

***MOVIN' ON* 2007 EDITION**

Corresponding Lesson Plans

November 2006

Dear Educator,

Most of the supplemental material contained here is designed to be flexible enough to fit the needs and time criteria of just about any classroom, regardless of whether you teach one major subject, a cluster of subjects, all subjects, or supervise an after-school program. You may also use these plans to kick-off or plan entire events!

Some of the activities include more specific details, such as advance preparation, lesson goals, or the kinds of subjects/skills that will be used; others lesson plans contain one simple, overall objective. These are noticeably indicated in either **blue** or **purple** text. Additional suggestions, like discussion questions or guest speaker ideas, simply serve to provide an alternative route to the same objective. As an added bonus, **teaching tips** are included to underscore specifics that are relative to this age group. As the teacher, you can overlap, delete, edit, improvise, or follow the directions as they are written—you know your students, and know what will work best with them.

As previously stated, we took time constraints into consideration—some of the activity suggestions take a matter of minutes while others could be extended over a period of time. Again, the amount of time spent on many of the lesson plans can be adjusted to fit your schedule accordingly.

Finally, we have provided modifications to many of our suggestions to compensate for varying maturity levels, classroom sizes, available resources, and interests.

We hope we have provided enough material to give you a firm foundation, but enough “wiggle-room” to customize the lessons in a way that will reach your students.

Sincerely,

The staff at *Movin' On*

Pages 2–5: Who’s Solving the World’s Biggest Problems?

Objective: When something doesn’t make sense, trying a different approach can bring about resolution.

Goals:

- Develop problem-solving skills
- Make order out of chaos
- Discover how taking time to examine the ordinary and overlooked can often lead to something exciting

Individual activity: Superpowers and superheroes

Subjects encompassed: Reading, English/Language Arts, Science, Art

Advance preparation: Collect and bring in old/new comic books.

Give students time to browse the comic books; discuss the characters, what they like/dislike about various characters, which ones are necessary/unnecessary, etc. Have them pinpoint the specific powers contained within—or in possession of—key characters (including villains):

- Do they prefer characters who possess these powers, or do they prefer “ordinary” characters who possess an object that gives them special powers?
- Which superheroes seem to have greater longevity and why?
- With all the technological/financial/etc. advances that have occurred in the last 100 years, why are we still intrigued by certain superhero/comic book characters?

Then ask students to create a superhero that would make the world better, safer, and smarter, answering the following questions:

- What is their motivation?
- What enables them to accomplish their goals (or do they ever finish?)?
- Do they work alone or with another person/team?
- Are they undercover (or have another identity)?
- Who or what is their nemesis?

Have students create their own comic book with their hero. Select a few to be shared with the entire class.

Individual activity: Look to the past to solve the future.

Subjects encompassed: History, science, math, geography

Read about the various types of engineers on pages 3–4. Develop a list of various problems that were solved by engineers, large and small: cross-country travel, mail/package delivery, seatbelts in automobiles, etc. Ask each student to research the history of the problem, previous attempts that were made to solve the problem, and what ultimately proved successful.

Next, ask them to pick a place (anywhere in the world) and identify a problem that exists in that particular area. Based on what they researched about past problems that were

solved, how would they go about solving this particular, current problem?

Prepare to write/discuss their findings.

Teaching tip: Review the spotlight feature of Edie Kirkland located on page 4. Encourage students to locate those problems that were solved by female or other minority engineers, or perhaps create a broader discussion about why certain careers have the perception of being either “male” or “female” careers.

Group activity: Necessity is the mother of invention

Subjects encompassed: History, science, physics, social studies/sociology, economics

As a class, review the 17 types of engineers highlighted in the article (pages 3–4). Write the quote from Sir Henry Royce on the board.

Divide class into groups of 3–4. Ask each group to take one household object they would like to see improved and write a plan for how they would improve it (depending on your timeframe, you may also ask students to bring their objects into class to examine and observe as they write).

Here, you may take two courses of action:

1. Have each group read aloud their idea. As a class, determine the best idea and try to develop a prototype. Depending on the class size, you may want to consider selecting the best 3–4 ideas and dividing the class into groups—but make sure the person who came up with the idea is assigned to its respective group.
2. Ask each group to develop a prototype of their idea.

Modification: If you choose option #2, consider having an invention showcase for other classes to visit and observe.

