



"LIFE EXTENSIONS"

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(LIFE EXTENSIONS Curriculum Unit Overview

Summary

Blood is the flow and extension of life. It must be handled with high ethics, standards and safety. This is a comprehensive module to teach students about blood and its uses. Knowledge, teamwork, compliance and the community's need for blood/tissue services are incorporated throughout the unit. The design of the unit is recommended for grades 4-6. Time required for this unit is approximately 3 to 4 weeks.

Big Picture

A great bulletin board or/and table exhibit will get the students hooked into the unit. Some of the following items are suggested: letters for title of unit, calendar, newspaper classified section, job application, watch or clock, photo ID card, time card, driving license brochures, toy van with "Blood Drive" sign, clip board, pen, rubber glove, scrubs, socks, stockings, sample blood collection bag and tubes, sticker labels, posters, toy computer, pictures of adults and children.

Preparation for the Unit

Work with (whomever) to:

1. Arrange for a guest speaker(s)
2. Order and secure materials
3. Set up bulletin board exhibit
4. Set up learning stations
5. Copy handouts
6. Prepare timeline for coordinating activities
7. Schedule field trip tour
8. Schedule transportation for field trip

Overview

On the following page is a summary of the unit including brief summaries of each Authentic Learning Task (ALT). This table provides an overview of the tasks in the unit sections and shows how the activities in the different teaching areas relate to each other.

LIFE EXTENSIONS Curriculum Unit Summary

Health/Science	Reading/Language Arts	Social Studies
<p>ALT 1 - Think & Know Students will gain knowledge and give answers about blood cells by sharing their responses.</p>	<p>ALT 1 - Say That Again Students will read vocabulary words that relate to blood & tissue by matching and sounding out syllables.</p>	<p>ALT 1 – Will I Need Services? Students will explore kinds of conditions that occur that require blood or tissue services.</p>
<p>ALT 2 – Hype About Type Students will learn names of blood types by following multiple -step directions.</p>	<p>ALT 2 – Vocabulary Lotto Students will reinforce reading skills and match words with definitions in a learning bingo game.</p>	<p>ALT 2 –Do You Read Me? The hiring of competent employees is needed to provide quality services. Students will practice filling out a job application and role-play situations on the job.</p>
<p>ALT 3 - Sight Unseen Students will learn about blood cells and make a picture book.</p>	<p>ALT 3 – Category, Please Students will use definitions to analyze and categorize words using a team learning approach.</p>	<p>ALT 3 – Location, Location Geography skills are exercised as students locate states in USA and cities in Ohio where CBC/CTS sites are located.</p>

Transfer Activity

Students will survey family members and others to acknowledge compatible blood types.

Section One: HEALTH/SCIENCE

ALT One: Think & Know

Summary

Students will gain knowledge and give pre/post test answers to questions about blood cells. Responses for the test will be shared by using a web site.

Competencies

1. Locate facts
2. Access internet and web site
3. Input 5 out of 7 answers correctly by keyboard

Time

3 hours

Materials

1. Computer, printer and paper
2. Website
3. Handouts: Test Your Knowledge and Blood Cells
4. Highlighter pens for each student

Instructions

1. After exploring web site, introduce or review steps to access web site with student(s).
2. Review format of pre/post test with student(s).
3. Assign student(s) to computer to take pretest.
4. Demonstrate inputting of answers using the keyboard.
5. After pretesting, give each student a handout about blood.
6. Read aloud and have student(s) discuss information and share opinion(s).
7. Select and read aloud statements that relate to facts on pre/post test.
8. Student(s) will locate and track statements and highlight with pen then place handout in work folder.
9. Verbally review by dividing class into teams. Ask questions from highlighted statements.

Evaluation/Assessment of Student's Competency

1. Work Folder
2. Hands-on demonstration
3. Self-quizzes (pre/post tests)

Closure

Gaining information about blood and what it does leads us to extend our knowledge to blood types. Knowing about the different types of blood can extend a life. (Ask students to ask parents to tell them their blood type. They will share this information with the class.)

Section One: Health/Science

ALT Two: Hype About Type

Summary

Students will learn the name of blood types by following multiple-step directions using manipulatives.

