Webster County Schools

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WCCTC

Packet 3

May 4, 2020

Business, Marketing, & Finance
Dionne S. Wolf

Personal Finance

Assignment	Questions
There are 7 topics and questions that accompany each topic. Each day choose an adult in your household (parent, guardian, aunt, uncle, grandparents etc.) and have a conversation with them. Ask questions and record their responses. Writing a reflection to sum up the conversation/ responses and what you learned.	**Careers #1** • What was your most recent job interview like? How many interviewers, what kinds of questions, etc.? • How much did you earn at your first part-time job ever? First full-time job ever? • What kind of benefits does your job have? Which perks do you like the best? **Taxes #2** • How did we file our taxes last year? Did we pay in or get a refund? • Would you rather have to pay in, get a refund, or "break even" when you file your income taxes? o Financial experts say that "break even" is the BEST answer here (then the government wasn't just holding onto your money when you could've been investing it)...but why do most people prefer a refund? • Do we pay any **property** taxes? If so, how much are they each year? **Banking #3** • What made you choose your current bank/credit union? Have you ever looked at others? • Do you balance your checkbook every month? Why or why not? • What mobile services (if any) do you use? How did these change how you bank?

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Credit #4

- Do we have debt as a family? If so, is it for a house, a car, a credit card, etc.? Do we have a plan or timeline to pay off the debt?
- What is a credit score? How can someone improve it? Does it really matter?
- What's the plan for any post-secondary education I pursue? (college education fund, scholarships, student loans)

Investing #5

- What do you know about the stock market?
- Do you have a plan for retirement yet? At what age do you plan to or want to retire? Do you plan to spend more or less then?

Insurance #6

- When in your life have you been MOST grateful for insurance?
- If you add me as a driver or already have added me, how does this impact our auto insurance rates?
- What types of insurance do we currently have? (automobile, health, life, home, etc.)

Budgeting #7

- Do you plan a monthly budget for our household? If so, what tools do you use (spreadsheet, app, cash envelopes, paper and pencil, etc.)?
- How do we handle unexpected expenses? Do we have an emergency fund?
- If you could go back in time, what is one spending decision you would "undo?"
- Has the recent Coronavirus effected our budget? If so how (spending money on necessities, loss of hours etc.)?

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	Assignment #8
S.M.A.R.T Goals Specific. Measurable. Attainable. Realistic. Timely.	Create an academic and a financial SMART Goal. Write a reflection to include what the specific goal is, how will you measure it, can you attain it, is it realistic and the time frame you are looking to achieve this goal. How will you be accountable to these goals?

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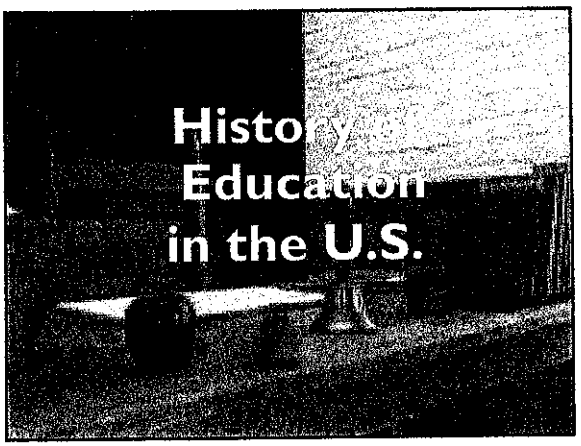
Support Resources and Videos if needed.	EdPuzzle Credit card debt explained: https://edpuzzle.com/media/5c8fdbdce9ec1f40a9ff2568 or: shorturl.at/fuMQY (key short url into browser address bar) Credit score explained: https://edpuzzle.com/media/5ca28ac6b23d15416fbc06ff or: shorturl.at/ruBCO (key short url into browser address bar) Health insurance explains: https://edpuzzle.com/media/5d1d164c5a3e2d4d9caf2fd2 or: shorturl.at/fsDJV (key short url into browser address bar) Saving Money at the supermarket: https://edpuzzle.com/media/5dc1c73a3d14f64112bb77d7 or: shorturl.at/uOY24 (key short url into browser address bar) Videos Ted Talk: https://www.ted.com/talks/daniel_goldstein_the_battle_between_your_present_and_future_self or: shorturl.at/uxJN8 (key short url into browser address bar) Grocery shopping secrets: https://www.youtube.com/watch?v=oFFjXnlVr8U or: shorturl.at/pHTXY (key short url into browser address bar) How to balance your checkbook: https://www.youtube.com/watch?v=4KLuuSY2UlQ&feature=youtube_gdata or: shorturl.at/tKMR6 (key short url into browser address bar)



American Colonial Period
(1600-1776)

- Education in colonial America had its primary roots in English culture
- Students from the lower classes went to school to learn the essentials of reading, writing, and computation.

The upper classes went to Latin schools and later to college, where they studied the Latin and Greek classics.

The first schools in the 13 colonies opened in the 17th century. The Boston Latin School was the first public school opened in the United States, in 1635. To this day, it remains the nation's oldest public school.

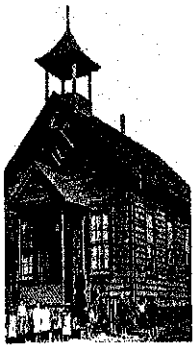
Many older children became apprentices.

The Purpose of Colonial Education
(1600-1776)

Colonial Schools

- Believed that the church, school and state were interrelated.
- Reading and writing were learned so the Scriptures could be read.

- Teachers had minimal qualifications, received low pay and were shown little respect.
- Schools were unregulated.



- Tolerant Quakers established the first schools that welcomed all, regardless of gender, religion, or race.
- Dame schools were open to boys and girls.
- Hornbooks were used for instruction.

HORNBOOK

A flat wooden board with a handle. A sheet of paper, usually containing the alphabet, a prayer, and Roman numerals, was pasted on the board. A thin, flat piece of clear animal horn was attached to cover and protect the paper.

- In the southern colonies, social and economic class divisions were rigid:
  - Boys were educated at home by tutors.
  - Girls and the middle class had few opportunities for formal education.
  - Slaves were only taught useful skills.

American Early National Period
(1776-1840)

Benjamin Franklin

- Began the first public library.
- Started a secondary school
  - Open to everyone who could pay tuition.
  - Covered a broad range of subjects.
  - Precursor to modern public schools.

American Early National Period
(1776-1840)

- **Benjamin Franklin's Academy**
  - Had a broader and more practical curriculum that focused on the English language rather than Latin
  - Courses such as English grammar, composition, literature, foreign language, writing, drawing, rhetoric, oratory, geography, history, agriculture, and accounting were taught.