Modification #2: Instead of asking groups of students to improve upon a household object, ask each student to select one / two types of engineering from the list located on pages 3–4 and develop a plan for a prototype for an related invention that could make life easier.

Group activity: Brain teasers.

Using some of the web links listed at the end of this lesson plan, secure various types of brainteasers—lateral, hieroglyphics, mathematical, rebus, etc. Divide the class into groups of 3–4. Post each teaser, one at a time, and allow the groups a few minutes to solve each one.

Teaching tip: Sudoku is very popular among students right now! Purchase some Sudoku puzzles at your local dollar store and keep plenty on hand for students’ free time or to fill a Friday afternoon.

Additional resources:

Brain Teasers (Houghton Mifflin): <http://www.eduplace.com/math/brain/>
Teachers and Families.com: <http://www.teachersandfamilies.com/open/puzzle/>
National Society of Professional Engineers: www.nspe.org
Shell Oil: www.shell.com/careers
Sudoku.com: www.sudoku.com

Pages 6–7: How Do I Choose a College?

Subjects covered: English composition, literature, social studies, speech/theater

Objective: To be deliberate and methodical in making life choices.

Goals:

- Visually see how small, careful steps accumulate and ultimately reach long-term goals.
- “Break-down” seemingly large issues into a digestible, step-by-step decision-making process
- Get a head-start on college/college life that doesn’t stress the student, but could (because of the head-start) yield better rewards, such as scholarship money

Individual activity: What Am I Like? What Do I Like?

Advanced preparation: Contact the career services center or go online to secure 2–3 different personality/interest inventory assessments that offer career options in the results.

Use a class period (or two, depending on the length of the assessments) for students to complete their personal inventories. Then ask each student to review each set of results, noting those results that are common among all the assessments; common personality traits, areas of interests, and career options.

Students will then narrow down their common results to three (some may not even have this many): three personality traits, three areas of interests, and three career options that truly interest them. Have them research and find three, four-year-schools and three, two-year schools that provide courses of study that are conducive to their selected career options, whether they are prerequisite or major credit courses*.

Have students return to their original lists containing all of the commonalities of their assessment results. Ask them if there are any areas of interests/career options that, while they are not certain would make viable career choices, still interest them enough to study in a classroom setting. Are there courses at these institutions that also include relative courses of study? If not, encourage students to widen their circle to find institutions that have strong programs in several areas that interest them.

Using the questions/process from pages 6–7, give students time to research their schools’ web sites to see if they can find information; if not, have them e-mail the school with any unanswered questions, including transfer credit information.

Finally, ask each student to write their selected schools and request a catalog, class schedule, and financial aid information. Reiterate that this is not final, that a lot of factors must be considered when selecting a college.

**Teaching tip:* In certain cases, they may select career options that require advanced/professional degrees; encourage them to continue their research to see how many students are accepted into a graduate program and/or professional school from their selected institutions.

Individual activity: Keep a star chart or journal.

Create individual charts for each student that include weekly/monthly goals for an entire year. For example, if you're teaching high school juniors, a monthly goal for December might be "request catalog and admission information from my top five choices in schools." Weekly goals within December, however, may be "Week One—determine/narrow down to get my top five choices," etc. Other monthly goal suggestions:

- Investigate traditional funding paths
- Investigate non-traditional funding paths
- Research weather/cost of living/student life for top three (or five, if time permits) college locations
- Meet with guidance counselor to see if there are other courses that should be taken prior to graduation, if the student has an idea of what field they will study in college
- Research the job-placement statistics for their "Top Five" school choices

Teaching tip: While a personal "star-chart" may seem childish at first, teenagers will love the humorous approach as they accumulate the kind of knowledge they need to make a well-informed decision about college. They will become competitive about "getting the most stars," even if they seem tongue-in-cheek about it—particularly if some kind of incentive is offered.

Individual/group activity: Are we compatible?

Advance preparation: Research the types of questions and points most colleges are seeking from their prospective students. Collect ten that seem to be fairly common, across the board, among schools.†

Explain to the class that at some point, they will need to visit prospective campuses in order for them to get a feel for the college. At the same time, this gives the institution an opportunity to get to know them, too. While many schools do not require a formal interview, some do. Many questions are common and may be rehearsed; but quite often, a "wild-card" question may be thrown in that provides insight into how a prospective student handles conflict, logic, quick-response, and poise. Sometimes, questions are tricky—they may have a political/social angle that reveals much more than a person's position on a particular issue. Discuss how they would approach this—appropriate phrasing, etc.