Competencies

1. Write and name 8 different blood types.
2. Match visual with written information
3. Sort manipulatives

Time

45 minutes

Materials

1. Handout: Blood Types
2. Food coloring (4 different colors)
3. Water
4. (16) small zip-loc baggies
5. (16) blank self-adhesive labels
6. Permanent marking pens
7. Tray or container to hold baggies

Instructions

1. Student(s) discuss and read handout.
2. List 8 types of blood on a chart or board.
3. Brainstorm and conclude that the identification and matching of blood types is important
4. Set up 8 work stations equipped with 2 zip-loc bags , 8ozs. Water, 2 labels, 1 pen and 2 blank self-adhesive labels.
5. Assign a student or team, representing 2 given blood types, to each work station.
6. Each station will mix 4ozs. of water and 3 drops of food color in each bag and seal to represent blood. (i.e. one station will have 2 bags of blue water)
7. Use pen to write assigned blood types on bag. (i.e. A+ on first bag and A- on second bag)
8. Each station will place all their labeled bags of "blood" into one box. Assign a team to sort the bags with same blood type label on it.

Evaluation/Assessment of Student's Competency

1. Observations
2. Deductive Reasoning tasks
3. Sorting and labeling of manipulatives

Closure

It is extremely important to know and properly match blood type when extending or enhancing life. Blood cells make up all blood types. There are different kinds of blood cells in our blood. They each help us in their own way. (Display pictures of platelets, red blood cells and white blood cells).

Section One: Health/Science

ALT Three: Sight Unseen

Summary

Students will read, view, draw and label (3) types of blood cells and make a picture book. They will distinguish the different formations and functions of each blood cell as each promotes and extends a healthy body.

Competencies

1. Recognize visual differences by drawing illustrations
2. Organize and assemble a book
3. Match correct data with each drawing
4. Explain the function of each cell in written form and verbal response with 80% accuracy

Time

75 minutes.

Materials

1. 2 sheets of 8 ½" x 11" paper & pencil per student
2. Crayons or colored pencils
3. Stapler & staples
4. Handout of drawings & definitions of 3 blood cells

Instructions

1. Pass out handout about blood cells.
2. Students read and discuss information.
3. Discuss specific differences in shape, size and function of each cell.
4. Pass out two 8 ½" x 11" sheets of paper per picture book.
5. Fold each sheet of paper in half .
6. Design cover and create title for picture book
7. Look at picture of blood cells on handout and use to draw and label a cell on one side of page and write its function on the opposite page.
8. Number each page and assemble picture book. Staple pages together on fold.

Evaluation/Assessment of Student's Competency

1. Illustrations of cells
2. Picture book completed
3. When asked, read or tell the name and function of each cell.

Closure

Review facts that each cell has its own job and function but each cell works with the others. Many functions of blood are unseen by the naked eye. To learn more about the unit requires a special vocabulary. Display the word "tissue", a dictionary and drumming symbol or item for use in beating out syllables.

Section Two: Reading/Language Arts

ALT One: Say That Again

Summary

Students will review, read, write and discuss vocabulary words that relate to blood and tissue by using choral readings, sound beats and written activities.

Competencies

1. Use of dictionary to locate words
2. Divide words into syllables
3. Repeat sound beats

Time

45 minutes.

Materials

1. Board & chalk or marker
2. Pencils for each student(s)
3. Handout of list of 10 vocabulary words and definitions
4. Dictionaries
5. Index cards

Instructions

1. Introduce ALT by having students clap out their own names and tell how many beats they hear.
2. Discuss and compare the beats to the meaning of syllables and how this simplifies pronunciation.
3. Write the 10 vocabulary words on a chart.
4. Pronounce each word and clap out syllable(s) then ask student(s) to repeat.
5. Write number of syllable(s) beside each word on the board.
6. Pass out a dictionary and index card to each student (teams may be formed).
7. Assign a vocabulary word to locate in dictionary and write in syllables on index card.

8. Call out a vocabulary word and student(s) assigned that word will pronounce word and write on board in syllables.

Evaluation/Assessment of Student's Competency

1. Observation and participation
2. Written response.

Closure

Index card response and handout should be placed in individual student unit folder. Tell student(s) that dictionaries not only help us pronounce words but also is a great resource for the meanings of words. Display a lotto game sheet, game markers and prizes and the word "definitions".

Section Two : Reading/Language Arts

ALT Two: Vocabulary Lotto

Summary

Students will recall, 10 unit vocabulary words and give the meaning for each word. Each student will make a lotto game to reinforce knowledge obtained. The definitions or meanings of words and how they relate to blood will be learned through small group instruction.