Thomas Jefferson's Philosophy

- Believed that the education of the common people was the most effective means of preserving liberty.
- In order for society to remain free, it must support public education.
- Developed a plan for state-controlled elementary schools.

Thomas Jefferson

Established the University of Virginia.

Proposed a two-track educational system, with different tracks for the "laboring and the learned."

American Common School Period (1840-1880)

- **Horace Mann** Massachusetts
  - He was best known as the champion of the common school movement – free, public, locally controlled elementary schools.

American Common School Period (1840-1880)

- In 1837, he accepted the position of Secretary of the Massachusetts State Board of Education.
- He also proposed that teachers needed more than a high school education and needed to be trained in the profession (normal schools).

American Common School Period (1840-1880)

- Advocated the establishment of free libraries
- Used state taxes to support public schools
- Believed schools should not teach specific religious belief systems (non sectarian).

American Common School Period (1840-1880)

- **Normal Schools**
- Mann was influential in the development of teacher training schools and the earliest attempts to professionalize teaching.
- In 1838, he was crucial to the actual establishment of the first normal schools in Massachusetts. Mann knew that the quality of rural schools had to be raised, and that teaching was the key to that improvement.

Morrill Land Grant Act (1862)

Also known as the Land-Grant College Act, the Morrill Land Grant Act gave federal land to establish colleges in every state. These colleges provided practical education in agriculture, home economics, and other useful professions to people from all social classes. These colleges made higher education available to Americans nationwide.

How Did Compulsory Education Change Schools and Teaching?

- The Professionalization of Teaching
  - In the late 1800's, professional teaching organizations began to have great influence
    - The National Education Association (NEA)
    - American Federation of Teachers (AFT)

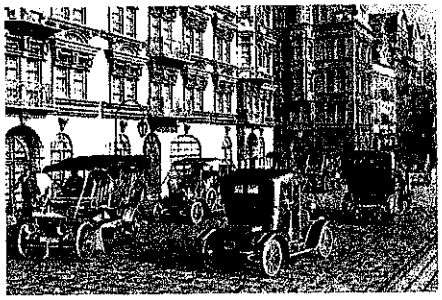
Kindergarten

- Concept developed by German educator Friedrich Froebel.
- Used songs and games to help poor children succeed in schools.
- Foundation of today's kindergartens, based on creative play and social interaction.

The McGuffey Readers

- Textbooks became widely available.
- Written by Reverend William Holmes McGuffey.
- Taught moral lessons, reading, spelling, history, biology, botany, literature, and speech.
- Their wide use contributed to standardization of American education.

Education during the Progressive Era (1880-1921)



Education during the Progressive Era (1880-1921)

- Purpose of education was to "Americanize" immigrants and minorities.
- Urban areas: overcrowding, poverty, and disease.
- Parents and children worked long hours in factories.
- The Progressives began a reform movement.

Education during the Progressive Era (1880-1921)

- Who were the Progressives?
- Members of a reform movement that began in the late 1800s. They believed that education should be more individualized and teach students the skills that would improve the ills of society.

John Dewey's Lab School

- John Dewey and his wife established a laboratory school to test progressive ideas of student-centered instruction.

Maria Montessori's Method

Based her methods on the readiness and interests of the children.

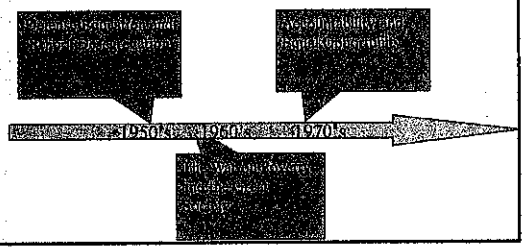
Prescribed sets of materials and physical exercises were used to develop students' knowledge and skills.

Education in the Modern Era (1945-present)

- WWII brought criticism and decline of the Progressive Movement
- In response, the federal government started to increase their involvement in education

How Did Education Change during the Modern Postwar Era?

- The decades since WWII have seen tremendous changes in education



1940s and 1950s
Brown v. the Board of Education

The children of the baby boom era increased the need for teachers.

Veterans attended college or received training with federal money from the GI Bill.

Americans feared Soviets' technological advantage.

The National Defense Education Act encouraged stronger math, science, and foreign language programs.

1960s

•Teenage baby boomers question conservatism

•Political turmoil, assassinations, and the Civil Rights movement

•Educational freedom spurred creative ideas for improvement

•The Civil Rights Act of 1964 outlawed segregation in public schools and public places

•The Elementary and Secondary Education Act of 1965 sought to

- –improve schools most in need.
- –give federal money to schools where poor children were enrolled.
- –equalize educational opportunities.

1970s

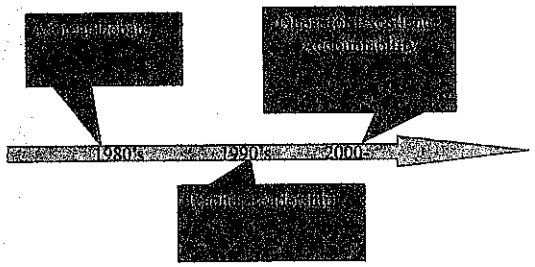
•The Supreme Court granted bilingual education to Spanish-speaking students.

•The Equal Opportunity in Education Act prohibited discrimination based on gender in all programs and activities receiving federal financial assistance.

•In 1975, Congress passed the Education for All Handicapped Children Act

- –Guaranteed free education for children with disabilities.

How Did Education Change during the Modern Postwar Era?



In 1983, the National Commission on Excellence in Education released a report titled *A Nation at Risk*. Soon afterward, conservatives were calling for an increase in academic rigor including an increase in the number of school days per year, longer school days and higher testing standards. English scholar E.D. Hirsch made an influential attack on progressive education, advocating an emphasis on "cultural literacy"—the facts, phrases, and texts that Hirsch asserted are essential for decoding basic texts and maintaining communication.

1990s

•Goals 2000 Act of 1994 established six educational goals to be reached by the year 2000

•Implementation was left to states and local school districts

NO CHILD LEFT BEHIND

Goal: to improve the performance of U.S. schools

•Components included
- –increased accountability
- –more choices for parents choosing schools
- –increased focus on reading

•Receipt of federal funds were tied to school performance

- –Schools that succeed in meeting standards received more money
- –Parents could move children to higher-achieving schools

NO CHILD LEFT BEHIND cont...

