

Combining parts to make a new whole

Create

Judging the value of information or ideas

Evaluate

Breaking down information into component parts

Analyze

Applying the facts, rules, concepts, and ideas

Apply

Understanding what the facts mean

Understand

Recognizing and recalling facts

Remember

SUU TALENT SEARCH SERVICE PLAN 2016 - 2021

11th Grade

REQUIRED SERVICES	SUU ETS SERVICES	PLAN OF ACTION	RESOURCES
Tutoring	Khan Academy On-Line Tutoring Program Information	Newsletter	
	Connections to Tutoring	Individual Contact	
Advice & Assistance in Course Selection	Parent Conference - CCR/SEOP	Chart in Blumen when they occur	
	Academic Advisement	Individual or group contact	
	College Readiness Action Plan	Individual or group contact	See Curriculum
	Utah Scholars/Regents Scholarship Program Info	Newsletter/Mailing	
	Concurrent Enrollment Information	Newsletter/Personal Contact	
	Course Selection/Rigor	Group Workshop	Pamphlet: What Does Rigor in High School Look Like? High School Graduation and Beyond (Granite pg 8-16)
Assistance in College Entrance Exams & Admissions Applications	ACT Preparation	Group Workshop	ACT Boot Camp (on campus) SAT and ACT Strategies (WA 11:7) PowerPoint: ACT Test Readiness
	ACT Registration (fee waiver if applicable)	Individual or Group Contact	www.act.org
	ACT on-line Prep Course	Newsletter	
	College Match - College Scorecard	Group Workshop	College Tour www.collegescorecard.ed.gov www.utahfutures.org
Financial Aid Information & Assistance	Scholarship Search	Newsletter	
Improving Financial & Economic Literacy	Financial & Economic Literacy Workshop	Group Workshop	Learning to Use Money in 11th Grade (WA 11:24) Purchasing with Credit (WA 11:25) Investment (WA 11:26) The Labor Market (WA 11:27)
	SALT Financial Literacy Program	Newsletter	www.saltmoney.org/coeaspire
	Utah Education Saving Plan 529 Information	Mailing	
PERMISSIBLE SERVICE	SUU ETS SERVICES	PLAN OF ACTION	RESOURCES
Personal & Career Counseling Activities			
College Visits	Northern Utah College Tour	Group Campus Visit	
	Arizona College Tour	Group Campus Visit	
	Snow Blast	Group Campus Visit	
Cultural Events			

Connections to High-Quality Tutoring

The Talent Search project will identify student(s) to participate in after school tutoring with a teacher. In addition to this, any TS student at risk of academic failure will be referred to credit recovery programs. Performance and progress of participants will be monitored by TS advisors on a weekly monthly, quarterly and annual basis. Advisors will consult with teachers to determine academic performance and progress in completing course requirements, and counsel participants as appropriate.

All TS students will be given access to the free on-line tutoring program sponsored by Khan Academy. Identified 8th grade students may participate in an 8th grade after school tutoring program addressing the difficult transition year from middle school to high school, and to help those students prepare for a more rigorous level of coursework.

Academic Advisement

Participants will be advised at the beginning of each academic year regarding the courses still needed to fulfill requirements for persistence and/or graduation. Progress will be tracked quarterly to ascertain classes taken, grades achieved, and advancement. In addition, participants will be informed of academic requirements that must be met to fulfill admissions standards for the colleges/ universities which they might attend. Students participating in a program of academic rigor will be further advised in course selection.

Generation Z

They are all about communication with Social Media – 81% use media rather than face-to-face communication

They want to know they matter; however, you must go to them as they will not come to you.

This group now comprises 1/3 of the population.

These students

- Lack situational awareness
- Are oblivious to their surroundings
- Rely on their devices

84% multitask

76% want to turn their hobby into a career – they are individualists and believe in their entrepreneurial abilities. They also want to grow in a career and are self-directed.

42% expect to work for themselves – they have worries about the economy

They speak in emojis and find emotion to be the most important way to judge experience. They have a short attention span and communicate in symbols. They speak their mind and want interactive communication. They will talk to you in person but they want you to get to the point right away.

Generation Z don't want debt or payments as they have been influenced by the recession of 2008. They save money but they do it for savings' sake, they don't save for anything in particular

Because of their individual requirements, they want flexibility and instant results. They are easily frustrated.

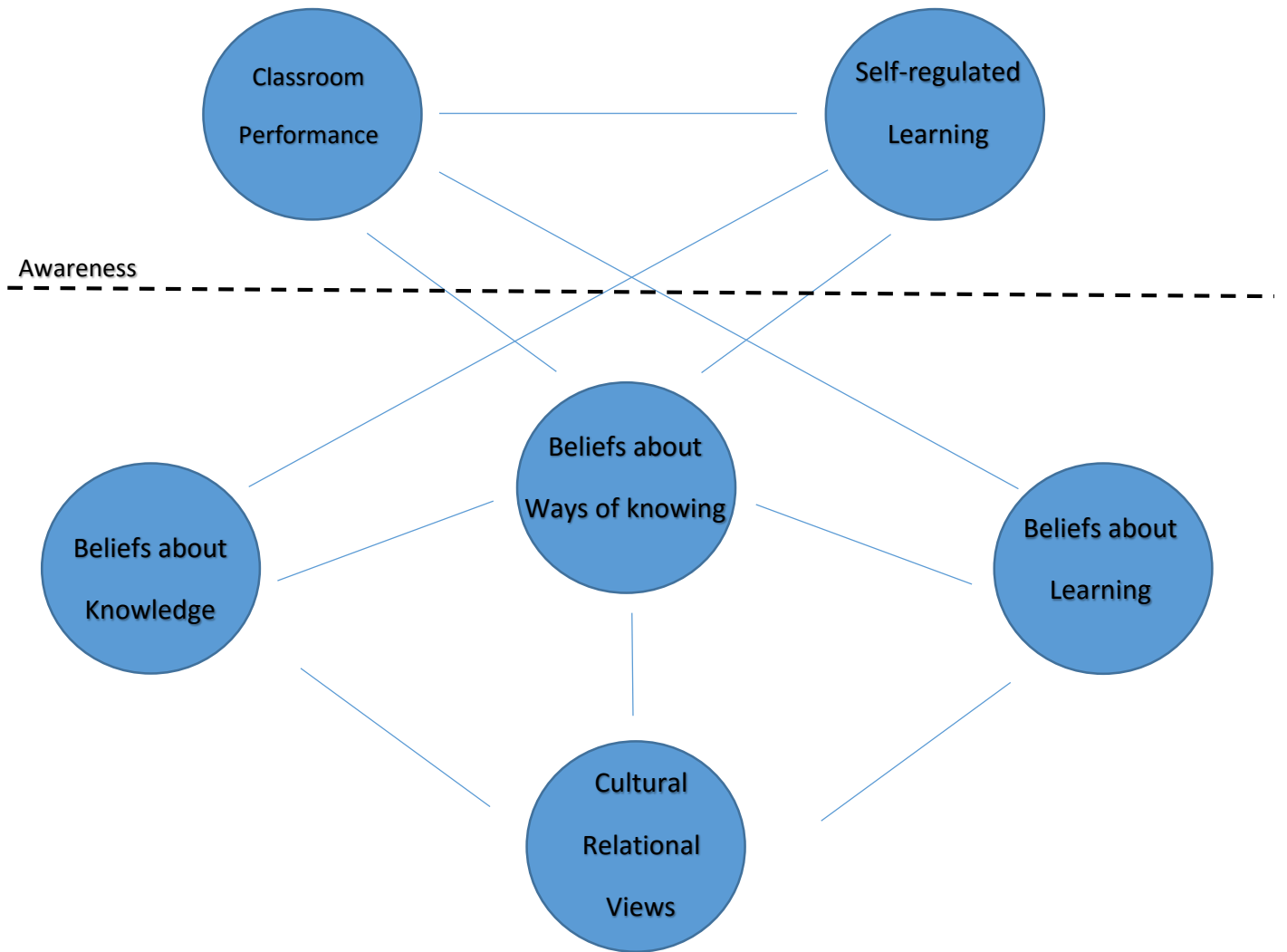
They are also intimidated by those in authority and would rather text than talk on the phone or meet with authority face-to-face. In addition to this, they don't listen to authority other than their parents who they will call for advice and approval.

Ways to influence/communicate with Gen Z:

1. Focus on the future but make it 'their' future
2. Use multiple social media platforms to get information to them
3. Go to the student – pro-active and/or intrusive counseling
4. They do well with peer mentoring
5. Help them understand the why
6. They connect with education when they can make or create something

Hidden and/or Invisible Barriers to Academic Success for Low-Income Students

Taken from the work of Marlene Schommer-Aikins



low income students have a sense of foreboding and weight in relation to their families. They feel a lot of pressure; however, they cannot articulate much about the pressure as their cultural-relational views are embedded and unquestioned.

In primary and secondary schooling, the focus is on classroom performance and self-regulated learning. Students who are low income operate from a place below awareness. They have beliefs about knowledge and learning that cannot be addressed by performance and self-regulation.

EPISTEMOLOGICAL BELIEFS

- Certain Knowledge
 - Responsibility for Learning
 - Simple Knowledge
 - Speed of Learning
 - Fixed Ability
1. Certain Knowledge
 - a. There is only one right answer – they become frustrated if there are more right answers and they can't believe that facts don't change.
 - b. Primary and secondary institutions solidify this belief system.
 - c. Becoming very confusing with 'fake news'.
 - d. Research is difficult for them.
 2. Responsibility for Learning (Omniscient authority)
 - a. The teacher knows everything.
 - b. The teacher is responsible for my learning (this is becoming institutionalized at the primary and secondary levels).
 - c. If I don't learn, it is someone else's fault – I am off the hook (they try to get 'off the hook' for everything possible. (Remember the pressure they feel).
 3. Simple Knowledge
 - a. Knowledge is made up of information bits.
 - b. Learning means memorization of facts.
 - c. They cannot synthesize or analyze.
 - d. Use Bloom's taxonomy in planning lessons.
 4. Speed of Learning
 - a. Learning should be quick and easy.
 - b. They will give up after a few minutes.
 - c. 'I'll never get it.'
 - d. They want instant gratification in learning also – impossible for most!
 - e. Don't believe you should have to 'chew on' and idea.
 5. Fixed Ability
 - a. Born smart in some areas and dumb in others.
 - b. IQ is set.
 - c. Negate the idea that time and effort build capacity (including dendrite action).

Methods to challenge hidden beliefs:

1. Student must participate in exploration of personal knowledge – they have to ask continually ‘is this true’ about their assumptions.
2. Student must engage in processes that examine differing points of view.
3. Scenarios that are more global must be presented.
4. Debate as a method of learning should be incorporated into discussions – the student must take on the view of an opponent to challenge simple knowledge.
5. Common ground can be established and should be encouraged.
6. Student needs to understand another belief system, they do not have to change their own.
7. Opposing views need to be safe.



Learning in College Moving from Counterproductive Beliefs to Proactive Beliefs

	What does the student believe?	What problems are created by the belief?	What activities encourage more sophisticated beliefs?
Responsibility for Learning (All-knowing)	<ul style="list-style-type: none"> <input type="checkbox"/> Knowledge comes only from experts. <input type="checkbox"/> It is the teacher's job to see that I learn. 	<ul style="list-style-type: none"> <input type="checkbox"/> Lack of critical thinking. <input type="checkbox"/> Reliance on teachers, not own reasoning. <input type="checkbox"/> Sees no value in studying independently. 	<ul style="list-style-type: none"> <input type="checkbox"/> Active learning <input type="checkbox"/> Problem-solving tasks <input type="checkbox"/> Collaborative learning <input type="checkbox"/> Independent learning
Certainty of Knowledge (Unchangeable)	<ul style="list-style-type: none"> <input type="checkbox"/> Knowledge does not change. <input type="checkbox"/> Every question has a right answer. 	<ul style="list-style-type: none"> <input type="checkbox"/> Frustration with complex problems. <input type="checkbox"/> Not open to new knowledge. 	<ul style="list-style-type: none"> <input type="checkbox"/> Exposure to varied view points <input type="checkbox"/> Structured controversy <input type="checkbox"/> Arguing for the opposite view point
Simple Knowledge (Information Bits)	<ul style="list-style-type: none"> <input type="checkbox"/> Knowledge is made up of bits of information. <input type="checkbox"/> Learning is a process of memorizing facts. 	<ul style="list-style-type: none"> <input type="checkbox"/> See no need to use learning strategies. <input type="checkbox"/> Overconfidence about knowledge of concepts. <input type="checkbox"/> No monitoring of understanding. 	<ul style="list-style-type: none"> <input type="checkbox"/> Understand Bloom's Taxonomy of learning levels. <input type="checkbox"/> Practice doing complex tasks. <input type="checkbox"/> Use reflection activities.
Speed of Learning (Fast-n-easy)	<ul style="list-style-type: none"> <input type="checkbox"/> If a problem can't be solved quickly, it can't be solved. <input type="checkbox"/> If you fail once, you'll never get it. 	<ul style="list-style-type: none"> <input type="checkbox"/> Give up quickly if they don't understand. <input type="checkbox"/> Unwillingness to pursue difficult tasks. <input type="checkbox"/> Resistance to using strategies. 	<ul style="list-style-type: none"> <input type="checkbox"/> Realize time is required for understanding. <input type="checkbox"/> Understand learning is a process not an event.
Ability (Born smart or dumb)	<ul style="list-style-type: none"> <input type="checkbox"/> The ability to learn is innate. <input type="checkbox"/> It cannot be acquired. 	<ul style="list-style-type: none"> <input type="checkbox"/> See effort and use of strategies as futile. <input type="checkbox"/> Avoid academic obstacles. <input type="checkbox"/> Concern for grades not learning. 	<ul style="list-style-type: none"> <input type="checkbox"/> Seek role models of students or famous people who have succeeded despite obstacles.

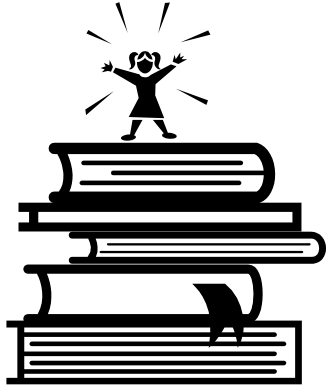
Talent Search encourages you to complete a program of RIGOR!



Your success depends on your performance and competency in high school—don't let this opportunity slip away.....

What does RIGOR in High School look like?

Rigorous high school courses are your ticket to a successful post-secondary experience and the key to career readiness!



Interesting Insights

Colleges and Universities have Requirements for you and Employers expect you to perform!

Take the right classes now to be successful in College and your Career!

- 4 Years of English
- 4 Years of Math
- 3 Years of Laboratory Science
- 2 Years of Foreign Language
- 3 1/2 Years of History/Social Science

Work hard and keep your grades up. Students who work hard turn into college students who are successful and employees who can be counted on.

YOUR JOB RIGHT NOW IS SCHOOL—Would you get a raise for the type of job you are doing?

Regents' Scholarship Planning Guide		Grade 12	Grade 11	Grade 10	Grade 9	# of Credits	Required Core Course
English						4	English
Math						4	Math
Social Science						3.5	Social Science
Science						3	Science
World Language						2	World Language
		To satisfy the requirements, you must, at minimum, complete 4 credits including a math class that is beyond Algebra 2/Secondary Math 3. Visit our website to learn more about acceptable course sequences.					
		One each of Biology, Chemistry, Physics. All science courses must have a lab. Students who complete a concurrent enrollment/college science course must complete the college lecture and the college lab; e.g. Biology 1010 and Biology 1015 must be completed.					
		2 credits of the same world language taken progressively.					

Use the **planning guide** on the middle page to see if you are taking the right kinds of classes.....

- Make your schedule work for you
- Don't give up when classes overlap
- Take EdNet classes for dual credit
- Look at SWATC classes for more options

Why Prepare Now?

You have a chance to make High School valuable for you now and for your future!

Where are you going in life? Your current performance and attitudes will result in outcomes 5 years from now. Where do you want to be 5 years from today?

Keep on track!

Work hard!

If You Need Help

Visit: <https://www.suu.edu/ss/talent/>

Call or e-mail Mrs. Livingston:

livingston@suu.edu or 435.899.9730

Check out UHEAA on the web:

<https://www.uheaa.org/>

High School Graduation and Beyond

Focus on graduation requirements as you create your 4-year CCR-Plan. Graduation requirements are a set of core classes that all students must take to receive a high school diploma. Granite School District requires that students earn 27 credits to graduate from high school. Credits begin to accrue in 9th grade. Earn all of the required credits each year in order to stay on-track to graduate. Most students will graduate with more credits than they need, and that's great! Graduation requirements are minimal requirements so by taking more classes than what's required like college prep, GTI and concurrent enrollment courses you can maximize your high school experience.

Did you know?

The majority of Utah's high school students are *maximizing* their education and learning opportunities and opting for a rigorous 4-year high school experience. They do this by:

- Participating in **concurrent enrollment** courses and options
- Taking advanced career and technical education (**CTE**) courses
- Taking and passing **skills certification** tests connected to CTE courses
- Graduating early and utilizing the **Centennial Scholarship** option
- Graduating from high school with an associate's degree and qualifying for the **New Century Scholarship**
- Taking courses that qualify for the **Regent's Scholarship**
- Participating in **early college** programs in both community colleges and applied technology colleges
- Participating in **work-based learning** opportunities (internships, job shadowing, etc.)
- **Volunteering** their time in their communities and learning the importance and the value of service
- Accessing courses through **Connection High** or other online programs

If you want to take advantage of everything available, you've got to plan. Creating a 4-year high school plan is a good place to start. The 4-year plan begins in 8th grade and is updated and revised as your interests and needs change. Parents, teachers, and especially your school counselor can help you with the 4-year planning process. Get important information, advice and suggestions for your plan. Use interest, aptitude and other test results to inform your decisions. Your individual CCR-Plan meetings with your school counselor will become a very important part of the 4-year planning process.

Plan with a goal in mind!

Your future will require college education and training after high school. It makes sense to choose high school classes with a college goal in mind. For example, if applying for the Regents' Scholarship is one of your goals choose courses now that will meet its requirements. That means you must complete two years of the same world language in grades 9-12. You need to know that now in order to fit it into your plan. If you take time to plan and fill in the details for classes with a goal in mind, you will be better prepared. If you fail to plan, you may not take classes in the right sequence or classes that are prerequisite to others. Use the worksheets and planning tools on the pages that follow to help you plan with your goals in mind.



HIGH SCHOOL COURSE SELECTION RECOMMENDATIONS

Pathway	High School Graduation*	College and Career Readiness Pathways		Regents' Scholarship**
Subject Areas ↓	Granite School District Graduation Requirements	1- & 2-Year Certificate and Degree Pathway	2-Year Transfer and 4-Year Degree Pathway	Course Requirements
English Language Arts	4.0 credits	Concentrate on developing technical reading, writing, and research skills	Concentrate on developing reading, writing, and research skills.	4.0 credits of English**
Mathematics	3.0 credits 1.0 credit Secondary Math 1 1.0 credit Secondary Math 2 1.0 credit Secondary Math 3	Take required mathematics courses and focus on the application of math concepts related to your career goal in your CCR-Plan.	Take a mathematics class in the senior year. Students interested in STEM degrees should take at least one math course beyond Secondary Math 3 (Algebra II).	4.0 credits of progressive mathematics For the graduating class of 2015, students take all Common Core courses and one additional progressive course.
Science	3.0 credits 2.0 credits from the four science foundation areas: Earth Systems, Biological Science, Chemistry, or Physics 1.0 credit from the foundation courses or Applied or Advanced Foundation science core list	Three credits of science will prepare you for college. Choose foundation, applied, or advanced courses aligned with your CCR Plan goals.	Three credits of science will prepare you for college. Choose foundation, applied, or advanced courses aligned with your CCR-Plan goals. Students interested in STEM degrees should take 4 credits of science.	3.0 credits of lab-based science courses to include one each of Biology, Chemistry, and Physics
Social Studies	3.5 credits 1.0 credit U.S. History 1.0 credit Geography 1.0 credit World Civilization 0.5 credit U.S. Gov. and Citizenship	Select social studies classes that provide a strong academic foundation and also enable you to explore a variety of career paths.	Select social studies classes that provide the strong academic foundation and also enable you to explore a variety of career paths.	3.5 credits of social science
Directed Coursework	3.5 credits 1.5 credits Fine Arts 1.0 credit Career and Technical Education 0.5 credit Computer Tech 0.5 credit General Financial Literacy	Choose electives that concentrate in a pathway that meets your high school graduation requirements and provides depth (two or more courses) in an area of interest.	Choose directed coursework associated with your career path. CTE and fine arts courses allow you to explore these areas. Take a challenging computer technology course to prepare for college-level projects.	
Physical Education/ Health	2.0 credits	Build a foundation for a healthy lifestyle; it is important for college and career success.	Build a foundation for a healthy lifestyle; it is important for college and career success.	
Required Electives	8.0 credits	Select electives that focus on your CCR goals and chosen pathway.	Maximize your senior year! Take challenging courses!	
World Languages			Recommend 2.0 years of the same world language, other than English, in a progressive manner during grades 6-12.	Require 2.0 credits of the same world language, other than English, taken in a progressive manner during grades 9-12.
Requirements	27.0 credits School Diploma *24.0 credits Granite District Diploma (*See page 44)	Meet your district's requirements for graduation.	Meet your district's requirements for graduation.	Meet school district graduation requirements.