Competencies

1. Use a dictionary to find definitions
2. Participate in group activities
3. Match words and meanings with 100% accuracy

Time

45 minutes

Materials

1. Handout - List of vocabulary words divided into syllables.
2. Handout – Blank lotto game sheets
3. Scissors & glue
4. 8 Game markers per game
5. Dictionaries for each student
6. Prizes or treats for lotto game winners

Instructions

1. Pass out a blank lotto game sheet to each student(s).
2. Pass out vocabulary list of 10 words divided into syllables.
3. Student(s) choose 8 words out of 10 from vocabulary list and cut out.
4. Glue each word in a separate space on the lotto game sheet.
5. Pass out 8 game markers per game sheet to cover words as they are called aloud.
6. As a vocabulary word is called out, read the meaning also.
7. Student(s) may win by covering words in 4 corners, 4 in a row or cover-all.

8. After game, student(s) are to use a dictionary to locate and write definitions of 10 unit vocabulary words. Small learning groups may be established.

Evaluation/Assessment of Student's Competency

1. Written definitions
2. Observation and participation

Closure

Definitions are to be placed in student portfolio. Place the words "blood" and "tissue" on the board and draw a line between them. Explain how words can fall into categories depending on what they have in common by definition or meaning. Student(s) can be asked To think about which category each vocabulary word belongs under, blood or tissue.

Section Two: Reading/Language Arts

ALT Three: Category, Please

Summary

Student(s) will review 10 vocabulary words relating to blood and tissue. Definitions will be recalled and how the definitions relate to blood and tissue needs. Using this knowledge, the vocabulary words will be manipulated into the category of blood or tissue. This will also help visualize the two different services provided to the community by the Community Blood Center and Community Tissue Services.

Competencies

1. Analyze definitions and categorize words
2. Associate meanings with words

Time

45 minutes.

Materials

1. Handout – Unit vocabulary word list with definitions
2. 10 Markers
3. Construction paper (8 1/2" x 5")
4. Tape
5. Board
6. CBC/CTS brochures, websites or powerpoint presentation

Instructions

1. Introduce 2 services of CBC/CTS by sharing and explaining brochures or showing powerpoint presentation, or viewing of websites.
2. Distribute handout of 10 unit vocabulary words with definitions to student(s)
3. Write or tape names of 2 categories ("blood" and "tissue") on board.
4. Divide students into 2 teams and assign 5 different vocabulary words to each team.
5. Pass out construction paper and markers. Teams write each given word on a piece of construction paper.

6. Each team takes a turn reading a word and definition aloud then after a group consensus, tape the word under the category of “blood” or “tissue” on the board. Make and discuss any corrections needed.

Evaluation/Assessment of Student’s Competency

1. Learning board
2. Manipulatives
3. Group Processing Skills

Closure

Explain the need for blood and tissue is so important that businesses exist to service the community. Review the names of a business (CBC/CTS). Students may think about and discuss with their families, situations that may happen to cause them to need blood. Exhibit pictures of culturally and racially diverse people of all ages.

Section Three: Social Studies

ALT One: Why May I Need Services?

Summary

Students will become aware of conditions that establishes a need to have a blood supply available in the community. Student(s) will research and realize specific health conditions that require blood or tissue services that are subject to happening to anyone.

Competencies

1. Research skills using internet and books
2. Using data to support needs of people in the community by listing 5 needs

Time

90 minutes

Materials

1. Computer
2. Handout – Needing Blood and What Are Platelets
3. Books
4. CTC brochure
5. Highlighters for student(s)

Instructions

1. Brainstorm situations that may happen to a person and blood or tissue loss occurs.
2. Pass out handouts and highlighters
3. Locate, read and highlight health conditions that require a need for blood.
4. Student(s) are to list highlighted results on separate paper.
5. Assign a condition to each student to research and submit a report.

Evaluation/Assessment of Student's Competency

1. Written research report
2. Written list of health conditions

Closure

Review the needs of a community dictates the establishment of services. Services require the employment of competent and qualified workers. Refer to hook activity and point out The job application and other items used by employees at a blood center/tissue services facility. Students may think about working in such a business, why or why not?

Section Three: Social Studies

ALT Two: Do You Read Me?

Summary

Student(s) will read, discuss and fill in written responses similar to those on a job application. Through discussions and interviewing, the need for qualified and reliable workers will be a point of focus. Students will realize the need for personal data and responses to all areas of a job application for hiring.

