

College and Career Pathway Options

Unit: Planning Postsecondary Placement

Problem Area: College and Career Planning

Lesson: College and Career Pathway Options

- **Student Learning Objectives.** Instruction in this lesson should result in students achieving the following objectives:

- 1 Analyze career clusters, pathways, and career inventory results.
- 2 Summarize the major career pathways.

- **Resources.** The following resources may be useful in teaching this lesson:

E-unit(s) corresponding to this lesson plan. CAERT, Inc. <http://www.mycaert.com>.

"30 High Paying Trade School Degrees," *Online Schools Center*. Accessed April 3, 2018. <http://www.onlineschoolscenter.com/30-high-paying-trade-school-degrees/>.

"Build Your Future with O*NET OnLine," *O*NET OnLine*. Accessed April 3, 2018. <https://www.onetonline.org/>.

"Career Clusters," *Advance CTE: State Leaders Connecting Learning to Work*. Accessed April 3, 2018. <https://careertech.org/career-clusters>.

"Considering a Gap Year," *Harvard College Admissions & Financial Aid*. Accessed April 3, 2018. <https://college.harvard.edu/admissions/preparing-college/should-i-take-time>.

"Education vs. Work Experience," *WorldWideLearn*. Accessed April 3, 2018. <http://www.worldwidelearn.com/online-education-guide/education-vs-experience.htm>.

"How to Advise a Gapper," *Gap Year Association*. Accessed April 3, 2018. <https://gapyearassociation.org/gap-year-advice.php>.



Johnson, Karen S. "Six Advantages of Working After High School," *Chron*.
<http://work.chron.com/six-advantages-working-after-high-school-15907.html>.

O'Brien, Heather. "Joining the Workforce vs. Going to College," *The Equinox*. Accessed April 3, 2018. <http://kscequinox.com/2015/05/joining-the-workforce-vs-going-to-college/>.

U.S. Department of Defense. *Today's Military*. Accessed April 3, 2018.
<http://todaysmilitary.com/>.

"What's Your Dream Job?," *ASVAB Career Exploration Program*. Accessed April 3, 2018.
<http://www.asvabprogram.com/>.

■ **Equipment, Tools, Supplies, and Facilities**

- ✓ Overhead or PowerPoint projector
- ✓ Visual(s) from accompanying master(s)
- ✓ Copies of sample test, lab sheet(s), and/or other items designed for duplication
- ✓ Materials listed on duplicated items
- ✓ Computers with printers and Internet access
- ✓ Classroom resource and reference materials

■ **Key Terms.** The following terms are presented in this lesson (shown in bold italics):

- ▶ academic degree
- ▶ apprenticeship
- ▶ aptitude
- ▶ ASVAB (Armed Services Vocational Aptitude Battery)
- ▶ career
- ▶ career cluster
- ▶ career interest inventory
- ▶ career pathway
- ▶ certificate
- ▶ college transcript
- ▶ gap year
- ▶ grant
- ▶ institution of higher learning (IHL)
- ▶ license
- ▶ military
- ▶ scholarship
- ▶ student loan
- ▶ trade
- ▶ trade school
- ▶ workforce

- **Interest Approach.** Use an interest approach that will prepare the students for the lesson. Counselors and teachers often develop approaches for their unique counseling and class situations. A possible approach is included here.

Tell the students: According to a 2017 U.S. Department of Education survey, “out of 19.4 million undergraduate students, about 12 million of them (62 percent) were pursuing career-based credentials. Those who were seeking traditional academic credentials or had undeclared majors were in the minority.” Once you complete high school, numerous options are available. Many of you may consider pursuing a college degree. However, more and more students are taking a gap year, going directly into the workforce to explore a career field, and/or they are pursuing a trade school, apprenticeship, or military route to their eventual career. Whatever path you decide to take, including going directly into the workforce from high school, some additional (or on-the-job) training or education will be necessary to be competitive for the good jobs.