*For more information on Utah High School Graduation Requirements visit <http://schools.utah.gov/curr/main/Gradinfo.htm>

**For list of courses that satisfy Regents' Scholarship requirements see www.regents scholarship.org

Sample 4-Year CCR-Plan (College and Career Readiness Plan)

Required Areas	Credits	9 th Grade	10 th Grade	11 th grade	12 th grade
ENGLISH/LANGUAGE ARTS	4.0	English 9	English 10	English 11	English 12 or Applied or Advanced
MATH	3.0	Secondary Math 1	Secondary Math 2	Secondary Math 3	Pre-Calculus, Calculus, Concurrent, other
SCIENCE	3.0	Earth Systems or Biology	Biology or Chemistry or Physics	1.0 credit Applied or Advanced Science (student's choice)	
SOCIAL STUDIES	3.5	Geography for Life	World Civilizations	United States History	US Gov. & Citizenship (0.5 credit)
CAREER & TECHNICAL EDUCATION (CTE)	1.0	Interest and career related courses taken at your high school or at the <u>Granite Technical Institute (GTI)</u>			
COMPUTER TECHNOLOGY	.50	Computer Technology 9 th or 10 th Grade		-----	-----
FINE ARTS (Art, Music, Dance, Drama)	1.5	1.5 credits to be completed during grades 9–12			
GENERAL FINANCE LITERACY	.50	0.5 credit to be completed during grades 9-12			
HEALTH	.50	0..5 credit to be completed during grades 9-12			
PHYSICAL EDUCATION	1.5	PE 9 (0.5 credit)	Fitness for Life (0.5 credit)	0.5 credit in grades 11 or 12	
ELECTIVES	8.0	Student's choice based on interests, abilities, and talents and may include: additional courses offered in required areas; CTE/GTI, Fine Arts, World Languages, Driver Education, Special Education, and ESL courses; and Work/Service Experience, etc.			
Graduation Requirements	27 CR	2.0 Cumulative CPA			

As you plan choose courses that will:

- Complete high school graduation requirements
- Connect to your goals and plans for the future
- Prepare you for 1, 2, or 4 years of education and training after high school
- Help you meet college and university admissions requirements
- Lead to Centennial, Regent's, and/or New Century Scholarships

Keep in mind:

- Courses cannot be repeated for credit.
- There are other ways to earn high school credit outside of the school day demonstrated competency assessments in core areas, courses through Connection HS or Utah Electronic High School; concurrent enrollment courses taken at your school or at a college or university.

4-Year High School CCR-Plan Worksheet

Get out a pencil and create a four year CCR-Plan for graduation!

Required Areas	Credits	9 th Grade	10 th Grade	11 th grade	12 th grade
ENGLISH/LANGUAGE ARTS	4.0	English 9	English 10	English 11	Applied or Advanced
MATH	3.0	Secondary Math 1	Secondary Math 2	Secondary Math 3 (Other math courses only if student/parent complete opt out form)	Pre-Calculus, Calculus, Concurrent, other
SCIENCE	3.0	Earth Systems or Biology	Biology or Chemistry or Physics	1.0 Applied or Advanced (Student's Choice)	
SOCIAL STUDIES	3.5	Geography for Life	World Civilizations	United States History	US Gov. & Citizenship (1/2 year)
CAREER AND TECHNICAL EDUCATION (CTE)	1.0	CTE courses are offered at your school and at the Granite Technical Institute (GTI) in the following areas: Agriculture, Business, Family and Consumer Science, Health Science and Technology, Marketing, Skilled and Technical Science, Technology and Engineering			
COMPUTER TECHNOLOGY	.5	Computer Technology 9 th or 10 th Grade		-----	-----
FINE ARTS (ART, MUSIC, DANCE, DRAMA)	1.5				
GENERAL FINANCIAL LITERACY	.5	-----	-----	Financial Literacy (.5) 11 th or 12 th Grade	
HEALTH	.5	-----	Health (.5) 10 th , 11 th , or 12 th Grade		
PHYSICAL EDUCATION (PE)	1.5		PE Fitness for Life (.5)		-----
ELECTIVES (Student's choice based on interests, abilities and may include: CTE/GTI, Fine Arts, World Languages, Driver Education, Special Education, ESL, Work/Service Experience, etc.)	8.0	-----			

Total	27.0	7.0 or 8.0 Credits	8.0 Credits	8.0 Credits	8.0 Credits

Options and Opportunities



There is so much to consider as you plan! Think about your goals – goals that you are working toward right now in school and goals you have for the future. Then think about all of the classes, programs, and options that can enhance and maximize your school schedule.

Consider taking **honors and gifted courses**, **early college**, **CTE courses**, **flexible learning options**, and **college and career readiness courses**. Develop a written plan that includes just what you want and need to be successful, to stay focused and to stay interested in school. When you are focused and take advantage of all of the options and opportunities out there, you will move along the pathway toward high school graduation better prepared for college and career.

What will you include?

Honors and Gifted Courses

Students can take honors and/or gifted courses in core areas beginning in 7th grade. Students may choose to take honors courses, but gifted students will be identified through testing.

Early College

Advanced Placement (AP)
Centennial Scholarship
International Baccalaureate (IB)
Concurrent Enrollment

Career and Technical Education (CTE)

CTE Courses and Programs
Granite Technical Institute (GTI)
Work Based Learning (Job Shadow, Internship)

Flexible Learning

Connection High School
Electronic High School (EHS)
Demonstrated Competency Assessment (DCA)

Other Options

Utah Scholars Curriculum
New Century Scholarships
Regent's Scholarship
Military

Early College Options



Early college means that you can earn college credit while you are in high school before stepping onto a college campus. Early college opportunities include:

Advanced Placement (AP)

<http://apcentral.collegeboard.com/apc/public/courses/index.html>

AP offers secondary students the opportunity to take college-level courses while attending high school. All students are eligible to take AP courses but keep in mind that they are rigorous. AP courses require significant study time outside of the school day.

AP classes can give you a sense of what college will be like. In fact, a recent U.S. Department of Education study shows that participation and success in AP and other challenging high school courses is one of the strongest predictors of college success.

- AP requires a strong curiosity about the AP subject you plan to study and a willingness to work hard.
- AP gives you an early start on college, tuition savings, enriching academic experience, increased access to higher education and 37 possible courses and exams across 22 subject areas.

AP course offerings vary from school to school. Your school counselor will have information on AP courses offered at your high school. You can earn college credit for AP courses by passing the exam at the end of the course with a score of 3 or higher. There is a fee for each AP course you take and fee waivers are available. Check with the college you plan to attend to determine how much credit you will receive by passing an AP course.

Concurrent Enrollment

www.slcc.edu/concurrentenrollment

Concurrent enrollment is a college course taught on a high school campus by teachers who qualify to teach

them. Concurrent enrollment courses give students both college and high school credit.

Most concurrent enrollment students in Granite District are seniors and juniors and earn concurrent enrollment college credit from Salt Lake Community College (SLCC). Credits are recorded on both a permanent college transcript and the high school transcript. Both CTE and general education classes may be offered for concurrent enrollment credit. Concurrent enrollment courses taught at the high school are the same courses taught on the college campus. Ask your counselor about concurrent enrollment courses offered at your school. <http://www.slcc.edu/concurrentenrollment/>

The state legislature allocates concurrent enrollment funds so that CE classes at high schools and a few selected summer and evening classes on the college campus are offered to students at a cost of \$5 per credit hour (\$15 for a 3 credit hour class and \$20 for a 4 credit hour class). SLCC concurrent enrollment students also pay a one-time admission application fee of \$40.

Students who choose to come to the SLCC campus as Early Enrollment students must pay full tuition and fees. (A standard 3-credit hour class, for a Utah resident, such as English 1010 would cost approximately \$431 at SLCC plus textbooks).

Concurrent enrollment offerings vary from school to school. Check with your counselor to find out which courses are available at your school or visit the Salt Lake Community College Concurrent Enrollment website at www.slcc.edu/concurrentenrollment and click on "Courses at High Schools".

International Baccalaureate (IB)

www.ibo.org

The International Baccalaureate (IB) program offered in Granite School District is located at Skyline High School. If you are at least in 9th grade and you have what it takes to begin college work before you graduate from high school, then IB may be for you! Contact Skyline High School IB program @ 801-646-5420.

CTE Options

Career and Technical Education (CTE)

<http://www.graniteschools.org/cte/>

CTE courses develop your academic and technical skills in areas of high demand in the workforce. CTE courses provide career exploration, work-based learning, and pathways leading directly to college and career. You can take CTE courses at your home high school, another high school or at the Granite Technical Institute (GTI).

How are CTE classes different from other classes?

CTE courses are held in non-traditional classrooms like labs and in industry-type settings. CTE classrooms look like the workplace and give students real-life learning experiences. For example: auto tech students work in a school's auto shop; dental assisting or CNA students spend time in classrooms that look like dental or medical offices; students in foods courses meet in kitchen labs; and, students in construction trades attend class at a building site.

CTE is all about getting hands-on training. The best way to understand CTE courses is to see their classrooms. When you see what's happening in CTE courses, excitement sets in! By taking a CTE class and passing the assessment at the end, students can earn a *Skills Certificate* that may be helpful in getting a job.

CTE Program Areas

Agriculture and Animal Science
Business
Economics and Entrepreneurship
Family and Consumer Science
Health Science
Information Technology
Marketing
Skilled and Technical
Technology and Engineering

All CTE program areas have student organizations called CTSOs (Career and Technical Student Organizations) that focus on leadership development and skill competition. Students can be involved in CTE in the classroom and in after-school extracurricular activities through CTSOs.

Granite Technical Institute (GTI)

<http://mzervos.graniteschoolsites.net/>

The GTI is located at the Granite Education Center (GEC) on 2500 South State Street. Over 3000 students, grades 9-12, travel from their home high schools to attend CTE classes there. GTI students enjoy a college-like atmosphere and have access to unique classes that are *hands on, career focused, and offer concurrent college credit!* The GTI is a great place to take a CTE course away from your home high school.

Highlights of the GTI are:

- Classes are linked to skill development in high demand industries.
- Classes align with college programs and certificates.
- Concurrent enrollment college credit is awarded for many of the course offerings.
- Classes are supported by business and industry partners.
- Academy programs are available in many areas, including Engineering and Information Technology.
- Students attend class with students from other schools in Granite District.
- Participation in student organizations (CTSOs) is emphasized.

Program areas include:

- Agriculture and Animal Science
- Aviation
- Barbering and Cosmetology
- Biotechnology
- Biomanufacturing
- Construction Trades
- Electronics
- Engineering Technology
- Health Science (CNA, Medical Assisting, Dental Assisting, EMT)
- Information Technology
- ProStart/Culinary Arts/Restaurant Management
- Pharmacy Technician

Your counselor or career center coordinator can help you enroll.

More CTE Options

Work-Based Learning (Internship, Job Shadow, and Work Experience)

Your school has a work-based learning specialist you can talk to about getting some hands-on experience in a career field of interest. This can happen through an internship, a job shadow, going to a seminar, or through paid employment. Work-based learning, paid or volunteer, year round or summer, can help you identify career interests and goals, gain valuable experience, and apply classroom learning in a workplace.

Internship

An internship is working on special assignment to learn about a career of interest, a particular occupation, and to practice skills learned in the classroom in the same field. Internships can be paid or volunteer. Some last for a summer while others continue through the school year. You may think internships are for college students, but they are for high school students, too

A high school internship can open the doors to the working world and show you what it's like to have a boss, attend meetings, and meet deadlines. Internships also introduce you to experienced people who can help guide you toward a career.

Job Shadow

A job shadow is spending time with a worker on the job, to observe actual workplace tasks and to explore a potential career interest. A job shadow may last a few hours or a few days. Talk to your school work-based learning coordinator, counselor or career center coordinator for more information about internships and job shadows.

Work Experience

Working during high school can be a positive learning experience. It can provide opportunities for students to:

- Explore an occupation in order to make a better career choice
- Develop the basic skills required of a person entering that career
- Learn what is expected of a worker by way of good work habits and attitudes
- Gain understanding and experience working in the world of work

Students can earn up to 1.0 elective credit for work experience that can be verified by an employer with evidence of hours worked (pay stub, W-2 form, etc.) and approved by a school counselor. This work credit is generally for students who have summer jobs that are not related to classes in school or CCR-Plans. Students must have evidence of at least 180 work experience hours to receive 1.0 elective credit.



Notes:

Flexible Learning Options

Connection High School

www.connectionhighschool.org



Connection High is new! It is an individualized learning high school for students who have educational needs beyond or in addition to those met by Granite District's traditional schools. It is staffed by an administrative team, specialized counselors, CTE, technology and work-based learning staff with flexible, adaptable and student-centered teachers. It has state-of-the-art technology and operates on an extended year schedule with flexible hours.

Students can attend Connection High and their home school at the same time, or they can enroll and attend Connection High as their home school. Students and their parents will need to meet with a school counselor to decide on the best flexible learning option based on their needs and goals. Counselors will facilitate the registration process for Connection High – they will make it happen for students!

Connection High students can choose from face-to-face or online learning options. Every course is taught by a highly qualified Granite School District teacher. An individual learning lab is in place to support students who take online courses. Students will receive a letter grade and credit is awarded on the high school transcript when they complete the course.

Face-to-Face Courses are traditional blocked courses where students attend class during a designated period of time for a specific subject on-site at Connection High. A wide variety of courses meeting graduation requirements are available.

Online Learning Courses will be offered as asynchronous. That means they will be open-entry open-exit and must be completed by the end of the current school year.

English 9, 10, 11, 12

Secondary Math 1, 2

Astronomy

Biology

Earth Systems

Wildlife Biology

Geography for Life

AP Human Geography

World Civilization

U. S. History

U.S. Government and Citizenship

Health

Fitness for Life

9th Grade PE

Computer Technology

General Financial Literacy

Driver's Education

Drawing 1, 2

Electronic High School (EHS)

<http://www.schools.utah.gov/ehs/>

EHS is another flexible learning option. Students enroll in EHS classes to get ahead when they don't have room during the day to take a class or when they have failed a class and need credit recovery. All classes generate letter grades and credit that are added to the student's transcript upon completion of a course.

EHS offers an open-entry / open-exit curriculum based on the Utah Core Curriculum. With a few exceptions, students are able to enroll any day of the year and work at their own pace until the class is completed.

EHS is accredited by the Northwest Association of Accredited Schools. Students who complete courses from the EHS will have a course completion certificate mailed to their local school of residence with the grade and credit earned.

At the end of each class, students must take and pass a proctored exam at a Utah school, library, or testing center. More information about the testing process is available once you are enrolled in classes.

Is Online Learning for You?

Survey for Students Considering Online Learning

Please choose your best response to each statement below. When you are finished, total your points to see if Online Learning is a good choice for you. Talk with your school counselor and your parents about your results.

1. I am motivated to take online coursework because:
 - a. I want to improve my educational experience.
 - b. I am looking for something different than traditional school options.
 - c. I think online courses are easier than traditional classes.
2. Having face-to-face interaction with my teachers is:
 - a. Not particularly important to me
 - b. Somewhat important to me
 - c. Very important to me
3. I would classify myself as someone who:
 - a. Often gets things done ahead of time
 - b. Needs reminding to get things done
 - c. Puts things off until the last minute
4. Online coursework:
 - a. Requires as much, if not more, effort than in a traditional classroom
 - b. Requires less work than in a traditional classroom
 - c. Is self-paced
5. When a teacher gives instructions for an assignment, I prefer to:
 - a. Work through the instructions myself
 - b. Follow the instructions on my own, then ask for help as needed
 - c. Have the instructions explained to me
6. I need teachers to constantly remind me of due dates and assignments:
 - a. Rarely
 - b. Sometimes
 - c. Often
7. Considering my personal schedule, the amount of time I have to work online is:
 - a. More than in a traditional course
 - b. The same as in a traditional course
 - c. Less than in a traditional course
8. When I am asked to use email, computers, or other new technologies:
 - a. I look forward to learning new skills
 - b. I feel apprehensive, but try anyway
 - c. I put it off or try to avoid it
9. As a reader, I would classify myself as:
 - a. Good, I usually understand the text without help.
 - b. Average, I sometimes need help to understand the text.
 - c. Below average, I often need help to understand the text.
10. I intend to login to my online courses and check my messages:
 - a. Daily or almost daily
 - b. 2-3 times a week
 - c. Whenever I think I need to.



Total your survey points: _____

a=10 b=7 c=1

80 points or higher	You may be an excellent candidate for Online Learning.
79-60 points	Online coursework may work for you, but you will need to make significant adjustments in your schedule and study habits to succeed.
Less than 60 points	Online coursework is most likely not the best alternative for you.

LEARNING TECHNIQUES

LESSON 11-7 ▲ SAT AND ACT STRATEGIES

LEARNING GOALS/OUTCOMES

- ▶ Outline effective methods for SAT and ACT test-taking.
- ▶ Access practice questions for each section of the SAT and ACT tests.
- ▶ Work with other students to practice SAT or ACT test taking skills.

MATERIALS NEEDED

- ▶ **Student Handouts:**
 - SAT and ACT Strategies
 - Journal Page
- ▶ **Printed SAT or ACT practice tests** – one for each student
 - SAT Tests: collegereadiness.collegeboard.org/sat/practice/full-length-practice-tests
 - ACT Tests: <http://actstudent.org/sampletest/index.html>
- ▶ **OPTIONAL:** If your students have completed the PSAT and have received their scores ask them to bring their score packets to this lesson with them.

CLASSROOM ACTIVITIES

1. **FOR SCHOOLS WITH RECENTLY RECEIVED PSAT SCORES:** Students review their PSAT scores. If your school's juniors took the PSAT in October, and if their score packets are available by the time of this lesson, ask your students to bring their score packets to this lesson (or arrange with your counseling staff to have the score packets distributed during this lesson). With students working individually (so that they do not need to share their scores with other students), help them interpret their scores using the information provided in the PSAT score packet. Have students review their work in each section.
2. **Students outline effective methods for SAT and ACT test-taking.** Divide students into groups of three or four and ask them to brainstorm ideas for how they can be successful on the SAT or ACT. Tell them they can use their experience with the PSAT or other standardized exams to come up with ideas. Ask each group to share one or two of their ideas and write them on the board, noting common themes. Then distribute *SAT and ACT Strategies* Handout and review it with

students. Compare their ideas with the strategies listed on the handout and note the similarities and differences. Ask each student to write one or two additional strategies at the bottom of their handout, based on their group's discussion.

3. **Students access practice questions for each section of the SAT and ACT tests.** Give students the chance to see a few questions from each section of the SAT and ACT, either by using the Internet or by using paper practice tests that you or your school's Navigation101 building leader has downloaded and copied. Quickly review the rules for each section of the test with students and ask them to volunteer how the test-taking strategies you discussed could help them with each section.
4. **Students work with other students to practice SAT or ACT test taking skills.** Have students work in pairs – either on Internet or paper-based practice tests – to try a few practice questions from each section of the SAT or ACT. Remind them to read the rules for each section and discuss how the test-taking strategies could help with each type of question. When students have had a chance to review each type of question, call the group together to discuss how they could prepare for the SAT or ACT. If students have done their practicing on paper copies of the practice tests, make sure they know where they can go on the College Board (SAT) or ACT web sites to access more practice tests.
5. **Students outline a preparation plan for the SAT or ACT.** Ask students to use their Journal Page to answer these questions:
 - What can I do to prepare for the SAT or ACT?
 - How and when can I take practice tests? How can I use test-taking strategies successfully?
 - How do I feel about taking the SAT or ACT?
 - Have I begun following SAT or ACT on Twitter?

STUDENT PRODUCTS

- ▶ List of test taking strategies as identified on *SAT and ACT Strategies*
- ▶ Completed *Journal Page*





LEARNING TECHNIQUES

LESSON 11-7 STUDENT HANDOUT

SAT AND ACT STRATEGIES

If you are planning to go to a four-year college, you will likely need to take either the SAT or the ACT. If you're planning to enlist in the military or attend a two-year or technical college, there are other standardized tests you will need to take. Here are strategies to help you with the SAT or ACT or the other standardized tests you may have to take during the next few years.