•Concerns:

- –Schools already behind would become even more poorly funded
- –Teachers would spend most time preparing students for standardized tests

•Some states established more charter schools

Teacher Academy (Year I and Year II)
Directions: Use the printed slides to fill in the notes for review of the History of Education.

History of Education in the United States

Teaching and Schools in the American Colonies

Education in _____ America had its primary roots in English culture

Students from the lower classes went to school to learn the essentials of _____, _____ and _____.

The upper classes went to Latin schools and later to college, where they studied the _____ and _____ classics.

The first schools in the 13 colonies opened in the 17th century. The Boston Latin School was the first public school opened in the United States, in 1635. To this day, it remains the nation's oldest public school.

Many older children became _____.

The Purpose of Colonial Education

Colonial Schools

Believed that the church, school and state were _____

Reading and writing was learned so the _____ could be read

Teachers had _____ qualifications, _____ pay and little respect

Schools were _____.

Tolerant _____ established first schools that welcomed all regardless of sex, religion, or race.

_____ were open to boys and girls.

_____ were used for instruction.

In the southern colonies, social and economic class divisions were rigid:

Boys were educated at home by _____

Girls and the middle class had few opportunities for formal education

Slaves were only taught _____

Education during the Revolutionary Period

Benjamin Franklin

Began the first _____.

Started a secondary school

Open to everyone who could pay _____.

Covered a broad range of subjects.

_____ to modern public schools.

Benjamin Franklin's Academy

Had a broader and more practical _____ that focused on the

English language rather than Latin

Courses such as English _____, composition, _____,

foreign language, writing, _____, rhetoric, oratory, geography,

_____, agriculture and accounting were taught.

Thomas Jefferson's Philosophy

Believed that the education of the common people was the most effective means of _____.

In order for society to remain _____, it must support a public

education.

Developed a plan for _____elementary schools.

Established the University of Virginia

Proposed a two-track educational system, with different tracks for the

"_____."

State-Supported Common Schools

Horace Mann - *Massachusetts*

He was best known as the champion of the _____ – free, public, locally controlled elementary schools.

In 1837, he accepted the position of _____ of the

Massachusetts State Board of Education.

He also proposed that teachers needed more than a high school education

and needed to be trained in the profession _____.

Advocated the establishment of free_____.

Used _____ to support public schools

Believed schools should not teach specific _____.

Normal Schools

Mann was influential in the development of _____ schools

and the earliest attempts to _____ teaching.

In 1838, he was crucial to the actual establishment of the first

_____ in Massachusetts. Mann knew that the

quality of rural schools had to be raised, and that teaching was the key to

that improvement.

Morrill Land Grant Act (1862)

Also known as the _____, the Morrill Land Grant Act gave federal land to establish colleges in every state. These colleges

provided practical education in _____

_____to people from all social classes. These

colleges made higher education available to Americans nationwide.

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The Professionalization of Teaching

In the late 1800's, professional teaching organizations began to have great influence:

_____

_____

Kindergarten

Concept developed by German educator _____.

Used songs and games to help poor children succeed in schools.

Foundation of today's kindergartens, based on _____and

_____.

The McGuffey Readers

Textbooks became _____ available.
Written by Reverend William Holmes McGuffey.

Taught _____, reading, _____, history, biology, botany,

literature, and _____.

Their wide use contributed to _____ of American education.

Education during the Progressive Era

Purpose of education was to _____ immigrants and minorities.

Urban areas: _____ poverty, and _____.

Parents and children worked long hours in _____.

The _____ began a reform movement.

Who were the Progressives?

Members of a _____movement that began in the late 1800s. They believed that education should be more _____ and teach students the skills that would improve the _____.

Dewey and Montessori

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Dewey and his wife established a laboratory school to test _____ ideas of _____ instruction.

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Education in the Modern Era

WWII brought criticism and decline of the _____

In response, the federal government started to increase their involvement in education

How Did Education Change during the Modern Postwar Era?

The decades since WWII have seen tremendous changes in education

1950s

1960s

1970s

How Did Education Change during the Modern Postwar Era?

1980s

1990s

2000s

Forestry CTE Send Home Packet

Mississippi has 19.7 million acres of forestland. It is estimated that some type of forest activity occurs on nearly 750,000 acres annually in the state. This represents approximately four percent of the state's forestland. Most streams originate or course through these forests and are sources for water supplies, prime recreation, and other water uses. Because of the importance of water resources, *silvicultural* practices should incorporate adequate measures to protect water quality from deteriorating. Anyone causing the pollution of or degradation to the state's waters is in violation of state law (Statutes 49-17-29 and 97-15-41, Miss. Code, 1972). The most practical approach for reducing the *nonpoint source pollution* from forestland activities is the use of best management practices, commonly referred to as BMPs.

Best management practices are non-regulated guidelines for *silvicultural* practices which, when properly applied, will control water pollution from nonpoint source pollutants and maintain *site productivity*. The BMPs presented in this handbook are best suited for Mississippi's climate, soils, and topography.

While most *best management practices* have a direct cost involved with implementation, many also have indirect economic returns beyond the water quality improvement goals for which they are primarily developed. Management decisions which include the use of BMPs often promote long-term benefits to the logger and landowner. For example, proper road and trail construction and drainage, in addition to fostering stream pollution abatement, extends the logging season by allowing an earlier passage of vehicles following periods of wet weather, thereby providing an economic benefit. In addition, vehicle maintenance costs associated with cleaning equipment are reduced as a direct result of properly locating roads and trails and providing adequate drainage. Many BMPs have similar tangible benefits which may not be readily seen.

From a forest production standpoint, the loss of one inch of topsoil due to faulty *site preparation* techniques has been estimated to reduce the site index by 5 to 10 feet, resulting in a decrease of volume production.

It is recommended that forest resource managers and others responsible for applying forestry practices use the "non-regulatory" *best management practices* discussed in this handbook. It will be necessary to monitor how well *best management practices* are being followed and the effectiveness of these practices in maintaining water quality. Presently, the Mississippi Forestry Commission monitors the compliance and use of *best management practices* and reports its findings to the Mississippi Department of Environmental Quality.

The BMPs in this handbook are intended to protect our environment in Mississippi -- our creeks, streams, fish, etc. As members of Mississippi's forestry community, we all spend time enjoying the outdoors. By following the BMPs in this handbook, we ensure that our children and future generations will also be able to enjoy Mississippi's natural beauty and benefit from its natural resources.

