

# What Do Students Need?

## Tiered Assignments

Tiered assignments are differentiated learning tasks and projects that you develop based on your diagnosis of students' needs. When you use tiered assignments with flexible instructional groups, you are prescribing particular assignments to particular groups of students. Within each group, you decide whether students do the task alone, with a partner, or as a collaborative learning team.

Just as flexible instructional groups differ from other kinds of groups, tiered assignments differ from other group assignments. Like flexible groups, **tiered assignments are intended to provide a better instructional match between students and their individual needs**. While teachers have typically used group assignments to promote collaborative or cooperative skills, tiered assignments are based on students' common learning needs.

As you design tiered activities, it's important to refer to your curriculum map. For tiered assignments to be relevant, significant learning, they must add depth and breadth to students' understanding of essential questions and unit questions.

### Six Ways to Structure Tiered Assignments

Tiering can be based on challenge level, complexity, resources, outcome, process, or product. You determine the best approach based on the specific learning need you're addressing. See pages 95–96 for guidelines.

#### *Tiered by Challenge Level*

You can use Bloom's taxonomy as a guide to developing tasks at various levels of challenge. For example, here are elementary-level activities tiered by challenge level for a unit on amphibians:

**Application level:** After reviewing the information about frogs and toads from the Department of Natural Resources, record the characteristics of each on a chart.

**Analysis level:** After reviewing the information about frogs and toads from the Department of Natural Resources, create a Venn diagram comparing and contrasting these two amphibians.

The application activity asks students to pull information from a source other than their textbook and use it in a chart. The activity is a reteaching opportunity, because it allows students who have not yet mastered the content to revisit it through a new resource. The analysis activity is for students who have already demonstrated mastery of basic content. Since these students will benefit from a more challenging activity, they're asked to analyze information from the new resource and to diagram comparisons.

Here's an example of activities tiered by challenge level for a middle school or high school unit on advertising and propaganda:

**Application level:** Review the ads in a teen magazine. Identify each by propaganda technique (such as bandwagon, testimonial, or slogan) and make a collage or poster illustrating the techniques you find.

**Analysis/Evaluation level:** Review the ads in a teen magazine. Examine the characteristics of the "ideal" teen girl and guy portrayed in the ads. Create a collage or poster to share your conclusions about advertising's portrayal of "ideal" teens.

The application-level activity would be most appropriate for students who need reinforcement of content or more practice at recognizing propaganda methods. Students are asked to apply what they know in making the collage or poster. The analysis/evaluation activity would be best for students who already have a firm understanding of propaganda methods. They're asked to extend what they know about propaganda to the messages projected by advertising.

and to draw some conclusions about the use of images in ads. Since both activities involve reviewing ads in a teen magazine, students would probably find them fair and equally interesting. Both groups are asked to share the results of their work and thus contribute to the learning of the whole class. Students might also get the opportunity to discuss the collages or posters. It's critical to the success and acceptance of tiered assignments that everyone's work is honored.

### *Tiered by Complexity*

**When you tier activities by complexity, you address the needs of students who are at introductory levels of learning as well as those who are ready for more abstract, analytical, in-depth, or advanced work.** Be sure that the tasks you design are truly more advanced and not simply more work. When one group of science students is asked to use two references for research and another group is asked to use five references for research, the second group isn't doing a more advanced task—they are doing the same task but with more work. (This is covered in more detail in Making Tiering Invisible, pages 98–100.)

Here are three sample activities tiered by complexity:

**Least complex:** Create an informational brochure that will inform your classmates about an environmental issue related to rainforests.

**More complex:** Create an informational brochure that will inform your classmates of different points of view about an environmental issue related to rainforests.

**Most complex:** Create an informational brochure that presents various positions on an environmental issue related to rainforests. Determine your position on the issue and present a convincing argument for it in your brochure.

In these examples, all students are asked to research a topic and to design an informational brochure, but the focus of their research differs. Brochure content varies from factual to analytical

to persuasive. Presentation of research ranges from fairly simple to complex.

The following activity, tiered by complexity, was developed by middle-school math teachers for use with flexible instructional groups at the beginning of the school year. Students were assigned to the task best suited to their learning needs.\*

### Tiered Activity

#### **Teacher directions:**

Students are divided into groups of 4 to 6. Each group works with the same story but is given one of two lists of data: the groups comprising Team 1 get data for a more basic activity, while the groups comprising Team 2 get data for a more advanced activity. Each group is to create a 5- to 10-minute skit based on their story and data. The skit is to include the math Susie uses to calculate how much money she has left.

#### **Here's the story:**

*Susie starts her evening with \$22.18. She wants to keep track of how much she spends. First, she and her three friends go to the school dance. After the dance, they go out for pizza. On their way home, they pass by a music store. Susie heard some new music at the dance and now decides to buy the CD. How much money does Susie have left when she gets home?*

#### **Team 1**

#### **Team 2**

#### **Here's the data . . .**

#### **Here's the data . . .**

7% sales tax

6.5% sales tax

Dance ticket: \$2.50

Dance ticket: \$2.50

Pizza Place

Pizza Place

Pitcher of pop: \$2.99

Pitcher of pop: \$2.99

Pizza: \$6.99

Pizza: \$6.99

Split cost evenly

Split cost evenly

Include tax and tip

Include tax and tip

Music Place

Music Place

CD: \$15.00 (1/3 off)

CD: \$15.00 (25% off)

Include tax

Include tax

\* Thanks to Genni Steele, Gwen Ranzau, Nancy Hall, Nadine Cory, Michelle Skorjanec, and Brenda Sammon from White Bear Lake Public Schools, Minnesota.

The activity for Team 1 calls for fairly simple calculations using percentiles and fractions. The activity for Team 2, while similar, adds calculation of a tip (percentage), the manipulation of decimals, and the use of a percentage discount rather than fractions. More complex computations are required.

As you work on generating more complex activities, use the following questions to guide your planning.\* Are students asked to:

- identify assumptions, points of view, or problems?
- examine and support their ideas, positions, conclusions, and perspectives?
- formulate, hypothesize, or synthesize new ideas?
- represent, model, or demonstrate ideas in a new way rather than simply listing, applying, or summarizing another's ideas?
- identify implications?
- explore "what if" scenarios or other alternative perspectives, actions, or results?

### *Tiered by Resources*

**When you choose materials at various reading levels and complexity of content, you are tiering assignments by resources.** Assigning these resources to students based on their reading abilities is tiering by resources. When you steer some students to print and technology resources that feature foundational information and other students to resources that feature more sophisticated, technical, or complex information, you are tiering by resources. You are matching resources to students based on instructional need or readiness.

Sometimes you'll ask students to explore different kinds of print resources. Depending on the student, you might assign such resources as newspapers, newsletters, professional or special topic magazines, and primary sources such as diaries and journals. At other times, you might assign certain students a community mentor or expert in a particular field to use as a resource.

Students using tiered resources may be engaged in the same activity (Find at least five examples of healthy lifestyle habits), or they may be assigned activities tiered by challenge or complexity *as well as* by varied resources. For example, one flexible group may use book-marked Web sites to find information about healthy lifestyles and share their ideas on a display board. Another group may use print resources such as sports or fitness magazines to analyze the presentation of healthy lifestyles and construct a display board. The whole class would then compare and contrast the ideas from both sources.

As with all differentiated activities, you need to make tiering by resources as invisible as possible. One way to do that is to form learning teams, place tiered materials in various locations in the classroom, and then simply assign teams to specific work sites. Be sure that all materials look inviting and age-appropriate. Offer all your students experiences with many kinds of resources, taking care not to lock in some students to the same sort of resource.

Remember that students differ in their basic knowledge about a topic. You may have a struggling reader who knows a lot about one of your curriculum topics because it's been an area of interest. **Build on what your students know and assign resources with their knowledge level and reading level in mind.** Make a point of telling students that each team is using different materials and doing particular activities so they can share what they learn with the class. This plays up collaboration and plays down distinctions among resources (See pages 98–100 for more on making tiering invisible.)

### *Tiered by Outcome*

Sometimes you'll want all students to use the same materials but have differentiated outcomes. That way, some students can work on more advanced applications of their learning. To tier assignments by differentiated outcomes you need a clear understanding of student readiness.

For example, after reading and discussing Martin Luther King's "I Have a Dream" speech as

\* To read more about complexity in learning, see *Understanding by Design* by Grant Wiggins and Jay McTighe, pages 100–105. Described in Resources for Chapter 3, page 62.

part of a unit on social justice, students are given the following tiered assignments:

**Basic task:** Think about Dr. King's dream for social justice, as presented in his speech. Create a visual representation of his ideas.

**Advanced task:** Think about the United States today. What other dreams of social justice do you believe have surfaced in response to new issues and concerns? Create a visual representation of your ideas.

In this example, all students are building an understanding of social justice through their study of King's speech. The basic activity asks students simply to identify and illustrate King's concept of social justice. The advanced activity uses King's speech as a foundation for understanding social justice but then projects the concept onto current American society. The outcome, which involves identifying today's social justice issues, is more advanced and so is most appropriate for students with a good understanding both of King's speech and of the meaning of social justice.

### *Tiered by Process*

At times, you'll want students to work on similar outcomes but use different processes to get there. For example, a question for a unit on consumerism might be: "How do consumers make wise buying decisions based on relevant criteria?" Here are assignments that address this question, tiered by process:

**Basic task:** Choose a product (for example, a DVD player) and review consumer information about it in publications such as consumer magazines. Identify relevant criteria for deciding what you should look for when purchasing this product.

**Advanced task:** Choose a product (for example, a DVD player) and interview at least three people who have bought it. Identify the criteria these people used in making their decision to buy.

In this example, both groups are working on the same outcome—identifying the criteria used to purchase a particular item—and both are doing research. For the basic activity, students research criteria cited in publications for consumers. For the advanced activity, students use the more advanced research process of interviewing. Students should perceive such activities as fair, since both groups are doing research. Be careful, however, that one activity doesn't demand more out-of-class time than the other. In this example, you could lessen fairness concerns by having advanced students develop their interview questions during class or find school staff or faculty to interview during school time. You might also enhance students' sense of community by having each group share results and compare the purchasing criteria people actually use to the criteria recommended in consumer publications. Students could all contribute to a class list of relevant criteria on which to base purchasing decisions.

### *Tiered by Product*

At times, you may form groups based on learning preference, using Gardner's multiple intelligences. Assignments can then be differentiated based on product. (Keep in mind, however, that products often require more than one kind of intelligence.) For example, students might be asked to identify characteristics of effective leaders by exploring various works of historical fiction. Tiered products related to this outcome are:

**Bodily/kinesthetic:** Share characteristics of effective leaders through a videotaped "Meeting of the Minds" skit, featuring characters from historical fiction that represent various leadership traits.

**Visual/spatial:** Share characteristics of effective leaders by constructing bulletin board displays that illustrate the leadership traits of various characters from historical fiction.

## Deciding When and How to Tier an Assignment

On your curriculum maps, you considered exit points, the times when flexible groups may be necessary and helpful. The following questions can assist you in further identifying times when flexible groups and tiered assignments might be useful. Each question is followed by a recommended method for tiering.

1. Are there points when some students need more time to work on content or a skill and other students are ready for more advanced work (the exit points on your curriculum map)?
  - Tier by challenge
  - Tier by complexity
2. Is there an activity in which varied resources could be matched with student needs and readiness?
  - Tier by resources
3. Is there an activity in which the same materials could be used to work on both basic and more advanced outcomes?
  - Tier by outcome
4. Is there an activity in which students could benefit from working on the same outcome but doing different kinds of work?
  - Tier by process
5. Is there an activity that could result in more than one way for students to show what they've learned?
  - Tier by product

## Guidelines for Designing Tiered Assignments

Carol Ann Tomlinson suggests that teachers picture a ladder when developing tiered assignments.<sup>1</sup> **You might begin your tiering process**

by designing a basic task for the bottom rung of the ladder and then develop activities of greater challenge or complexity. Or you might prefer to come up with the more advanced task first, for the top of the ladder. Then you'd ask: What would be a more basic activity than this one? It doesn't matter which way you begin; what's important is that you carefully analyze each task and determine its level of difficulty.

When designing tasks that focus on different outcomes, you might think first about what you want *all* students to learn (the basic outcome related to an essential or unit question) and then think about what you expect only *some* students will learn because of its complexity, abstractness, or sophistication (the advanced outcome related to the essential or unit question). When designing activities tiered by process or product, you simply need to be aware of the different ways students prefer to learn and demonstrate their learning (learning styles, Gardner's multiple intelligences). **To ease your workload, you might develop tiered assignments in collaboration with another teacher**, as described in Chapter 5 (pages 89–90).

You can also begin tiering by reviewing what might already be provided in your teacher's edition of a textbook. Look at a given unit's assignments and exercises. What is their level of challenge or complexity? What's already there might give you a start on a tiered assignment. Design a more advanced activity if the one given is basic; if the one given is advanced, design a more basic activity. As you review your teacher's edition, use these questions to mine ideas for tiered assignments:

1. Are there two activities or two versions of one activity that could be combined to create a tiered assignment at basic and more advanced levels? (For example, some math texts provide two ways to play a game, one easy and one more difficult.)
2. Is there an activity at a basic level? Or is there an activity at an advanced level? Use what's there and provide the level that's missing.

<sup>1</sup> *The Differentiated Classroom* by Carol Ann Tomlinson (Alexandria, VA: Association for Supervision and Curriculum Development, 1999).

3. Have you used an assignment with students that proved too difficult for some students? That's your advanced tier.
4. Have you used an assignment with students that proved too easy for some students? That's your basic tier.

## How to Organize Groups and Give Directions

How do you set up teams and give directions to the various groups doing tiered activities? At the beginning of class or group time, you might simply list teams and their members on the board, a flipchart, or an overhead transparency.

You can also use a pocket chart. Write the name of each student on the front of an index card. Sort the cards in alphabetical order and number them consecutively on the back. As you form learning teams, place the name cards of each team's members under the learning team card (for example, Team 1) in the pocket chart. When the activity is completed, put the cards in numerical order (which is also alphabetical order). Now you can quickly deal out new teams for another tiered activity without digging through the pile hunting for names.

At times, you may wish to set up tiered assignments at workstations, using tables or desks pushed together. Equip each workstation with all necessary materials. Direct students to the appropriate group and then provide them with workcards that explain the assignment, procedures, and assessment criteria.

### Workcards

**A handy way to provide directions for each tiered assignment is to create workcards** using index cards or half- or full-sized sheets of paper. Number, letter, label, or color-code the cards to indicate the team or group they're written for (for example, the red team gets a red card). Distribute the cards to students directly or place them at each group's workstation. If you'll be using the cards repeatedly, laminate them or slide them into clear, plastic sheet protectors. Here are some examples of tiered assignments presented on workcards.

FIGURE 13

## Workcards (Solar System) Grade 3

### Workcard

#### Green Team

Carefully review your books and bookmarked Web sites. Each group member should select a different planet to study. Do the following activities:

*On your own:*

1. List the planets in order from the sun. Write one new fact you learned about each planet.
2. On construction paper, sketch the planets in order of size, from largest to smallest.
3. Complete a chart listing how the planet you chose is like and not like Earth.

*With your work team:*

Plan and present a skit about why each of you would like to visit and explore the planet you chose.

### Workcard

#### Purple Team

Carefully review your science magazines and bookmarked Web sites. Each group member should select a different planet to study. Do the following activities:

*On your own:*

1. Write three facts about the planet you chose that weren't included in our classroom study.
2. Write two questions about the planet you chose that science hasn't answered yet (What is still a mystery about the planet?)

*With a partner from your work team:*

Decide whether your planet or your partner's planet would be best for the United States to explore and possibly settle. Prepare a class presentation about your decision and the reasons for your choice. Create a visual aid to use in your presentation.

FIGURE 14

## Workcards (Cultural/Ethnic Studies)

### Middle School or High School

#### Workcard

##### Blue Team

We have examined both voluntary and involuntary immigration to America. Check the immigrant group below that you will research for your project\*:

- Africans (voluntary immigrants)

The African nation I will study: \_\_\_\_\_

- Africans (involuntary immigrants)

The African nation I will study: \_\_\_\_\_

- Europeans

The European country I will study: \_\_\_\_\_

- Hispanics/Chicanos/Latinos

The Hispanic/Chicano/Latino country that I will study: \_\_\_\_\_

- Asians

The Asian country I will study: \_\_\_\_\_

- Arabs

The Arabic country I will study: \_\_\_\_\_

Using available media center resources, including CD-ROMs and the Internet, do the following:

1. Identify the reasons for your group's immigration to the United States
2. Create a timeline of key events in the history of this group's life in America
3. Create a Hall of Fame of notable Americans from this group and their contributions to American life

Use a trifold display board for your information. Develop a creative class presentation to share the results of your team's research.

#### Workcard

##### Red Team

We have examined both voluntary and involuntary immigration to America. Check the immigrant group below that you will research for your project:

- Africans (voluntary immigrants)

The African nation I will study: \_\_\_\_\_

- Africans (involuntary immigrants)

The African nation I will study: \_\_\_\_\_

- Europeans

The European country I will study: \_\_\_\_\_

- Hispanics/Chicanos/Latinos

The Hispanic/Chicano/Latino country that I will study: \_\_\_\_\_

- Asians

The Asian country I will study: \_\_\_\_\_

- Arabs

The Arabic country I will study: \_\_\_\_\_

Using available media center resources, including CD-ROMs and the Internet, do the following:

1. Identify the discriminatory factors faced by this group, as well as actions the group took to challenge discrimination
2. Describe the group's general degree of assimilation into mainstream American culture (include language, evidence of communities, and sense of cultural/ethnic identity). What factors may have assisted or hindered their assimilation?
3. Identify the group's current economic status in America and determine factors that may have contributed to this status

Develop a class presentation of the results of your research, in the style of a news magazine, that includes role-played interviews.

\* There are both national and regional preferences about the naming of cultural and ethnic groups. If you choose to use this example activity, please adjust the language as needed. For more information about cultural/ethnic studies, see *Teaching Strategies for Ethnic Studies* by James A. Banks (Needham Heights, MA: Allyn & Bacon, 1997).



## Warm-ups and Cool-downs

To provide some time to work with each flexible group, you may wish to use warm-ups and cool-downs. Warm-ups and cool-downs are short, routine activities that demand little or no direction from you. You may wish to start a class period with warm-ups to get flexible groups underway and then use cool-downs as activities your students turn to when they finish assignments early.

Using warm-ups at the beginning of a class period gives you time to provide more instruction or introduce directions to one group and then move on to the second group. Start by forming your groups, then direct one group to the warm-ups while you provide additional instruction or directions for the tiered activity to the second group. Then "flip" the groups. While you give directions to the first group, the second group gets underway with its tiered assignment. The second group goes to the warm-up at the end of the class period when its tiered assignment is complete.

Here are some examples of common warm-ups and cool-downs:

- Journaling
- Free reading
- Skill applications or challenges
- Sketchbooks
- Notetaking on text chapters or articles
- Content webs
- Logic problems or puzzlers
- Word-of-the-day
- Creative thinking activities
- Daily oral language

It's important that students not view warm-ups or cool-downs as busywork or time fillers. These activities might consist of work that you've routinely assigned and

are now using either before and after students work in groups.

In the next chapter, you will be introduced to project menus (pages 105-107) and challenge centers (pages 107-109). These differentiated activities can also be used as warm-ups or cool-downs to assure that students are always involved in relevant, worthwhile learning.

## Making Tiering Invisible

The more variety you use with instructional grouping, the more students accept such work teams as the norm in your classroom. With a variety of grouping and instructional strategies, tiered assignments and flexible instructional groups seem less noticeable and less novel for kids. A supportive classroom environment is also critical to your success in differentiating instruction. Review the characteristics of such an environment in Chapter 1, pages 12-13.

From time to time, it's important to use cooperative learning groups, student-selected groups, and groups based on learning preferences and special interests. Students with varying abilities need opportunities to work together. Keep in mind that the membership of flexible groups is fluid. Even your advanced learners sometimes will need more time on some skills or content. Few students are equally talented in all subject areas. Similarly, students who are most frequently assigned reteaching activities may do well with advanced assignments in their areas of special interest or experience. When you make it a point to get to know your students' strengths, preferences, and interests, you can more successfully differentiate their instruction.

**Make sure you introduce all tiered activities in an equally enthusiastic manner and alternate which activity is introduced first.** Also, take some time to think of neutral ways to name learning teams. Try numbering them (Team 1), using color codes (Yellow Team), or even calling teams by one member's name (Damon's Team). Vary the teams' task assignments so that Team 1, for example, doesn't always get the advanced activity.



Here are criteria and examples for making tiered assignments less visible to students. Use them to see if your assignments will measure up to your students' scrutiny. Tiered assignments should be:

***Different work, not simply more or less work.***

The following "advanced task" isn't really more advanced. It's just more work and will be perceived as such by students:

**Basic task:** Read two American short stories set in the 20th century and compare and contrast them on a chart.

**Advanced task:** Read three American short stories set in the 20th century and compare and contrast them on a chart.

Here's how this assignment could be differentiated:

**Basic task:** Read two American short stories set in the 20th century and compare and contrast them on a chart.

**Advanced task:** Read two American short stories set in the 20th century and determine how each story might be told if it were set during this millennium. What would be the same? What would be different? Why? Share your ideas on a chart.

***Equally active.*** Students will be justifiably unhappy if one activity involves active learning, such as a role play or debate, and the other activity is a paper-and-pencil task. **Plan activities that, while different, allow the same level of activity.** Of course, if you're grouping by product or learning preference, one group may indeed be best-suited and happiest making a chart and the other delighted with performing a skit.

***Equally interesting and engaging.*** Think about your assignments from the students' perspective. If one calls for drill and practice and the other calls for a creative group activity (such as a simulation), which would you choose? **You need to make activities equally desirable so students won't feel they're being treated unfairly.** Interesting and engaging activities offer another benefit: they are much more likely to motivate students.

***Fair in terms of work expectations.*** The following two assignments are not well designed:

**Basic task:** Use your text and class notes to create a visual way to illustrate key facts about cells. Include our vocabulary words and the topics and issues we studied related to cell biology.

**Advanced task:** Research a current topic or issue related to cell biology that we did not discuss in class. Create a visual way to inform us about the topic.

Students assigned the advanced task would immediately question why they're expected to do research while other students are simply collecting information from the text and their notes. Although the tasks may respond to differences in content knowledge—the students assigned the basic task are being rerouted through foundational content while the advanced students are being introduced to new content—the assignments *feel* unfair.

Think about the work time needed to complete each of your tiered assignments. Are the time commitments comparable? Tasks can be different, based on instructional need, yet comparable in the time and effort needed to complete them successfully. For example:

**Basic task:** Using your text and class notes, create either a visual or a musical way (a poster or a rap) to illustrate important vocabulary words related to cells.

**Advanced task:** Using your text and class notes, invent a way to help others remember the work of the cell. Include important aspects of its purpose and functions related to the human body. Come up with a rap, poster, riddle, or rock song to tell your cell's story.

***Require the use of key concepts, skills, or ideas.***

When you ask students to carry out tiered assignments, you should, at a minimum, be asking them to use what they know or are learning. Such assignments constitute the wisest use of students' class time. Higher-level tasks (at Bloom's application, analysis, evaluation, or synthesis levels), by

their very nature, tend to be more engaging for students than tasks at the knowledge and comprehension levels

If you think about these criteria while planning tiered assignments for flexible instructional groups, you'll be much more likely to design fair, equitable activities. The next chapter describes ways to allow student choice with tiered activities.

## Resources

California Department of Education, editors *Differentiating the Core Curriculum and Instruction to Provide Advanced Learning Opportunities*. Sacramento, CA: CDE Press, 1994. This book discusses how teachers can individualize instruction through a differentiated curriculum and presents the core curriculum as the foundation, strategies for differentiation, and differentiation at the school level

Johnson, Nancy L. *Active Questioning*. Dayton, OH: Pieces of Learning, 1996. This book turns passive students who answer questions into active students who create and ask them. Reproducible activities involve students in questioning readiness and critical modes of thinking

Lipton, Laura, and Bruce Wellman. *Pathways to Understanding. Patterns & Practices in the Learning-Focused Classroom*, 3rd ed. Victoria, Australia: Hawker Brownlow Education, 1998. The authors provide instructional techniques, strategies and tools based on a three-phase framework intended to engage, activate, and transform the mind. They advocate deep understanding of how students individually learn, then inform educators how to most effectively reach and challenge them

Tomlinson, Carol Ann. *The Differentiated Classroom: Responding to the Needs of All Learners*. Alexandria, VA: Association for Supervision and Curriculum Development, 1999. Tomlinson describes differentiation, its primary elements, and ways to incorporate differentiating methods into the classroom. She offers teachers guidance on getting started toward a differentiated classroom and bringing it all together to reach the needs of all learners.

*pbchecklist 4teachers.org*

This site provides starter checklists and ideas for implementing project-based learning methods and including multiple intelligences in the classroom. Students participate in projects and practice an interdisciplinary array of skills from math, language arts, fine arts, geography, science, and technology