STRATEGY 1: KNOW WHAT TO EXPECT

Spend a little time doing research before you take a standardized test. Use the Internet or your school's career or counseling center to learn about each of the sections the test will contain and what types of questions will be in each section. Make sure you understand the rules for each section: for instance, whether a specific section will require multiple choice answers or an essay. Even better, download and take a practice test so that you get a feel for the types of questions you will encounter.

STRATEGY 2: READ THE INSTRUCTIONS

Even if you've done your research, make sure you read the instructions for each section of the test. Make sure you know what the section is asking you to do, what types of answers are expected, how many questions are in that section, and how much time you have. Don't assume that a section on an exam is just like a practice test. Read the instructions before you begin!

STRATEGY 3: PACE YOURSELF

On most standardized tests, there is a time limit for each section. Before you begin each section, make sure you know how much time you are allowed. Check your watch or the clock in the exam room to determine when you will have to finish. Then, calculate how many questions you must answer and determine how quickly you must work (for instance, two minutes per question or ten minutes per essay).

STRATEGY 4: ANSWER EASY QUESTIONS FIRST

Because the test is timed, it's important to move through it as quickly as you can. If you don't know the answer to a question right away, move on and come back to it later, though remember to skip that question on your answer sheet as well.

STRATEGY 5: USE THE PROCESS OF ELIMINATION FOR DIFFICULT QUESTIONS

If you don't know the answer to a question, see if you can eliminate any answers that are obviously wrong. If you are able to eliminate several of the possible answers, you can then make an educated guess from those that remain.

Can you think of any other test-taking strategies? Write them here:



LEARNING TECHNIQUES

LESSON 11-7 STUDENT HANDOUT

JOURNAL PAGE

DATE: _____

Lesson 11-7 | *SAT AND ACT STRATEGIES*

Q1: What can I do to prepare for the SAT or ACT?

Q2: How and when can I take practice tests? How can I use test-taking strategies successfully?

Q3: How do I feel about taking the SAT or ACT?

Answers:

QualPro

Recommendations for

ACT Test Score Improvement



ACT Test Prep English



ACT Vocabulary — Words Required for English and Reading Tests* (Bare Minimum)

abstract	defiantly	generalize	lyricism	reluctantly	steerage
absurdity	definitive	generate	mainstream	remnant	stereotypical
acknowledge	delete	genre	mandate (v)	remote	stifle
acute	deletion	glib	matter of course	replenish	subjective
aesthetic	denote	humanitarian	means (n)	resemblance	succession
affluence	derive	hypothesis	mediocre	resistant	succumb
agenda	detached	idealistic	melancholy	resolution	superficial
allegedly	deterrence	ideological	mere	resonate	superimpose
ambiguity	detract	idiomatic	meticulous	resources	sustenance
ample	dialect	illogical	minuscule	respectively	syndicated
analogy	dilemma	illustrative	mischievous	revel	syringe
anomaly	diligent	imminent	misconception	reverent	taut
apathy	discern	implication	momentous	revisionist	taxed with
arbitrary	disdainful	imply	mutual	rift	tenet
articulate (v)	dispel	impose	narrative	rudimentary	terra firma
assert	dissonance	inaccurate	nevertheless	sacrilege	terrestrial
assertion	distract	inadvertently	nonetheless	sanctuary	theorize
authoritative	diverse	incentive	nostalgia	sapling	thereafter
auxiliary	drawback	inclination	noteworthy	satellite	thus
breadth	dry (humor)	inconsistency	notion	saturation	timber
chaos	eclectic	inconstant	obscure (v)	scholarly	tirade
chronic	editorial (adj)	indication	obtuse	scrunity	toxin
chronological	eloquent	indifference	omission	scrutinize	trajectory
cite	eminent	inevitable	omit	seascape	transcend
coherence	emphatically	inexplicably	on behalf of	seemingly	transition
coherent	enumerate	infer	one-dimensional	selectively	translucent
collaborating	escapist	inference	onus	seminal	treason
commendable	establishment	influential	outset	sensory	typesetting
compellingly	evaluative	ingenious	paradox	sentiment	tyranny
concede	evoke	ingenuous	parentetical	serenity	tyrant
concise	explanatory	inherent	perceptual	shrill	uncanny
concrete (adj)	explicit	initial (adj)	phenomenal	shrub	unparalleled
condescension	extent	inquiry	philosophy	shun	unprecedented
confer	façade	insight	plagiarism	simultaneous	unsolicited
conformity	facet	insignificant	populace	singular	urgency
connote	factual	insinuate	populous	site	urn
consequence	faculty	insistently	portray	sit-in	vaccine
consequently	feign	insufficient	preceding	sizable	vindicate
consistent	fictional	intent	precisely	skepticism	visionary
contemporary (n)	fictitious	intently	preconceived	slogan	vivid
context	figuratively	interpretation	previous	social order	voluptuous
controversial	finding (n)	intolerant	progressive	solace	vulnerable
conversely	foresight	intricacies	quasi-	sovereign	wherefore
convey	formality	intricate	quintessential	specific	whimsy
correlate (v,n)	format	intrigue (v)	randomly	speculate	withdrawn
cosmopolitan (adj)	frenzied	irreconcilable	rational	spin-off	worldview
counter (v)	frivolous	irrelevant	redundancy	stable	
criterion	furthermore	irrevocable	redundant	stationary	
cryptic	generalities	likewise	reinforce	stationery	
daunting	generalization	longstanding	relevant	status	



* All these words taken from the five practice tests in the real ACT Prep Guide, 3rd Ed. These are words that the students are REQUIRED to know just to process the answers

ACT Test Prep Reading



Ensure Students Use a Better Test-Taking Strategy for Reading and Science Reasoning

- For reading the answers are in the test.
- Spend one minute skimming the passages.
- Go immediately to the questions and then quickly find the answers. DO NOT follow the ACT instructions which says to read the passages and then try to answer the questions.



ACT Test Prep Math



Math Section of the ACT

60 Questions in 60 Minutes

Goal: Answer 70% correctly (42 out of 60)

This means you need a strategy to confidently answer 42 questions correctly in 60 minutes.



Math Section Content

- Math vocabulary
- Pre-algebra
- Elementary algebra
- Intermediate algebra
- Coordinate geometry
- Plane geometry
- Trigonometry
- Miscellaneous topics
- Test-taking strategy



Math Vocabulary

area of a circle
chord
circumference
collinear
complex number
congruent
consecutive
diagonal
directly proportional
endpoints
function $y = R(x)$
hypotenuse
integer
intersect
irrational number
least common denominator
logarithm
matrix
mean
median
obtuse
perimeter
perpendicular
pi
polygon
prime number
quadrant
quadratic equation
quadrilateral
quotient
radian
radii
radius
rational number
real number
slope
standard coordinate plane
transversal
trapezoid
vertex
x-intercept
y-intercept



ACT Test Prep Science



Science Section of the ACT

40 Questions in 35 Minutes

Goal: Answer 75% correctly (30 out of 40)

This means you need a strategy to confidently answer 30 questions correctly in 35 minutes.



Science Reasoning Vocabulary

2-butanone	condensation	extinction	long-term	parts per
2-propanol	conductivity	Fahrenheit	LiCl	million
$\mu\text{mho/cm}$	continental drift	failed burn	mammal	peat
[theta]	continental ice	flask	manometer	peer (n)
absorbance	sheet crater	formula	mapping function	permeable
Alpha, alpha decay	crown fire	frequency	marine (adj)	photosyntheti
amino acid	cytoplasm	$^{\circ}\text{F}$	Mass, massive	c
ammonium nitrate	$^{\circ}\text{C}$	ft/sec	meiosis	pinnate
asteroid	CaCl_2	gamma	mesopause	plume
average molecular	CaCO	gas chromatograph	mesosphere	plunger
mass	CaCO_3	genus	Methane,	plutonium
beta	Ch^3	glacier	methanol	polar
beta particles	CuO	groundwater	microscopy	pollen
biomass	denature	habitat	migrating	polymer
biosphere	density	helium	migratory	polyrhythm
biotic index	depth range	hexane	Milli-bar	polystyrene
bog	derived	high-frequency	model	pore water
buoyancy	diffuse	H_2	Mole, molecule	precipitate (v)
buoyant force	directly proportional	H_2O	molecular weight	projectile
calcareous ooze	drawn to scale	Hg	montane	prophase
calcite	Δ	ice shelf	mL, mm Hg, μ	pyrotechnics
calcium carbonate	δ	ignite	nitrite	radar pulse
capacity	ecology	index	nitrogen-fixing	radioactive
capillary	ecopark	infrared	nonreactive	decay
carbon dioxide	ecosystem	inorganic	numerical	rallies (n)
carbon particles	efficiency	invertebrate	aperture	range
carbonate	emit	isotope	nutrient	reaction
Celsius	equilibrium	joule	NaCl , NH_4NO_3	reactive
charged particles	equivalency	kinetic	objective lens	recasting
chromatid	erosion	km	organic matter	recipient
chromosome	ethyl acetate	landmass	organism	relief supplies
climatic	exclusion	lava	osmosis	renatured
colorimeter	chromatography	lithium chloride	ozone	retention time
comet	extinct		paleozoic	(RT)
			particle	Revitalize
				rift
				saturation



Science Reasoning Vocabulary

sea floor
sediment
seemingly
selective
semipermeable
sluggishly
sodium chloride
solar
solar system
solute (adj)
solutes
solution
Solvent
sparking device
species
specific
specific gravity
speculate
spent
sprawl
spurred
stagnant
standard
atmospheric
pressure
standard sample
static
stratopause
stratosphere
sucrose
sulfate

supersaturated
suspension
synthesis
synthesize
SO₄
tactic
thermosphere
tolerance
toxic
tropopause
troposphere
ultraviolet
undersaturated
uninhibited
uranium series
vapor
vapor plume
variable
velocity
vertebrate
volcanic
volcanism
water table
watt
wetlands
zoning

Scientific notation

Students should recognize:

allele notation

binomial

nomenclature

chemical equation

chemical formula

element symbol

isotope



Appendix 1

ACT Vocabulary Words Required for English and Reading Tests—Bare Minimum



ACT Vocabulary — Words Required for English and Reading Tests* (Bare Minimum)

abstract	defiantly	generalize	lyricism	reluctantly	steerage
absurdity	definitive	generate	mainstream	remnant	stereotypical
acknowledge	delete	genre	mandate (v)	remote	stifle
acute	deletion	glib	matter of course	replenish	subjective
aesthetic	denote	humanitarian	means (n)	resemblance	succession
affluence	derive	hypothesis	mediocre	resistant	succumb
agenda	detached	idealistic	melancholy	resolution	superficial
allegedly	deterrence	ideological	mere	resonate	superimpose
ambiguity	detract	idiomatic	meticulous	resources	sustenance
ample	dialect	illogical	minuscule	respectively	syndicated
analogy	dilemma	illustrative	mischievous	revel	syringe
anomaly	diligent	imminent	misconception	reverent	taut
apathy	discern	implication	momentous	revisionist	taxed with
arbitrary	disdainful	imply	mutual	rift	tenet
articulate (v)	dispel	impose	narrative	rudimentary	terra firma
assert	dissonance	inaccurate	nevertheless	sacrilege	terrestrial
assertion	distract	inadvertently	nonetheless	sanctuary	theorize
authoritative	diverse	incentive	nostalgia	sapling	thereafter
auxiliary	drawback	inclination	noteworthy	satellite	thus
breadth	dry (humor)	inconsistency	notion	saturation	timber
chaos	eclectic	inconstant	obscure (v)	scholarly	tirade
chronic	editorial (adj)	indication	obtuse	scrunity	toxin
chronological	eloquent	indifference	omission	scrutinize	trajectory
cite	eminent	inevitable	omit	seascape	transcend
coherence	emphatically	inexplicably	on behalf of	seemingly	transition
coherent	enumerate	infer	one-dimensional	selectively	translucent
collaborating	escapist	inference	onus	seminal	treason
commendable	establishment	influential	outset	sensory	typesetting
compellingly	evaluative	ingenious	paradox	sentiment	tyranny
concede	evoke	ingenuous	parentetical	serenity	tyrant
conceive	explanatory	inherent	perceptual	shrill	uncanny
concrete (adj)	explicit	initial (adj)	phenomenal	shrub	unparalleled
condescension	extent	inquiry	philosophy	shun	unprecedented
confer	façade	insight	plagiarism	simultaneous	unsolicited
conformity	facet	insignificant	populace	singular	urgency
connote	factual	insinuate	populous	site	urn
consequence	faculty	insistently	portray	sit-in	vaccine
consequently	feign	insufficient	preceding	sizable	vindicate
consistent	fictional	intent	precisely	skepticism	visionary
contemporary (n)	fictitious	intently	preconceived	slogan	vivid
context	figuratively	interpretation	previous	social order	voluptuous
controversial	finding (n)	intolerant	progressive	solace	vulnerable
conversely	foresight	intricacies	quasi-	sovereign	wherefore
convey	formality	intricate	quintessential	specific	whimsy
correlate (v,n)	format	intrigue (v)	randomly	speculate	withdrawn
cosmopolitan (adj)	frenzied	irreconcilable	rational	spin-off	worldview
counter (v)	frivolous	irrelevant	redundancy	stable	
criterion	furthermore	irrevocable	redundant	stationary	
cryptic	generalities	likewise	reinforce	stationery	
daunting	generalization	longstanding	relevant	status	



* All these words taken from the five practice tests in the real ACT Prep Guide, 3rd Ed. These are words that the students are REQUIRED to know just to process the answers

ACT Vocabulary Words Required for English and Reading Tests—Bare Minimum—Comprehensive List

abstract *adj*—not like anything physical; not representing a physical object; related to thought or imagination as opposed to nature. Opposite of *concrete*.

The two-year-old’s finger painting looked more like *abstract* art than a picture of a cow.

absurdity *n*—the state of being ridiculously impossible

Expecting Charles Barker, the retired basketball player, to wear a pink sequined tutu and walk a tight wire strikes me as the height of *absurdity*.

acknowledge *vt*—to admit to be true

Myra *acknowledged* that the grapes in the refrigerator would be colder than the ones on the counter.

acute *adj*—

1. in geometry, less than 90° and therefore pointed and sharp; keen

My Uncle Theo has an *acute* sense of humor.

2. immediate and in need of attention; said of a disease. Opposite of *chronic*

Paul was rushed to the hospital for an acute appendix attack.

aesthetic

adj—artsy; related to beauty or excellence

Japanese food is usually more *aesthetic* than Granny’s home cooking.

n—a standard for judging something’s goodness

The judge’s *aesthetic* for rating the divers included the height of the splash as well as the straightness of the divers’ legs.

affluence *n*—wealth

Most Americans do not appreciate their *affluence* when compared to the rest of the world.

agenda *n*—plan of accomplishments and the time needed to perform them

I did not have “stop at Bruster’s for ice cream” on my *agenda*, but I’m glad to add it.



ACT Vocabulary Words (continued)

allegedly *adv*—according to what people say but unproven

By the time you read this, the scandalous things people have *allegedly* done today will either be proved or disproved.

ambiguity *n*—ability to be understood in either of two ways

The Kinks' song "Lola" was famous for its *ambiguity*: "I know I'm not the most masculine man,/ But I know what I am, and I'm glad I'm a man / And so's Lola."

ample *adj*—adequate; plentiful; abundant

If the pants are too short, there is *ample* fabric in the hem to lengthen them.

analogy *n*—comparison; a way to show how one thing is like another

Calling Cruella DeVille's heart as cold and hard as a diamond is a good *analogy*.

anomaly *n*—something that doesn't fit or belong and can't be explained

The doctor was worried about an *anomaly* in Granny's heart rhythm.

apathy *n*—lack of feeling

My little brother had nothing but *apathy* for the socks he got for Christmas.

arbitrary *adj*—chosen at random; having no pattern

After trying to follow Pia's singing, Chuck gave up and started playing *arbitrary* chords.

articulate *v*—to say something clearly and in detail

Ms. Hall *articulated* to the noisy class that even a sigh would cause them to miss recess.

assert *vi*—to state strongly

Aunt June *asserted* that her peach pie always won the prizes at the fair.

assertion *n*—a statement made strongly

When Mike ate his pencil eraser, I believed his *assertion* that he was hungry.

authoritative *adj*—confident; sounding as if an expert had said it

Anything Dolly Parton says about wigs is considered *authoritative* advice.

auxiliary *adj*—additional; used as a substitute in case of need

Our home has an *auxiliary* power source in case we lose electrical service.

breadth *n*—width, wide range or extent

During the debate, the challenger demonstrated his *breadth* of experience in foreign affairs.

ACT Vocabulary Words (continued)

chaos *n*—complete confusion or disorder

The *chaos* that occurred after the hurricane included young men overturning vehicles, rioting, and looting.

chronic *adj*—ongoing; across time. Opposite of acute

Because my sister suffers from *chronic* headaches, she had to give up soccer.

chronological *adj*—arranged in date or time order

Jacob's diary provided a *chronological* account of his life.

cite *v*—to show the source of

My teacher makes us *cite* all our sources when we write a research paper.

➔ Note: do not confuse with *site*

coherence *n*— logical connection and clearness

Dr. Hackney's *coherence* on the witness stand caused the jury to believe her testimony.

coherent *adj*—logically connected

My English teacher insists that a paragraph must include a good topic sentence and several coherent supporting sentences.

collaborating *vi*—to work together with

The music, dance, and art departments are *collaborating* with the drama department to produce *Oklahoma*.

commendable *adj*—worthy of praise

We want to thank the art department, whose *commendable* work made our stage look like a wide-open prairie.

compellingly *adv*—in a manner that causes someone to consider believing

Because Joan presented her argument so *compellingly*, Mom let her go on spring break.

concede *vt*—to admit

Although the race was close, the losing candidate *conceded* defeat just before midnight.

concise *adj*—efficient with words; saying what needs to be said in as few words as possible.

Being *concise* makes sense when sending a telegram that charges by the word.

ACT Vocabulary Words (continued)

concrete *adj*—looking like something physical; representing a physical object; related to nature, as opposed to thought or imagination. Opposite of *abstract*.
Most people believe *concrete* evidence more than they believe gossip.

condescension *n*—the act of lowering oneself to do something considered too “low”
The movie star acted with *condescension* to her old school chums, who had known her when she was a second-string basketball player.

confer *vi*—to talk with on a particular subject
After the coach *conferred* with the referee, he took Calvin out of the game.

conformity *n*—the act of going along with what everybody else is doing
The rule at my school is *conformity* for the first three years, then everyone dresses as they please.

connote *vt*—to cause to think about, as opposed to plainly stating. Opposite of *denote*.
To many people, country music *connotes* cowboy boots, glittery clothes, and twangy voices.

consequence *n*—result; what follows due to something that went before
The *consequence* of going overboard with your credit card is a mountain of debts.

consequently *adv*—as a result
We have had little rain this summer; *consequently*, many crops are drying up.

consistent *adj*—

1. the same throughout; fair

Old Man Turner is mean, but at least he’s *consistent*; he yells at everybody.

2. in harmony; having the same principles

The kids’ new club rules are *consistent* with the Constitution.

contemporary *n*—someone who lived at the same time

Napoleon and Jane Austen were *contemporaries*, but I don’t think they ever met.

context *n*—the sentence that surround the words

Depending on the *context*, a “run” may be a point in baseball or a tear in a woman’s stocking.

controversial *adj*—causing much discussion or scandal

Letting eighteen-year-old soldiers drink alcohol is still *controversial*; they can give their lives for their country, but they can’t buy a drink to celebrate a victory.

ACT Vocabulary Words (continued)

conversely *adv*—in the opposite order

Mom always puts milk first, then butter, then eggs in the refrigerator; *conversely*, she always removes eggs first, then butter, then milk.

convey *vt*—to make known; to serve as a means of communication

By his tears, DeShawn *conveyed* that the movie touched his heart.

correlate *vt*—to show how one thing relates to another

My favorite teacher can *correlate* what students like with what they need to learn.

cosmopolitan *adj*—worldly; educated in the ways of the world

Adding options like salsa, guacamole, and mushrooms gave Uncle Larry's hot dog stand a *cosmopolitan* air.

counter *vt*—to oppose in response

When my brother said I didn't know everything, I *countered* with, "Neither do you!"

criterion *n*—a standard or reason for judgment.

Bubba's *criterion* for a good car is a teeth-rattling sound system, but Brad's *criteria* are good mileage, rapid acceleration, and a color that matches his eyes.

→ Note: the plural is *criteria*.

cryptic *adj*—with a hidden meaning (its root word is crypt, meaning "hiding place")

Because Beth always gives me a *cryptic* answer, I'm never sure what she wants.

daunting *adj*—big or scary enough to make a person think twice before going ahead

Nichole had a *daunting* amount of homework, but she finished it before 9:00.

defiantly *adv*—with an oppositional attitude.