CONTENT SUMMARY AND TEACHING OR COUNSELING STRATEGIES

Objective 1: Analyze career clusters, pathways, and career inventory results.

Anticipated Problem: What is a career cluster? What is a career pathway? What are my areas of strength and interest? How do I know what I want to do for college and a career?

- I. Career clusters, pathways, and interests
 - A. A **career** is an occupation or profession in which one may spend a majority of his or her work life. Some careers move up a career ladder—for example, from high school, to college, to law school, to clerking, to bar exam, to law office, to judgeship. A **career cluster** is a group of occupations, industries, and majors that require common knowledge and skills. A **career pathway** is a workforce development strategy that links career interests (e.g., medicine) with large career clusters (e.g., health science) and then with specific careers (e.g., therapeutic services, diagnostic services, health informatics). An individual career pathway typically links and combines a series of courses, training, and informal learning opportunities to prepare for an occupational field. For example:
 1. The United States has 16 National Career Clusters that include a minimum of 79 Career Pathways to college and careers. A first question to ask oneself is, “Which cluster includes the occupations that match my interests?” For example: A health science therapeutic services career pathway leads to occupations such as radiologist, physician, and physical therapist.

2. However, career clusters and pathways are not organized around career interests. For example: Some jobs are found in more than one cluster. The job “accountant” is found in at least two clusters: in Business Management & Administration and in Finance.
 3. The 16 National Career Clusters, with Holland Code alignments (RIASEC: **R**ealistic, **I**nvestigative, **A**rtistic, **S**ocial, **E**nterprising, and **C**onventional), are:
 - a. Agriculture, Food & Natural Resources (R)
 - b. Architecture & Construction (R, C)
 - c. Arts, A/V Technology & Communications (R, A, S, E)
 - d. Business Management & Administration (E, C)
 - e. Education & Training (A, S)
 - f. Finance (E, C)
 - g. Government & Public Administration (S, E)
 - h. Health Science (R, I, A, S, C)
 - i. Hospitality & Tourism (R, A, E)
 - j. Human Services (A, S)
 - k. Information Technology (R, I)
 - l. Law, Public Safety, Corrections & Security (R, I, S, E)
 - m. Manufacturing (R, C)
 - n. Marketing (A, S, E, C)
 - o. Science, Technology, Engineering & Mathematics (R, I)
 - p. Transportation, Distribution & Logistics (R, C)
- B. A **career interest inventory** is an assessment tool that measures one’s personal and academic strengths and relates the measures to occupations requiring those skills and abilities. The following online career interest inventory sites provide students with a range of tests and subtests. Students should take more than one career interest inventory, interpret the results, and compare the findings.
- [Teacher/Counselor Note:** As numerous schools and districts provide proprietary career interest inventories, surveys, and services, the following list is limited to those tools most readily available to all.]
1. The **ASVAB (Armed Services Vocational Aptitude Battery)** is a multiple-choice test administered by the U.S. Military Entrance Processing Command to determine qualification for enlistment in the U.S. Armed Forces: an aptitude test. An **aptitude** is an innate (natural) ability or a talent and/or a natural ability to learn something. The test measures developed abilities and helps predict future academic and occupational success. It is used extensively inside and outside military settings. The ASVAB Career Exploration Program has three parts: an aptitude test, an interest self-assessment, and career exploration tools. All three are free to students at <http://www.asvabprogram.com/>. The Military.com website provides a sample ASVAB test in two versions—short test and full-length test—at <http://www.military.com/join-armed-forces/asvab/>.
 2. The Student Interest Survey for Career Clusters is a career guidance tool that allows students to respond to questions and identify the top three career clus-

ters of interest based on their responses. The free inventory is available in English and Spanish at <https://careertech.org/student-interest-survey>.

3. The O*NET Interest Profiler is an interest inventory designed to help find one's interests and how those interests relate to work. The O*NET Interest Profiler includes 60 questions about work activities that some people do on their jobs. The free inventory is at <https://www.mynextmove.org/explore/ip>.
4. The Princeton Review Career Quiz is a tool that estimates students' personal interests and style. The 24 online questions assume that all jobs are of equal pay and prestige. The quiz is available at <https://www.princetonreview.com/quiz/career-quiz#!q1thru4>.

Teaching or Counseling Strategies: *Many techniques can be used to help students master this objective. Use VM–A to review career pathways. Use VM–B to illustrate the 16 National Career Clusters and their alignment with Holland Code's RIASEC designations. Use VM–C to have students take one or more of the listed career interest inventories or another inventory of your selection.*

Objective 2: Summarize the major career pathways.

Anticipated Problem: What are the five major pathways to a career? Which career pathway best suits my goals?

II. Major career pathways

- A. **DIRECT ENTRY INTO THE WORKFORCE:** Entering the workforce directly is a major career pathway; high school graduates typically find work within a few months. The **workforce** is the total number of people who work in a business or an industry. To secure a job upon high school graduation requires knowledge of the local and area job market and of the number of job openings available. At this writing, the number of U.S. job openings is largest in engineering, healthcare, electricity, telecommunications, green energy, plumbing, carpentry, and manufacturing.
 1. **Benefits:** immediate income, career exploration opportunities, and reflection during a gap year. According to the Gap Year Association, a **gap year** is a “semester or year of experiential learning, typically taken after high school and prior to career or post-secondary education, in order to deepen one’s practical, professional, and personal awareness.” [**Teacher/Counselor Note:** Besides the Gap Year Association website, two other sources are useful for students considering a gap year: City Year at <https://www.cityyear.org/> and AmeriCorps at <https://www.nationalservice.gov/programs/ameri-corps>. Most City Year and AmeriCorps sites require applicants to be 17 years of age or older.]
 2. **Considerations:** career limitations or advantages and increased competition for positions and promotions. In 2014, the *New York Times* reported figures from the Bureau of Labor Statistics (BLS) concerning high school graduates who went directly to the workforce upon graduation. According to the BLS, “51% of

students who decided not to go to college had a job by October” of their graduation year.

- B. APPRENTICESHIP: An **apprenticeship** is a program in which one experiences on-the-job training and gets paid a training salary while also attending school. Apprentices learn a trade or art by experience under skilled workers; most apprenticeships are one to four years in length. An apprentice is usually required to be at least 18 years of age, have a high school diploma or GED, and take a placement test.
1. Benefits: a skill being learned while getting paid and an excellent likelihood of future employment.
 2. Considerations: the likelihood that the apprenticeship may be long term (more than a few months), the necessity of working closely with only a few people, and very high expectations for skill and craft mastery.
- C. MILITARY: The **military** is the armed forces. The six branches of the U.S. military are the Army, the Navy, the Air Force, the Marines, the Coast Guard, and the National Guard. In total, branches of the military offer about 1,500 different occupations. Many are similar to civilian occupations (e.g., medical, legal, electrical, or engineering occupations; heavy equipment operator; computer or electronics technician; meteorologist; firefighter; welder; chef).
1. Benefits: serving one’s country, learning valuable job skills, earning money for future education (tuition program), traveling, having extensive training opportunities with pay (e.g., infantry, medical, legal), earning a salary with benefits (medical, pension) while training, having housing on base with utilities furnished, and maintaining family tradition. Regarding family tradition, a RAND research survey conducted in 2008 and 2009 with military recruits found that “Eighty-three percent of the recruits had a close family member who served in the military and almost half had a close family member who had retired from the military.”
 2. Considerations: strict training schedules and regimens, rank systems that may mean a supervisor is younger than the recruit, and commitment (enlistment) timeline: typically two to four years.
- D. PRIVATE TRADE SCHOOL: A **trade** is a job that needs special skills. In one of the skilled trades, an occupation often involves working with one’s hands. Examples are carpenter, welder, plumber, electrician, pipe fitter, aircraft mechanic, millwright, brick mason, auto body repairer, automotive technician, dental hygienist, fashion designer, radiologist, computer programmer, and computer repairer. A **trade school** is an academic and training institution—vocational school, technical institute, or career college—in which one learns employment-ready skills and knowledge for a particular occupation below the bachelor’s degree level.
1. Benefits: training in a specific area of interest, short-term program completion, quality job placement services, and concurrent school and job opportunities.