Competencies

1. Filling out applications completely
2. Knowledge of Personal data
3. Awareness of requirements needed for employment

Time

30 minutes

Materials

1. Handout – Employment Opportunities at Community Blood Center
2. A job application
3. Pencil
4. Personal data
5. Phone book
6. School rules and regulations

Instructions

1. Brainstorm types of jobs that are performed at a blood center or tissue service business.
2. Student(s) share a job they would like to do or not like to do.
3. Discuss requirements and expectations on any job. Refer to school rules and regulations for attendance policy, performance standards, dress code, discipline code, etc.

4. Compare school rules and regulations to that of an employer.
5. Discuss and role- play situations that may occur as a consequence for not following rules and regulations at a blood center or tissue service facility.
6. Pass out job applications. Student(s) read each section. Give directions for each section and have student(s) fill it out as explained.
7. Any section unknown should be assigned for homework, written down on the application and returned for assessment.
8. Phone books may be used as a resource and students are motivated to keep a personal phone book.

Evaluation/Assessment of Student's Competency

1. Completed job application
2. Role playing

Closure

Qualified people are needed to apply for jobs. Skills, education and training are needed to function successfully on a job. Reading and writing are extremely important skills used to communicate in the world of work. Display a USA map and have students think about the concept of people moving for employment reasons. They may think about whether or not they would move and to which state.

Section Three: Social Studies

ALT Three: Location , Location

Summary

Students expand their knowledge of geographical locations of CBC/CTS sites in the USA. This information will enhance their awareness of relocation for employment, sites for services in other communities and states and location of other sites in relationship to own town or state location.

Competencies

1. Locate given states on a USA map
2. Label given states on a USA outline map
3. Locate and label given cities in Ohio

Time

1 hour

Materials

1. Handouts – Donation Centers, Employment Opportunities & CBC Fact Sheet
2. USA map
3. USA outline map
4. Ohio map of cities
5. Ohio outline map
6. Pencil and eraser
7. Highlighter

Instructions

1. Pass out handouts and highlighter. Find, read and highlight states on handouts.
2. Look at USA map and have students locate and point out given states
3. Pass out USA outline map. Students are to locate and label each state
4. Look at an Ohio map with cities. Circle the names of Ohio cities on handouts.
5. Pass out an Ohio outline map. Student(s) are to locate and label the given cities.

Evaluation/Assessment of Student's Competency

1. Outline maps
2. Observation

Closure

Geographical location is to be considered for employment, health, and services. Everyone has an opportunity to be part of *life extensions*.

Transfer Activity: Community Services

Details

Students may participate in planning a field trip to a CBC/CTS (or invite one of their speakers into the classroom). On the field trip students will observe equipment and handling, dress codes, acceptable behaviors and attitudes, reading, writing and charting skills, labeling organizing and safety. Quality, responsibility, reliability and dependability of teamwork may be observed along with other things learned in the unit.

Preparation

1. Coordinate plans with other staff involved
2. Schedule date for tour (or speaker)
3. Secure guidelines for tour
4. Schedule transportation
5. Make name tags
6. Create a letter to parents about activity

Materials Required

1. Name tags (self-adhesive)
2. Marker

Time

2 hours plus travel time

Guidelines for Completion

1. Participation
2. Compliance with guidelines
3. Write or illustrate 5 things learned

4. Student(s) will find out own blood type and someone else whose blood type is compatible to theirs

Evaluation/Assessment

1. Inquiry results of blood types
2. Reflections from fieldtrip (or speaker) written or illustrate

Appendix One: Life Extensions

Section One-ALT 1: Think and Know

*Handouts: Test Your Knowledge About Blood
Blood Cells
Websites*

Section One-ALT 2: Hype About Type

Handout: Blood Type

Section One-ALT 3: Sight Unseen

Handout: Blood Cells

Section Two-ALT 1: Say It Again

Handout: (10) Vocabulary Words & Definitions

Section Two-ALT 2: Vocabulary Lotto

*Handout: Lotto Game Sheet (8 squares)
(10) Vocabulary Words -Syllables*

Section Two-ALT 3: Category, Please

*Handouts: (10) Vocabulary Words & Definitions
Websites
CBC/CTS Brochures*

Section Three-ALT 1: Why May I Need Blood?

*Handouts: Needing Blood
What Are Platelets?
Book Listings
Visual Listings*

Section Three-ALT 2: Do You Read Me?

Handout: Employment Opportunities

Section Three-ALT 3: Location, Location

*Handouts: Donation Centers
Employment Opportunities
CBC Fact Sheet*