Patrick Henry *defiantly* said, "Give me liberty or give me death."

→ Note: do not confuse with *definitely*.

definitive *adj*—

1. the qualities that make something what it is

The quarterback's *definitive* coordination earned him a full scholarship.

2. the most nearly complete and accurate

In Myra's family, her mother's rules are the *definitive* rules.

→ Note: do not confuse with *definite*.

ACT Vocabulary Words (continued)

delete *vt*—to take out; remove (said of words)

To make sure the handout of the Pledge of Allegiance was perfect, Gilda told Fred to *delete* “Richard Stands” and write “which it stands” instead.

deletion *n*—the act of marking something out

The boss made so many *deletions* that it would have been easier for me to start over.

denote *vt*—to state plainly; to give an exact meaning. Opposite of *connote*.

The “six-pack” my sister’s computer date bragged about was actually what it denoted—a half-dozen cans of Pepsi, not a muscular abdomen!

derive *vt*—to arrive at by computing or thinking

My big sister *derives* a lot of pleasure from watching my brother and me arguing.

deterrence *n*—something that keeps people from doing something

All those thorns provide *deterrence* against the theft of Mrs. Lorrimer’s prize roses.

detached *adj*—neither on one side nor the other; objective; without bias; not “attached” to one side of an argument

The policeman’s *detached* attitude made me believe he was listening to me fairly.

deterrence *n*—something that keeps people from doing something

All those thorns provide *deterrence* against the theft of Mrs. Lorrimer’s prize roses.

deduct *vi*—to reduce the quality of

Jeremy’s handprints in the frosting *deduct* from the eye appeal of his birthday cake.

dialect *n*—a form of language used by people of a certain region or group

Having always lived in East Tennessee, Ashley understood the *dialect* of the South.

dilemma *n*—a choice between two confusing alternatives

Madison was faced with the *dilemma* of losing sleep to study for the test or getting eight hours’ sleep but not reading the last two chapters.

diligent *adj*—hard-working

It wasn’t so much being smart as it was being *diligent* that earned Steve his first million.

discern *vt*—to recognize as separate or different

A smart daughter will *discern* her mother’s mood before she asks to stay out late.

ACT Vocabulary Words (continued)

disdainful *adj*—showing lack of respect

The student's *disdainful* behavior caused the entire class to miss recess.

dispel *vt*—to get rid of

Harold's performance in his latest movie *dispelled* the rumors that his success is due to his famous father.

dissonance *n*—unmatched, disturbing sounds; lack of harmony

There is too much *dissonance* between Butch's Butcher Shop and Veronica's Vegan Deli for them to share a courtyard.

distract *vt*—to draw attention away

Listening to hip hop while I study *distracts* me from my French homework.

diverse *adj*—having parts that are unlike each other

The Mortons have *diverse* pets: a hermit crab, a Great Dane, and a chicken.

drawback *n*—disadvantage of doing something; reason not to do something

One big *drawback* to being a medical examiner is the smell of the dead bodies.

dry *adj*—reserved and subtle, as opposed to broad and obvious (said of a sense of humor)

Steven Wright's *dry* humor leads him to write jokes like, "Right now I'm having amnesia and déjà vu at the same time. I think I've forgotten this before."

eclectic *adj*—having components from a wide variety of sources

Maeve's new living room is an *eclectic* mix of Louis XIV furniture, Disney character posters, and lamps made from cowboy spurs, saddles, and ropes.

editorial *adj*—having the qualities an editor might add, as opposed to fact-based news stories

Mr. Franklin's *editorial* comments made it clear that his newspaper would not be supporting Taft in the fall.

eloquent *adj*—graceful and skillful of speech

The committee chose Thomas Jefferson to write the Declaration of independence because he had written so many *eloquent* letters and proposals before.

eminent *adj*—famous; outstanding

The *eminent* surgeon, Dr. Phillip Easterly, spoke at my sister's graduation.

➔ Note: often confused with *imminent*

ACT Vocabulary Words (continued)

emphatically *adv*—with great emphasis

When the waiter asked Ted if he wanted anchovies, Ted *emphatically* said, “No!”

enumerate *vt*—to count out one by one

Carl *enumerated* Melissa’s charms: her eyes, her figure, and her quiet sense of humor.

escapist *adj*—literature or art that rejects the routine of the real world

Arliss and Ethan prefer *escapist* video games with dragons and wizards to playing ball.

establishment *n*—“The powers that be”—those who by their wealth or power make the social rules

The hippies rebelled against the *Establishment* by wearing long hair and blue jeans.

evaluative *adj*—helping to judge

The news is not supposed to be *evaluative*; it’s supposed to give information so that the viewers can make up their own minds.

evoke *vt*—to bring to the mind or the senses

The smell of hot buttered popcorn always *evokes* a dark theatre and a new movie.

explanatory *adj*—explaining; giving details about something in order to make it easier to understand

The recipe made more sense when Madison read the *explanatory* notes at the bottom.

explicit *adj*—obvious and detailed

The crime scene show was too *explicit* to watch while we were eating pizza.

extent *n*—a place as far as

People appreciate how hard people work for them only to the *extent* that they have done the job themselves.

façade *n*—false face; front; shallow covering of the real thing

Driving a fancy car was part of the *façade* that hid how poor he really was.

facet *n*—a particular side, as of a jewel; aspect

When Nat saw the photo of “The Pirates of Penzance” in his father’s yearbook, he appreciated a new *facet* of his father’s personality.

factual *adj*—based on proven knowledge

The skid marks provided *factual* evidence that the driver had tried to stop.

ACT Vocabulary Words (continued)

faculty *n*—individual parts that make up a whole person or institution

The school's *faculty*, every single one of the teachers, reminded Tommy of the *faculties* he had left after his blindness: memory, imagination, sense of humor, intelligence, and understanding.

feign *vt*—to pretend; to fake

Steve *feigned* sleep so his mother would leave him alone.

fictional *adj*—made up, as opposed to factual

The Wizard of Oz is a *fictional* character.

fictitious *adj*—made up, as opposed to factual

Oz is a *fictitious* country.

figuratively *adv*—in a way; so to speak; in a way that people understand but not literally true

Jodi Lee is a ray of sunshine at the retirement home, *figuratively* speaking.

finding *n*—what someone has found after much research. Usually plural: *findings*

In spite of all the *findings*, cigarette companies still say smoking does not cause cancer.

foresight *n*—the ability to understand beforehand, to “foresee”

With great *foresight*, Howie took his rain boots and his dusk goggles on vacation.

formality *n*—“dressed-up”-ness; the degree to which something follows social rules

Because of the *formality* of the courtroom, I decided not to wear cutoffs.

format *n*—shape, size, and general arrangement of a book, magazine, or other presentation

Granddaddy has trouble learning the *format* of his new iPhone.

frenzied *adj*—with hysterical agitation; wild

The middle school girls had a *frenzied* attack on the latest teen idol.

frivolous *adj*—not serious; silly

The dress had a *frivolous* bunny made out of ruffles on one sleeve.

furthermore *adv*—in addition

Purple is not a color that brides wear; *furthermore*, it's not my favorite color.

generalities *n*—the big ideas or qualities that smaller ideas share

The candidate spoke in *generalities* but never gave a single specific fact.

ACT Vocabulary Words (continued)

generalization *n*—an overall big idea drawn from a bunch of smaller ideas
Grandma’s *generalization* that all rock stars have long hair is no longer true.

generalize *vi*—to state the qualities that different things or ideas have in common
To *generalize* that all skaters are rebellious slackers is unfair.

generate *vt*—to cause to be made
That lemonade stand of Jerry’s *generated* \$120 in only one hour.

genre *n*—category
The horror film *genre* is not the only kind Stephen King’s books have inspired.

glib *adj*—quick-witted; smooth-tongued
Any *glib* salesman can sell anything to Aunt Becky.

humanitarian *adj*—having to do with those who serve mankind
Although being a billionaire takes a lot of time, Bill Gates is involved in many *humanitarian* efforts, like teaching adults to read.

hypothesis *n*—the unproven idea you start out with before you prove something
Greg tested his *hypothesis* that his sister was sneaking out at night by watching her.

idealistic *adj*—expecting the best; identified by ideals, rather than dreads
“The Sun’ll Come Out Tomorrow” from *Annie* is one of the most *idealistic* songs I know.

ideological *adj*—having to do with ideas, their nature and source
The differences between those two politicians aren’t personal; they are *ideological*.

Idiomatic *adj*—unique in language and thought; setting its own standard
Mama Lizabetta’s English is *idiomatic*, but all the grandkids know what she means.

illogical *adj*—lacking logic; not making sense
Washing your hair right before you go swimming in the lake is *illogical*.

illustrative *adj*—so descriptive that it draws a mental picture
The speaker’s examples of the beach were so *illustrative* that I could almost hear the ocean.

imminent *adj*—on its way; about to arrive
The weatherman says rain is *imminent*, so take your umbrella.

➔ Note—often confused with *eminent*

ACT Vocabulary Words (continued)

implication *n*—the idea a person gives without saying it directly

When three people offer you a Tic-Tac, the *implication* is that you've got bad breath.

→ Note: different from *inference*

imply *vt*—to give an idea indirectly, without coming out and saying

When Brian offered Hugo a bigger chair, he was *implying* that Hugo was overweight.

→ Note: different from *infer*

impose *vt*—to cause unnecessary trouble to

"It's after midnight, Mrs. Kane, so we won't *impose* in you any longer. Good night."

inaccurate *adj*—wrong; faulty

After the ball game was rained out, it was obvious that Channel 9's weather report prediction of 100% sunshine was *inaccurate*.

inadvertently *adv*—without having been planned; by not being careful

The waiter *inadvertently* knocked the cherry off my sundae when he reached for the dirty plate.

incentive *n*—a reward or prize offered to get someone to behave a certain way

Hanging a nice, juicy carrot in front of a donkey's nose is a good *incentive* to make him move forward.

Inclination *n*—leaning; tendency

Two of the Gregory children show a definite *inclination* towards music.

inconsistency *n*—lack of "sameness"; difference in substance or texture

Waiter, there is an *inconsistency* between what I ordered and what you brought me.

inconstant *adj*—unsteady; wavering

Walter, that jerk, is an *inconstant* boyfriend; he dates three girls besides Jodi.

indication *n*—hint; sign

With a tilt of her head, Kiki made an *indication* that she wouldn't mind talking to Bob.

Indifference *n*—absence of caring

Whether you go or stay is a matter of complete *indifference* to me.

inevitable *adj*—unavoidable

One *inevitable* result of eating dessert at every meal is weight gain.

ACT Vocabulary Words (continued)

inexplicably *adv*—“un-explain-ably”

“Nobody broke the vase, Mom,” Jimbo said. “It just *inexplicably* shattered into a million pieces.”

infer *v*—to come up with an idea based on what someone said

When Lee handed me a comb, I *inferred* that my hair looked messy.

→ Note: different from *imply*

inference *n*—an idea that comes from what someone else said

When I saw Nana looking under the bed, my *inference* was that she had lost something.

→ Note: different from *implication*

influential *adj*—having influence; having “pull”

The Beatles were highly *influential* in the recording industry, being the first to make their own technical decisions.

ingenious *adj*—clever and inventive

My little brother developed an *ingenious* way to let the dog out without leaving the sofa.

→ Note: often confused with *ingenuous*

ingenuous *adj*—innocent, trusting, simple

“Why does Buck like to look at the girls in the short skirts, Daddy?” the *ingenuous* little girl asked.

→ Note: often confused with *ingenious*

inherent *adj*—built-in naturally

While vitamin pills can be useful, the vitamins *inherent* in fresh vegetables are healthier.

initial *adj*—first; at the beginning

At our *initial* meeting, Van seemed boring; when I knew him better, though, he made me laugh.

inquiry *n*—question-asking

The police’s *inquiry* into the robbery revealed nothing except that the thief had red hair.

insight *n*—ability to see or understand the inner nature

Although she’s eighty-three, Nana has a lot of *insight* into the problems of teenage girls.

insignificant *adj*—unimportant; too small to matter

Except for a few *insignificant* details, Gina had finished planning the entire wedding.

ACT Vocabulary Words (continued)

insinuate *vt*—to hint or suggest indirectly

When Marcy looked at me and locked her desk, she was *insinuating* that I was nosy.

insistently *adv*—refusing to give up

The salesman *insistently* knocked at the door until Grandpa wheeled his wheelchair to the door and answered.

Insufficient *adj*—not enough

The police announced that they had *insufficient* evidence to make an arrest.

intent

adj—determined to; focused

Grace was so *intent* on following the traffic laws that she did not notice what Luke was saying.

n—purpose

By bringing Kate a dozen roses, Bill's *intent* was to express his love, not to make her sneeze.

intently *adv*—with great concentration

The boys played Masters of Destruction so *intently* that they did not hear Mom call them for dinner.

interpretation *n*—way of saying something in a different language or for a different listener

A Sesame Street *interpretation* of Shakespeare's play *Romeo and Juliet* would probably leave out the deaths.

intolerant *adj*—unwilling or unable to put up with

Since Donna is *intolerant* of milk products and Uncle Todd is *intolerant* of hippies, they did not attend the opening of the new Woodstock Ice Cream Parlor.

intricacies *n*—complicated details

Caitlyn hates to dust around the *intricacies* of her mother's miniature glass animal collection.

intricate *adj*—delicate and complicated

Norman has no problem with the *intricate* workings of the inside of a computer.

intrigue *vt*—to fascinate

Uncle Steve told Quint, "No matter how old I get, the mind of a woman will always *intrigue* me."

ACT Vocabulary Words (continued)

irreconcilable *adv*—un-matchable; that cannot be brought into agreement
Since Matt bred beef cattle and Kiki was a vegetarian, their differences were *irreconcilable*.

irrelevant *adj*—unrelated; not important to the matter at hand
Whether you pay me back with two five-dollar bills or ten ones is *irrelevant*, as long as you pay me back today.

irrevocable *adj*—unchangeable
Dad's decree that no daughter of his will date until she is fifteen is final and *irrevocable*.

likewise *adv*—in the same way
Her friends like Jane because she's so positive; *likewise*, strangers like her for her friendliness.

longstanding *adj*—having been established a long time
Some of the council members were uneasy changing the *longstanding* town boundaries.

lyricism *n*—graceful, musical quality
Even voters who disagreed with his views were swayed by the *lyricism* of his speeches.

mainstream *n*—majority; common idea
The vegans want Friday to be Tofu Day, but kids in the *mainstream* want it to stay Pizza Day.

mandate *v*—to cause to be demanded
The alarming increase in stray dogs *mandated* a crackdown by the Humane Society.

matter of course *n*—thing that people just accept without thinking
Mom began washing the dishes as a *matter of course*, even though it was Mother's Day.

means *n*—stuff needed; way
I had the need and the desire to buy a car, but not the *means*, so I got a job.

mediocre *adj*—neither high- nor low-quality; in-between; average
The pie was *mediocre*; it wasn't as delicious as Granny's, but it wasn't as nasty as mine.

melancholy *adj*—sad and thoughtful; gloomy
Rainy days like this make me so *melancholy* that I need to watch a good comedy.

ACT Vocabulary Words (continued)

mere *adj*—only; nothing more or other than

Nobody expected that a *mere* five-year-old could play the piano like Elton John.

meticulous *adj*—picky and extremely careful

The guy who washes my car is so *meticulous* that he goes over the interior with a Q-tip.

minuscule *adj*—very tiny

Grandpa didn't see the *minuscule* insect on his potato salad before he put it in his mouth.

mischievous *adj*—fond of playing jokes and causing harmless trouble

Both puppies and kittens can seem *mischievous* because of their curiosity.

misconception *n*—mistaken idea

After she saw the mail deliverer put the mail in the mailbox, Jenna got the *misconception* that he wrote all the letters, bills, and catalogues.

momentous *adj*—important in a life-changing way

The invention of the electric light bulb was a *momentous* step in modern civilization.

mutual *adj*—as much from one side as the other; agreeable to both sides; from both sides

Buzz likes Liz, and Liz likes Buzz; their feelings are *mutual*.

narrative *n*—the telling of a story

Barack Obama's *narrative* includes growing up in a single-parent family.

nevertheless *adv*—unlike what you might expect; nonetheless

I slept for nine hours; *nevertheless*, I was still tired.

nonetheless *adv*—unlike what you might expect; nevertheless

Sam was careful; *nonetheless*, he spilled the coffee.

nostalgia *n*—an emotional feeling about the past

When the movie *Grease* came out in the 1970s, America felt *nostalgia* for the 1950s.

noteworthy *adj*—worth paying attention to

The only *noteworthy* event from my week at camp occurred when the pool caught fire.

notion *n*—small part of an idea

Madison had no *notion* that the surprise party was for her.

ACT Vocabulary Words (continued)

obscure

adj—hard to find

Sophie was shocked to find an *obscure* law saying that a husband could not beat his wife with a stick any larger than his thumb.

vt—to hide

Unfortunately, the clouds *obscured* the full moon.

obtuse *adj*—dull; not sharp; said of an angle that is greater than 90° because it isn't "sharp"

Because Ryan was so *obtuse*, Jill and Sam had to come out and tell him they wanted to be alone.

omission *n*—the leaving out of something

Due to a famous *omission*, one version of the Bible said, "Thou shalt commit adultery."

omit *vt*—to leave out

If you *omit* the eggs when making meat loaf, it won't stick together. Don't ask me how I know!

on behalf of *prep*—for the sake of; to represent

Kayla gave Ms. Prosser a box of chocolates *on behalf of* all the students she tutored after school.

one-dimensional *adj*—having neither depth nor width; a spot only, without any development

Even though everyone likes him, the Road Runner is a *one-dimensional* character.

onus *n*—burden

Although the fashion world makes being too skinny seem glamorous, the *onus* of teaching girls to have a healthy view of their bodies is on their parents.

outset *n*—beginning; the place from which one "sets out"

I never liked Gordy, even from the *outset* of his relationship with Sheila, and I was right.

paradox *n*—the relationship between two statements that do not seem to be able to be true at the same time

The novel *Catch-22* was based on the *paradox* that you had to be crazy to get out of the army, but you had to be crazy to be in the army in the first place!

ACT Vocabulary Words (continued)

parenthetical *adj*—

1. inside parentheses: words inside curved marks (like those around these words)

Takesha’s play is full of *parenthetical* instructions that tell the actors how to say the lines.

2. that which is said off to the side; not the main idea but one that is worth sneaking in

Christi was famous for her *parenthetical* comments, as when she said, “Lowell, that new teacher, the one you said that looks like Taylor Swift, wants to see you.”

perceptual *adj*—relying on the senses, as opposed to the mind

Watching a spinning black-and-white spiral can cause *perceptual* confusion.

phenomenal *adj*—like nothing else; unique

Most fans thought *Avatar* was a *phenomenal* movie.

philosophy *n*—way of thinking that guides other thoughts and actions

Unfortunately, the *philosophy* of many tobacco companies is to make as much money as possible, with no regard for the health of their customers.

plagiarism *n*—the using of someone else’s words or ideas without giving that person credit; stealing words or ideas

Rob claimed that it was coincidence, not *plagiarism*, that explained why his report was identical to Fred’s.

populace *n*—the people of a region or group

To most Westerners’ surprise, the *populace* of Indonesia is mostly Muslim.

→Note: often confused with *populous*

populous *n*—having a large population

New York City is far more *populous* than Knoxville.

→Note: often confused with *populace*

portray *vt*—to display from a certain viewpoint

Val Kilmer *portrayed* Batman as a darker character than the Batman of the 1960s.

preceding *adj*—the one that went before; previous

The last tournament was much more exciting than the *preceding* ones.

precisely *adv*—exactly

Whether everyone has arrived or not, Aunt Lois always serves dinner at *precisely* 6:30.

ACT Vocabulary Words (continued)

preconceived *adj*—already thought of

Yankees have many *preconceived* ideas about Tennesseans: illiterate, barefoot moonshine makers who marry their cousins.

previous *adj*—that which came before; preceding

The receipt from the *previous* customer was still in the ATM when I got my cash.

progressive *adj*—socially or culturally different from a mainstream idea

Darcy’s kids go to a *progressive* school that does not divide students into grades.

quasi- *prefix*—sort of; somewhat

The roller coaster made Jenna *quasi-queasy*, but she still felt like riding the Ferris wheel.

quintessential *adj*—the absolute basic

Superman is the *quintessential* superhero: he has a mysterious origin, amazing powers, and one peculiar weakness.

randomly *adv*—not in any predictable order

The winning numbers on the Draw Five lottery are supposed to come out of the machine *randomly*, not in order.

rational *adj*—based on thought, not feeling; reasonable

Officer Hayes always stays *rational*, even when the victims and suspects appear crazy.

redundancy *n*—words that are unnecessary because they have been stated in another way

The phrase “3 a.m. in the morning” uses an obvious *redundancy*.

redundant *adj*—unnecessary because they have been stated in another way

The phrase “12 midnight at night” is *redundant*.

reinforce *vt*—to make stronger

Seeing Ron’s vanity license plate, which said “STUDLY,” *reinforced* my belief that he was conceited.

relevant *adj*—related to the important idea

In determining a woman’s fitness, her height is *relevant* to her weight.

reluctantly *adv*—not wanting to

The day after she got her braces, Taylor went *reluctantly* to school.