Using some of the questions from the article *as a springboard*, ask students to come up with a list of ten questions that they would ask a prospective college. Encourage them to get very specific (since many general questions are answered on web sites, etc.): *Are freshman allowed to have cars? What sorts of test scores are you looking for, specifically, and how do my extracurricular activities/community involvement factor into admission consideration? What sorts of scholarships are exclusive to your school and what are their general requirements? Etc.*

Divide the class into pairs. Using the ten questions that are common among schools, have the pairs take turns interviewing one another. With each turn, provide a “wild-card” question to be asked; for example:

- Do you think our current governor will be re-elected? Why or why not? (whether the school is out of state or not, this question can measure a prospective student’s knowledge about the state, its politics, and political process)
- What is your definition of a minority in the 21st century? What are the advantages of being a minority in the 21st century? (Again, the student must decide for himself if there *are* advantages—not just assume that there are because of the phrasing of the question.)
- Do you have—or have you ever had—a pet? If so, what sort of impact did that make on your life? If not, do you think this put you at any sort of disadvantage?
- Which person in your immediate family are you most like? Name specifics, both positive and negative? How have these traits impacted your academic career so far?

Explain how they can, in turn, incorporate their own questions* into their interview—show how to look for segues, lead-ins, lulls, etc.

**Teaching tip:* This technique can often help ease nerves, as the interview becomes more of a conversation rather than a “how do I measure up?” experience. Remind students that while the school is seeing how well they would fit, they also need to see if the school is a good fit for *them*.

†Modification: Assign 5–6 diverse schools to each student, taking into account 2- and 4-year schools, geographic location, public/private, Ivy League/state institutions, etc. Ask students to research and come up with ten questions/points that are common to their assigned schools. Proceed with the activity, as written.

Group activity: Reading a college catalog and course schedule.

Select 3–4 college catalogs and course schedules from two- and four-year institutions from your area/region (sometimes, this information is also available online).

Review/compare/contrast the way they are written. Show students how they can free up their time and save money by taking one course that could satisfy multiple credits (for example, one foreign language literature course might satisfy a literature requirement and a foreign language requirement at some schools). Because a number of students are first-generation college students, you may need to explain listings like “Professor Staff” and the “TBA” building.

Additional resources:

MyGoals.com—Walks you through a comprehensive, step-by-step goal-setting process for any goal, whether it’s short-term or long-term, easy or difficult, practical or lofty. They also send you reminders via e-mail that arrive precisely when you should be working on each task www.mygoals.com

QuintCareers.com (Quintessential Careers)—Contains valuable tips/tools regarding college selection, major courses of study, and job-seeking: www.quintcareers.com

CollegePrep-101—created by faculty, staff, and students at Oklahoma State University, includes a teacher's guide: www.collegeprep.okstate.edu

Pages 8–9: Can you lend a hand?

Subjects: Reading, literature, biology, social studies, sociology, physical science, history/government, mathematics

Objective: Learn to comprehend, analyze, and draw conclusions to create a plan of action to give themselves a competitive edge

Goals:

- Learn to read/retain facts accurately to form personal opinions
- Discover at least three career/job options that remain in constant innovation
- Connect the current industry trend to proper training/increased “marketability”

Group activity: Survey of helper careers

Write on the board:

- Fire department (or “First Responders,” since that is a phrase being used often in recent months)
- Emergency Medical Technician (again, “First Responders” might work—but make sure students understand who/what that encompasses)
- Nurses—hospitals, schools, social and state agencies
- Pediatricians—mission/ministry, hospital, private practice
- Therapists—substance abuse, marriage and family, school system/guidance counselors, occupational, etc.
- Psychiatric aides—rehabilitation centers, assisted living/nursing homes, hospital
- Social workers—assisted living/treatment centers, school systems, state/county agencies, private adoption centers
- Teachers—abroad, tutors, classroom, education professors (teachers who train other teachers)

Divide class into groups and assign each group *one* career/industry from the list. As a class, determine your survey questions. Examples:

- At what point in your life did you decide on this career?
- Describe the career path you have taken to get you where you are today.
- Were there any high school classes that helped prepare you for this career choice?
- Describe the type of training/education you received after high school.
- Based on where you are in your career right now, are there any courses that you wish you would have taken in addition (or in lieu of) what you took?
- Are you required to take any continuing education courses? If so, why? Describe some of them.