2. Considerations: expense (versus that of colleges and universities), the ability of trade school courses to transfer to other schools or apprenticeship programs, and the use of awarded certificates or licenses. For example:
 - a. An **academic degree** is a title conferred by a college or university confirming that an individual has successfully completed a course of study (e.g., associate in culinary arts, bachelor of science, doctor of dentistry). Typically, an academic degree transfers to other institutions and settings.
 - b. A **certificate** is an award that verifies the successful completion of a program's requirements: it is typically not transferable to other institutions and settings. It is possible to receive a college or university teaching or finance certificate and not be "licensed." Each state, country, or territory has specific licensing exams and/or standards that must be met following certification to become a licensed teacher or CPA. Among other certifications are certified dental hygienist, certified public accountant (CPA), and certified nurse assistant (CNA).
 - c. A **license** is a legal document that grants permission to engage in an activity that without the license would be illegal (e.g., driver, barber, cosmetologist, nurse).
- E. TWO- OR FOUR-YEAR INSTITUTION: An **institution of higher learning (IHL)** is a college, university, community college, or technical school that offers postsecondary-level academic instruction leading to an associate degree or higher: a two- or four-year institution.
 1. Benefits: an opportunity to study in an area of high career interest, the ability to transfer credits to other two- or four-year institutions, a degree upon completion (a degree may be a requirement for some jobs), accomplishment of a task, college experience, and, job-placement/career centers (sometimes available for a lifetime).
 2. Considerations: tuition and housing costs, student loans, location and housing requirements (and housing options), and permanence of a college transcript. A **college transcript** is an inventory of courses taken, grades received, honors earned, and degrees granted during a student's college career at a specific institution: a permanent academic record.
 - a. Scholarships and grants can assist with postsecondary costs. A **scholarship** is financial support awarded on the basis of academic or other achievement. A **grant** is financial assistance provided by a government or a foundation based on a student's financial need. Typically, scholarships and grants do not require repayment.
 - b. A **student loan** is money lent at interest to pay for school fees (room and board, textbooks) and tuition. Most student loans must be repaid, although the Perkins and Stafford loans are low interest. Typically, students are not required to repay these loans until the end of a grace period, which usually begins following the completion of their education.

Teaching or Counseling Strategies: *Many techniques can be used to help students master this objective. Use VM-D to review the five major career pathways.*

Facilitate a discussion of a sixth or seventh pathway option. Use VM–E to begin a discussion of gap year activities and goals. Assign LS–A to have each student design his or her “ideal gap year” plan.

- **Review/Summary.** Use the student learning objectives to summarize the lesson. Have students explain the content associated with each objective. Student responses can be used in determining which objectives need to be reviewed or taught from a different angle. If a textbook is being used, questions at the ends of chapters may also be included in the Review/Summary.
- **Application.** Use the included visual masters and lab sheet to apply the information presented in the lesson.
- **Evaluation.** Evaluation should focus on student achievement of the objectives for the lesson. Various techniques can be used, such as student performance on the application activities. A sample written test is provided.

■ **Answers to Sample Test:**

Part One: Completion

1. academic degree
2. trade school
3. career
4. career pathway
5. apprenticeship
6. military
7. career interest inventory

Part Two: True/False

1. F
2. F
3. T
4. T
5. T
6. T
7. T

Part Three: Short Answer

A scholarship is financial support awarded on the basis of academic or other achievement. A grant is financial assistance provided by a government or a foundation based on a student's financial need. A student loan is money lent at interest to pay for school fees (room and board, textbooks) and tuition. Most student loans must be repaid. Typically, scholarships and grants do not.

College and Career Pathway Options

► Part One: Completion

Instructions: Provide the word or words to complete the following statements.

1. A title conferred by a college or university confirming that you have successfully completed a course of study is a/an _____.
2. An academic and training institution in which you learn employment-ready skills and knowledge for a particular occupation below the bachelor's degree level is a/an _____.
3. An occupation or profession in which you may spend a majority of your work life is a/an _____.
4. A workforce development strategy that links career interests with large career clusters and then with specific careers is a/an _____.
5. A program in which you experience on-the-job training and get paid a training salary while also attending school is a/an _____.
6. The _____ is another name for the armed forces.
7. An assessment tool that measures your personal and academic strengths and relates the measures to occupations requiring those skills and abilities is a/an _____.

► Part Two: True/False

Instructions: Write *T* for true or *F* for false.

- _____ 1. The expense of a two- or four-year college program is of no concern to students and parents.
- _____ 2. Career clusters and pathways are organized around career interests.



- _____ 3. The ASVAB is an aptitude test.
- _____ 4. A license is a legal document that grants permission to engage in an activity that without the license would be illegal.
- _____ 5. The United States has 16 National Career Clusters.
- _____ 6. A college transcript is an inventory of courses taken, grades received, honors earned, and degrees granted during a student's college career at a specific institution: a permanent academic record.
- _____ 7. An institution of higher learning (IHL) is a college, university, community college, or technical school that offers postsecondary-level academic instruction leading to an associate degree or higher.

► **Part Three: Short Answer**

Instructions: Answer the following.

Describe the difference between a scholarship, a grant, and a student loan.

WHAT IS YOUR PREFERRED CAREER PATHWAY?

A **career** is an occupation or profession in which you may spend a majority of your work life. Some careers move up a career ladder—for example, from high school, to college, to law school, to clerking, to bar exam, to law office, to judgeship. Others are created by entering the workplace directly, serving an apprenticeship, enlisting in the military, or enrolling in a private trade school. What do you envision for your next five years?



16 NATIONAL CAREER CLUSTERS WITH HOLLAND CODE ALIGNMENTS

A **career cluster** is a group of occupations, industries, and majors with common knowledge and skills. The steps you take on your career path will be unique for you and your goals. Following are the 16 National Career Clusters, with Holland Code alignments (RIASEC: **R**ealistic, **I**nvestigative, **A**rtistic, **S**ocial, **E**nterprising, and **C**onventional). Which clusters appeared in the top spots on your career interest inventory/inventories? To what extent do you agree with the results of your career interest inventory experience?



- ◆ Agriculture, Food & Natural Resources (R)
- ◆ Architecture & Construction (R, C)
- ◆ Arts, A/V Technology & Communications (R, A, S, E)
- ◆ Business Management & Administration (E, C)

- ◆ Education & Training (A, S)
- ◆ Finance (E, C)
- ◆ Government & Public Administration (S, E)
- ◆ Health Science (R, I, A, S, C)
- ◆ Hospitality & Tourism (R, A, E)
- ◆ Human Services (A, S)
- ◆ Information Technology (R, I)
- ◆ Law, Public Safety, Corrections & Security (R, I, S, E)
- ◆ Manufacturing (R, C)
- ◆ Marketing (A, S, E, C)
- ◆ Science, Technology, Engineering & Mathematics (R, I)
- ◆ Transportation, Distribution & Logistics (R, C)

CAREER INTEREST INVENTORY SITES

A **career interest inventory** is an assessment tool that measures your personal and academic strengths and relates the measures to occupations requiring those skills and abilities. The following websites are only a few of those available to you. Work with your teacher and/or counselor to find inventory tools best suited to your career goals.



◆ **ASVAB:** sample tests

- ASVAB Career Exploration Program —

<http://www.asvabprogram.com/>

- Military.com (short and full-length tests) — <http://www.military.com/join-armed-forces/asvab/>

◆ **Student Interest Survey for Career Clusters:** English and Spanish versions — <https://careertech.org/student-interest-survey>

◆ **O*NET Interest Profiler** — <https://www.mynextmove.org/explore/ip>

◆ **Princeton Review Career Quiz:** personal interests and style — <https://www.princetonreview.com/quiz/career-quiz#!q1thru4>

CAREER CONSIDERATIONS: POSTSECONDARY OPTIONS

According to an Adobe survey of 1,007 students, 42 percent of students ages 11 to 17 feel what they learn outside the classroom is more important to their future. (Source: *USA Today*, April 2017.) Which of the options in the following table best suits your career goals? Is there another category that fits your goals better? Describe.

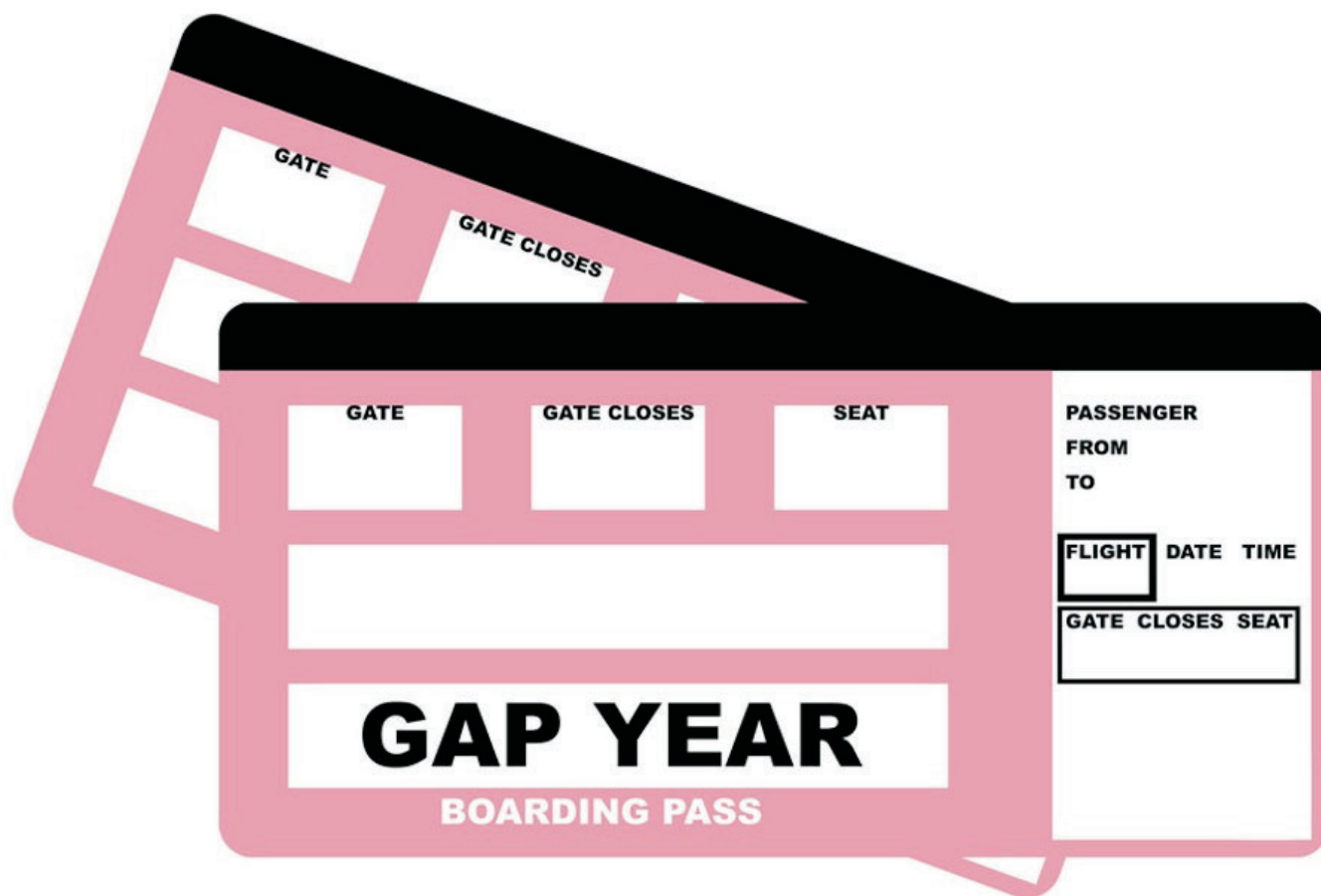


Direct Entry into the Workforce	◆ How quickly will I find a job? ◆ Are there any limitations to my career plans/promotions? ◆ What would my ideal gap year look like? <i>Find more information about direct entry into the workforce on the Education World website at http://www.educationworld.com/a_admin/tomorrows-workforce-what-students-need.shtml.</i>
Apprenticeship	◆ What is the length of the apprenticeship? ◆ Whom will I be working and training with? ◆ What are the expectations for skill and craft mastery? <i>Find more information on apprenticeships on the U.S. Department of Labor website at https://www.dol.gov/apprenticeship/toolkit/toolkitfaq.htm#1a.</i>

Military	◆ How intense is the training? ◆ Can I report/listen to people younger than I? ◆ What rank options are available in my occupational choice? ◆ Am I ready to enlist? ◆ What is the commitment timeline for my occupation? <i>Find more information about military careers on the Today's Military website at http://todaysmilitary.com/.</i>
Private Trade School	◆ What is the expense of a private trade school versus that of a two- or four-year institution? ◆ Which courses transfer to other institutions and apprenticeships? ◆ Do I need a degree (versus a license or a certificate) to reach my career goals? <i>Find more information about career colleges and technical schools (private trade schools) on the U.S. Department of Education website at https://www2.ed.gov/students/prep/college/consumerinfo/index.html.</i>
Two- or Four-Year Institution	◆ What are the costs involved? ◆ What scholarships and grants are available? ◆ Where will I live? ◆ What is the potential impact of college transcript information? <i>Find more information about survival skills for college on the East Central College (Missouri) website at https://www.eastcentral.edu/common/assets/SurvivalSkills4College.pdf.</i>
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GAP YEAR

According to the Gap Year Association, a **gap year** is a “semester or year of experiential learning, typically taken after high school and prior to career or post-secondary education, in order to deepen one’s practical, professional, and personal awareness.” A gap year takes planning; a goal without a plan is just a wish.



Plan Your “Ideal Gap Year”

Purpose

The purpose of this lab activity is to draft an “ideal gap year” plan based on your career interests and goals.

Objective

Create an “ideal gap year” plan that includes a timeline with milestones and due dates.

Materials

- ◆ lab sheet
- ◆ pen or pencil
- ◆ device with Internet access

Procedure

1. Review your career interest inventory results and your class notes about college and career pathways.
2. Research the gap year concept and options. Several websites provide information about gap year options for study, work, travel, and career experiences. Begin your research with the following resources. Then add three more resources (websites and/or print materials) of your choice. Include URLs with the names of websites.
 - a. Resource #1: Gap Year Association at <http://www.gapyearassociation.org/Planning%20Your%20Gap%20Year.pdf>
 - b. Resource #2: City Year at <https://www.cityyear.org/>
 - c. Resource #3: Americorps at <https://www.nationalservice.gov/programs/amicorps>
 - d. Resource #4:



e. Resource #5:

f. Resource #6:

3. Select a gap year option. Describe.

4. Follow the GAP Year Association “Planning Your GAP Year” documents as a format for your draft gap year plan at <http://www.gapyearassociation.org/Planning%20Your%20Gap%20Year.pdf>.
5. Create a one- or two-page “ideal gap year” plan that includes a timeline with milestones and due dates.
6. Present your gap year plan to the class, your instructor or counselor, and your parents.
7. Turn your completed gap year plan and this lab sheet in to your instructor or counselor.