ACT Vocabulary Words (continued)

remnant *n*—leftover piece

Mama made a Kayce a doll's dress out of the *remnant* of the white satin she used for Gail's wedding gown.

remote *adj*—away from everything else

Don refused to stay in a Holiday Inn; he wanted a *remote* inn, far away from the shopping areas.

replenish *vt*—to fill back up; to restore to its original volume

Because Trace *replenished* the whiskey bottle with tea, it looked like no one had drunk any.

resemblance *n*—“looking-alike-ness”

Steve's *resemblance* to Stephanie made many people think they were brother and sister.

resistant to *adj*—able to avoid being infected or taken in by

Davy's mom need to find clothes that are *resistant* to mud, tears, and being left behind.

resolution *n*—strength of will

Bertha's *resolution* to avoid desserts was strong enough to survive five birthday parties.

resonate *vi*—to spread a sound or an idea

The thumps from Dwight's car stereo *resonated* into Mrs. McGregor's bedroom.

resources *n*—qualities or material that can be used

Even my mostly worthless brother has *resources*: his stomach makes a good pillow, and I can light a match on his unshaved chin.

respectively *adv*—in the same order as the items on the other list

Horn-rim glasses, platform shoes, and fedoras are fashionable accessories that have been recycled from, *respectively*, the Twenties, the Seventies, and the Fifties.

revel *v*—to enjoy indulgently

After six months at sea, the sailors *reveled* for three days in everything New York had to offer.

reverent *adj*—treating with great respect, as if holy

Andrew is usually hyper, but he was almost *reverent* at the Air and Space Museum, because he wants to be an astronaut.

ACT Vocabulary Words (continued)

revisionist *adj*—trying to change the accepted idea

Since she was always old school, Prof. Wallace fought against the *revisionist* movement.

rift *n*—a space that divides

After three months of harmony, the roommates developed a *rift* over Fred's new girlfriend.

rudimentary *adj*—just enough to get by

Dad threw together a *rudimentary* meal of crackers, cottage cheese, and applesauce.

sacrilege *n*—a supreme insult to something held holy

My uncle, the chef, thinks using Cool Whip instead of freshly whipped cream is a *sacrilege*.

sanctuary *n*—

1. a place that provides protection and safety because it has been set aside by a religious authority

Most weddings are held in the *sanctuary* of a church.

2. the status of someone who depends on the protection of a sanctuary

In *The Hunchback of Notre Dame*, the gypsy girl found *sanctuary* in the cathedral.

sapling *n*—a young tree

The gardener had to prop up the maple *sapling* with ropes and stakes.

satellite *n*—something that orbits around something else

The moon is a *satellite* of the Earth, and photographers are *satellites* of Jennifer Lopez.

saturation *n*—being so full that it is impossible to hold any more

The advertisers created complete *saturation* of the media by running ads for the new candy bar in every TV station, every magazine, and every radio station.

scholarly *adv*—like someone who enjoys school; academic; bookish

My teacher wants us to use *scholarly* articles, not just whatever we find on Google.

scrutinize *vt*—to examine closely

Aunt Nelda found a great deal by *scrutinizing* the want ads every day.

scrutiny *n*—careful observation

Mr. Pierre puts every wedding gown through close *scrutiny* before each bride arrives.

ACT Vocabulary Words (continued)

seascape *n*—a painting or drawing of the sea and features in it or nearby; compare to *landscape*

While we were walking on the beach, we met an artist who was painting a *seascape*.

seemingly *adv*—apparently; giving the appearance of

Myra was *seemingly* calm, although she had just been in a car wreck.

selectively *adv*—in a picky, careful way

Aunt Reba always chooses her fruit *selectively*; she never buys the big bag.

seminal *adj*—a basic part of what comes after

The invention of the wheel was *seminal* to most forms of transportation.

sensory *adj*—having to do with seeing, hearing, tasting, smelling, or feeling (as opposed to thinking)

Good writers use lots of *sensory* details, like “velvety,” “granite-hard,” and “coal-black.”

sentiment *n*—an expression of feeling; an opinion colored by emotion

Sara could not find a card with the right *sentiment* after she let the Smiths’ cat run away.

serenity *n*—the state of being serene: beautifully calm

After a week in the city, the *serenity* of the woods was just what I needed.

shrill *adj*—high, piercing, and grating on the ear

Everyone on the playground knew Ms. Skelly’s *shrill*, demanding voice.

shrub *n*—any bushy plant, smaller than a tree, often used for decoration or as a fence

Uncle Billy always hides the Easter egg with the five-dollar bill in the *shrub* by the back door.

shun *vt*—to avoid deliberately and systematically

All the girls in Ms. Knowles’ class *shunned* Renee after she tattled on them.

simultaneous *adj*—occurring at the same time

The fireworks show timed the starbursts so that they were *simultaneous* with the music.

singular *adj*—unusual; not like anything else

Adele won several Grammy Awards because of her *singular*, throaty voice.

site *n*—a place where something happened or is planned to be

People kept staring at the *site* of the wreck, even though it had been cleaned up.

➔ Note: do not confuse with *cite*

ACT Vocabulary Words (continued)

sit-in *n*—a form of protest in which participants sit in a targeted place until their demands are met.

Many civil rights protesters held *sit-ins* at the drugstore counters where they were forbidden to sit because of their race.

sizable *adj*—big

After he caught the burglar, Officer O’Leary got a *sizable* reward.

skepticism *n*—tendency to doubt

Uncle Don’s *skepticism* about the weather report explains why he takes his umbrella.

slogan *n*—a saying that identifies a movement or person

During the Fifties, “I Like Ike” was the *slogan* on buttons that Eisenhower supporters wore on their skinny lapels.

social order *n*—“the way things are”; the unwritten rules for how a society works

The *social order* of the Fifties did not allow women to have a career and a family.

solace *n*—emotional comfort

After Mark broke up with her, Lana found *solace* by learning tae kwon do.

sovereign *adj*—all-powerful; in control of the entire unit

King Henry VIII gained the *sovereign* power over the English by forming the Church of England.

specific *adj*—exact; of a particular kind

My irritating brother always has to choose *specific* potato chips; he can’t just reach in and grab.

speculate *vi*—to invest money or ideas in something you aren’t sure about; to gamble

Uncle Reggie *speculated* on gold, hoping the price would continue to rise.

spin-off *n*—a TV show originated as a feature of another TV show

The Andy Griffith Show was a *spin-off* of an episode of *The Danny Thomas Show* in which Danny gets a speeding ticket driving through a poky Southern town.

stable *adj*—staying the same; neither getting better nor worse

After the accident, the doctors said DaShawn’s condition was *stable* enough for him to go home.

ACT Vocabulary Words (continued)

stationary *adj*—staying in one place

All of the furniture in the Lanes' living room is *stationary* except the rolling coffee table.

→ Note: do not confuse with *stationery*

stationery *n*—specialized, fine quality paper for writing letters and notes

My mother always uses monogrammed *stationery* for writing thank-you notes.

→ Note: do not confuse with *stationary*

status *n*—current state of being

On the medical report, Jenna claimed her marital *status* was “married.”

steerage *n*—the lowest level of a passenger ship, where those buying the cheapest tickets stay

The passengers in *steerage* rarely socialize with the first-class passengers.

stereotypical *adj*—matching what people expect because of one trait

Dr. Barbie Strickland, the astrophysicist, is not a *stereotypical* “dumb blonde.”

stifle *vt*—to repress; to hold down

The speech was boring, but I had to *stifle* all my yawns because I was sitting on the stage.

subjective *adj*—based on feelings and not on fact

Dr. Lyles was being a little *subjective* when he said broccoli was “yucky.”

succession *n*—a series

She established her star status by a *succession* of wildly popular movies.

succumb *vi*—to fall a victim (to)

After fighting it for five years, Mrs. Norris finally *succumbed* to cancer and died last night.

superficial *adj*—only on the surface; not deep

Even though the car was totaled, Manny's wounds were only *superficial*.

superimpose *vt*—to lay (something) on top of something else

If you *superimpose* a geological map on top of the street map, you can see why May Street is a dead end; it's practically on the edge of a cliff.

sustenance *n*—that which sustains; the stuff that keeps something alive

Sylvester the Cat justifies his attempts to eat Tweety Bird by saying, “I'm in need of *sustenance*.”

ACT Vocabulary Words (continued)

syndicated *adj*—a group of similar businesses owned by one company

Most newspapers are *syndicated*, although a few are still independently owned.

syringe *n*—a device for putting a small amount of a liquid into a small space, like a medicine into a vein, in which a tube with a closed end is pushed inside a tightly fitting tube with a narrow opening at the end, usually attached to a hollow needle through which the liquid is delivered

I stared at the *syringe* on the tray in front of me, waiting for the dentist to return.

taut *adj*—tightly stretched

Sam made the sides of the tent so *taut* that you could bounce a nickel off them.

taxed with *vt*—given the responsibility for

Now that Mindy has moved back home with her baby, her parents are *taxed with* two mouths to feed.

tenet *n*—any opinion, principle, or doctrine that a person or group holds

One of the *tenets* of the Boy Scouts is “Be prepared.”

terra firma *n*—Latin for “solid earth”

I loved flying in the helium balloon, but I admit I was glad to get back to *terra firma*.

terrestrial *adj*—having to do with the earth

A farmer’s interests are mainly *terrestrial*, while a sailor prefers the water.

theorize *vi*—to propose an explanation for

In the ancient world, philosophers *theorized* that maggots came from dead flesh.

thereafter *adv*—from then on; starting at that point and then going on

Max likes to eat all the meat off the bone and *thereafter* to bury the bone in the garden.

thus *adv*—

1. like this; in this way

To curl paper ribbon, hold it *thus*: with your thumb on top of the ribbon and a scissors blade underneath.

2. therefore; because of what has just been said

I had seven slices of pizza; *thus*, I didn’t really want dessert.

timber *n*—trees that have been felled and are to be used for wood for furniture, paper, etc.

Oregon and Washington provide much of the *timber* for America’s wood.

ACT Vocabulary Words (continued)

tirade *n*—a long speech in which the speaker fusses or complains

When twenty out of twenty-seven students failed the test, Mr. Dorris went into a long *tirade* about studying.

toxin *n*—a poison that comes from a plant or animal

Some mushrooms contain a *toxin* called coprine, which causes hangover-like symptoms.

trajectory *n*—the curved path of something hurtling through space

The *trajectory* of the bullet proved it could not have come from the policeman's gun.

transcend *vt*—to go beyond or above

Being voted Most Valuable Player *transcended* Philip's dreams of making the team.

transition *n*—a graceful easing from one thing to another

I hope Kelsey can make the *transition* from being an only child to living in a dormitory.

translucent *adj*—able to let light through but diffusing it enough to conceal any object behind it

The fogged-up windshield was too *translucent* for me to drive.

treason *n*—an act of betrayal against one's own country

Benedict Arnold is famous for his act of *treason*, betraying the United States to England.

typesetting *n*—the art of placing tiny metal letters and numbers in place to be covered with ink and pressed against paper to make a printed page

Now that many homes have their own laser printers, the art of *typesetting* is threatened.

tyranny *n*—any government controlled by a single person

"Taxation without representation is *tyranny*" was the rallying cry of the American revolution.

tyrant *n*—one who has absolute power over a country

Mussolini, who later joined forces with Hitler, was a *tyrant* over Italy in the 1930s.

uncanny *adj*—"un-explainable"; something for which no one knows the reason

Chester was afraid to spend the night in his aunt's old house because of the *uncanny* noises in the wall.

unparalleled *adj*—unmatched; too extreme to be equaled

Michael Phelps' *unparalleled* number of Olympic gold medals has won him a place in history.

ACT Vocabulary Words (continued)

unprecedented *adj*—original; having nothing similar that came before

Franklin D. Roosevelt ran for an *unprecedented* third term as president—and then a fourth!

unsolicited *adj*—“un-asked-for”

I’m thinking of putting a trash can beside the mailbox for all those *unsolicited* advertisements.

urgency *n*—need for action

When I understood the *urgency* of your need, I rushed right over.

urn *n*—a large vase, sometimes with a lid

My Aunt Frieda’s favorite possession is a Chinese *urn* made of carved yellow jade.

vaccine *n*—a preventive medicine made from the disease-causing essence itself; by introducing a small amount of the germ into the body, the body forms antibodies to fight the disease, and can thus resist further exposure to the disease.

Louis Pasteur’s *vaccine* against anthrax saved millions of cows from dying.

vindicate *vt*—to prove innocent after having been blamed

If Zia swells up after eating that peanut butter sandwich, she will be *vindicated* against the suspicion that she has been sneaking peanuts every night.

visionary *n*—one who imagines how the future can be

Someone said that all children are *visionaries*, and all old men are historians.

vivid *adj*—strongly colored; standing out from the background

A report of three drive-by shootings in one week was a *vivid* reminder of the crime rate.

voluptuous *adj*—heavily fleshed in a beautiful way

Francesca was pretty and *voluptuous* enough to be a model for Lola’s Large Lady Fashions.

vulnerable *adj*—easily wounded or hurt

Even a big guy like Bruno is more *vulnerable* after a breakup with a girl like Vanessa.

wherefore *conj*—why; for what reason

When Juliet says, “*Wherefore* art thou Romeo?” she is asking why the only boy she has ever loved has to be one of her family’s enemies, not “Where are you, sweetie?”

ACT Vocabulary Words (continued)

whimsy *n*—a lighthearted, playful attitude

If you like *whimsy*, you'll love *Alice in Wonderland*.

withdrawn *adj*—shy; staying away from people

The poor abused dog was *withdrawn* until Jamie gave it some food.

worldview *n*—an overall way of looking at the world

Hitler's *worldview* was that the "right people" should control the world.

Irregular Plurals

antenna, antennae

axis, axes

criterion, criteria

datum, data

focus, foci

matrix, matrices

millennium, millennia

nucleus, nuclei

radius, radii

thesis, theses

vertex, vertices

Most of these words taken from the five practice tests in *The Real ACT Prep Guide*, 3rd Ed.

Appendix 2

ACT Math Concepts and Problems



Math Vocabulary

area of a circle
chord
circumference
collinear
complex number
congruent
consecutive
diagonal
directly proportional
endpoints
function $y = R(x)$
hypotenuse
integer
intersect
irrational number
least common denominator
logarithm
matrix
mean
median
obtuse
perimeter
perpendicular
pi
polygon
prime number
quadrant
quadratic equation
quadrilateral
quotient
radian
radii
radius
rational number
real number
slope
standard coordinate plane
transversal
trapezoid
vertex
x-intercept
y-intercept



Math Vocabulary

area of a circle— $A = \pi r^2$

chord—a line drawn from the vertex of a polygon to another non adjacent vertex of the polygon

circumference—the perimeter of a circle = $2 \pi r$

collinear—passing through or lying on the same straight line

complex number—is an expression of the form $a+bi$, where a & b are real numbers and $i^2 = -1$

congruent—corresponding; equal in length or measure

consecutive—uninterrupted sequence

diagonal—a line segment joining two nonadjacent vertices of a polygon or solid (polyhedron)

directly proportional—increasing or decreasing with the same ratio

endpoints—what defines the beginning and end-of-line segment

Function $y = R(x)$ —a set of number pairs related by a certain rule so that for every number to which the rule may be applied, there is exactly one resulting number

hypotenuse—the longest side of a right-angle triangle, which is always the side opposite the right angle

integer—a member of the set $\dots, -2, -1, 0, 1, 2, \dots$

intersect—to share a common point

irrational number—cannot be expressed as a ratio of integers, eg., $\sqrt{3}$, π , etc.

least common denominator—the smallest number (other than 0) that is a multiple of a set of denominators (for example, the LCD of $\frac{1}{4}$ and $\frac{1}{3}$ is 12)

logarithm— $\log_a x$ means $a^y = x$

matrix—rows and columns of elements arranged in a rectangle

mean—average; found by adding all the terms in a set and dividing by the number of terms

median—the middle value in a set of ordered numbers

obtuse—an angle that is larger than 90°



Math Vocabulary (continued)

perimeter—the distance from one point around the figure to the same point

perpendicular—lines that intersect and form 90-degree angles

pi— = 3.14 ...

polygon—a closed, plane geometric figure whose sides are line segments

prime number—a positive integer that can only be evenly divided by 1 and itself

quadrant—any one of the four sectors of a rectangular coordinate system, which is formed by two perpendicular number lines that intersect at the origins of both number lines

quadratic equation— $Ax^2 + bx + C = D, A \neq 0$

quadrilateral—a four sided polygon

quotient—the result of division

radian—a unit of angle measure within a circle

radii—the plural form of radius

radius—a line segment with endpoints at the center of the circle and on the perimeter of the circle, equal to one-half the length of the diameter

rational number— r can be expressed as $r = \frac{m}{n}$ where m & n are integers and $n \neq 0$

real number—all numbers except complex numbers

slope— $m = \frac{y^2 - y^1}{x^2 - x^1}$

standard coordinate plane—a plane that is formed by a horizontal x-axis and a vertical y-axis that meet at point (0,0) (also known as the *Cartesian Coordinate Plane*)

transversal—a line that cuts through two or more lines

trapezoid—a quadrilateral (a figure with four sides) with only two parallel lines

vertex—a point of an angle or polygon where two or more lines meet

x-intercept—the point where a line on a graph crosses the x-axis

y-intercept—the point where a line on a graph crosses the y-axis



Math Section Content

- Pre-algebra
- Elementary algebra
- Intermediate algebra
- Coordinate geometry
- Plane geometry
- Trigonometry
- Miscellaneous topics
- Math test-taking strategy



Pre-Algebra – Word Problems

Converting a word problem into an equation:

If a discount of 20% off the retail price of a desk saves Mark \$45, how much did Mark pay for the desk?



Pre-Algebra

If a discount of 20% off the retail price of a desk saves Mark \$45, how much did Mark pay for the desk?

$$\text{Amount Paid (Sales Price)} = \text{Retail Price} - \text{Discount}$$

$$\text{Discount} = 20\% \times \text{Retail Price}$$

$$\$45 = 20\% \times \text{Retail Price}$$

$$\text{Retail Price} = \$45 / .2 = \$225$$

$$\text{Sales Price} = \$225 - \$45 = \$180$$



Pre-Algebra

A lawn mower is on sale for \$1600. This is 20% off the regular price. How much is the regular price?



Pre-Algebra

A lawn mower is on sale for \$1600 which is 20% off the regular price. How much is the regular price?

$$\text{Sales Price} = \text{Regular Price} - \text{Discount}$$

$$\text{Discount} = 0.20 \times \text{Retail Price}$$

$$\text{Sales Price} = \text{Regular Price} - 0.20 \times \text{Retail Price}$$

$$\$1600 = 0.80 \times \text{Regular Price}$$

$$\text{Regular Price} = \$1600 / 0.8 = \$2000$$



Pre-Algebra

If 45 is 120% of a number, what is 80% of the same number?