In addition to the environment, these BMPs protect peoples' land. For many Mississippians, their land is their biggest asset. By following BMPs, woods roads will be left in usable condition instead of washing out. Streams and ponds will continue to be suitable for watering cattle, fishing, and other uses that add value to the land. Wetlands provide critical habitat for fish and wildlife. Following BMP guidelines will help preserve essential functions of wetlands and provide for sustainable hunting, fishing and forestry. For loggers, following the BMPs will enhance their reputation in the community and increase demand for their services.

The total area of wetlands has declined greatly in the U.S. because of conversion to other land uses or by accidentally altering them until they no longer function as wetlands. Potential effects of forestry operations in wetlands (if BMPs are not adhered to) include excessive *erosion*, drainage alteration and stream obstruction.

More pragmatically, in wetland areas, following these BMPs will help you avoid the need for a wetlands permit. As discussed on page 23, the federal law which requires a permit for certain activities in wetlands contains an exception for forestry activities but the forestry exception is only available if the BMPs are being followed.

Finally, by following these BMPs, we avoid the possibility of more stringent requirements being imposed on a mandatory basis. At present, each state is allowed to establish its own BMPs which are tailored to that particular state's forestry techniques and terrain. Thus, these BMPs were tailored by members of Mississippi's forestry community, including foresters, loggers, and landowners, and for the particular circumstances here in Mississippi.

However, state and federal environmental agencies monitor our voluntary compliance with these BMPs. If those agencies determine that Mississippi's forestry community is not policing itself adequately, then we run the risk of those agencies establishing requirements that will be legally enforceable. Furthermore, if we fail to comply with the BMPs in this manual, we run the risk that any new agency-imposed requirements would be more burdensome and would be nationwide regulations that are not tailored to Mississippi's unique circumstances.

In short, complying with these BMPs will protect the environment, provide economic benefit, potentially avoid the need for a federal wetlands permit, and keep the regulation of Mississippi's forestry community in our own hands.

Other Program Participation

Implementation of BMPs is a requirement of most forest certification programs. For example, both the Sustainable Forestry Initiative standard and the Forest Stewardship Council standard require that participants meet or exceed BMPs and requirements of the federal Clean Water Act. The American Tree Farm System certification standard states that participants must adhere to all state BMPs and comply with all relevant ordinances.

onpoint source pollution is defined in Section 319 of the Water Quality Act of 1987 as "pollution caused by diffuse sources that are not regulated as point sources and normally associated with agricultural, *silvicultural* [emphasis added] and urban runoff, runoff from construction activities, etc. Such pollution results in human-made or human-induced alteration of the chemical, physical, biological and radiological integrity of the water."

The control of pollutants resulting from all forestry activities can be accomplished through adherence to six basic principles:

1. Do not allow surface water runoff from any type of soil disturbance to run directly into a watercourse.

2. Maintain the integrity of all streambeds and banks. When it is necessary to alter a stream's course for any reason, return the streambed and banks, as near as possible, to their original condition.

3. Do not leave debris of any type (logging or inorganic) in streambeds.

4. Do not spray chemicals directly into water or allow chemicals, *herbicides*, fertilizers or petroleum products to degrade surface or groundwater.

5. Leave *streamside management zones* along watercourses both to filter *sediment* from overland flow and to maintain the inherent, normal temperature of water in all streams and other bodies of water.

6. Provide for rapid revegetation of all denuded areas through natural processes supplemented by artificial revegetation where necessary.

It is the responsibility of the landowner and/or timber owner to ensure that pollution of state waters does not occur from forestry operations. The professional resource manager and the equipment operator working for a landowner also have an ethical responsibility to ensure that practices performed do not cause pollution under the Water Quality Act and state law. It is in the best interest of all parties involved with managing the forest resource to ensure compliance with water quality standards so as to maintain site quality and prohibit mandatory silvicultural practices.

Good preharvest planning is recommended for water quality control. Soil *erosion* and *sedimentation* are forms of *nonpoint source pollution* that can be minimized by careful planning of road locations, logging and *harvesting* practices, *regeneration* operations and timber stand improvement activities. A forest management plan, complete with water quality objectives, provides the foresight needed to apply environmentally responsible forestry practices. State and federal agencies, consultants and private organizations offer assistance in developing forest management plans which meet the objective of protecting water quality.

To best implement best management practice guidelines prior to harvest, *site preparation* and other forestry activities, it is suggested that a forest management plan include the following information:

1. **Name:** Provide the name and address of the owner and, if applicable, the natural resource manager.
2. **Location:** Identify the property by legal description, city, town, highway numbers, name of *watershed*, receiving streams and major river basins. This information can be obtained from highway maps, topographic maps and aerial photographs.
3. **Type of ownership:** Describe the type of ownership (e.g., private, corporate; private, non-corporate; private, group, club or institution; or public).
4. **Prepared by:** The name and address of the person who prepared the plan.
5. **Map:** Include the total land area in the tract (e.g., open, cropland, woodland) and receiving waters.
6. **Description of property:** The total acreage of open land, cropland and woodland and a general description of land use should be given. This information may be obtained from farm plans, property deeds and aerial photographs. Detailed woodlands information should include:
    - General soil type and erodibility (obtain from local Natural Resources Conservation Service).
    - Range of percent slope (obtain from local Natural Resources Conservation Service).
    - Timber quality and age class (provided by a *registered forester* by on-site inspection).
    - Landowner's objectives (provided by the landowner).
    - Forestry practice recommendations (provided by a *registered forester*).
7. **Existing pollution problems:** Conduct an on-site inspection of all streams and other bodies of water to determine if any pollution problems exist, noting such evidence as excessive *sedimentation*, algae growth and fish kills.
8. **Best Management Practices:** Describe practices recommended for the tract. Include schedule of implementing recommended practices. Recommendations should be based on practices discussed in this handbook.