Each person within the group conducts research/interviews with different people to track how they arrived at their career choices. Encourage students to interview a variety of subjects within their chosen field (for example, a pediatrician in private practice might have a very different perspective on business courses than one who practices at a hospital). Students need to take careful notes and compare/share their results with the rest of the group. For their final report, groups need to record the following:

- What are the four most common answers received/actions taken by your interview subjects?

- What is the most unusual career path taken?
- What seemed the most common steps taken on this career path? (this is somewhat different from the first question—here, we are looking for some basic/traditional steps a person would take as opposed to opinions/expectations expressed)
- What education/training is required for this career?

You may come up with additional data to be collected. Have each group report their findings.

Modification: In addition to collecting data, add an additional exercise of having students determine percentages of responses based on the number of individuals surveyed.

Individual activity: Answer questions about Christie Clark.

Have students read the biography of paramedic Christie Clark, found on pages 8–9 and answer the following:

- How old was Christie when she became interested in emergency response work?
- Name at least three skills or characteristics Christie highlights as beneficial to this line of work.
- Why must a paramedic have excellent—and varied—communications skills?
- Why does Christie advocate the EMS program at Cleveland Community College?
- What does she suggest someone do before they enter any sort of EMS program?

Additional resources:

The Firehouse Network—contains information about firefighting, rescue, and EMS training: www.firehouse.com

American Counseling Association—contains information about various forms of counseling and social work, including additional resources/career helps: www.counseling.org

American Medical Association—Includes a tab labeled “Med School & Residency” that has information on all kinds of career options in the healthcare industry: www.ama-assn.org

Pages 10–11: Do tests terrify you?

Subjects encompassed: English/Language Arts, Physical Education, Health, Psychology, Physical Science

Objective: Learn techniques that will relieve anxiety when it comes to testing and assessments.

Goals:

- Learn how to organize thoughts quickly in a timed setting
- Learn physical techniques that promote clearer thinking
- Learn that pinpointing specific fears is often the solution to calming them

Individual activity: The three-point, five-paragraph essay.

Advance preparation: If you do not normally teach this sort of writing, re-familiarize yourself with it using your school's grammar curriculum or consulting with a teacher in your school's English department.

Explain to students that even if they do not consider themselves writers, this approach to written essays is a simple way to organize thoughts so that they can, instead, focus on what they want to say. There is a basic framework that provides an introduction that touches on their three points; the next three paragraphs each elaborate on one of the three points; the conclusion sums up what has already been said. Include a thorough discussion about topic sentences and why one does not introduce a new concept in their conclusion.

Assign three different versions of this essay:

1. Describe the use of characterization (or theme, plot/conflict, point of view, etc.) used in their favorite book.
2. Actions that should be taken (or why certain action was taken) to resolve a current event.
3. A stand on a controversial issue.

Group activity: Writing in a timed setting.

Advance preparation: If you have not completed the individual activity above or if your students are very familiar with the three-point/five paragraph essay format, review this approach to essays with your students.

This is an ongoing exercise. Each week, write a question on the board and keep it covered—the question could be about a reading assignment, a current event, a character in a movie, etc. Reveal the question and time students as they answer the question using the three-point/five-paragraph essay format (or, if your students are more advanced/comfortable, any essay style they choose). Initially, give them 30 minutes; each week, as they become more experienced, gradually reduce the amount of time to reach a goal of 10–15 minutes.

Group activity: Breathing exercises/relaxation techniques.

Advance preparation:

1. Depending on your school’s policies, there may be some release forms that require parental consent prior to any sort of yoga, meditation, breathing techniques, or mind-relevant exercises being taught. Double-check with your administrator or, if there is no policy, work with your school system’s attorney to create one. While relaxation techniques are varied and mainstream, out of respect for various religious and cultural beliefs, it is far better to err on the side of caution and give parents the opportunity to opt-out if they are uncomfortable.

2. There are three approaches to this activity:

- Visit a local spa or arrange for a special class to be held at your local YMCA or community center.
- Bring in a certified instructor to teach during regular class time.
- Arrange for your P.E. teacher to teach these techniques (or, if you are a P.E. teacher, re-familiarize yourself with these techniques).

Arrange for a full class period to be devoted to teaching various stretching/breathing/relaxation techniques; make sure that there is a balance between instruction and participation. Explain to the class that regular exercise is essential to good health and reduces the mental/physical effects of stress. During particularly stressful times, however, there are techniques that can be applied—even while sitting at a desk.