Pre-Algebra

If 45 is 120% of a number, what is 80% of the same number?

$$45 = 1.2 (X)$$

$$X = 45/1.2 = 37.5$$

$$Y = 0.8 (37.5) = 30$$



Elementary Algebra – Substitution, 2 Equations, 2 Unknowns

If $a - b = 14$, and $2a + b = 46$, then $b = ?$

$$a = 14 + b; \textit{ substitute}$$

$$2(14 + b) + b = 46$$

$$28 + 2b + b = 46$$

$$3b = 18$$

$$b = 6, a = 20$$



Elementary Algebra

$$\frac{a}{b} + \frac{c}{b} = (a + c) / b$$

$$\frac{a}{b} + \frac{c}{d} = (ad + bc) / bd$$

$$3x^3 + 9x^2 - 27x = 0; 3x (x^2 + 3x - 9) = 0$$

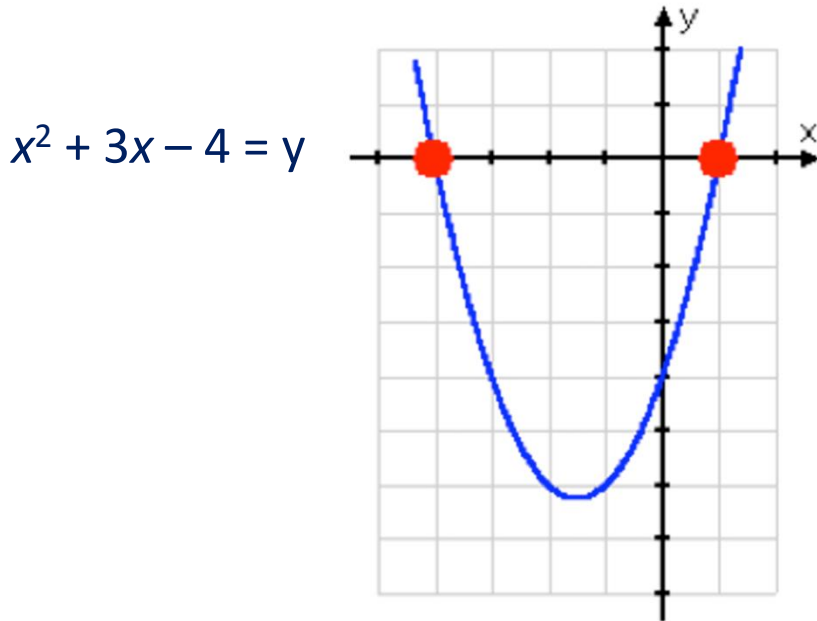
$$(x+2)^2 = (x+2)(x+2)$$

$$(x/y)^2 = x^2/y^2$$

$$x^0 = 1$$



Intermediate Algebra – Quadratics



$$x^2 + 3x - 4 = 0$$

Factoring:

$$(x - 1)(x + 4) = 0$$

$$X = 1, -4$$

For $ax^2 + bx + c = 0$, the value of x is given by:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Quadratic Formula

$$X = \frac{-3 + (3^2 - 4 \cdot 1 \cdot -4)^{.5}}{2} = 1$$

$$X = \frac{-3 - (3^2 - 4 \cdot 1 \cdot -4)^{.5}}{2} = -4$$



Intermediate Algebra – Factoring Polynomials, Solve for x

$$x^2 - 2x - 15 = 0$$

$$(x - 5)(x + 3) = 0$$

$$x = 5, -3$$



Intermediate Algebra – Factoring Polynomials

Example 1

$$x^3 + 3x^2 + 2x + 6$$

$$(x^3 + 3x^2) + (2x + 6)$$

$$x^2(x + 3) + 2(x + 3)$$

$$(x + 3)(x^2 + 2)$$

Example 2

$$x^3 + 3x^2 + 2x + 6 / (x + 3)$$

$$((x^3 + 3x^2) + (2x + 6)) / (x+3)$$

$$(x^2(x + 3) + 2(x + 3)) / (x+3)$$

$$((x + 3)(x^2 + 2)) / (x+3)$$

$$x^2 + 2$$



Intermediate Algebra – Exponents

$$x^3 * x^2 = x^5$$

$$x^2 * x^{.5} = ?$$

$$x^2 * x^{.5} = x^{2.5}$$

$$x^9 / x^2 = x^7$$

$$x^4 / x^8 = ?$$

$$x^4 / x^8 = x^{-4}$$

$$(x^2)^5 = x^{10}$$

$$(x^{.5})^2 = ?$$

$$(x^{.5})^2 = x$$

$$1/x^4 = x^{-4}$$

$$1/x^{-z} = ?$$

$$1/x^{-z} = x^z$$



Intermediate Algebra – Imaginary Numbers

$$i^2 = -1, i * i = -1$$

$$i = \sqrt{-1}$$

$$i = \sqrt{-1}$$

$$i^2 = -1$$

$$i^3 = -i$$

$$i^4 = 1$$

$$i^5 = i$$

$$i^6 = -1$$

$$i^7 = -i$$

$$i^8 = 1$$

$$\sqrt{-25} = \sqrt{-1 * 25} = 5i$$

$$\sqrt{-75} = \sqrt{-1 * 3 * 25} = 5i\sqrt{3}$$



Coordinate Geometry – Coordinates Equation of a Line

$y = mx + b$, equation of a linear (straight) line

m = slope of the line = change in Y / change in X

b = y intercept

If m is negative, the line is going down and if positive the line is going up (left to right).

What is the equation for the line between points, (1, -2) & (6, 8)?

$$m = \text{change in } y \text{ values} / \text{change in } x \text{ values} = (y_1 - y_2) / (x_1 - x_2)$$

$$m = [8 - (-2)] / (6 - 1) = 10/5 = 2$$

$$b = y - mx; b = 8 - (2) \times (6) = 8 - 12 = -4$$

$$y = 2x - 4$$



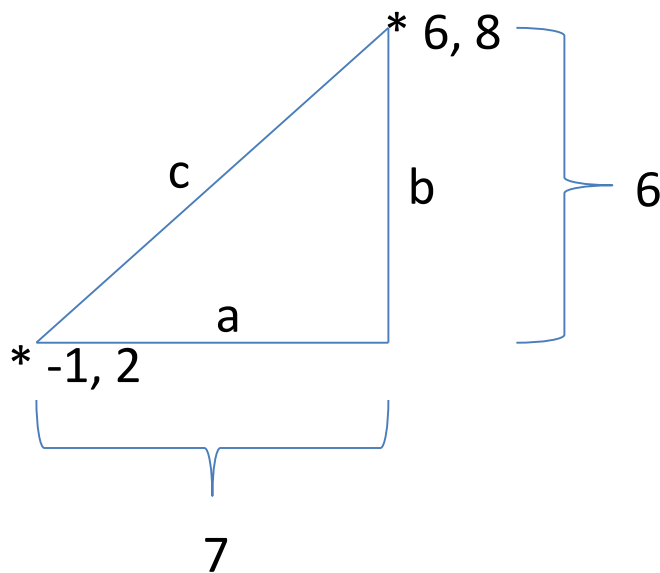
Coordinate Geometry – Coordinates

What is the distance between these points
 $(-1, 2)$ and $(6, 8)$?



Coordinate Geometry – Coordinates

What is the distance between these (-1, 2) and (6, 8)?



$$a^2 + b^2 = c^2$$

$$49 + 36 = c^2$$

$$c = \sqrt{85}$$

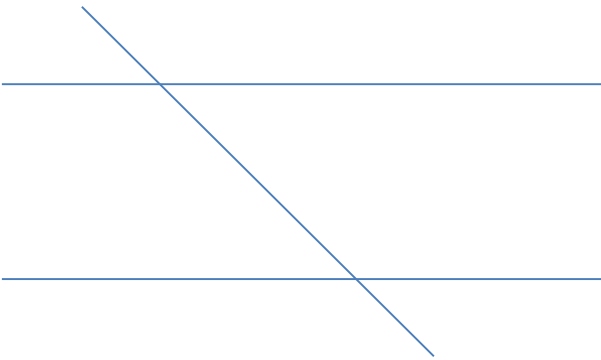
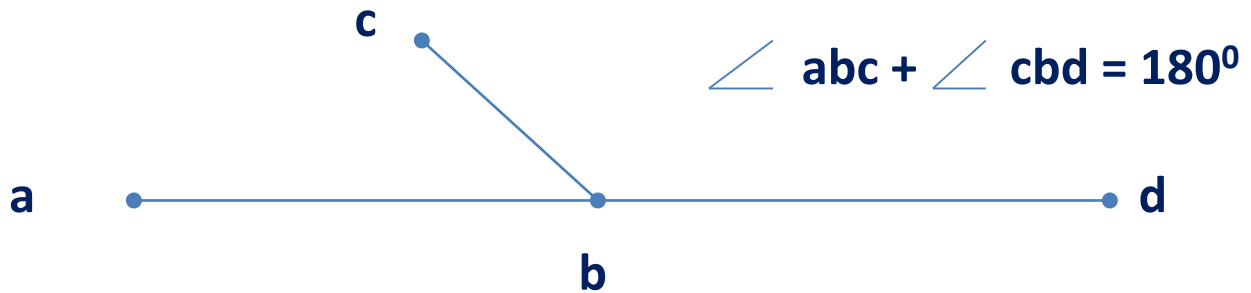


Plane Geometry

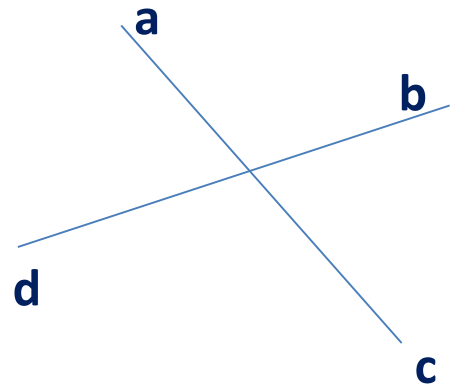
- Lines and Angles
- Triangles
- Circles
- Squares and Rectangles
- Multiple Figures



Plane Geometry: Lines



Transversal line thru two parallel lines creates equal opposite angles.

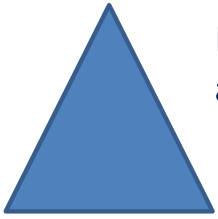


Opposite (vertical) angles are congruent (equal)

All angles combined = 360°

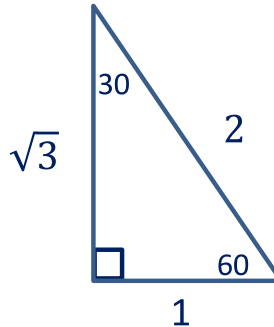


Plane Geometry: Triangles



Equilateral:
all angles = 60°

Sum of all angles = 180°

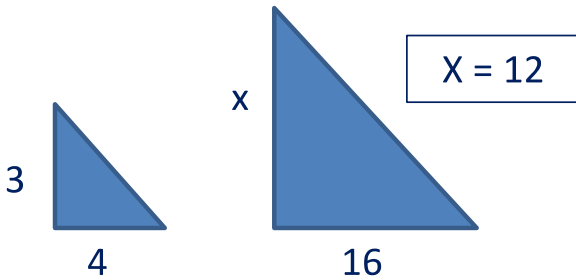


For a 30, 60, 90 triangle (only):

Short side = $\frac{1}{2}$ * Hypot

Long side = $\frac{1}{2}$ * H * $\sqrt{3}$

Recall: $a^2 + b^2 = c^2$

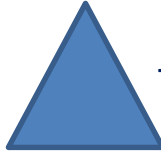


*Similar triangles,
proportions are equal*



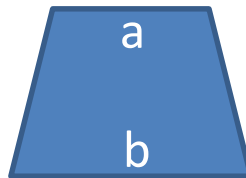
Plane Geometry

Area of a triangle = $\frac{1}{2}$ (base * height)



The sum of the three angles = 180°

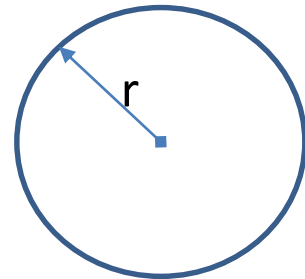
Area of a trapezoid = $\frac{1}{2}$ (a + b) * (height) where a and b are the lengths of the parallel sides



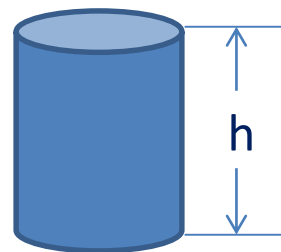
Diameter = $2 * \text{radius}$ of a circle

Circumference of a circle = $2\pi r$

Area of a circle = πr^2

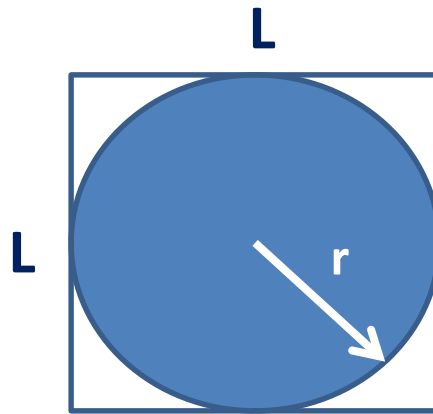


Volume of cylinder = area of circle * height



Plane Geometry Example

What is the area of the square if the radius equals 5?



Diameter = $2 \times r$

The diameter = 1 side of the square

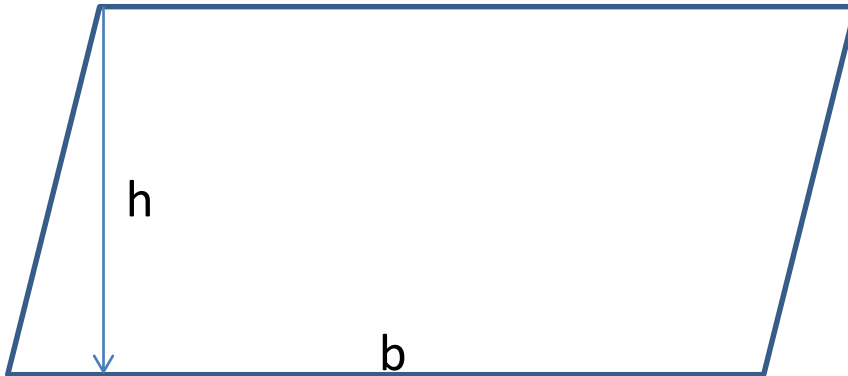
Area = $L \times L$

Diameter = 10 (same as a length of a side), Area = 100



Plane Geometry Parallelogram

Area = Base x Height

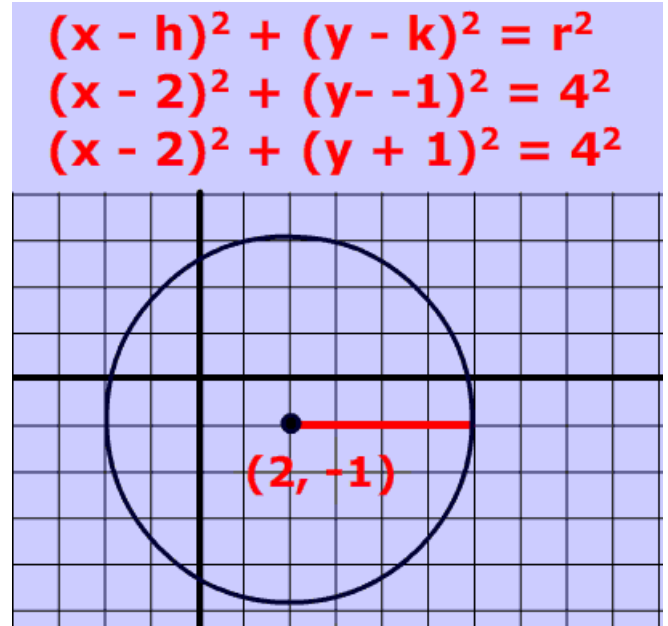
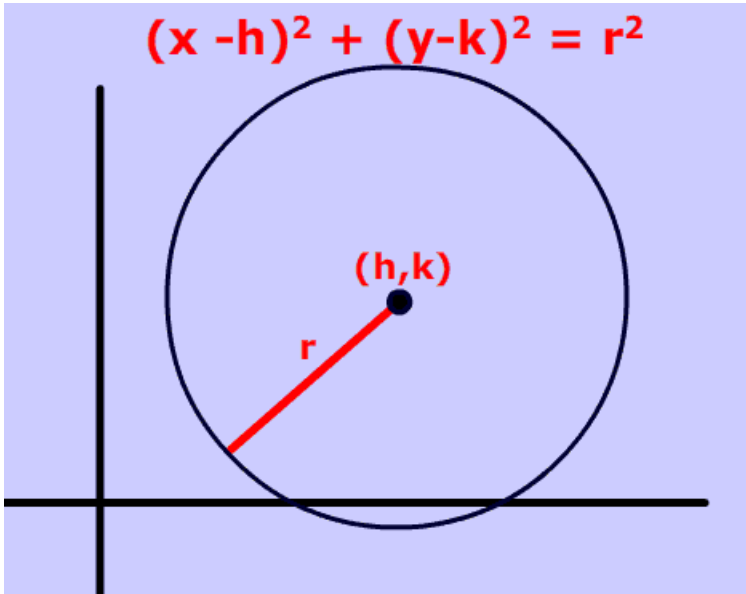


Note a rectangle is a parallelogram.

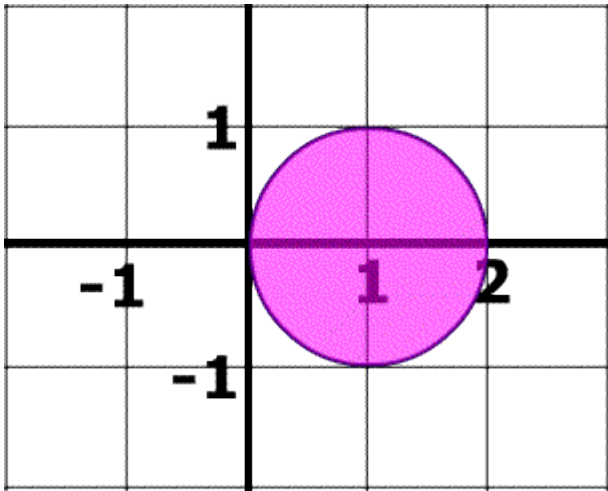
The sum of the angles = 360°



Plane Geometry Circles

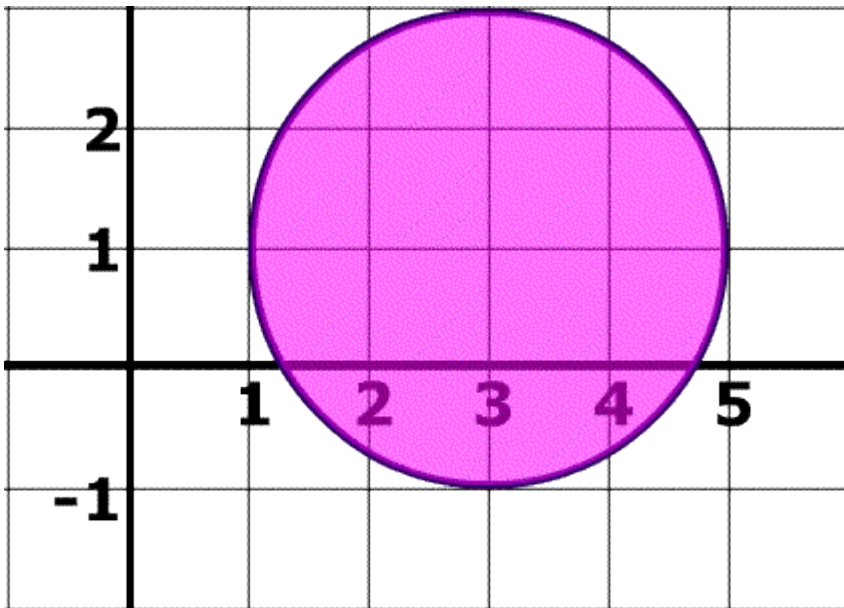


Plane Geometry Circles



What is the equation of these circles?

$$(x-1)^2 + y^2 = 1$$



$$(x-3)^2 + (y-1)^2 = 4$$



Plane Geometry Terms

Congruent = equal lengths

Co-linear = on same line

$\angle abc$ = the angle of b in the triangle abc

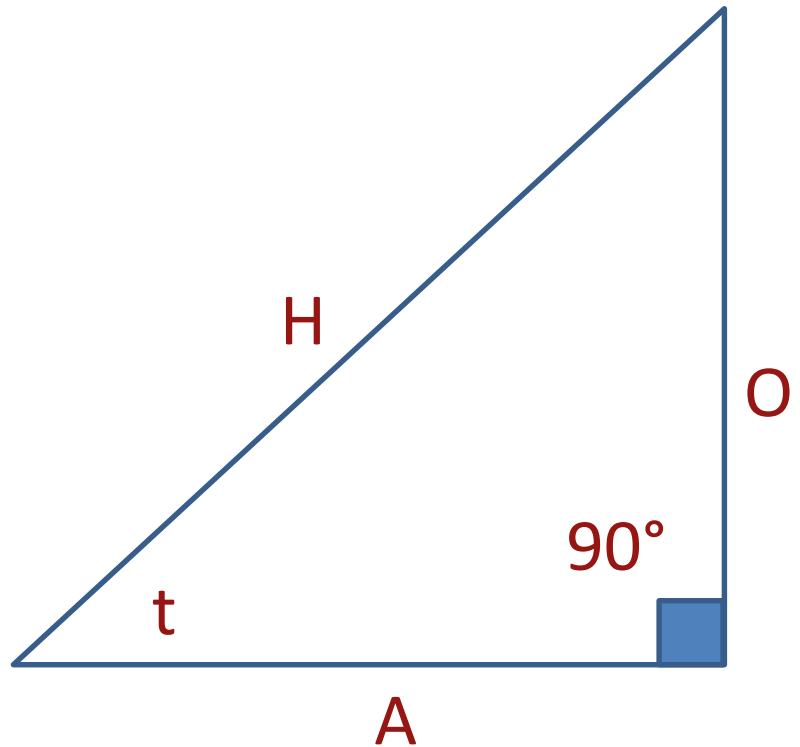
Acute = less than 90 degrees
(A cute little angle)