Forestry Questions

1. Which of the following tools can measure both tree diameter and tree height?
    a. Caliper
    b. Clinometer
    c. Biltmore stick
    d. Altimeter

2. What characteristics do opposite, alternate, and whorled describe?
    a. Leaf arrangement
    b. Leaf pattern
    c. Leaf margin
    d. Fruit

3. What pine is found naturally growing in Mississippi?
    a. Loblolly
    b. Ponderosa
    c. Lodgepole
    d. Red

4. The classification of plants and animals according to natural relationship is:
    a. Pathology
    b. Biology
    c. Taxonomy
    d. Entomology

5. The color used to depict major roads on a topographic map is:
    a. Blue
    b. Brown
    c. Purple
    d. Red

6. The distance above or below sea level is:
    a. Topography
    b. Contour
    c. Elevation
    d. Base line

7. Which of the following is used to properly dry leaf specimens before mounting?
    a. Plant dryer
    b. Plant press
    c. Autoclave
    d. Incubator

8. How far away from the tree do you need to be in order to correctly use a Merrit Hypsometer?
    a. 100 ft
    b. 66 ft
    c. 50 ft
    d. 33 ft

9. What is the section number shown below?

    a. 15
    b. 17
    c. 19
    d. 22

10. Utilizing the doyle log rule formula $(d\text{-}4/4)^2 * \text{length}$, calculate the volume for a log that is 10 inches at the small end and 16 feet long.
    a. 26 bdft
    b. 36 bdft
    c. 46 bdft
    d. 68 bdft

11. What is the legal description and number of acres for tract A of this section?

    a. NE ¼ of SW ¼ of SE ¼, 20 acres
    b. NW ¼ of SW ¼ of SE ¼, 10 acres
    c. NE ¼ of SW ¼ of SE ¼, 10 acres
    d. NW ¼ of SW ¼ of SE ¼, 20 acres

12. Most forestry accidents are caused by:
    a. Weather
    b. Negligence
    c. Equipment failure
    d. Alcohol use

13. What does GPS mean?
    a. Geographic Pilot System
    b. Global Positioning System
    c. Geographic Performing Service
    d. Global Pilot System

14. A characteristic of Angiosperms is they:
    a. Produce cones
    b. Retains its green leaves in the winter
    c. Produce flowers
    d. Retain pollen in the winter

15. Dark lines on a topographic map that connect lines of equal elevation are what kind of lines?
    a. Index
    b. Convex
    c. Concave
    d. Contour

16. What is the MOST important feature when identifying deciduous trees during winter?
    a. Bark
    b. Twigs
    c. Leaves
    d. Fruit

17. To correctly measure the diameter of a tree on a slope:
    a. Measure it on the high side of the tree
    b. Measure it on both sides and average the measurements
    c. Make an educated guess
    d. Measure the diameter at 6 feet on the low side

18. Chaps or safety pants are required for:
    a. Feller- buncher operators
    b. Truck drivers
    c. Chain saw operators
    d. Skidder drivers

19. Industrial first aid kits are recognized by what colors?
    a. Red with a blue cross
    b. Yellow with an orange cross
    c. Safety green or white with a red cross
    d. White with a black cross

20. You tallied 50 trees on a 20 acre tract of timber. The trees contained 24,000 board feet. If 1,000 board feet equal 8 tons of wood, how many tons of wood are on the tract?
    a. 3
    b. 60
    c. 192
    d. 192,000

Answers to Forestry Questions 1-20

1. C
2. A
3. A
4. C
5. D
6. C
7. B
8. B
9. NA
10. B
11. NA
12. B
13. B
14. C
15. D
16. A
17. A
18. C
19. C
20. C

1st and 2nd year student cpas review
Questions from all year

Ag Power and Machinery

1. Name the four welding positions.

A.

B.

C.

D.

2. What kind of threads are on an oxygen fitting?

3. What kind of threads are on an acetylene fitting?

4. Never set acetylene pressure over what?

5. What does heat do to concrete?

6. What color is the acetylene hose on a torch?

7. What color is the oxygen hose on a torch?

8. How do you check for leaks on a torch?

9. E 7018

E=

70=

1=

8=

10. What does SMAW stand for?

11. What does GMAW stand for?

12. What does PAC stand for?

1st and 2nd year student cpas review
Questions from all year

13. What does TIG stand for?

14. What is the proper tool to light a torch?

15. What is the defection for torque?

16. What are SAE and NF threads?

17. What are NC threads?

18. What does T.P.I stand for?

19. How many marks are on top of a bolt for a grade 5?

20. How many marks are on top of a bolt for a grade 8?

21. How many marks are on top of a bolt for a grade 2?

22. What does the Flux on a welding rod do?

23. What tool measures in thousandths of an inch?

24. How many feet are in a mile?

25. What is a die used for?

1st and 2nd year student cpas review
Questions from all year

26. What is a tap used for?

27. What do you mark steel with?

28. What does OSHA stand for?

29. Does a large drill bit run slower or faster than a small one

30. How far do you open an acetylene cylinder?

31. How far do you open an oxygen cylinder?

32. Which way should the regulators face?

33. What does PASS stand for?
    P:
    A:
    S:
    S:

34. Describe oxidizing and carbonizing flames?

35. To avoid soot in the torch, you should turn what off first?

36. Cylinders should always be_____ ?

1st and 2nd year student cpas review
Questions from all year

37. If hot metal is left unattended it should be marked _____?

38. What is the minimum shade of lens to use when welding?

39. What equipment do you use to protect your lungs?

40. What tool is used to chip slag?

41. What action do you take when the electrode sticks?

42. What is the proper travel angle of an electrode?

43. A weld that holds parts in place is a _____ weld?

44. Name these joints 

45. How do you measure a bolt?

46. A _____has threads on both ends?

47. What gauge do you use to measure threads?

48. (1/2) x4x28 – what does 28 stand for?

49. What washer is used to keep a bolt tight?

1st and 2nd year student cpas review
Questions from all year

50. What bolt has a square shoulder and a rounded head?

51. What bolt holds earth-moving blades on?

52. What tap do you use to start tapping threads?

53. Why do you use oil on taps?

54. What is a stove bolt?

55. What wrench do you use to torque bolts?

56. Who is responsible for safety?

57. What do you put on oil spills?

58. What tells you all the dangers with a certain substances?

59. All accidents should be reported to _____?

60. When beginning disassembly of a small engine, what do you remove first?

61. What purpose does the counter weight on a crank shaft serve?

Sue Anne Boatman <sboatman@webstercountyschools.org>

Fwd:

1 message

Jerry Vaughn <jvaughn@webstercountyschools.org> Mon, Apr 20, 2020 at 10:57 AM
To: Sue Anne Boatman <sboatman@webstercountyschools.org>

Good morning, here is some info for the packet you requested. Thanks and have a great day.

---------- Forwarded message ---------
From: <scan2email@webstercountyschools.org>
Date: Mon, Apr 20, 2020 at 10:51 AM
Subject:
To: <jvaughn@webstercountyschools.org>

This e-mail was sent
from the Webster County
Career and Technology Center
copy machine. Please do not reply
---

doc01102520200420105115.pdf
3233K

Valvoline CAREER TECH

Advanced Educational Material for tomorrow's auto leaders

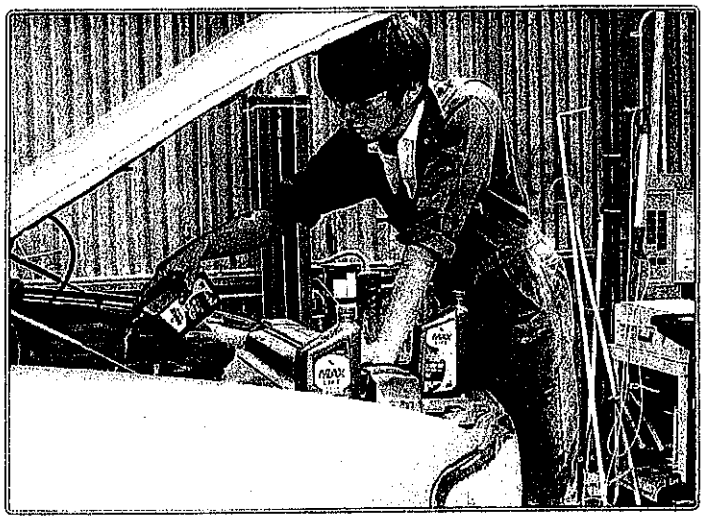
Welcome to the Valvoline Career Tech Motor Oil Education Program!

LESSON PLAN

Thank you for participating in the Valvoline Career Tech Motor Oil Education Program. We have included this 4-page lesson plan to help you implement the Valvoline Career Tech Program in your classroom. This material is designed to complement your Straight Talk on Motor Oil DVD and other educational materials. Each page is full of valuable information and can easily be used as handouts for your students. We have also included a short quiz for your students to complete. It is very important that each student complete this quiz in order to receive their Motor Oil Basics Certificate of Completion. This certificate can be very beneficial for the students to have in their portfolio as they are applying for jobs in the future. We hope that you find this lesson plan, along with all of the educational materials that are included in your kit, very helpful. If you have any questions concerning the Valvoline Career Tech Motor Oil Education Program please be sure to contact your program coordinator, and they will be happy to help. Thank you again for your participation and have a great school year!

PROGRAM TIMELINE

Mid to Late August	Program kit shipped to your school
Mid November	"Early Bird" deadline for Fall student quiz return
Early December	Final deadline for Fall student quiz return
November-December	Student Certificate kits ship
Late December	Deadline for teacher Fall post survey completion
Mid January	Replenishment kits shipped to schools as needed
Mid April	"Early Bird" deadline for Spring student quiz return
Early May	Final deadline for Spring student quiz return
April-May	Student Certificate kits ship
Late May	Deadline for teacher Spring post survey completion



Valvoline Career Tech Program Coordinators

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Valvoline
CAREER TECH

WHAT IS MOTOR OIL?

Motor oil is about 80% base stock (base oil from refining process) & 20% chemical additives

- Base Stocks are Mineral or Synthetic
- Synthetics can be made from petroleum or by materials of specific chemical composition that are "tailor made" for the job they are expected to do.
- Additives are the chemistry and science that enable the base oil to work effectively

Auto manufacturers (OEMs) place varying demands depending on a variety of factors, including:

- Different engine designs and technologies
- Varying materials
- Different priorities & issues
- Fuel consumption
- Engine wear
- Emissions
- Environmental
- Product mix

TYPES OF ADDITIVES

Dispersants – Special molecules that cling to dirt and soot particles, keeping them dispersed in the oil and away from engine parts. They are particularly important to preventing low temperature deposits such as sludge, protecting engine parts.
Detergents – Detergents keep the engine clean, preventing contaminates from collecting on engine surfaces. They work to neutralize acids formed during the combustion process and are effective in preventing high temperature deposits such as carbon & varnish.
Anti-wear additives – A Chemical layer of protection between metal surfaces to prevent metal-to-metal contact when oil gets squeezed and the oil film is minimal.
Anti-oxidants – Protects the oil from thermal and chemical breakdown under the harsh conditions present in a modern engine, keeping the oil stable
Friction modifiers – Reduces friction and coats engine parts to reduce friction and improve fuel efficiency
Rust and corrosion inhibitors – Counteract the rust-causing water vapors and corrosive acids which naturally occur from the combustion cycle.
Viscosity index improvers – These additives reduce the tendency of oil's viscosity to change with temperature. Most motor oil that is considered to be multi-grade will contain viscosity index improvers to help keep the viscosity stable.
Pour point depressants – Pour point depressants inhibit wax crystal growth that may occur in motor oil at low temperatures, helping the oil to flow at very cold temperatures.
Anti-foam additives – Prevents oil bubbles from forming, and reduce surface tension to speed collapse of foam, to help the oil maintain a strong layer of film protection. Extra churn creating foam is also why over-filling is bad!

FUNCTIONS OF MOTOR OIL

Prevent Engine Heat & Wear

- Keeping metal from touching metal
- Provides slick film between parts

Keeps engine surfaces clean

- Protects surfaces and suspends deposits, sludge, dust, dirt and other contaminants so they are remove when used oil is drained

Seal between piston rings and cylinder walls

- Fills gaps to create good seal between piston rings and the cylinder wall for engine power and to prevent blow-by of combustion gasses

Flow to protect and permit easy engine start-up

- Multi-weight oils allow free flow in variety of temps
- Additives coat engine parts for protection in cold engines

COMMON MOTOR OIL MYTHS

"You can't mix synthetic oil with conventional oil."
Myth: Most modern synthetics are made with synthetic base fluids that are fully compatible with conventional or petroleum-based oils. In fact, in most application it is safe to switch from conventional oil to synthetic oils to get better protection.

"Switching to synthetic will cause my engine to start leaking"
Myth: This concern dates back to the early days of synthetic when there were some compatibility issues with engine seals. However, modern synthetics are fully compatible with engine seals.

"You can't switch from conventional to synthetic motor oil, or vice versa."
Myth: Modern synthetic base oils are fully compatible with conventional or petroleum-based oils. In fact, in most applications it is safe to switch from conventional oil to synthetic oils to get better protection.

"The lowest quality synthetic oil will outperform the highest quality conventional motor oil."
Myth: Performance is a function of base oil quality and additive chemistry. A quality conventional oil with a very strong additive package can outperform a full synthetic that has skimped on the additive system.

"High mileage motor oils are no different than other oils."
Myth: Quality high mileage oils are designed with extra additives to address the changing needs of higher mileage engines. Quality HMOs have seal conditioners, extra detergents, extra anti-wear additive, and some use higher quality base oils. Good HMO is formulated for less oil burn-off, provide greater wear protection and keep your engine cleaner. Premium high mileage oils may also be synthetic blends to further assist in protecting your engine.

"Thicker or heavier viscosities provide better protection than thinner oils."
Myth: While it's true that using a thinner oil than what the engine calls for can result in reduced engine protection; using a heavier oil than what the engine was designed for can have its own problems. A thicker oil will require the engine to work harder to get the same horsepower, this means greater fuel consumption, more heat generated and greater strain on the engine and the oil. Your best bet is to use the viscosity grade recommended by the engine manufacturer.

"When motor oil turns black it's no good."
Myth: Modern motor oils are designed to disperse soot and other combustion by-products. The oil can turn black very early in the drain interval and long before the oil is used up. Dark oil means the detergents and dispersants are doing their job, keeping the engine clean. If it's thick and black, it's used up and time to change!

Valvoline CAREER TECH

Student Worksheet

Experimenting with Oil Viscosity

Objective

Discover the different behavior of motor oil viscosity when facing different temperatures. It is very important for oil to move swiftly throughout the engine to safeguard the engine from unnecessary wear and tear.

Materials

- 2 Sealable 15mL test tubes per group
- 2mL Regular oil per group
- 2mL Synthetic oil per group
- 1 Thermometer per group
- 1 Container with cold water and ice per group.
- 1 Container with warm water per group
- 1 Stop watch or clock per group

Hypothesis

Using the table below, rank the trials in order (1, quickest to 4, slowest) of which will be the quickest:

	Type of Oil	Temperature	Rank
Trial 1	Regular	Warm	
Trial 2	Synthetic	Warm	
Trial 3	Regular	Cold	
Trial 4	Synthetic	Cold	

Instructions

1) Prepare two sealed test tubes, at least 15cm in length, with small amounts of either regular or synthetic oil in each tube. (Be sure that you are using the same amount of oil for each trial.)
2) Place the tubes inside of the warm and cold water containers, and then turn them upside down.
3) Time how long it takes the oil to travel the length of the test tubes, given the variant conditions.
4) Be sure to correctly record: temperature and time for each trial.

	Type of Oil	Temperature	Temperature	Time
Trial 1	Regular	Warm		
Trial 2	Synthetic	Warm		
Trial 3	Regular	Cold		
Trial 4	Synthetic	Cold		

Results

1) How do the synthetic oils behave differently than the regular oils?
2) Based on your results, how significantly is motor oil affected by external temperature?

Valvoline CAREER TECH Teacher Guide

Viscosity Experiment Lesson Plan

Standard
Properties and changes of properties in matter

Materials
- 2 Sealable 15mL test tubes per group
- 2mL Regular oil per group
- 2mL Synthetic oil per group
- 1 Thermometer per group
- 1 Container with cold water and ice per group
- 1 Container with warm water per group
- 1 Stop watch or clock per group

Essential Questions
- How does the external temperature affect oil's viscosity?
- How does oil's viscosity affect its behavior?
- What is the difference in behavior between regular and synthetic oils?
- What are some of the negative effects of using the wrong oil?

Prior Knowledge
- Teacher asks students what they already know about viscosity, the need for oil to move quickly through an engine upon start up, and how the external temperature will affect the engine.
- Teacher asks students what they would like to know about the importance of appropriate viscosity regarding engine performance.

Direct Instruction/Procedure
- Teacher helps set up experiment stations with oil, test tubes and two water filled containers.
- Teacher guides the students through executing at least four oil trials.
- Two students per group is best, however groups can be as numerous as four.
- Teacher discusses the results with the class.

Guided Practice
- Teacher allows students to run their experiments, and ensures accurate test results:
  - The oils will take similar time under warm conditions, however the synthetic oil will travel faster under cold conditions
- Discuss with students the effects of oil-flow ability and the advantages of synthetic oil.
  - If oil becomes too hot, it then becomes too thin and it cannot provide the proper protection for the engine. If the oil is too thick, it then becomes too slow, and it cannot travel through the engine quickly enough to provide protection.

Independent Practice
- Have the students document their hypotheses on which trials will be the quickest, and which ones will take the longest.
- Students can prepare their test tubes, using very small, equal amounts of oil - one with regular and one with synthetic oil.
  - Ensure that the test tubes are properly sealed, and that there are no open flames in the classroom.
- The students should measure the temperature of each container before each trial.
- Place the tubes upside down in the water, timing how long it takes the oil to travel through the length of the tube.
- Make sure each trial is run at least once, using both regular and synthetic oils in both water containers.
- Document all results, and using temperature and time, observe how subtle differences affect the flow of oil.

Closure
Teacher will:
- Confer with the students about the differences between hot and cold conditions, as well as the differences between synthetic and regular oils.
- Run through scenarios with the students regarding making appropriate choices given various circumstances.
  - For example, if a vehicle is traveling from Southern California to Vancouver in the winter, what will be the effects if his oil viscosity is:
    - Too High (e.g. SAE 30): When he arrives in Vancouver, he will be unable to start his vehicle, because the oil will be too thick to properly flow through the engine.
    - Too Low (e.g. SAE 5W): In California, the oil will be too thin, and will cause engine damage.
    - Synthetic, multi-grade: The oil will be able to adapt to both temperatures.

Assessment:
- Students will be judged on the results of their experiment, as well as how adept they are at answer questions regarding oil viscosity.

Put your knowledge of *MOTOR OIL* to the test!

1. What are the primary functions of motor oil? *(please shade in the correct square completely)*

- ☐ a) Reduce friction and prevent wear
- ☐ b) Keep engine surfaces clean
- ☐ c) Remove heat to keep engine cool
- ☐ d) Seal gaps between pistons and cylinders
- ☐ e) All of the above

2. As you have learned, not all motor oils are the same. What are two things which make them different?

- ☐ a) Quality ingredients and exceeding industry standards
- ☐ c) Quality ingredients and amount used
- ☐ c) Color and exceeding industry standards
- ☐ d) Color and amount used

3. Which condition(s) contributes to engine deposits?

- ☐ a) Road dust and dirt
- ☐ b) Combustion by-products
- ☐ c) Moisture and acid
- ☐ d) Oxidation
- ☐ e) All of the above

4. What additive keeps engines clean by: *(write the correct letter in each corresponding box)*

- ☐ i) Preventing contaminates and deposits from collecting on surfaces
- ☐ ii) Keeping contaminates suspended in oil

a) Friction modifiers b) Dispersants c) Detergents d) Anti-oxidants

5. What information does the API symbol or donut provide? *(shade in all that apply)*

- ☐ a) Engine oil performance category (S = Gasoline Engines and C = Heavy Duty Diesel Engines)
- ☐ b) SAE viscosity grade
- ☐ c) Energy conserving (specifies oil meets fuel economy requirements)

6. What does the "W" in viscosity grade (e.g. 5W-30) stand for? ☐

7. Which are considered "severe driving" conditions? *(shade in all that apply)*

- ☐ a) Frequent short trips
- ☐ b) Highway driving at constant speeds
- ☐ c) Hauling or towing
- ☐ d) Driving in dusty conditions
- ☐ e) Driving in extreme hot or cold temperatures

8. What are the benefits of synthetic motor oil compared to conventional oil?

- ☐ a) Provides maximum deposit protection in high temperature conditions
- ☐ b) Provides maximum sludge protection at low temperatures
- ☐ c) More resistant to oil breakdown
- ☐ d) Maximum wear protection
- ☐ e) All of the above

9. What should you rely on to determine when to change your oil?

- ☐ a) Oil color
- ☐ b) 6,000 miles since the last oil change
- ☐ c) Owner's manual based on driving habits
- ☐ d) 6-months since last oil change

10. Match the benefit of full synthetic oil with engine conditions *(Enter the benefit letter in the box next to the Condition)*

Condition:	*Benefit*:
☐ Engines are cold at start-up and not while running	a) Synthetic has greater resistance to oil thickening to maintain engine efficiency
☐ All engines exhibit wear over time	b) Synthetic provides maximum protection in extreme hot and cold temperature conditions
☐ If oil is thicker, engines lose power & efficiency	c) Synthetic improves engine protection by resisting oil breakdown

(Turn Over) ⇨⇨⇨

Valvoline Answer Key

1. E
2. A
3. E
4. C, B
5. A,B,C
6. Winter
7. All the answers
8. E
9. C
10. 1-B, 2-C, 3-A

Health Science I

Hello, students! This is one half of the medical terminology final that will complete your Dean Vaughn medical terminology course. Please use your flashcards to study and review. Then, take the test as you would in class. I think you will be amazed at how many of the terms "come back" to you while reviewing. I will send the second half of the final in the next packet. If you left your notecards at school, I will send them to central office along with the packet. You may also use Quizlet for reviewing.

Missing all of you,
Amanda Brown, RN-BSN

Test pages may be removed by carefully separating along perforated edge.

The Dean Vaughn Total Retention System™

MEDICAL TERMINOLOGY 350

100% Award

Final Test

Name_____ Date_____

Number Correct: _____

Possible Score: 350

Percent Correct: _____%

☞ **Important:**

Clearly print the meaning of each element in the blank where indicated. A space has been provided for you to also include its audionym as an aid in recalling the meaning. This step is optional. You will be scored on the meanings of the elements only.

	Element	Audionym	Meaning
1.	gastr-		
2.	cardi-		
3.	megal-		
4.	-itis		
5.	dermat-		
6.	plast-		
7.	cerebr-		
8.	path-		
9.	-ectomy		
10.	enter-		
11.	-osis		
12.	-otomy		
13.	aden-		
14.	angi-		
15.	-oma		
16.	nephr-		
17.	hepat-		
18.	arthr-		
19.	blephar-		
20.	-ologist		
21.	rhin-		
22.	gingiv-		
23.	-malacia		
24.	-ology		
25.	spasm		

	Element	Audionym	Meaning
26.	-algia		
27.	crani-		
28.	end-		
29.	hemi-		
30.	-oid		
31.	hyper-		
32.	cyst-		
33.	chole-		
34.	hypo-		
35.	-scop-		
36.	hyster-		
37.	-ostomy		
38.	para-		
39.	-lysis		
40.	cervic-		
41.	chondr-		
42.	cyan-		
43.	hem(at)-		
44.	ost-		
45.	psycho-		
46.	lip-		
47.	my-		
48.	lith-		
49.	ophthalm-		
50.	proct-		

Name _____

	Element	Audiouym	Meaning
51.	cost-		
52.	-gram		
53.	acro-		
54.	rhexis		
55.	carcin-		
56.	-penia		
57.	gen-		
58.	burso-		
59.	retr(o)-		
60.	trip-		
61.	strept-		
62.	-desis		
63.	mani-		
64.	glosso-		
65.	-trophy		
66.	supra-		
67.	-ptosis		
68.	-dyn-		
69.	mast-		
70.	-rrhaphy		
71.	dent-		
72.	cephal-		
73.	auto-		
74.	epi-		
75.	hydro-		

	Element	Audionym	Meaning
76.	lobo-		
77.	-emesis		
78.	contra-		
79.	-iasis		
80.	trans-		
81.	brady-		
82.	-ectasis		
83.	cyt-		
84.	odont-		
85.	leuk-		
86.	-esthesia		
87.	cantho-		
88.	steno-		
89.	cheil-		
90.	-cele		
91.	benign		
92.	semen		
93.	celio-		
94.	erythro-		
95.	vaso-		
96.	melan-		
97.	cauda-		
98.	lingua-		
99.	myring-		
100.	spondyl-		

Name _____

	Element	Audionym	Meaning
101.	ovar-		
102.	-centesis		
103.	oto-		
104.	bili-		
105.	squam-		
106.	mening-		
107.	cec-		
108.	macul-		
109.	-pexy		
110.	onco-		
111.	or-		
112.	sub-		
113.	spiro-		
114.	lacrim-		
115.	viscero-		
116.	lact-		
117.	onych-		
118.	thorac-		
119.	pyle-		
120.	vesic-		
121.	sphenic-		
122.	myel-		
123.	anti-		
124.	myco-		
125.	hallux-		

Element	Audiogram	Meaning
126. physio-		
127. bucco-		
128. palpebr-		
129. -plasia		
130. rug-		
131. aur-		
132. acousti-		
133. colpo-		
134. phon-		
135. leio-		
136. cor		
137. ren-		
138. orchi-		
139. encephal-		
140. thalam-		
141. plexus		
142. cilia		
143. dendr-		
144. phleb-		
145. pilo-		
146. histo-		
147. stoma-		
148. tympan-		
149. umbilic-		
150. salpingo-		

Name _____

Element	Audionym	Meaning
151. helio-		
152. astr-		
153. -asthenia		
154. fascia		
155. iso-		
156. tarso-		
157. -tope		
158. pod-		
159. malign-		
160. adnexa-		
161. ocul-		
162. lapar-		
163. dacry-		
164. ment-		
165. part-		
166. scler(a)-		
167. somato-		
168. trachel-		
169. sinus		
170. hypno-		
171. sept-		
172. scirr(h)-		
173. antr-		
174. -crine		
175. dura		