Whatever approach you use to teach these techniques, make sure exercises are included that students can do at their desks—it is important that the instructor understand that you are looking for ways to help students relieve anxiety prior to taking tests. Incorporate an extra 3–5 minutes into your quizzes and exams for students “prepare” on their own—some may use prayer, others may use breathing exercises, others may stretch. So long as it does not disrupt a classmate and can be done quietly, students may apply whatever technique they like.

Teaching tip: Using an SAT/ACT preparation manual, post an SAT/ACT “Word of the Week” each week in your classroom. Require students to incorporate it into their assignments—written, oral, etc. You may also incorporate other aspects of these exams—math problems, spatial puzzles, sequence relations, etc.

Additional resources:

Princeton Review.com—Includes a free, full-length practice SAT plus articles related to college selections, etc.: www.princetonreview.com

Study Guides and Strategies—a web page that walks through various tips for overcoming test anxiety, from long-term/philosophical to specific/day-of-test tricks:

www.studygs.net/tstprp8.htm

CampusBlues.com—Addresses the problem of test/performance anxiety, but casts a wider net by discussing various types of depression, effects of nutrition/exercise, etc.:

www.campusblues.com/

Pages 12–13: From Here to Anywhere, in tandem with Pages 26–29: Smart People Make the Move to a Two-year College

Individual activity: Read and discuss.

Ask students to read the profiles on pages 12–13 and answer the following questions.

Leland Hartwell:

- What is the crux of Hartwell’s work?
- To whom does he give credit for a solid education and career “push”?
- Which Glendale Community College courses seemed most beneficial to advancing Hartwell’s academic and professional careers?

Brian Valentine:

- What is Valentine’s current job title?
- Describe Valentine’s career-defining moment.
- In what ways does Brian give back to the community?

Miami Dade College:

- Name three Miami Dade alumni who are well-known and respected in their industries.
- What are two notable facts about Nat Moore?
- Name two achievements of Andy Garcia’s.
- Name three artists who have benefited from Emilio Estefan’s talent?

Jillian Melchior and Nathalia Giraldo:

- What prestigious honor did Melchior receive that landed her alongside students from Yale, Northwestern, and Michigan State Universities?
- What title of distinction does Giraldo have?

Group activity: How do you define success?

Advanced Preparation: Call 3–4 two-year schools that are closest to you and find out some of their “most famous” graduates—remember, “famous” can mean any one from a beloved teacher, an entrepreneur, a minister, or even a celebrity.

- A. Divide class into groups of three.
- B. Ask each group to arrive at a definition of *success*.
- C. Using the information gathered from your research, give each group a brief profile of a “famous” graduate and ask each group if this person fits their definition of success.
- D. Assign each group the task of researching the individual for more information (if they are still local, they could try and schedule an interview).
- E. As each group presents their findings, ask them if they had to re-work their definition of *success* and if so, how and why.

Modification: Instead of using information from local two-year institutions, have each group find someone in the community who fits the group's definition of success. Ask them to profile this person.

Individual/group activity: Compare and contrast.

Ask half of your students to write to two two-year institutions within a 50-mile radius and compare courses of study, financial aid procedures, campus options, alumni placements, etc. Ask the other half to write to two four-year schools within a 100-mile radius to learn about the types of credits (both basic requirements and electives) that transfer.

Based on the information collected, select two, two-year schools and one, four-year school that seem to coordinate well together. As a class, develop 2–3 possible courses of study that would transfer credit easily to the four-year institution. You may also refer to the jobs listed on page 20–21 that may be of interest to students who are not planning to obtain a bachelor's degree.

Group activity: Read and discuss.

Ask students to read pages 26–29 (“Smart People Make the Move to a 2-year College”) and, as a class, answer the following questions.

Reading comprehension:

- What are three different “names” for a two-year school?
- According to Michael Logsdon, what is a key benefit to attending a two-year college?
- What is an “articulation agreement”?
- Name at least two other benefits of attending a two-year college.
- Describe Michelle Rush's academic career track. If she stopped at a two-year, four-year, and professional-degree track, what kinds of jobs would she be qualified to do?
- What is Phi Theta Kappa?
- How much transfer scholarship money is awarded to Phi Theta Kappa members?
- What are the requirements of a Phi Theta Kappa membership?
- Name some of the opportunities that are available through a Phi Theta Kappa membership.
- According to Joey Vogel, why does dropping a class at Canada College not seem as painful as it might at a four-year college?
- Describe Miami Dade's “linked learning format” and Honors College.
- Name three of the more unusual college courses of study from the article.