Obtuse = greater than 90 degrees



Trigonometry

For all right triangles



Memory Aid
SOH CAH TOA

$$\sin (t) = \text{sine } t = \frac{\text{opposite side}}{\text{hypotenuse}} = \frac{O}{H}$$

$$\cos (t) = \text{cosine } t = \frac{\text{adjacent side}}{\text{hypotenuse}} = \frac{A}{H}$$

$$\tan (t) = \text{tangent } t = \frac{\text{opposite side}}{\text{adjacent side}} = \frac{O}{A}$$

$$\cot (t) = \text{cotangent } t = \frac{1}{\text{tangent } t} = \frac{\text{adjacent side}}{\text{opposite side}} = \frac{A}{O}$$

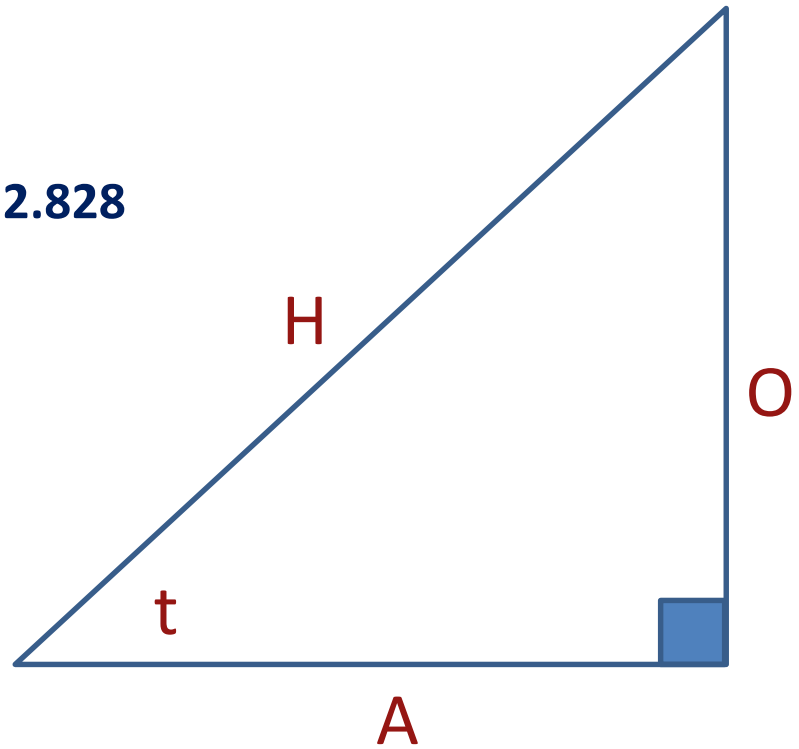


Trigonometry

$$\cos(t) = A/H$$

$$\text{if } O = 2 \text{ and } A = 2, \text{ then } H = \sqrt{8} = 2.828$$

$$\cos(t) = 2/2.828 = 0.707$$



$$H^2 = A^2 + O^2$$

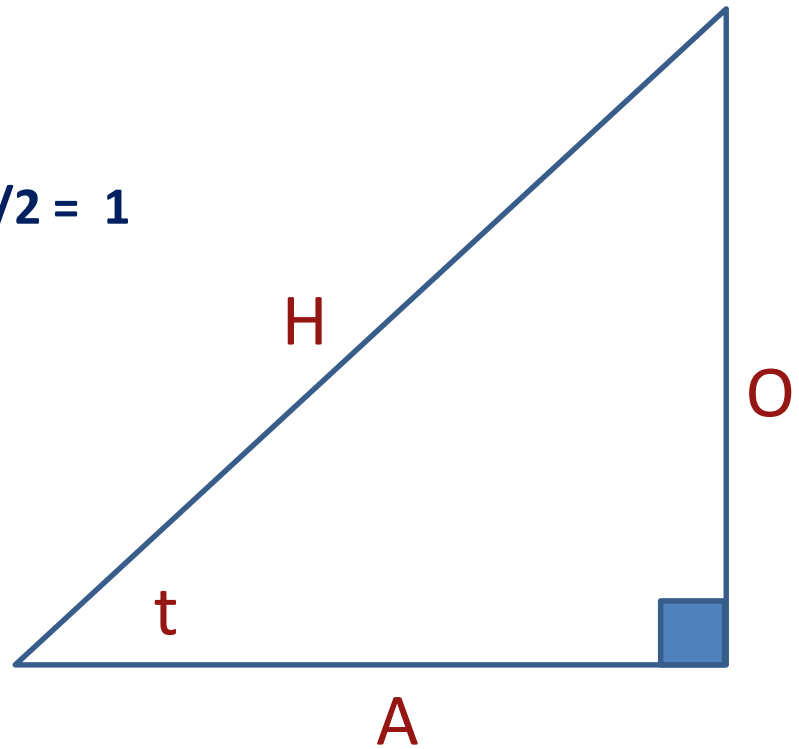


Trigonometry

$$\text{Tan}(t) = O/A$$

if $O = 2$ and $A = 2$, then $O/A = 2/2 = 1$

$$\text{Tan}(t) = 1$$



$$H^2 = A^2 + O^2$$



Miscellaneous Topics – You May See These On The ACT Math

Fundamental Counting Principles

3 shirts, 2 pairs of pants, 4 sweaters – how many days with a different outfit?

$$(3)(2)(4) = 24 \text{ day of a unique combination}$$

How many different and unique phone numbers of a 7 digit number?

$$(10)(10)(10)(10)(10)(10)(10) = 10^7$$



Miscellaneous Topics – Probabilities – Examples

Given: 5 red marbles are placed in a bag along with 6 blue marbles and 9 white marbles:

Question: if three white marbles are removed, what is the probability the next marble removed will be white?

- *Originally, there were 9 white marbles out of 20; with 3 white marbles removed, there are 6 out of 17 remaining. The probability the next marble removed is white = $6/17$.*

Question: if 4 blue marbles are added to the original amount, what is the probability the first marble removed is NOT white?

- *Now there are 24 marbles total with 15 non-white. The probability that the first marble removed is not white is $15/24$.*



FINANCIAL LITERACY

LESSON 11-24 ▲ LEARNING TO USE MONEY IN 11TH GRADE

LEARNING GOALS/OUTCOMES

- ▶ Identify how careful spending and saving can lead to success.
- ▶ Describe the value of high demand assets in the definition of earning potential.
- ▶ Analyze personal spending habits to identify cost efficiencies for self and/or family members.
- ▶ Develop a personal earning/spending plan for the summer.

MATERIALS NEEDED

- ▶ **Student Handouts:**
 - What's in High Demand?
 - Earning, Spending and Saving Plan
 - Journal Page

CLASSROOM ACTIVITIES

1. **Students list how teens spend money.** Divide students into small groups of three or four each. Ask each group to list the ways that they spend money: on food, movies, dances, computer or gaming supplies, music, art, savings, etc. Give them a minute or two to brainstorm. Call for volunteers to share their group lists. Write their answers on the board, noting common themes.
2. **Students list how teens could save money.** Ask students in their groups to imagine that, instead of just spending, they wanted to save \$3,000 by graduation to buy a car or to put toward college. How would their team do that? Give students a minute to brainstorm, then call the groups back together and ask for volunteers to share their ideas. Write those ideas on the board, noting common themes. Ask students if they think it would be easy or difficult to save \$3,000.
3. **Students describe the value of high demand assets in the definition of earning potential.** Ask students if they know the secret to getting a high wage, choice of jobs/job location, and job security. Many will say they need a college education. Tell students that college education is not the secret, although some types of college degrees do offer all those job benefits. Encourage

students to recognize that having skills, credentials, or experiences that are in high demand/low supply is the secret. For example, if everyone wants to hire an electrician, and there are not many electricians, good electricians have their pick of where they want to work.

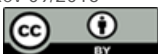
Tell students that some college degrees are in high demand and low supply. Others are not. It is wise for a person to examine the projected job opportunities for any careers they are considering. Tell students that they may still elect to pursue a low demand or high supply credential or skill. The financial value is only one of several considerations when making post-secondary choices

Provide each group with a copy of *What's in High Demand?* Ask students in their groups to guess which 16 of the 30 occupations are high demand careers identified in the Occupational Outlook Handbook. (Answers: Accountants, Athletic Trainers, Biochemists, Carpenters, Computer Network Analysts, Dental Hygienists, Elementary School Teachers, Home Health Aides, Management Consultants, Medical Scientists, Physical Therapists, Post-Secondary Teachers, Registered Nurses, Retail Salespeople, Truck Drivers, Veterinary Technicians). Once you have reviewed the right answers, ask students to speculate why some career fields are growing and others are shrinking.

4. **Students analyze personal spending habits to identify cost efficiencies for self and/or family members.** Ask students to return to their seats. Distribute the *Earning, Spending and Saving Plan* and ask each student to focus on the first question on the handout, listing the skills and experiences they could use to get a job. Students who already have a job can list the skills and experiences they use on the job. Ask students to focus particularly on skills and experiences that they believe might be in higher demand.

Have students spend a few minutes thinking about how they have spent money over the last several months (including things that family members bought for them). Tell them this will help them understand their spending habits. Ask students to think about a goal they have for the next five years that would encourage them to save some of their earnings. Then ask them to identify ways they could save money by spending less, or by earning more. Ask if any volunteers want to share their saving plans.

5. **Students develop a personal earning/spending plan for the summer.** Ask students to turn to the second page of the handout. Tell them they are now going to focus on their plans for the summer. Ask them to indicate whether they have a paid summer job. If so, they should calculate how much they will earn this summer. Then ask them to estimate what they will spend and how much they can save. For students who do not have a paid job yet, ask them to estimate the earnings they will generate this summer. Provide assistance, where needed, so each student can

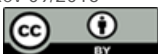


complete both pages.

6. **Students project the assets they will have by their graduation day.** Ask students to answer the following questions on a Journal Page.
 - What are my three highest demand assets (skills, credentials, experiences) today?
 - What assets will I develop between now and graduation?
 - What high demand assets can I develop through post-secondary education?

STUDENT PRODUCTS

- ▶ Completed *Earning, Spending and Saving Plan*
- ▶ Completed *Journal Page* on determining a plan to develop personal demand assets.



FINANCIAL LITERACY

LESSON 11-24 STUDENT HANDOUT

WHAT'S IN HIGH DEMAND?

Sixteen of the following 30 occupations are listed in the Occupational Outlook Handbook as fast-growing occupations or occupations with the largest number of projected new jobs to 2018. Guess which ones are the high demand occupations.

Accountants	Historians
Actors	Home Health Aides
Athletic Trainers	Management Consultants
Blacksmiths	Medical Scientists
Biochemists	Oil Derrick Operators
Carpenters	Philosophers
Computer Network Analysts	Photographic Machine Operators
Cooks	Physical Therapists
Dance Teachers	Post-Secondary Teachers
Dental Hygienists	Registered Nurses
Desktop Publishers	Retail Salespeople
Elementary School Teachers	Sewing Machine Operators
File Clerks	Tennis Professionals
Fish Boat Operators	Truck Drivers
Game Testers	Veterinary Technicians

LESSON 11-24 STUDENT HANDOUT

EARNING, SPENDING AND SAVING PLAN

EARNING AND SPENDING

How do you earn money? Do you spend all your earnings? What reason is there for you to save?

<p>How can I earn money? What do I have to offer an employer?</p> <p>(List skills or experience that you could use to find a job.)</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<p>How do I currently spend my money?</p> <p>(List the types of things you have purchased, or someone has purchased for you, over the last several months)</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<p>A goal I need money for within the next five years:</p> <hr/> <p>How could I save more (or earn more) to reach this goal?</p> <p>(List steps you can take to spend</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

EARNING, SPENDING AND SAVING PLAN cont.

less, save more, and reach a specific goal, such as buying a car, attending college, etc.)	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black;"/>
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SUMMER SPENDING PLAN

What will you do this summer? How can you use the money you earn this summer wisely?

Do you have a job lined up for the summer?	<input type="checkbox"/> Yes, a paid job <input type="checkbox"/> A volunteer job <input type="checkbox"/> Don't know yet
If you have a paid job for the summer, how much will you earn?	I will earn \$_____ per hour and expect to work _____ hours per week. I will work _____ weeks this summer for a total of \$_____.
Of the amount you will earn this summer, how much do you expect to spend on each of the following things?	Savings: \$ _____ Entertainment: \$ _____ Clothes: \$ _____ Books, Music: \$ _____ Education or Career-related: \$ _____
Whether you have a paid job this summer or not, what can you do this summer to work toward the goal you listed on the bottom of the first page?	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/>





FINANCIAL LITERACY

LESSON 11-24 STUDENT HANDOUT

JOURNAL PAGE

DATE: _____

Lesson 11-24 | *LEARNING TO USE MONEY IN 11TH GRADE*

Q1: What are my three highest demand assets (skills, credentials, experiences) today?

Q2: What assets will I develop between now and graduation?

Q3: What high demand assets can I develop through post-secondary education?

Answers:

FINANCIAL LITERACY

LESSON 11-25 ▲ PURCHASING WITH CREDIT

LEARNING GOALS/OUTCOMES

- ▶ Learn about using credit and establish credit rules for self.
- ▶ Identify a variety of sources of credit.
- ▶ Explain the costs and benefits of various types of credit.
- ▶ Differentiate between good debt and bad debt.
- ▶ Explain how a credit card is used to make purchases.
- ▶ Explain how credit card debt is repaid.

MATERIALS NEEDED

- ▶ **Student Handouts:**
 - The Cost of Credit (Answer Key included with this lesson)
 - Personal Rules for Credit
 - Journal Page

CLASSROOM ACTIVITIES

1. **Students imagine applying for credit.** Ask students to imagine this scenario: you've just turned 18. With your birthday money and savings from your job, you can finally afford a big purchase you've been wanting for a year. At the checkout counter, the clerk asks if you want to apply for a store credit card. If you do, she tells you, you'll get 20% off your purchase. You're spending \$500, so you would save \$100! Plus, the card will come in handy because there are a lot of things you need to buy before college.

Ask for a show of hands. How many students would apply for the credit card in return for the \$100 savings? How many would turn it down? Ask card takers what the benefits of a credit card would be. Ask card rejecters what the problems of a credit card would be. Record a list of their perspectives on the board.

2. **Students identify a variety of sources of credit.** Explain to students that getting credit means they are borrowing money so that they can buy something right now. Some people avoid credit and use savings to pay for new items. Many others use a variety of types of credit providers to purchase what they want right now.

Ask students to call out as many different kinds of credit as they can. Write their answers on the board. Students might identify bank credit, credit cards, car loans, home mortgages, student loans, home equity loans, retail credit programs, and cash stores as different types of credit. List the different types of credit providers on the board. Explain to students that credit providers make money by charging interest on the borrowed money. The more money you borrow, the more interest you pay. Some providers have higher interest rates than others.

- 3. Students review the costs and benefits of various types of credit.** Distribute *The Cost of Credit*. Ask each student to complete the math for the four scenarios. After a few minutes, divide students into groups of three and have them compare answers. Ask students to reach consensus on which (if any) of the borrowing methods they would use to purchase the iPad. After a few minutes, have each group comment on the value of borrowing to buy right now.
- 4. Students differentiate between good debt and bad debt.** Write the word “debt” on the board. Divide the class into two groups. Tell one group they have three minutes to come up with as many reasons as possible to explain why debt is bad. Tell the other group they have three minutes to come up with as many reasons why debt is good. Ask for one volunteer from each side to debate why debt is bad or good.

Explain that debt can be either good or bad. It depends on how it's used and the terms on which it is obtained. Debt to purchase a home, for instance, is usually considered “good debt,” because the homeowners gain equity in their home as they pay it off over many years. But credit card debt is usually considered “bad debt,” because it is often accumulated for unnecessary things and carries a very high interest rate.

Ask students to look at the four scenarios from the handout. Ask for a show of hands on each scenario: is debt to buy an iPad good debt or bad debt?

- 5. Students explain how a credit card is used and repaid.** Ask students if they know how a credit card works. Encourage students to recognize that you can use a credit card instead of cash. As long as you pay that money back to the credit card company within 30 days, you pay no money for the credit service! Ask students how credit card providers make money. Encourage them to recognize that too many people buy more than they can afford with their credit card, so they can't pay it all back within 30 days. Credit card companies make money (at high interest rates) on people's poor use of credit.

Tell the story of a college student who received a credit card as part of registering for college. She did not really understand how they worked. After buying all kinds of things, she ran her credit up to over \$1,500. Her minimum monthly payments to the credit card company were \$50. She was surprised to learn that her minimum \$50 payments covered only the interest but did not reduce the amount she owed.



Distribute the *Personal Rules for Credit and Credit Worksheet*. Quickly review the facts on the first page, and then pause at the quiz at the bottom of the first page. Ask students to read the question and then answer it by checking one of the boxes. Then ask for a show of hands: how many students selected each answer?

6. **Students reflect on why they would or wouldn't apply for a credit card to get major savings.** Tell students to think about the scenario you gave at the beginning of the lesson: that they have saved for a year to buy a \$500 item, and now can get \$100 off if they simply apply for a credit card. Ask them to use a *Journal Page* to answer these questions:
 - Would I apply for a credit card if it would get me a discount on a major purchase?
 - Why or why not?

STUDENT PRODUCTS

- ▶ Completed *Cost of Credit Handout*
- ▶ Completed *Personal Rules for Credit Handout*
- ▶ Completed *Journal page* on whether or not to apply for a credit card upon turning 18





FINANCIAL LITERACY

LESSON 11-25 STUDENT HANDOUT

THE COST OF CREDIT

Simon has decided to purchase an iPad. After all the accessories and tax, Simon needs \$945 to complete the purchase. He has \$28 in the bank. He decides to borrow money to obtain the iPad right now.

SCENARIO ONE: RETAIL CREDIT

The computer store offers Simon an opportunity to purchase the iPad on their retail credit program. If Simon agrees to pay \$40/month for the next three years, he can walk out with his purchase today.

On this credit program, how much would Simon pay in total for the \$945 tablet computer? _____

How much interest would Simon pay so he could have the iPad right now? _____

SCENARIO TWO: BANK LOAN

Simon decides to do some research before he makes his purchase. He goes to a local bank to find out what it would cost for a line of credit to buy the computer. He finds out it would cost 6.5%/year in interest. If the bank approves him for a line of credit, what would his costs be?

On this credit program, how much would Simon pay in total for the \$945 tablet computer? _____

How much interest would Simon pay, so he could have the iPad right now? _____

SCENARIO THREE: CREDIT CARD

The bank requires a person to be 18 years old and be earning \$35,000 a year in order to provide a line of credit. Simon is 18 but has nowhere near that kind of annual income. So, Simon decides to apply for a credit card from the bank. If accepted, he will pay 18.5%/year, with a minimum payment of 3% of the amount he borrowed. If Simon's credit card application is accepted, and he pays it off in two years, what would his costs be?

On this credit program, how much would Simon pay in total for the \$945 tablet computer? _____

How much interest would Simon pay, so he could have the iPad right now? _____



SCENARIO FOUR: CASH ADVANCE LOAN

Simon is rejected on his credit card application because he's still in high school. He considers a money store, where they make cash advance loans available to anybody. He learns online that they charge \$60 for each \$200 you borrow and you have to pay it back in 15 days. If you fail to pay the whole amount, you pay another \$60 for each \$200 for the next 15 days. Assuming Simon borrows \$1,000, and does not pay it back for 6 months, what would his costs be?

On this credit program, how much would Simon pay in total for the \$945 tablet computer? _____

How much interest would Simon pay, so he could have the iPad right now? _____



LESSON 11-25 TEACHER HANDOUT

THE COST OF CREDIT ANSWER KEY

Simon has decided to purchase an iPad. After all the accessories and tax, Simon needs \$945 to complete the purchase. He has \$28 in the bank. He decides to borrow money to obtain the iPad 'right now.'

SCENARIO ONE: RETAIL CREDIT

The computer store offers Simon an opportunity to purchase the iPad on their retail credit program. If Simon agrees to pay \$40/month for the next three years, he can walk out with his purchase today.

On this credit program, how much would Simon pay in total for the \$945 tablet computer? \$1,440.00

How much interest would Simon pay, so he could have the iPad right now? \$495.00

SCENARIO TWO: BANK LOAN

Simon decides to do some research before he makes his purchase. He goes to a local bank to find out what it would cost for a line of credit to buy the computer. He finds out it would cost 6.5%/year in interest. If the bank approves him for a line of credit, what would his costs be?

