

But before tackling these three approaches, you might begin your process of differentiation simply by examining your curriculum with the following set of questions in mind (developed using Robert Eberle's creative thinking checklist, SCAMPER). SCAMPER techniques alone do not comprehensively differentiate for gifted learners, but they do prompt your thinking about approaches most appropriate for these learners.

FIGURE 27

## Differentiation "SCAMPER" For Gifted and Talented Students

### Substitute

What basic content could I replace with more abstract, advanced, or sophisticated content?

### Combine

How can I combine learning with creative thinking to encourage originality and innovation?

### Adapt

How can I adapt curriculum to accelerate the pace of instruction?

How can I adapt activities to elicit high levels of performance?

### Modify

How can I modify learning to provide greater depth and complexity?

### Put to other use

How can I accelerate the pace of instruction so class time can be used for in-depth or advanced learning reflecting students' specific interests and talents?

### Eliminate

What mastered content or skills can I eliminate so students can focus on more advanced learning?

### Reverse/Rearrange

How can I rearrange or reorganize curriculum to give students time to develop original ideas and products?

Adapted from *Scamper* by Robert Eberle (Waco, TX: Prufrock Press, 1971).  
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## Curriculum Compacting

Compacting\* is an essential element in differentiating for gifted and talented students whose content knowledge or skill development is substantially different from their classmates' and who have a strong desire to pursue an interest-based, advanced project. **When you compact curriculum, you examine a particular subject area and identify content or skills that could be accelerated, eliminated, or preassessed.** You replace your standard coursework with an advanced, interest-based project that students work on during class time. Likely candidates for compacting are students who already have extensive knowledge of a curriculum topic, have mastered a significant number of the skills you're planning to present, or are capable of accelerated learning.

Compacting may have one or more of the following purposes:

- To eliminate repetition of mastered content and/or skills.
- To increase the challenge level of the regular curriculum.
- To provide time for the investigation of a curricular topic that is beyond the scope of the regular curriculum.

As with all differentiation, the first step in compacting is to examine your curriculum and instruction in light of students' needs. Take a look at the curriculum map you began in Chapter 3 (page 64). In addition to using an asterisk to note exit points for differentiation, you can mark items appropriate for curriculum compacting. Use a plus sign (+) for "extend, enrich" and a minus sign (-) for "eliminate, pre-assess, speed up."

Review the skills and the projects/products sections of your map. Which have you coded at Bloom's lower levels of challenge (knowledge, comprehension, application)? These might be logical ones to compact for gifted students and to replace with more advanced work. Mark these with a minus sign. What content or topics could you extend, enrich, or present in greater depth?

\*As advocated and described by Sally Reis, Joseph Renzulli, and Deborah Burns in *Curriculum Compacting: The Complete Guide for Modifying the Regular Curriculum for High Ability Students* (Mansfield Center, CT: Creative Learning Press, 1992). Described in Resources, page 141.

Is there advanced content you'd like to introduce? Mark these with a plus sign. These become potential ideas for differentiated projects.

Remember that the projects your gifted students engage in through compacting must be based on interests as well as complexity. Collaborate with students to determine the content and topic of the project, the way the work will be accomplished, and the way the results will be shared. **As with most students, but particularly with gifted learners, the key to motivation is interest.** If students are interested in and dedicated to a project, they are more likely to follow through with it.

Remember, too, that the projects or investigations that are developed through compacting must be above and beyond the interests and capabilities of average learners. If most students could do such a project, then the project does not reflect sufficient rigor to warrant a gifted student's release from general curriculum requirements. Keep the criteria for challenge clearly in mind as you plan "instead of" learning for your gifted students: differentiation for gifted students must reflect a distinctively different level of challenge. The following figure presents these special aspects of challenge.

FIGURE 28



## Aspects of Challenge for Gifted Students



- Original thinking
- Working with concepts and generalizations rather than strictly factual knowledge
- Complex thinking
- Readiness for learning based on the student, rather than on the grade/age level
- Accelerated pace of learning
- Advanced, sophisticated content
- Abstract concepts
- Interdisciplinary work

- Critical evaluation
- Problem seeking and problem solving
- Innovation
- Capitalizing on advanced interests and curiosity
- Actively involving student in planning and decisions
- Feedback from experts

Following is an example of a compacting form you might use with your gifted students. (For a blank form you can photocopy, see page 142.) Notice the spaces for the signatures of student, teacher, and parent. Curriculum compacting is a collaborative effort between student and teacher. Also, as with any special learning plan, it's helpful to involve and inform the student's family. You want the family to share your commitment to differentiating this gifted student's learning. After you and the student have developed the plan, you might schedule a parent conference or talk to a family member by telephone or via email. Ask a parent or guardian to sign the compacting form, indicating their agreement and support for the project.

In the left column of the form, identify the curricular area you'll be compacting, based on the student's academic strengths. For the student in the example, fifth-grader Libby Clark, that area is language arts. In the second column, describe what you will speed up, allow the student to test out of, or eliminate. Also describe any responsibilities the student will have toward the regular curriculum. For example, will the student participate in certain class discussions, simulations, or science labs? Will there be particular assignments that the student will be required to complete? In the sample, the teacher has decided to pretest Libby on spelling words and to eliminate spelling practice activities. In the third column, describe the project the student will do instead of typical course requirements. In the sample plan, Libby will create an illustrated collection of her own poetry. Since compacting projects are developed based on student interests, the project described in the third column may or may not be in the same curricular area as the area being compacted.

You and the student need to determine what resources will be needed and what the steps of the project will be. As with all projects, the student

needs a checklist of quality criteria to help guide her work and to facilitate self-evaluation when she's finished. Establish a due date for the final project.

Set up a conference schedule so you (or another project advisor, such as a mentor) and

the student can discuss the progress of the project, identify any additional resources needed, and make any necessary changes in the plan. Such conferences also give you the chance to provide feedback. Use the Conference Log form on page 143 to record what was discussed and planned.

FIGURE 29

## Sample: Compacting Form and Project Description\*

Name of Student: Libby Clark  
 Signature of Student: \_\_\_\_\_  
 Signature of Teacher: \_\_\_\_\_  
 Signature of Parent/Guardian: \_\_\_\_\_

Curriculum Area(s)	Speed up/Test-out/Eliminate	Project Description
Language Arts	Pretest spelling words Eliminate appropriate spelling practice activities	Illustrated poetry

**Resources Needed**  
 computer, art paper, watercolors, bookmaking materials and equipment

- Steps in the Project**
1. Write at least ten poems in various genres.
  2. Illustrate each poem with a watercolor painting.
  3. Plan a layout for each page of the poetry collection.
  4. Mount each poem and illustration on background paper.
  5. Design and construct a cover, title page, and author dedication.
  6. Bind the book.

- Criteria for Quality Work**
- \_\_\_ includes at least ten poems in various genres
  - \_\_\_ presents a watercolor illustration for each poem
  - \_\_\_ plans an effective page layout
  - \_\_\_ effectively mounts each poem and illustration
  - \_\_\_ designs and completes a cover, title page, and author dedication that reflect the content of the book
  - \_\_\_ binds the book in a neat and durable manner

**Due Date:** end of first trimester

\*Adapted from *The Compactor* by Joseph S. Renzulli and Linda H. Smith (Mansfield Center, CT: Creative Learning Press, Inc., 1978). Used with permission.

Several of the forms offered in earlier chapters can be used to manage student projects that result from compacting. To help both you and the student keep track of daily work, use the Worklog, page 112. Depending on the project, you might use Reading Around the Topic, page 114, so the student can explore and narrow down a topic, and Resources Log, page 115, so the student can record actual resources used. Use or adapt the Project Planner and Checklist, page 116, to create a time line for completion of various components of the project. Following the project, you might ask the student to fill out the Self-Reflection on page 117.

## Individual Planning

You may, at times, have highly gifted students in your classroom—students whose skills and knowledge far surpass those of their classmates. Although strategies for differentiation lift the general level of instruction in the classroom, this may not be enough for such students, for whom the most advanced tiered assignment is still not a stretch. For them, even being compacted out of a unit or two is insufficient. You are dealing with a year-long curriculum mismatch. Sometimes a student may have a single talent “spike,” such as an extraordinary ability in math, or there may be several curriculum areas that offer the student little new learning.

With these students, the most appropriate avenue for differentiating instruction is an individual learning plan. Such a plan must delineate which learning goals or standards have already been met, which still need to be addressed, and how the student will move through the school's curriculum at an appropriate pace and in sufficient depth. Sometimes the plan may advise that the student skip a grade or course, or it may permit the student to attend classes with students in higher grades.

The key to a successfully differentiated learning plan for a gifted student is personalization. Teachers, parents, and student make decisions together about how the student will continue to progress in learning. The top priorities are the learning needs and best interests of the student. It's particularly important that the

student be involved in the development of the plan. The student's interest and commitment are critical to its success.

## The Importance of Mentors

Teachers of gifted and talented students have traditionally sought mentors and subject area specialists who will provide opportunities for students to go beyond what the curriculum, one teacher, or the school's learning environment can offer. As a classroom teacher who differentiates instruction, you too can **solicit community people or school staff who are willing to work with your gifted students**. Whether a mentor is asked to advance a student's knowledge or skills, provide expert feedback on a product or project, show “real world” use of a student's interests, or simply answer questions for an inquisitive gifted learner, mentorships are often essential for effective differentiation.

Look for mentors and subject area specialists within your own school and community. Some of your teaching colleagues may have hobbies or interests that are shared by one of your advanced students. Do you know someone who's good at photography or at filming and editing their own video productions? How about asking that person to assist the next time a student wants to produce an original video or do a photo essay? Is there someone in another department or grade level who would be willing to provide advanced content or skills to one of your students? Is there a professional in your community who might agree to mentor an interested student or serve as advisor on a project?

At the beginning of the school year, send a mentor recruitment form (such as the one provided on page 144 of this chapter) to staff members, parents, and community members and begin to assemble your own database of experts. Some school districts have volunteers who maintain a bank of community resources. Other districts have created a community resource pool as part of their school's community education program.

**Differentiation means responding to students' particular learning needs.** Today's classrooms usually include some students with needs

related to learning difficulties and some students who are gifted or talented. It's important to include proven differentiation strategies for these populations in your teaching repertoire.

## Resources

- Eberle, Bob. *Scamper*. Waco, TX: Prufrock Press, 1997. A series of guided activities encourage students to use their imaginations and descriptions and text enable teachers to lead, modify, or extend activities for diverse student participation.
- Eberle, Bob. *Scamper On*. Waco, TX: Prufrock Press, 1997. The sequel to the first book of activities and techniques for fostering creative thinking and problem solving, this book's activities are appropriate for older students, offering more sophisticated games for home and classroom use.
- Falvey, Mary A., editor. *Inclusive and Heterogeneous Schooling: Assessment, Curriculum, and Instruction*. Baltimore, MD: Brookes Publishing, 1995. This book explains how to customize learning for a diverse body of students. Strategies are offered for fostering positive peer relationships, assessing student performance, and modifying curricular activities to meet students' individual needs.
- Friend, Marilyn and William D. Bursuck. *Including Students with Special Needs: A Practical Guide for Classroom Teachers*, 3rd ed. Needham Heights, MA: Allyn & Bacon, 2002. The authors offer practical advice for teaching students with disabilities in inclusive settings to meet their instructional needs, emphasize developing collaborative working relationships to enhance student success, and provide strategies toward identifying and addressing individual needs and encouraging students to build social relationships.
- Maker, C.J., and Aleene B. Nielson. *Teaching Models in Education of the Gifted*. Austin, TX: PRO-ED, Inc., 1995. This book provides a review of teaching-learning models for gifted students, as well as ways to develop and implement curriculum. It includes practical suggestions and advantages and disadvantages to each model presented.
- O'Brien, Tim and Dennis Guiney. *Differentiation in Teaching and Learning* (New York: Continuum International Publishing Group, 2001). The authors provide a model to help teachers understand and effectively teach according to the needs of all students.
- Reis, Sally M., Deborah E. Burns, and Joseph S. Renzulli. *Curriculum Compacting: The Complete Guide to Modifying the Regular Curriculum for High Ability Students*. Mansfield Center, CT: Creative Learning Press, 1992. Curriculum compacting enables teachers to streamline the regular curriculum, ensure students' mastery of basic skills, and provide time for challenging enrichment and/or acceleration activities. This book covers everything teachers need to understand and implement curriculum compacting for advanced learners.
- Renzulli, Joseph S., et al. *The Multiple Menu Model: A Practical Guide for Developing Differentiated Curriculum*. Mansfield Center, CT: Creative Learning Press, 2000. The Multiple Menu Model utilizes six menus to establish curriculum that brings together the content and methodology of a discipline, while incorporating a number of different instructional techniques. The resulting curriculum challenges all levels of learners by making work accessible and interesting to each individual student.
- Salend, Spencer J. *Creating Inclusive Classrooms: Effective and Reflective Practices*, 4th ed. New York: Prentice Hall College Division, 2000. A practical approach to creating inclusive classrooms, this guide informs teachers how to meet the individual needs of each learner.
- Smith, Tom E.C., et al. *Teaching Students with Special Needs in Inclusive Settings*, 3rd ed. Needham Heights, MA: Allyn & Bacon, 2001. This book offers practical suggestions for classroom teachers to address and manage a diverse learning community and emphasizes collaboration among general and special educators.
- Van Tassel-Baska, Joyce, editor. *Comprehensive Curriculum for Gifted Learners*. Needham Heights, MA: Allyn & Bacon, 1994. This book examines total progression for K-12 development, including planning, developing, implementing, and evaluating curriculum. It consistently compares gifted and general education for teachers with mixed-ability classrooms.