Thought and discussion:

- After reading this article, can you name some of the two-year institutions in our area?
- Do you know someone who has attended any of these schools? Can you describe their experience?

- Before reading this article, what was your opinion of a two-year college? Has your perspective changed after reading this article?
- Are you aware of any unusual college courses of study in our area?*

**Modification:* Having read some of the more unusual courses of study mentioned on page 29, ask students to research and come up with the most unusual majors they can find offered by a two-year school.

Group activity: Visit a two-year school or invite a representative to visit your class.

Advance preparation: Arrange for either an official tour of a local two-year community college or a representative from a local two-year community college to address your class.

If you teach high school students, invite representatives from different two-year schools 2–3 times during the semester. Divide the class into three groups and assign a different group the task of coming up with questions for each speaker.

If you teach in a two-year school, arrange for representatives from a four-year school to talk to your students at least once during the semester. Make sure the speaker covers issues like financial aid and transferable credits.

Additional resources:

American Association of Community Colleges—Provides news, career information, events, and a search engine: www.aacc.nche.edu

Community College Directory—Features a directory listing by state, also contains information about online degrees: www.community-college.org

Community College Review—Contains free, detailed profiles of community and junior colleges, organized by state: www.communitycollegereview.com

Pages 14–15: Changing the face of agriculture

Subjects encompassed: Science, Agriculture, Geography, Health, Art, Horticulture, Drafting

Objective: Identify and simplify specific issues to satisfy global needs.

Goals:

- Cast a wider net with regard to careers in agriculture
- Problem-solve current needs of world hunger
- Consider “how do you get there” paths to unusual careers
- Create a working relationship between students and business/charitable communities

Individual activity: Design a flower or vegetable garden.

Advance preparation: Work with a local landscape architect who is willing to guide students and assess their finished designs. Work with school administrators to find a patch of land, either on campus or in the community, that would benefit from a garden.

Ask the landscape architect to provide a presentation on local plants, design basics, and examples. You may arrange for a class field trip for hands-on access, or have he/she come to your classroom; presentation should serve as a springboard to creative ideas. Students will research plants—flowers and vegetables, specifically—that are native and/or conducive to your geographic area. From there, ask them to design a garden (flower, vegetable, or a combination) with plants conducive to your area, one that works within the specific plotlines of the designated location.

The landscape architect will review the designs, selecting 1–2 that would work best. Students will work with the landscape company to develop the garden and learn how to maintain it throughout the year.

Modification: If the garden is located somewhere other than school grounds, students will work with members of the community to maintain the garden throughout the year.

Individual activity: Research project.

Ask students to review the unusual jobs highlighted within the article and those outlined by category on page 15. They will select and research three jobs—one in the article and the others need to each come from a different category—that will include the answers to the following questions:

- What amount of education is required?
- What are the top schools that provide appropriate training?
- Is this a very specialized job, or does it offer some flexibility?
- What is the average salary?
- What kinds of additional training and education might enhance this position?

Group activity: Pest control.

Advance preparation: Research poorer areas of the world that either lose crops to or are simply overwrought with a particular type of pest—insect, worm, or even rodent. In some

cases, the pest might not be an animal; it could be a fungus, etc. Find 5–6 to assign to student groups.

Divide the class into 5–6 groups. You may opt to assign them a country/region and let them research pests in their assigned areas, or you may go ahead and assign them the country/region and the pests you uncovered.

Ask students to select a pest and research its habits, likes, dislikes, etc. From there, they are to develop an environmentally safe pest control or growth enhancer for a particular plant that grows in this country or region. Their “product” must include a list of ingredients, what it will combat, estimate how long it takes to be effective, and estimate how long it will remain effective.

Share the concepts with a nearby lab (or college chemistry department).

Modification: You will need to research various mission organizations that work with the respective areas that are being assigned to students. Instead of developing a type of pest control, ask students to research and collect grains that are native to their assigned areas. Work with these organizations to provide these grains to these parts of the world.

Group activity: Unexpected growth.

This is a long-term project.

Divide class into four groups.

Ask each group to select a plant that would not normally flourish in your geographical area (for example, if you live in the southeast, pineapples or lemon trees are not very populous.), and purchase seeds or seedlings of this plant. Each group needs to develop an environment/habitat that would enable this plant to grow, and plant their seeds or seedlings.

Depending on the average length of time it takes the selected plants to grow, see which group devised the best plan.

Modifications:

1. Each group plants the same type of plant. At the end of the semester/school year, see which group created the most fertile environment.
2. Each group selects a type of grass.

Additional resources:

Saddle Up!—A therapeutic recreational horseback-riding program designed for children with mental and physical disabilities: www.saddleupnashville.org (affiliated with the North American Riding for the Handicapped Association, Inc.: www.narha.org)

U.S. Department of Agriculture—Includes information regarding nutrition, agencies, exports, and is also available in Spanish: www.usda.gov

National Sustainable Agriculture Information Service—managed by the National Center for Appropriate Technology and funded by the USDA's Rural Business-Cooperative Service, includes a great deal of information about livestock, waste/pest management, and organic farming practices: <http://attra.ncat.org>

Page 16: Going to College, in tandem with Pages 17–25: Hot Jobs with Bright Futures

Subjects covered: Reading, Language Arts

Objective: Students will connect a two-year college with well-known success stories

Goals:

- Understand that two-year colleges can be both a complete educational institution or a springboard to further education
- Learn that two-year colleges are a great opportunity to complete basic study requirements without back-tracking or losing hours if you change majors

Individual activity: Personal inventory

Advance preparation: Arrange class-wide appointments with the guidance counselor and librarian at your school. Ask them if they would agree to meet with students on an individual basis, too.

Take 1/2 a class period to introduce students to the librarian and guidance counselor, allowing them a few minutes to explain their roles and how they can help them narrow their interests into possible career choices or help them determine their interests and gifts.

Then, ask students to answer the following questions individually:

1. Do you plan to stay in school?
2. What sorts of courses and activities interest you most about high school?
3. Do you plan to finish high school?
4. Are you interested in education beyond high school? What kind (two-year, four-year, trade school)?
5. If so, do you have a particular school in mind? Which one?
6. What do you hope to gain in post-secondary education? (i.e., education after high school)
7. Do your parents know about your hopes and dreams? If so, do you have their support in these endeavors? If not, is there a reason you haven't shared this with them?
8. Do you know anyone who actually studied and works in an area or career that interests you?
9. If so, can you ask them about their likes and dislikes about their chosen field?
10. If not, are you comfortable asking a teacher, guidance counselor, or librarian help you connect with such an individual?
11. What can you do *right now* that will help you pursue this career?

When they finish, ask them to consider questions 8–10. Divide the class three ways: those who prefer to speak with the librarian, those who prefer the guidance counselor, and those who are most comfortable speaking with you. Allow each student to set up a 15-minute appointment over the next couple of weeks to meet with their chosen “help-mate.” If someone prefers to meet with 2–3 of you, ask them to make appointments either before or after school.

Students are encouraged to share as many of their answers to the questions above as they are comfortable, but question 11 is key—ask students to report how their help-mate guided them and if they have found any additional information past this meeting. For example, if a guidance counselor recommended they speak to a local university professor about a particular field, and provided contact information, has the student followed up with this person? Or if a particular web site containing a wonderful self-assessment was recommended, has the student completed the assessment?

Group activity: Thinking it through

Ask students to review the personality descriptions on page 17 and select the one that best describes them. Then divide the class into six groups (they do not have to correspond with the personality types—yet).

Ask each group to identify the personality description that best fits each member (it is not only important that each student know himself/herself, it is also important that they know how they are perceived by their peers, particularly if their peers identify a particular talent or character asset).

Then ask, “How many of you received two consistent answers? In other words, did your group’s answer agree with your personal answer?” Re-divide the class into six groups, this time according to the personality descriptions outlined on page 17. Those whose answers were consistent will go to their respective groups. Those whose answers were not consistent must decide for themselves which answer best describes them.

Ask each group to review the careers outlined on pages 18–25 that correspond with their personality type. Each group member takes one job/career option and researches the following:

1. Find at least three schools that provide training/education for the selected job.
2. Talk to two people in these positions and find out how they were trained and course/training recommendation for someone interested in the same type of job.
3. Additional careers (or variations of the jobs listed) that would also work with their respective personality types and why they think these additional vocations are a good fit.