On this credit program, how much would Simon pay in total for the \$945 tablet computer? \$1,071.84

How much interest would Simon pay, so he could have the iPad right now? \$126.84

SCENARIO THREE: CREDIT CARD

The bank requires a person to be 18 years old and be earning \$35,000 a year in order to provide a line of credit. Simon is 18 but has nowhere near that kind of annual income. So, Simon decides to apply for a credit card from the bank. If accepted, he will pay 18.5%/year, with a minimum payment of 3% of the amount he borrowed. If Simon's credit card application is accepted, and he pays it off in two years, what would his costs be?

On this credit program, how much would Simon pay in total for the \$945 tablet computer? \$1,326.99

How much interest would Simon pay, so he could have the iPad right now? \$381.99

SCENARIO FOUR: CASH ADVANCE LOAN

Simon is rejected on his credit card application because he's still in high school. He considers a money store, where they make cash advance loans available to anybody. He learns online that they charge \$60 for each \$200 you borrow and you have to pay it back in 15 days. If you fail to pay the whole amount, you pay another \$60 for each \$200 for the next 15 days. Assuming Simon borrows \$1,000, and does not pay it back for 6 months, what would his costs be?

On this credit program, how much would Simon pay in total for the \$945 tablet computer? \$4,600.00

How much interest would Simon pay, so he could have the iPad right now? \$3,655.



FINANCIAL LITERACY

LESSON 11-25 STUDENT HANDOUT

PERSONAL RULES FOR CREDIT

WHY USE CREDIT?

Paragraph body. People who borrow money use either short-term or long-term credit.

- Long-term credit is a loan you use to finance a very large purchase such as a home or car.
- Short-term credit – from a credit card – is also a loan and must be repaid.

A credit card can be useful. You can use a credit card to buy something immediately when you don't have the money. You can use credit to track your purchases or to buy things over the Internet. But credit cards can also be dangerous, because they send a simple message: "Spend money." And they let you keep spending even when you don't have the money to pay back what you owe.

CREDIT FACTS

You will soon receive many credit card offers. But you need to be careful using credit:

- According to recent studies, the average college student has three credit cards and owes more than \$3,000 in credit card debt (in addition to student loans).
- Every credit card you apply for is automatically added to your individual credit report. Too much credit card debt can make it difficult to buy a home or car.

GOOD AND BAD USES OF CREDIT

Credit cards have a number of good uses:

- They can provide identification (to rent a car or cash a check).
- They can be a safe substitute for cash.
- They provide easy record-keeping of your purchases.
- They usually come with insurance in case you are unhappy with what you bought.

But, credit cards can also be bad:

- They provide a constant temptation to spend.
- They have very high interest rates (if you can't pay the full bill each month).
- They can allow you to accumulate a lot of debt very quickly.

YOUR CREDIT REPORT

What do you know about credit cards? If you are like the average college student and accumulate a balance of \$3,000 on your credit card, at an interest rate of 17%, and you make the minimum payment each month, how long will it take you to pay off your credit card?

- 1 year
- 3 years
- 5 years
- 9 years
- 15 years

Mark your answer, then turn the page.

YOUR CREDIT QUIZ – THE ANSWER

If you are like the average college student and accumulate a balance of \$3,000 on your credit card, at an interest rate of 17%, and you make the minimum payment each month, how long will it take you to pay off your credit card?

It would take you more than 9 years. To be precise, it would take 9-1/2 years to pay off your card, and during that time you would pay more than \$2,000 just in interest... in addition to the \$3,000 you originally put on your card.

SET SOME CREDIT RULES

Because it can be so difficult to get out of debt when that debt is on a credit card, it's important to plan ahead and set some rules about how you will use credit. You will be 18 soon and able to get your own credit card. How will you use it?

RULE 1: _____

RULE 2: _____

RULE 3: _____

RULE 4: _____



FINANCIAL LITERACY

LESSON 11-25 STUDENT HANDOUT

JOURNAL PAGE

DATE: _____

Lesson 11-25 | *PURCHASING WITH CREDIT*

Q1: Would I apply for a credit card if it would get me a discount on a major purchase?

Q2: Why or why not?

Answers:

FINANCIAL LITERACY

LESSON 11-26 ▲ INVESTMENT

LEARNING GOALS/OUTCOMES

- ▶ Learn the difference between saving and investing, compare risks and returns, and learn the basics of investing.
- ▶ Differentiate between saving and investing.
- ▶ Compare risks and returns for saving and investments.
- ▶ Describe how to buy and/or sell investments.

MATERIALS NEEDED

- ▶ **Student Handouts:**
 - Saving and Investing Game (Answer Key included with this lesson)
 - Investing Goals
 - Journal Page
- ▶ Access to dictionaries

CLASSROOM ACTIVITIES

1. **Students experiment with saving and investing outcomes.** Ask students what they would do if they were given \$1,000. Would they Save (put it in a bank and let it gather compound interest), Spend (go buy something they want), or Invest (put it into a Mutual Fund or buy shares in a company)? Ask students to vote with their feet and go stand in a corner of the room assigned to Save, Spend or Invest. Ask volunteers from each group to explain why they made the choice they did.

Divide your students into five groups, three of them from the students in the Invest corner. Assign each of the groups a scenario: Saving, Spending, Mutual Fund, Stock 1, or Stock 2. Distribute the *Saving and Investing Game* and give groups a few minutes to quickly calculate their year-end values for the scenario they have been given (students may need calculators, but the calculations are all quite straightforward). Use the Answer Key if needed to help students who get stuck.

After students have quickly calculated five years of gains (or losses) with their scenario, ask a

person from each group to announce their total after five years. Project the table from the Answer Key or distribute the Answer Key for students to review. Survey the class to determine which of the five choices each student would make if they were investing so that they would have money for college or for retirement.

2. **Students differentiate between saving and investing.** Ask students to return to their desks. Share these dictionary definitions for “Saving” and “Investing:”
 - **SAVING:** To lay up money as the result of economy or thrift; to preserve something from harm or loss.
 - **INVESTING:** To put money to use in something offering potential profitable returns.

Explain to students that the key difference between the two uses of money is in the relative safety. To save money is to “preserve” it: it will be safe but it will not offer much in the way of returns. To invest money is to “use” it: it has the potential for much higher returns, but also the potential to become a loss. Discuss with the class when they might want to save money and when they might want to invest money.

3. **Students compare risks and returns for saving and investment.** Ask students why they think people are willing to tolerate the risk of investing. Students might say that the risk is offset by the potential for high returns. Explain that the possibility of earning high returns is the key reason for investing. Over a long time, someone who has invested money can expect to earn significantly more than someone who has just put that money in a savings account. That is why most people invest the money they are putting aside for retirement.

Ask each student to team with two other students. Tell them that they are an investment company that has \$1,000 to invest. They have four choices for what to do with the money: Bank Savings (2.5%/year), Mutual Fund (variable returns via investments in many companies to reduce risk), Stock A (variable returns on a well-established business), or Stock B (variable returns on a new, high tech company). For the purpose of this game, they have to put all \$1,000 in one of the choices. They can change what they invest in each year. The winning team will be the one that has the most money after five years.

Ask students to declare their investment to start the game. At the end of each year, tell them the return for that year on each investment. Allow them to change investments at the end of each year, or stay where they are. Have them keep a running total of their capital (the total amount they have invested/saved). Take them through this sequence of events.

Year	Saving	Mutual Fund	Stock A	Stock B
One	up 2.5%	up 5%	up 6%	no change



Two	up 2.5%	up 5%	up 8%	down 5%
Three	up 2.5%	no change	no change	no change
Four	up 2.5%	up 2%	down 5%	down 5%
Five	up 2.5%	up 5%	down 5%	up 400%

4. **Students describe how to buy and/or sell investments.** Explain that there are many businesses, some of which are online, through which people can buy or sell stocks. But, before they do any investing, investors should discuss their goals with a financial advisor and plan an investment strategy that will meet their needs.

Tell students that most of them will not be an investor until they have a steady income. However, it is useful for them to understand some of the basics of investing to determine the value of investment in their lives. Distribute the *Investing Goals* and tell students that it is a simplified version of the questions they would be asked to answer to help them plan an investment strategy. Ask students to complete the handout as well as they can (their answers will be largely hypothetical at this point in their lives). Have them work individually at first, and then ask them to show their goals to another person.

5. **Students reflect on their preferred retirement.** Ask each student to use a *Journal Page* to answer the following questions:
- What do I hope to do when I retire?
 - How much money will I need to save to live that life?
 - What should I do so that I can achieve this goal?

STUDENT PRODUCTS

- ▶ Completed *Investing Goals Handout*
- ▶ Completed *Journal Page* on the retirement life they prefer and how to earn it



FINANCIAL LITERACY

LESSON 11-26 STUDENT HANDOUT

SAVING AND INVESTING GAME

What will happen to your money over time?

- ▶ If you SPEND the money, you will have things, but your money will be gone.
- ▶ If you SAVE the money, you will have your money plus compound interest. It will be safe, but your money will grow slowly.
- ▶ If you INVEST the money, it may grow very quickly. But you could also lose money.

Using the scenario your advisor assigned to your group, calculate how much money you will have in years 1 through 5. Write the totals below

OUR GROUP'S SCENARIO:	

START	\$1,000
Year 1	
Year 2	
Year 3	
Year 4	
Year 5	

GROUP SCENARIOS

- ▶ **Savings:** You start with \$1,000 and put that money in a savings account, where it earns 2.5% interest each year. Calculate how much money you have at the end of years 1 through 5 by multiplying by 2.5%. Don't forget compound interest! (Hint: to get your Year 1 total: $\$1,000 \times 1.025$.)
- ▶ **Spending:** You start with \$1,000 and spend all the money on a new bike. Your money is now gone and you have nothing left. (But you do have a bike!)
- ▶ **Mutual Fund:** You start with \$1,000 and invest that money in a balanced mutual fund. In years 1, 3 and 5, you earn 9%, but in years 2 and 4 the market slips and you lose 5%.

SAVING AND INVESTING GAME cont.

- ▶ **Stock 1:** You invest your \$1,000 in a hot technology company that is poised on a new product. During years 1, 2 and 3 you gain 8%; in year 4, with the release of the new product, your stock doubles in value; in year 5, with no new products on the horizon, your value falls by 5%.
- ▶ **Stock 2:** You invest in what you think will be a hot stock but it doesn't do so well. In years 1, 2, 4 and 5 you lose 5% each year. In year 3, you gain 10%.



FINANCIAL LITERACY

LESSON 11-26 TEACHER HANDOUT

SAVING AND INVESTING GAME ANSWER KEY

	SAVINGS Gain 2.5% each year	SPENDING Gone after first year	MUTUAL FUND 1, 3, 5 gain 9% 2, 4 lose 5%	STOCK 1 1, 2, 3 gain 8% 4 gain 100% 5 lose 5%	STOCK 2 1, 2 lose 5% 3 gain 10% 4, 5 lose 5%
START	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
Year 1	\$1,025.00	\$0.00	\$1,090.00	\$1,090.00	\$950.00
Year 2	\$1,050.63	\$0.00	\$1,035.50	\$1,188.10	\$902.50
Year 3	\$1,076.89	\$0.00	\$1,128.70	\$1,295.03	\$992.75
Year 4	\$1,103.81	\$0.00	\$1,072.26	\$2,590.06	\$943.11
Year 5	\$1,131.41	\$0.00	\$1,168.76	\$2,460.56	\$895.96

GROUP SCENARIOS

- ▶ **Savings:** You start with \$1,000 and put that money in a savings account, where it earns 2.5% interest each year. Calculate how much money you have at the end of years 1 through 5 by multiplying by 2.5%. Don't forget compound interest! (Hint: to get your Year 1 total: $\$1,000 \times 1.025$.)
- ▶ **Spending:** You start with \$1,000 and spend all the money on a new bike. Your money is now gone and you have nothing left. (But you do have a bike!)
- ▶ **Mutual Fund:** You start with \$1,000 and invest that money in a balanced mutual fund. In years 1, 3 and 5, you earn 9%, but in years 2 and 4 the market slips and you lose 5%.
- ▶ **Stock 1:** You invest your \$1,000 in a hot technology company that is poised on a new product. During years 1, 2 and 3 you gain 8%; in year 4, with the release of the new product, your stock doubles in value; in year 5, with no new products on the horizon, your value falls by 5%.
- ▶ **Stock 2:** You invest in what you think will be a hot stock but it doesn't do so well. In years 1, 2, 4 and 5 you lose 5% each year. In year 3, you gain 10%.

FINANCIAL LITERACY

LESSON 11-26 STUDENT HANDOUT

INVESTING GOALS

Investing money can be very risky. Therefore, before you invest, you should think carefully about your goals and about how much you can afford to lose and how tolerant you are of risk. In addition, before you invest any money you should talk with a financial planner or advisor.

These are the types of questions you would be asked to plan an investment strategy. Answer them now, as if you were going to take half the money from your savings account and invest it.

What is your primary financial goal?

- Preserving what I have
- Having a regular income from my investments
- Saving for education (short-term)
- Saving for retirement (long-term)
- Long-term wealth accumulation

How soon do you need the money you are planning to invest?

- Within one year
- In five years
- In ten years
- Not for 40 years or more

What is your level of risk tolerance?

- Avoiding risk is much more important than pursuing high returns
- I want to preserve my principal (the money I have invested) but I will accept some risk
- I will accept moderate risk for the potential of higher returns
- I will accept above average risk for the potential of above average returns

If you had savings, would you invest now? In what? _____

Do you think investment will be part of your future financial planning? _____



What percentage of your future income will you invest? _____

If you were going to invest some money this year, what is your goal for that money?



FINANCIAL LITERACY

LESSON 11-26 STUDENT HANDOUT

JOURNAL PAGE

DATE: _____

Lesson 11-26 | *INVESTMENT*

Q1: What do I hope to do when I retire?

Q2: How much money will I need to save to live that life?

Q3: What should I do so that I can achieve this goal?

Answers:

FINANCIAL LITERACY

LESSON 11-27 ▲ THE LABOR MARKET

LEARNING GOALS/OUTCOMES

- ▶ Learn about the influence of supply and demand on job availability.
- ▶ Describe the influence of supply and demand on job availability and wage.
- ▶ Identify present-day high demand jobs in the workplace.
- ▶ Analyze the effect of job availability on present-day postsecondary/career plans.

MATERIALS NEEDED

- ▶ **Student Handouts:**
 - High Growth Occupations
 - Journal Page

CLASSROOM ACTIVITIES

1. **Students discuss the local job market for teenagers.** Ask students to call out the types of jobs they have held in the local job market. They may have been babysitters, or mowed lawns, worked at a fast food restaurant, or worked as a counselor at a summer camp. Write their jobs on the board. Each time the same type of job comes up, make a tally mark next to that word. Look over your list and ask students if they can tell what types of jobs are most available in the local labor market for teens. Ask if this list gives them any ideas for finding weekend or summer jobs. You might note that they will probably have more luck going after jobs that are in plentiful supply.
2. **Students discuss how job-seekers find jobs.** Ask students how they would find information about job openings if they wanted to get a job. Write their answers on the board. Students might answer that they would look for jobs on Craigslist or job search sites, ask friends, or call businesses where they are interested in working. Ask students if they have used any of these sources before and put tally marks next to each idea when a student indicates she or he has actually done that to find a job.

- 3. Students examine the influence of supply and demand on a market.** Divide students into groups of three. Ask them to imagine they are each the owner of a store that sells one letter of the alphabet. What letter would they choose to sell? Have each group decide on one letter to sell at their store and ask them to write that letter on three different pieces of paper. This is the supply of

Ask one student in each group to stay in their “store” with their “supply” of three copies of one letter. Ask all the other students stand in the center of the class. Tell those students that they are the purchasers of letters, also known as the “demand.” They each have \$10 to spend for this activity, and they must purchase the letter that is the first letter of their first name. Ask students to move to the store that has the letter they need. If there is no supply of that letter, they must stay in the middle of the classroom.

For letters in which there is more demand than supply, the owner of the store can set any price they want for their letters. Let students offer to buy these letters in alphabetical order of last name. For letters in which there is more supply than demand for letters, tell the owner of the store that they can set any price they want. After all the letters that can be sold are purchased, ask students to return to their seats.

Ask the class what the value of “high demand/low supply” is. They should conclude that it gives the supplier the upper hand: the store owner can get more for their supply and have a steady flow of letter sales. Ask the class what happens in a market when there is “low demand/high supply.” They should conclude that the purchasers (or “demand” side) have the upper hand: they can get their letters for much less cost. Tell students that an understanding of supply and demand can really help them when choosing a career path. They represent the “supply” in any career market.

- 4. Students examine the influence of supply and demand on job availability and wage.** Ask students to return to their group’s “store.” Tell them they are now merely a discussion group. Explain that it is easiest to get a job if many different businesses and organizations need that type of skill (“high demand”). It is even easier if there are not many people who have the skills or qualifications to do the job (“low supply”). Ask each group to brainstorm the types of jobs they think will be in high demand/low supply in the United States over the next decade. Call students together after several minutes and compare lists. How are their lists similar and different? What types of jobs do your students think will be in high demand? Why?
- 5. Students identify present-day high demand jobs in the workplace.** With students still in their small groups, distribute the *High Growth Occupations*. This handout lists careers that the U.S. Bureau of Labor Statistics has identified as being high growth between now and 2016. Ask students to compare the careers on the handout with the careers on their brainstorm list. Have



them circle the similar careers. Then have them create a list of the different types of skills and/or post-secondary credentials that will be most in demand. Discuss students' lists.

6. **students analyze the effect of job availability on present-day post-secondary/career plans.** Ask students for a show of hands: how many are interested in one of the career fields listed on the handout? Make note of the careers that interest students. Ask students to explain why they are interested in a particular career: is it because of personal interest or because the career is in a high demand area? Discuss why students might want to consider job availability as they plan for the future.

Caution students about job predictions: it is not an exact science. During the 1970s, when Bill Gates and Steve Jobs were both in high school, no one could have predicted that personal computers would be a big job area... because there were no personal computers! Discuss the importance of students balancing their own interests, values, and skills with job availability as they make post-secondary plans.

7. **Students consider the value of pursuing high interest careers with uncertain futures.** Ask each student to write responses to the following questions on a *Journal Page*.
 - Choose three careers that interest you and are not on the High Growth Occupations list. If these careers proved to be high supply/low demand careers, would you still pursue them? Why or why not?
 - In your opinion, what is the more important consideration: your level of interest in a career or the supply and demand of that career field?

STUDENT PRODUCTS

- ▶ **Completed *Journal Page*** on how supply and demand influences personal goals



FINANCIAL LITERACY

LESSON 11-27 STUDENT HANDOUT

HIGH GROWTH OCCUPATIONS

As you think about careers, you will want to consider whether there will be a job available for you. Here is a list of the occupations projected to have the fastest growth between now and 2016. Are you interested in any of these careers?

Occupations with the Fastest Growth

Occupations	Percent Change	Number of new jobs (thousands)	Wages (May 2008 median)	Education / training category
Biomedical engineers	72	11.6	\$77,400	Bachelor's degree
Network systems and data communications analysts	53	155.8	\$71,100	Bachelor's degree
Home health aides	50	460.9	\$20,460	Short-term on-the-job training
Personal and home care aides	46	375.8	\$19,180	Short-term on-the-job training
Financial examiners	41	11.1	\$70,930	Bachelor's degree
Medical scientists, except epidemiologists	40	44.2	\$72,590	Doctoral degree
Physician assistants	39	29.2	\$81,230	Master's degree
Skin care specialists	38	14.7	\$28,730	Post-secondary vocational award
Biochemists and biophysicists	37	8.7	\$82,840	Doctoral degree
Athletic trainers	37	6.0	\$39,640	Bachelor's degree
Physical therapist aides	36	16.7	\$23,760	Short term on-the-job training

HIGH GROWTH OCCUPATIONS cont.

Dental hygienists	36	62.9	\$66,570	Associate degree
Veterinary technologists and technicians	36	28.5	\$28,900	Associate degree
Dental assistants	36	105.6	\$32,380	Moderate on-the-job training
Computer software engineers, applications	34	175.1	\$85,430	Bachelor's degree
Medical assistants	34	163.9	\$28,300	Moderate on-the-job training
Physical therapist assistants	33	21.2	\$46,140	Associate degree
Veterinarians	33	19.7	\$79,050	First professional degree
Self-enrichment education teachers	32	81.3	\$35,720	Work experience in related occupation
Compliance officers, except agriculture, construction, health and safety, and transportation	31	80.8	\$48,890	Long-term on-the-job training



FINANCIAL LITERACY

LESSON 11-27 STUDENT HANDOUT

JOURNAL PAGE

DATE: _____

Lesson 11-27 | *THE LABOR MARKET*

Q1: Choose three careers that interest you and are not on the High Growth Occupation list. If these careers proved to be high supply/low demand careers, would you still pursue them? Why or why not?

Q2: In your opinion, what is the more important consideration: your level of interest in a career or the supply and demand of that career field?

Answers: