classroom with a one-size-fits-all demeanor and mode of operation housing those same students.

Nonetheless, it's far easier to find examples of the latter than the former. The reasons classrooms downplay or even ignore diversity are legion, and many of the reasons are understandable. One is the absence of images of what solid, standards-based curriculum might look like in settings that both embrace and attend to learner diversity. This book provides one such image—an image we hope will help educators craft middle-level classrooms well suited to the learning needs of the students who inhabit and enliven them.

What the Book Is (and Isn't) Intended to Be

As we prepared to write this book, we had numerous conversations between ourselves, with editors, and with many colleagues in education. Each conversation helped us chart our eventual course. Our primary goal was to provide models of differentiated units of study. We wanted to move beyond necessarily episodic descriptions of differentiation to show how a differentiated classroom might flow through an entire unit. We also wanted to present units at a range of grade levels and in a variety of subjects. Providing units for grades K–12 in a single volume seemed too much, so we began by working with units that span grades 5–9, a configuration otherwise known as "the middle grades." In some districts, this grade-span includes at least a portion of upper elementary or a portion of high school. Subsequent books of differentiated units for grades K–5 and 9–12 are in the works.

Even after narrowing the range of grade-levels, we realized there were so many subjects to consider that we had to refine our focus further. Ultimately, we elected to include differentiated units in five subject areas: math, science, social studies (two units), language arts, and world/foreign language. We have developed the book, however, with the intent that it be useful to a broader range of teachers than the grade levels and subjects it specifically represents. This is a book designed to teach anyone who wants to learn about differentiating curriculum how to do so—or how to do so more effectively.

To that end, each of the units is intended to be more representative than restrictive. That is, an 11th grade social studies teacher should be able to look at a 6th grade social studies unit, see how it works, and use similar principles and formats to develop a differentiated social studies unit for high school juniors. An art teacher should be able to study several of the units in the book and synthesize the principles and procedures therein to guide the development of a differentiated art unit. In sum, we intend this book to be a vehicle for professional development.

What this book is *not* intended to be is off-the-shelf curriculum for any classroom. It is impossible to create the "correct" unit, for example, on how to teach French verbs. Teachers in one classroom will conceive that process differently than will teachers in other classrooms—or teachers in a different part of the country, in a different type of school, or responsible for a different set of academic standards. In the end, then, we are presenting educators with a learning tool, not a teaching tool. If teachers (and other educators) can read this book and say, "There's something I can learn here," then we will have succeeded.

How the Book Is Designed

Because we want the book to be a learning tool for a maximum number of teachers, we have made key decisions about its presentation. First, we decided to begin the book with Part I's primer on differentiation—an essential piece for readers new to the topic and a helpful refresher for those already familiar with it. We also opted to include an extended glossary (page 233), which explains terms and strategies that might not be familiar to all readers. Collecting this information in the back of the book, we thought, was preferable to interrupting the units themselves with "sidebar" explanations.

Part II, the body of the book, is devoted to instructional units. We think it will be helpful to share some of our thinking about the layout and contents of the units, each of which is presented in four parts.

• **Unit Introduction.** The first component of every unit is the introduction, which includes a prose overview of the unit; a list of standards addressed in the unit; the key concepts and generalizations that help with teacher and student focus;

- a delineation of what students should know, understand, and be able to do as a result of the unit; and a list of the key instructional strategies used in the unit. Some of the units also make links across units and disciplines and promote connections with students' lives and experiences.
- Unit Overview Chart. The second component is an overview chart, designed with three goals in mind: 1) to provide orientation in the form of a "big picture" snapshot of the unit's steps or events; 2) to provide an estimate of the amount of time each step or event requires; and 3) to clarify which portions of the unit apply to the class as a whole and which are differentiated.
- Unit Description. The third component is the unit description itself. It appears in the left-hand column of each unit page and gives a step-by-step explanation of what takes place in the classroom during the unit. Asterisks in the margins highlight differentiated components. All referenced supporting materials (samples such as worksheets, product assignments, rubrics, and homework handouts) appear at the end of the unit.
- Teacher Commentary. The fourth component is an explanation, in the voice of the teacher who created the unit, of what she was thinking as she planned and presented instruction. For our purposes, this is a particularly valuable element. To listen to the teacher who developed the unit is to move well beyond what happens in the classroom and to begin to analyze why teachers make decisions as they do. At one point in the writing and editing process, we thought we should reduce the teacher commentary sections to the fewest possible words; we quickly discovered that when we did so, we lost the magic the book has to offer. We hope you enjoy listening to the teachers as much as we have.

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We tried to balance two needs in our editing of the units. First, we wanted to maintain the integrity of each teacher's unit. Second, we wanted to be sure to have both consistency (of terminology, of format, of essential philosophy) and variety (in instructional strategies, use of groups, assessment methods, etc.). The teachers who created the units have approved the changes we made or have helped us see how to make necessary modifications more appropriately.

Also, please note that we have opted to make the units somewhat more generic than specific. As teachers, we sometimes have the habit of looking for exact matches for our classroom needs and jettisoning whatever doesn't match. As authors, we can't eliminate the habit, but we wanted to make it a little harder to exercise. For example, although we have taken great care to list state standards reflected in a unit, we have intentionally not listed the name of the state from which the standards came. (It's amazing how similar standards on the same topic are across states.) We're hopeful of making the point that good differentiation is attentive to standards and other curricular requirements, but we want to help readers avoid the inclination to say, "Oh, these aren't my standards, so this wouldn't work in my classroom."

Finally, we decided to include solid units rather than "showcase" ones. What's here is more roast beef than Beef Wellington. We wanted to include units that demonstrate coherence, focused instruction, thoughtful engagement of students, and flexibility; we did not want to include units that dazzle the imagination. After all, although it may be fascinating to watch someone tap dance on the ceiling, few of us are inclined to try it ourselves. Hopefully, the units in this book are familiar enough to be approachable, but venture far enough into the unfamiliar to provide challenge for future growth. In fact, in this regard, our aim for readers is similar to what we recommend for students: pushing them a little beyond their comfort zones. If all readers feel totally at ease with the units, we've lowered the bar. If we send all readers running, we've set the bar too high. (In the latter instance, some judicious rereading over a period of professional growth just might be worthwhile.)

It may well be that the greatest pleasure of teaching comes from learning. It is our hope that the book as a whole will serve as one catalyst for helping teachers become the very best professionals they can be.

PART I

A Brief Primer on Differentiation

The Students

Marqui is four and very smart. He really likes stories, and he's teaching himself to read. Trouble is, there aren't any books for him to read in his house, and it's difficult for his mom to get him to the library, which is two busses away from their house.

Yu-chu likes math, but no one in school knows that. She can't understand the teacher and the teacher can't understand her. Yu-chu goes to a special class to help her with English, but math doesn't come up there. In her regular classroom, she feels invisible. Her math problems look neat on the page, but she doesn't get called on, and she's afraid to raise her hand.

Repp is bright—or at least he used to be. He has a learning disability and nearly everyone works with him on what he can't do very well. Now, in middle school, he's forgotten what it was he used to be good at.

Adam just seems to march to a different beat. He works really slowly and often doesn't catch the directions the first time they're given. Explanations are slippery, too.

Darryl is consumed with rhythms and music. They live in his head, and he sometimes can't make them move over so there's room for schoolwork. But in school, there seems to be almost no room for his music.

Michelle is one of a small population of black students at a primarily white school. Her parents value school and encourage her to learn. Nonetheless, Michelle's school feels like a pair of shoes that's the wrong shape and size. To go there is to leave the world in which she belongs and to enter one where she's at best a stranger and at worst an unwelcome stranger. Language, habits, the ways of working, textbook content, the push and pull of peers, the lack of eye contact from the teacher, and a hundred other elements send Michelle coded messages that she doesn't really belong. Anyhow, what is she supposed to *do* with what she learns in school? No one from the world where she does belong seems to use this stuff.

Philip wrestles with both physical and cognitive challenges. He likes the other kids. He wishes he could be more a part of their work and games and conversations.

Donna is 13—at least chronologically. Her conversations and writing sound more like she's a college student, or perhaps even older than that. She's also tall for her age and physically mature. She's good at fitting in with her agemates, but she's often hungry for more probing conversations. Donna wants to pursue her interest in astronomy, but schoolwork takes so much time (even though it's mostly busywork for her). Astronomy has not been a topic in science class during the last four years, and she fears it's not likely to come up again until college.

Ben likes school well enough. He's okay with reading, is impatient with writing, thinks science is fun when there are labs, and dreads math. He stays afloat with math when there's time to ask questions and have more demonstrations. Lately, everyone seems to be in a huge hurry to get through the textbook. Ben's feeling more lost than he used to.

The Teachers

Mr. Walters teaches a class in which there is a seven-year span of reading levels. He teaches students with Individual Educational Plans (IEPs) and students identified as gifted, and yet, he has just one language arts text for all his students. He also has class sets of novels that go along with the 5th grade history themes. Trouble is, each set is roughly at grade level, and he loses much of his class when they read the novels.

Ms. Grant's math class has 21 students, representing 6 different languages. She speaks English and Spanish, but that leaves her uncertain about how to communicate with the nine students who speak the other four languages. Some of Ms. Grant's English language learners are proficient readers in their native languages. Some aren't.

Ms. Mastrangelo has taught for 15 years. She's grown both comfortable and proficient with teacher-directed, whole-class instruction. Over time, however, her students have become much more diverse, both culturally and academically. She sees that her classroom is somehow less inviting to her students than it used to be . . . and less inviting than she'd *like* it to be.

Mr. Herrera's Spanish I class includes students who speak Spanish as a first language, but don't know its grammar; students who know English grammar well and those who don't; students who are great memorizers of patterns, but are afraid of the risk of oral production; students with a great ear for language and no patience for homework; and students who somehow seem to be learning to speak the language faster than he's teaching it.

Nearly all of these teachers feel escalating pressure to prepare their students for a high-stakes test. The test reveals no concern for students who struggle with school or for students eager to learn at a more challenging pace or in greater depth. Even as classrooms become incrementally more heterogeneous, the message from the test-makers seems to be one of mandated homogenization. The dilemma is clear: How do teachers provide instruction that honors the uniqueness of each individual in a classroom that is likely to be overpopulated, undersupplied, and perpetually short of time?

There is no add-water-and-stir solution to the dilemma, of course. Complex challenges like this never have simple solutions. But those of us involved with writing this book hold tight to two beliefs. First, we believe that every teacher is a learner, and as such, every teacher can become better and better at the effective instruction of academically diverse student populations. Second, because all indications are that classrooms will continue to diversify, we believe there is no choice but

to learn to teach well the students who trust us—voluntarily or involuntarily—to prepare them for the future. Based on these two beliefs, we find that the best response to the complex challenges today's schools present is differentiated instruction.

What Is Differentiated Instruction?

As we use the term in this book, *differentiated instruction* refers to a systematic approach to planning curriculum and instruction for academically diverse learners. It is a way of thinking about the classroom with the dual goals of honoring each student's learning needs and maximizing each student's learning capacity.

This approach to effective instruction of heterogeneous student populations (and in truth, all student populations are heterogeneous) suggests that teachers concentrate on two classroom factors: the nature of the student and the essential meaning of the curriculum. If, as teachers, we increase our understanding of *who* we teach and *what* we teach, we are much more likely to be able to be flexible in *how* we teach.

There are five classroom elements that teachers can differentiate, or modify, to increase the likelihood that each student will learn as much as possible, as efficiently as possible:

- **Content**—What we teach and how we give students access to the information and ideas that matter.
- **Process**—How students come to understand and "own" the knowledge, understanding, and skills essential to a topic.
- **Products**—How a student demonstrates what he or she has come to know, understand, and be able to do as a result of a segment of study.

- Affect—How students link thought and feeling in the classroom.
- **Learning environment**—The way the class-room feels and functions.

In addition, there are three student characteristics that teachers can respond to as they craft curriculum and instruction:

- Readiness—The current knowledge, understanding, and skill level a student has related to a particular sequence of learning. Readiness is not a synonym for ability; rather, it reflects what a student knows, understands, and can do today in light of what the teacher is planning to teach today. It is very difficult to maximize the capacity of learners like Repp and Yu-chu if we are unaware of their learning gaps, or if we are impervious to the fact that Donna has already learned the material we are planning to teach for the next week. The goal of readiness differentiation is first to make the work a little too difficult for students at a given point in their growth—and then to provide the support they need to succeed at the new level of challenge.
- Interest—What a student enjoys learning about, thinking about, and doing. Interest is a great motivator. A wise teacher links required content to student interests in order to hook the learner. The goal of interest differentiation is to help students connect with new information, understanding, and skills by revealing connections with things they already find appealing, intriguing, relevant, and worthwhile.
- Learning profile—A student's preferred mode of learning. Individual learning profile is influenced by learning style, intelligence preference (see Gardner, 1993, 1997; Sternberg, 1988, 1997), gender, and culture. There is neither economy nor efficiency in teaching in ways that are awkward for

learners when we can teach in ways that make learning more natural. The goal of learning profile differentiation is to help students learn in the ways they learn best—and to extend the ways in which they can learn effectively.

It is not the purpose of this book to teach the key elements of differentiation. That has been done in other places. Nonetheless, a quick review of what it means to differentiate the five classroom elements in response to the three student characteristics should facilitate a common understanding among our readers.

Differentiating Content

Content is what students should know, understand, and be able to do as a result of a segment of study. It's the "stuff" we want students to learn, and therefore, it's the "stuff" we teach. Content is typically derived from a combination of sources. Certainly national, state, and local standards provide guidance about what we should teach. That said, a set of standards is unlikely to provide complete and coherent content. Some standards documents emphasize knowledge and skill and largely omit the concepts and principles that lead students to genuine understanding of subject matter. Some standards documents are so general in nature that they omit the specific knowledge necessary to illustrate the principles identified.

Content is further defined by local curriculum guides and by textbooks. However, one of the most critical factors in determining content is the teacher's knowledge of both the subject and her students. The teacher is the source of synthesis for standards, texts, and guides. It's the teacher who must ask questions such as, "What matters most here?" "What is this subject really about?" "What

will be of enduring value to my students?" "What must I share with them to help them truly understand the magic of this subject in their lives?"

When the teacher answers these questions, she is ready to specify what students should know, understand, and be able to do in a particular subject as a result of instruction presented over a day, a lesson, a unit, and a year. The teacher's overarching goal is to hold the essential knowledge, understanding, and skills steady for most learners. In other words, if the intention this week is to help students learn to solve simple equations, that will be the goal for all learners. Some may need to work (at the process stage) with more complex formats and more independence; others may need to work with greater scaffolding from teacher and peers. In general, however, the knowledge, understanding, and skills related to solving simple equations belong to evervone.

There are exceptions to this guideline, of course. If a student already knows how to solve both simple equations and more complex ones, it makes no sense to continue teaching that student to solve simple equations. Likewise, if a student has serious gaps in number sense and basic operations, the solutions to simple equations are likely to be out of reach until the student can build the necessary foundation of knowledge, understanding, and skill.

Once the essential knowledge, understanding, and skills of a unit or topic are clear, the teacher also begins thinking about the second facet of content—how she will ensure student access to that essential knowledge, understanding, and skill set.

Students access content in many ways. Teacher talk is one. There are also textbooks, supplementary materials, technology, demonstrations, field trips, audiotape recordings, and so on. A wise teacher asks, "What are *all* the ways I might help my

students gain access to new knowledge, understanding, and skills as we move through this topic or unit?"

Because students vary in readiness, interest, and learning profile, it is important to vary or differentiate content in response to those student traits. Figure 1 (see page 6) illustrates just a few ways in which teachers can differentiate content in response to student readiness, interest, and learning profile.

Differentiating Process

The line between process and content is a blurred one, but for purposes of discussion, we'll think of process as beginning when the teacher asks the student to stop listening or reading and to begin making personal sense out of information, ideas, and skills they've accessed. Under this definition, process begins when the student stops becoming the consumer and starts making meaning in earnest.

Process is often used as a synonym for "activities." Not all activities are created equal, however. A worthwhile activity is one that asks students to use specific information and skills to come to understand an important idea or principle. Furthermore, a worthwhile activity is unambiguously focused on essential learning goals. It calls on students to work directly with a subset of the key knowledge, understanding, and skills specified as content goals. It requires students to think about ideas, grapple with problems, and use information. It moves beyond "giving back information" to seeing how things work and why they work as they do. Finally, a worthwhile activity is one that snags student interest so that they persist at it, even when the task is difficult.

Figure 2 (see page 7) illustrates just a few

ways in which teachers can differentiate process in response to student readiness, interest, and learning profile.

Differentiating Products

A product is a means by which students demonstrate what they have come to know, understand, and be able to do. In this book, we use the term *product* to refer to a major or culminating demonstration of student learning—that is, one that comes at the end of a long period of learning, such as a unit or a marking period, rather than a demonstration of learning at the end of a class period or a two-day lesson, for example.

As with activities, effective product assignments are likely to have certain hallmarks. Product assignments, too, should focus on the essential knowledge, understanding, and skills specified as content goals. They should call on students to use what they have learned—preferably working as much as possible as a professional would work. They should have clear, challenging, and specified criteria for success, based both on grade-level expectations and individual student needs. They should endeavor to capture student interest. Finally, high-quality product assignments are written and guided in ways that support student success in both the process of working on the product and the product itself.

Products can take many forms. In fact, it is the flexibility of products that make them so potentially powerful in classrooms sensitive to learner variance. If, as a student, I can show the teacher that I have come to know, understand, and do the non-negotiables of the unit, *how* I do so may be open. Thus, a student with a learning disability that makes writing laborious (if not impossible) may do a better job of showing what he has learned in

······ FIGURE 1 ···

STRATEGIES FOR DIFFERENTIATING CONTENT

Student Characteristic	Strategy
Readiness	 Provide texts at varied reading levels. Provide supplementary materials at varied reading levels. Reteach for students having difficulty. Offer extended teaching groups for advanced students. Demonstrate ideas or skills in addition to talking about them. Provide audiotaped materials. Use videotapes to supplement and support explanations and lectures. Use texts with key portions highlighted. Use reading buddies or reading partners to work on text or supplementary materials. Provide organizers to guide note-taking. Provide key vocabulary lists for reference during note-taking.
Interest	 Provide interest centers to encourage further exploration of topics. Provide a wide range of materials on a wide range of related student interests. Use student questions and topics to guide lectures and materials selection. Use examples and illustrations based on student interests.
Learning Profile	 Present in visual, auditory, and kinesthetic modes. Use applications, examples, and illustrations from a wide range of intelligences (based on Gardner and Sternberg models). Use applications, examples, and illustrations from both genders and a range of cultures/communities. Teach with whole-to-part and part-to-whole approaches. Use wait time to allow for student reflection.

..... FIGURE 2 ...

STRATEGIES FOR DIFFERENTIATING PROCESS

Student Characteristic	Strategy
Readiness	 Use tiered activities (activities at different levels of difficulty, but focused on the same key learning goals). Make task directions more detailed and specific for some learners and more open or "fuzzy" for others. Provide resource materials at varied levels of readability and sophistication. Provide teacher-led mini-workshops on varied skills at varied levels of complexity to support student work. Use both like-readiness and mixed-readiness work groups. Use a variety of criteria for success, based on whole-class requirements as well as individual student readiness needs. Provide materials in the primary language of second language learners. Provide readiness-based homework assignments. Vary the pacing of student work.
Interest	 Use interest-based work groups and discussion groups. Use both like-interest and mixed-interest work groups. Use the Jigsaw cooperative strategy to allow students to specialize in aspects of a topic that they find interesting. Design tasks that require multiple interests for successful completion. Encourage students to design or participate in the design of some tasks.
Learning Profile	 Allow multiple options for how students express learning. Encourage students to work together or independently. Balance competitive, collegial, and independent work arrangements. Develop activities that seek multiple perspectives on topics and issues.

science by creating a high-quality museum exhibit, complete with tape-recorded narration, than with an essay. A student who is skilled in music may develop a musical interpretation of the rights and responsibilities of a U.S. citizen under the Constitution with more engagement and commitment than she would have demonstrated had her assignment been to make a poster.

Tests are certainly one form of product. In today's schools, all students need guidance in how to take tests effectively. Nonetheless, when tests are the only form of student product, many students find that their ability to show what they know is restricted. With tests, it's important to remember that the goal should not be regurgitation of information, but rather, demonstration of the capacity to use knowledge and skills appropriately. It's also important to remember that tests should enable rather than impede a student's ability to show how much he or she has learned. Thus, some students may need to tape-record answers to tests. Some may need to hear test questions read aloud. Some may need additional time to write their answers. When the goal is to see what a student has learned, those adaptations are "fair" for students with learning difficulties just as using Braille is "fair" for students who cannot see.

Figure 3 illustrates just a few ways in which teachers can differentiate products in response to student readiness, interest, and learning profile.

Differentiating Affect

Students, because they are human beings, come to school with common affective needs. They need to feel safe and secure, both physically and emotionally. They need to feel that they belong to the group and are important to it. They need to feel a sense of kinship with the group, a sense that they

share common ground with their peers. They need to feel affirmed—to be assured that they are valuable just as they are. They need to feel challenged and to know that they can succeed at a high level of expectation (helping them to develop a sense of self-efficacy). Humans have these needs in common. Nonetheless, our particular circumstances cause us to experience these needs in different ways.

For example, a child with mental retardation has a need to belong to the group—to feel important to the "wholeness" of the group. That need may go unmet if he finds himself always on the outskirts of class activities, conversations, and plans. If the teacher sees this student as a "fringe" member of the class, it is likely that other students will see him that way as well. To help this learner achieve a sense of belonging, the teacher must understand the child's need to be a part of the daily fabric of the class, and must consciously weave that fabric with the legitimate participation of this student in mind.

A highly able child also needs to feel a sense of belonging and importance to the group. This learner may already be a part of the social fabric of the group and may be recognized as an achiever. However, if the highly able child feels uneasy asking questions important to him because the teacher is impatient with or threatened by them, he, too, feels uncertain about his status in the group. He may elect to act out a role that maintains the status quo, feeling that he is not free to be himself in the classroom. In a case like this, the teacher may not have to plan activities in ways that integrate this learner, but in order to address his need to belong, the teacher must make the class a place where legitimate questions are sought, valued, and celebrated.

A child whose first language is not English cannot feel integral to the group when she can never

..... FIGURE 3

STRATEGIES FOR DIFFERENTIATING PRODUCTS

Student Characteristic	Strategy
Readiness	 Use tiered product assignments. Provide bookmarked Internet sites at different levels of complexity for research sources. Lead optional, in-class mini-workshops on various facets of product development (e.g., asking good research questions, using the Internet to find information, conducting interviews, proofreading). Use similar-readiness critique groups during product development (especially for advanced learners). Use mixed-readiness critique groups or teacher-led critique groups during product development (particularly for students who need extra support and guidance). Develop rubrics or other benchmarks for success based on both grade-level expectations and individual student learning needs.
Interest	 Encourage students to demonstrate key knowledge, understanding, and skills in related topics of special interest. Help students find mentors to guide product development or choice of products. Allow students to use a range of media or formats to express their knowledge, understanding, and skill. Provide opportunities for students to develop independent inquiries with appropriate teacher or mentor guidance.
Learning Profile	 Encourage students to work independently or with partner(s) on product development. Teach students how to use a wide range of product formats. Provide visual, auditory, and kinesthetic product options. Provide analytic, creative, and practical product options. Ensure connections between product assignments and a range of student cultures/communities.

read the text, understand directions, or make a real contribution to the work of groups to which she is assigned. The teacher in this instance must see the link between communication and belonging and ensure that this learner has a voice in the class.

A student from a minority culture feels anything but central to the operation of the group when all of his cultural peers are consistently placed in low-achieving groups and are assigned work that looks dull. Belonging is not a reality when the teacher is more likely to call on, chat more affably with, and make eye contact with students from cultures other than your own. Your importance diminishes when the teacher shows she expects less of you by settling for incomplete work, overlooking missed assignments, or failing to coach you on how to enhance the quality of a product.

These are just a few examples to make the point that every learner in a class needs the teacher to help him or her grow in affective competence, just as every learner needs the teacher to help him or her grow in cognitive competence. (In fact, the two are inextricably linked.) It is essential to remember that although our affective mileposts are similar, our journeys toward them may take many different routes. In a differentiated classroom, the teacher is continually attuned to student feelings, just as she is to student knowledge, understanding, and skills. She repeatedly asks herself, "What can I do to ensure that students of all readiness levels feel safe, integrated, affirmed, valued, challenged, and supported here?" "What can I do to ensure that students know their interests and strengths are important to me as a person, important to their peers, and important to our success as a class?" "How can I increase the likelihood that each student comes to a better understanding of his or her particular learning

patterns, finds opportunity to work in ways that are comfortable and effective, and respects the learning needs of others?"

A wise teacher takes a number of measures to support the affective climate of the classroom. These might include

- Modeling respect.
- Teaching about and for respect.
- Helping students develop an escalating awareness of and appreciation for the commonalities and differences among their classmates.
- Helping students see themselves and their peers in the important ideas and issues they study.
- Helping students examine multiple perspectives on important issues.
- Helping students learn to listen to one another so that they hear not only the words, but also the intentions behind the words and the implications beyond them.
- Helping students to develop empathy for each member of the class.
- Ensuring consistently equitable participation of every student.
- Providing structures that promote and support student success.
- Seeking and responding to legitimate opportunities to affirm each student.
- Establishing shared and individual benchmarks for success at the appropriate levels.
- Coaching students to work for their personal best.
 - Celebrating growth.
- Helping students to be more reflective and effective in peer relationships.
- Helping students to be more reflective and effective in decision making.
- Helping students to become effective problem solvers, both personally and interpersonally.

• Building positive memories for all individuals in the group and for the group as a whole, and revisiting those memories to help students develop a sense of shared experience.

In the case of affect, the teacher differentiates both proactively (in ways that are planned) and reactively (on-the-spot). She does both based on her understanding of the shared affective needs of all humans, the reality that we experience those needs in both similar and dissimilar ways, and her continued reflection on how each student's readiness levels, interests, learning style, intelligence preference, culture, gender, economic status, home experiences, and general development shape his or her affective needs.

Affect is, in large measure, shaped by learning environment—the weather in the classroom. Its lights and shadows, sun and storms profoundly influence everything else that happens for a learner in that classroom. The teacher's role is often that of "weather-maker." At the very least, it is the teacher's job to help students learn more effectively as a result of the classroom weather.

Differentiating Learning Environment

It's helpful to think about learning environment in terms of both visible and invisible classroom structures that enable the teacher and the students to work in ways that benefit both individuals and the class as a whole. A *flexible* learning environment is a hallmark of a differentiated classroom. The teacher's guiding question for a differentiated learning environment is, "What can I do to allow students of varying readiness levels, interests, and modes of learning to grow most fully in this place?"

One way of thinking about a differentiated

learning environment is to examine how space, time, and materials can be used flexibly. It's also critical to understand the rules and procedures that must govern a flexible learning environment.

Although it is the teacher's responsibility to engineer a flexible classroom, a wise teacher involves students in decisions about how to make the environment work. Not only does this give students a sense of ownership of their classroom, but students are often able to see what needs to be done more quickly and creatively than the teacher (who may be bogged down with other responsibilities and pressures).

Decisions About Space

The goal of flexible space is to enable the teacher and the students to work in a variety of configurations and to do so smoothly and efficiently. To that end, teacher and students might ask questions such as

- What are the various ways we can rearrange the furniture to allow for individual, small-group, and whole-group work?
- How can we rearrange ourselves when we don't want to or cannot move the furniture?
- How can we arrange space for conversation and movement as well as space for quiet concentration?
- How can we display student work and other important artifacts and still have places in the room that are not visually distracting?
- When we need to move furniture, who will do it? At what speed? At what noise level?
- How will we know the appropriate placement for furniture when we move it?
- What is the appropriate way to deal with student materials and supplies when we move furniture?
 - Who may move around the classroom?

For what purposes? When? At what noise level?

- What signal will we receive when it's time to move from one place or task to another?
- What will happen if someone's movement in the classroom is disruptive to others?

Decisions About Materials

Goals related to flexible materials in a differentiated classroom include making sure students have both what they need to pursue their own learning goals in preferred ways and what they need to work together toward class goals. To make decisions related to classroom materials, teachers and students might ask questions such as

- What materials and supplies should always be available in the classroom?
- What materials and supplies will be needed only from time to time?
- How can we rotate and store materials and supplies?
- Which materials and supplies should students have ready access to and which should be accessible only to the teacher?
- How will students know which materials and supplies are appropriate for their tasks at a given time?
- Who may retrieve materials and supplies? When? At what speed and noise level? How and when will we put them away?
- What guidelines will we use to share materials and supplies when there aren't enough to go around?
- What constitutes appropriate care for materials and supplies?
- What will happen if someone uses materials or supplies in ways that are inappropriate or disruptive to others?

Decisions About Time

Time is perhaps the most valuable classroom commodity. It enables or inhibits learning at every turn. And there is never enough of it. Because time is always nipping at our heels, it's easy to assume the most efficient way to use it is to carve it into chunks distributed to everyone in an equal manner. When there is academic diversity in a classroom, however, that is seldom the judicious choice. Some students will need additional instruction from the teacher in order to move ahead. Some will finish work more rapidly than others (even when the work is appropriately challenging). Some will need longer on a few tasks. Some will need longer on most tasks. It often makes sense for the teacher to teach a small group while other students are working alone or in small groups. In fully differentiated classrooms, in fact, the teacher may be working with a small group or an individual while some students work solo and others work in pairs or triads. Everyone knows what to do, how to do it, and everything works (at least most of the time—but that's true of classroom functioning in general). To enable flexible use of time, teacher and students might ask questions such as

- When will it be best for us to work as a unit?
- When will it be helpful to work in smaller groups or independently?
- How will we know where to be in the classroom and at what times?
- How will we manage ourselves when we work without direct teacher supervision?
- What rules and procedures will govern our work at various places in the room and for various tasks?
- How will we get help when we need it and the teacher is busy?

- How will we let the teacher know we need her help?
- What do we do if we finish a task before others (even though the task was challenging and we worked at a high level of quality)?
- What do we do if we need additional time for a task (even though we have worked steadily on the task)?
- Where do each of us turn in our work when we are finished?
- When is it appropriate to move around the room and when is it not appropriate?
- How will we know which tasks to work on and which part of the room to work in at a given time?
- How can I tell if I'm succeeding on my work at a high level of quality?
- How do I keep track of my goals, work, and accomplishments?

There are, of course, many other questions related to flexible learning environments beyond those about space, materials, and time that we've listed. The reality is that students of any age can work both flexibly and successfully as long as they know what's expected and are held to high standards of performance. Ironically, we're most likely to see smoothly operating, flexible classrooms in kindergarten. Beyond that point, we teachers often convince ourselves that our students aren't capable of independent and flexible work. (If that were the case, it would be one of the few demonstrations of learners becoming less able to accomplish complex tasks as they get older!) Besides, if we expect young people to become competent, self-guided adults, evidence that they are not moving in that direction should only serve as an impetus to ensure that they do.

Essential Principles of Differentiation

There are a number of key principles that typify a defensibly differentiated classroom. The principles have been described in detail in other places. Still, it's important at the outset of this book to review a few of them. These principles should be at the forefront of teacher planning and should serve as measures of the effectiveness of differentiation for teachers and administrative leaders alike.

Principle 1: Good Curriculum Comes First

There is no such thing as effective differentiation devoid of high-quality curriculum. Multiple versions of ambiguity will net only ambiguity. Multiple avenues to boredom will only lead more students to an undesirable place. Multiple routes to trivia and irrelevance will never enhance learning in the long run! The teacher's first job is always to ensure that curriculum is coherent, important, inviting, and thoughtful. Then and only then does it make sense to differentiate that curriculum.

Principle 2: All Tasks Should Be Respectful of Each Learner

Let's be frank: Dull drills *do* have an occasional place in the classroom. They are the adult equivalent of balancing a checkbook or filling out tax forms. The vast majority of the time, however, student work should be appealing, inviting, thought provoking, and invigorating. And it should be all these things for *all* students. Every student deserves work that is focused on the essential knowledge, understanding, and skills targeted for the lesson. Every student should be required to think at a high level (and should receive support when doing so). Every student should find his or her work

interesting and powerful. Differentiation won't work (and shouldn't work) when some students are assigned tasks that look "privileged" while others are assigned tasks that merit avoidance.

Principle 3: When in Doubt, Teach Up!

The best tasks are those that students find a little too difficult to complete comfortably. Good instruction stretches learners. Differentiation should never be used as a way to mollycoddle or "protect" learners. If a student wants to tackle something you think may be too demanding, it might be wise to let him give it a try (with the understanding that once begun, the task must be finished). The student may have something important to show you. At worst, next time, you and the student will both know a little more about what represents an appropriate challenge. Certainly when the teacher assigns tasks, it's critical to ensure that the tasks are tiered to provide meaningful challenge. Likewise, rubrics or other indicators of student success should push the individual student beyond his or her comfort zone. Be sure there's a support system in place to facilitate the student's success at a level he or she doubted was attainable.

Principle 4: Use Flexible Grouping

Before beginning a unit, a teacher needs to think about when it will be important for the class to work as a whole, when students will need to work and to demonstrate competence alone, and when it makes most sense for students to work with small groups of peers. There must be time for the teacher to instruct small groups and time for conversations between the teacher and individual students.

Think about the ebb and flow of students in a classroom. Plan times for similar readiness groups

to work together—and times when mixed-readiness groups can work on tasks, with each individual making a meaningful contribution to the work of the group. Plan times for groups of students with similar interests to work together—but also times when students with varied interests can meld those into a common task. Likewise, plan for both similar and mixed learning profile groups. The former allows students comfort when working; the latter is one means of extending student awareness of working modes. Also, use randomly assigned groups. Finally, be sure to provide both teacher-choice and student-choice groups.

There is little doubt that each of those configurations will benefit many students in the class in a variety of ways. Most certainly, using only one or two types of groups causes students to see themselves and one another in more limited ways, keeps the teacher from "auditioning" students in varied contexts, and limits potentially rich exchanges in the classroom.

Principle 5: Become an Assessment Junkie

Everything a student says and does is a potential source of assessment data. Teachers are surrounded by assessment options. Trouble is, we often think of assessment narrowly—as something we do *after* learning ends so that we will have numbers to put in the grade book. Far better to think of assessment as an ongoing process, conducted in flexible but distinct stages. First, there is pre-assessment, which is essential to a differentiated classroom. Whether a formal quiz, a journal entry, an exit card, or any of a dozen other means of determining student knowledge, understanding, and skill set related to an upcoming unit or lesson, it's critical for the teacher in a differentiated classroom to have a sense of student starting points. Throughout the unit, take

notes in class discussions, as you check homework, and as you walk around the room to monitor student work and coach for quality. Again, use quizzes, journal prompts, exit cards, concept maps—whatever you like to use—to figure out students' level of knowledge, understanding, and skill at key points in a unit. Then differentiate instruction based on what you find out. When it's time for final assessments, plan to use more than one assessment format—for example, a product and a test. Think about ways you can modify even the final assessments to maximize the likelihood that each student opens for you the widest possible window on his or her learning.

Principle 6: Grade for Growth

A portion of a teacher's grading may, of necessity, reflect a student's standing related to grade-level benchmarks. A portion of grades, however, should reflect a student's *growth*. A very bright learner who gets consistent *As* and never has to stretch or

strive will become a damaged learner. A struggling student who persists and progresses will likely give up the fight if grade-level benchmarks remain out of reach and growth in that direction "doesn't seem to count." The most we can ask of any person—and the least we ought to ask—is that they be accountable for being and becoming their best. It is the job of the teacher to guide and support the learner in this endeavor.

* * *

We hope this primer on differentiation provides you with tools for reflecting on the units of differentiated instruction in Part II of this book—and on practices within your own classroom! Additional clarification on terms and strategies is available in the Glossary, beginning on page 233. To learn more about any of the topics discussed here, please consult the Resources on Differentiation and Related Topics, beginning on page 241.

PART II

Differentiated Units of Study

Readers read as they wish, of course, and there's great merit in that. We take away from a source what we are ready to take away, and we gather what we can find in accordance with how we learn best. We do not want to deny our readers this freedom. Nonetheless, we offer a few suggestions and questions to guide your learning from the units that follow:

- See if you can find colleagues to read, analyze, and discuss the units with you.
- Read all of the units—or at least several of them—not just ones from your grade level or subject area. Look for similarities and differences. Record what you see. What seem to be the nonnegotiables in these units?
- Think about how the unit developers have included and yet moved beyond mandated standards. What's the difference between "covering the standards" and the ways these teachers are using standards?
- After you read and study a unit, go back to the list of standards reflected in the unit and the teacher's listing of what students should know,

understand, and be able to do as a result of the unit. Check off those standards and goals you feel the unit addresses effectively. Develop ways to intensify the focus on any goals or standards you feel have not been addressed adequately.

- Look for the links between the learning goals (the standards as well as what students should know, understand, and be able to do) and the individual lessons in the unit. In what ways have these teachers used the learning goals to design the specific steps in the units?
- What benefits for students are likely to occur when a teacher organizes a unit by concepts rather than teaching a list of goals without one or more organizing concepts?
- Think about students you teach. Name them in your head or on paper. Jot down ways in which these specific students might benefit from the differentiated units versus nondifferentiated versions of the same units. Think about students with a range of learning needs, including students who could be described as "typical."
- For which students in your class or classes would you need to make additional adaptations in

order to facilitate optimal learning? How might you make those adaptations if you were to revise one of the units? Would it be easier to make the additional modifications in these differentiated units or in nondifferentiated ones?

- How effective do you feel the various units are at
 - Beginning with sound curriculum prior to differentiating?
 - Making assessment a pervasive and useful element in instruction?
 - Providing respectful tasks for all learners?
 - "Teaching up"?
 - Using flexible grouping?
- How did the teachers who developed these units seem to have decided when to use whole-class instruction and activities and when to differentiate instruction and activities?
- Where in each unit might you incorporate additional ways to differentiate content for particular students in your class or classes? What about additional ways to differentiate process? Products? Which instructional strategies that your students currently enjoy using would you want to integrate into these units?
- Where in each unit might you incorporate additional ways to address student readiness? Interest? Learning profile?
- In what ways do these units call for flexible use of space? Of materials? Of time?
- What classroom guidelines would you want to establish to ensure effective and efficient work in one or more of these units? How would you begin the process of developing a flexible but orderly learning environment in one of these classrooms? How might you enable your students to be your partners in establishing a flexible and differentiated classroom?

- Think about connections between student affect and differentiation as it's reflected in these units. In what ways is the general classroom tone likely to impact student affect? Why? In what ways is the differentiation likely to impact student affect? Why? What connections do you see between student affect and student learning?
- How does the role of the teacher shift in these differentiated classrooms compared with classrooms in which whole-class instruction predominates? What opportunities do teachers enjoy with flexible teaching that may not be so readily available in more traditional classrooms?
- What portions of your own curriculum do you recognize in these units? In what ways can you build on what you already do in order to address the learning needs of your full range of students?
- Which elements of these units do you particularly like? Which do you question? Talk with colleagues about what you see as positive in the units and what is less positive for you. In each instance, be sure to explore why you feel as you do.
- Try adding your voice to a unit you have on paper, explaining why you have crafted the unit as you have—or why you might now think about modifying the unit in some way.
- Be sure to apply in your classroom what you learn from the units. It's wise to move at a pace and in a sequence that seems manageable to you—but it's important to grow as a teacher!

* * *

Our great hope, of course, is that you will be "stretched" by the time you spend with these six units. As educators, we invest our professional lives in the belief that learning is both dignifying and humanizing. We hope this will be your experience in the pages to come.