Have each group develop a presentation that describes the personality

Group activity: Career Day

Objective: Learn specific details about a variety of careers, choosing career tracks; have opportunity for one-on-one time with industry professional

Goals:

- Discover why classes, skills, and processes that seem insignificant now could weigh heavily on the future (an accountant spends a great deal of time writing, for example - most associate accountants working with numbers and nothing else)

- Learn how personality reflects on career satisfaction (i.e., just because someone a math whiz doesn't mean they must work with numbers - they may want to pursue ballet dancing or playing the cello).
- Develop research and oral communication skills

A. Work with school administrators, parents, and area professionals and sponsor either a classroom or school-wide Career Day. This may take the form of parents coming in to deliver a presentation or booths set up in an unused room for students to peruse. Review the personality-analyzed jobs on page 16, along with the career options listed on pages 18–25 for ideas on who to invite—but also allow students to come up with other ideas.

Modification: Have the students research career fields and/or companies that interest them on the pages listed above and allow them to design and decorate “booths” in your classroom. Invite younger students to come and ask them questions about their “careers” or “companies.” Make sure your students dress for the part!

Additional resources:

Career Planning at About.com—Various articles, contact information, personality profiles, and step-by-step procedures: <http://careerplanning.about.com>

JobHuntersBible.com—Offers a variety of tests on personality, vocation, and career: www.jobhuntersbible.com

Occupational Outlook Handbook (U.S. Department of Labor web site, guidance office, or library)—Excellent resource, published quarterly, gives information on salary, training, prospects, and cross-referencing: <http://www.bls.gov/oco/>

Encyclopedia of Associations—A wealth of information on every industry association from bee keeping to well diggers. Provides contact information for students to write for more (free of charge) information about various career fields: <http://library.dialog.com/bluesheets/html/bl0114.html>

Pages 17–25: Hot Jobs with Bright Futures

Lesson plans were written in tandem with page 16: Going to College. See that section for further instructions.

Pages 26–29: Smart People Make the Move to a Two-year School

Lesson plans were written in tandem with pages 12–13: From Here to Anywhere. See that section for further instructions.

Pages 30–32: Four creative ways to pay for college

Objective: To enlighten students about the multitudes of college funding available to them

Goals:

- Students will be aware of at least one scholarship (or grant) they qualify for
- They will be encouraged to seek out other sources for college funding
- They will learn to be proactive about discovering funds that have gone unclaimed for many years

Individual activity: Find the most bizarre scholarship

Preparation: Call your local Chamber of Commerce to see if they have information about local businesses, civic groups, and clubs that offer scholarships. Contact as many as you can and obtain as much information as you can about these groups and businesses—not the scholarships themselves. In addition, provide some of the web addresses listed below.

- A. Give students one week to research and find the most bizarre scholarships available on a national level and a local level. Challenge them to find at least one, if not both, for which the individual student would qualify.
- B. Have each student read their discoveries and each scholarship's (or grant's) qualifications.
- C. As a class, determine who found the most unusual type of financial aid.
- D. As an extra step, offer to help those students who have decided to actually apply for the kind of aid they reported.

Group activity: From the horse's mouth.

Arrange for any/all of the following to come in and discuss how their organizations can assist/pay for higher education:

- A banker to discuss loans
- An employer whose company provides assistance
- A military representative
- A financial aid officer from a local college who can discuss work-study and grant programs

Group activity: Cost-of-living, cost of school.

Preparation: Get the financial information/fees from the following: the closest trade school in your area; the closest two-year college in your area; the closest four-year college in your area. If possible, try and get average cost information on book fees and student activity fees.

- A. Divide the class into three groups and assign them each one of the three types of schools listed above.
- B. Ask them to determine the costs for one year at their assigned school, including:
 - Classes
 - Books
 - Activity fees
 - Lodging (apartment, living at home, Greek fees, dormitory)
 - Food (grocery bill, cafeteria passes, etc.)

- Entertainment
 - Transportation (own a car, parking, shuttle bus passes, bicycle)
- C. Have each group report back their findings, and let the other two groups determine any “holes” they might have missed.

Additional resources:

Sallie Mae[®] College Answer—a comprehensive, step-by-step approach to planning, selecting, and paying for college: www.collegeanswer.com

FastWeb!—With over 1.3 millions of awards, “match-making” database is updated frequently: www.fastweb.com

Federal Student Aid—Gives direct information about various funding sources: www.studentaid.ed.gov

FinAid—Enables you to apply for financial assistance online: www.fafsa.ed.gov

CluelessAboutCollege.com—Offers many direct links to various information regarding college, career, and funding resources: www.carpedm.com