

ALL of US

Anyone can save and improve lives through organ, tissue and eye donation.



All of Us Curriculum Summary

Classroom Curriculum Objective:

The All of Us curriculum is designed to supplement high school anatomy, biology, health, and other courses. It covers the fundamentals of organ, eye and tissue donation and transplantation, including an overview of the transplantable organs and tissues and their functions, why transplants are necessary, and the donation process. Students will also learn what it means to be on the Michigan Organ Donor Registry and will receive literature to aid in family discussion about donation.

Practical Applications:

Nearly 2,500 Michigan residents are waiting for life-saving organ transplants – 83% need a kidney transplant. Nationally, minorities comprise 25 percent of the American population but make up more than 60 percent of those in need of transplants because of high rates of diabetes, hypertension, heart disease, and obesity.

Michigan residents are asked to make a decision at the Secretary of State office about joining the Michigan Organ Donor Registry when being issued or renewing their driver permit, driver license or state ID. After participating in this class and talking with their families, students should feel equipped to make an informed decision about organ, eye and tissue donation.

Connections to State Standards:

Michigan K-12 Standards Science -High School (Grades 9-12)

Structure and Function

HS-LS1-1 - *Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.*

HS-LS1-2 - *Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.*

HS-LS1-3 - *Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.*

Inheritance and Variation of Traits

HS-LS1-4 - *Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.*

HS-LS3-1 - *Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.*

Source:

https://www.michigan.gov/documents/mde/K-12_Science_Performance_Expectations_v5_496901_7.pdf

Michigan Merit Curriculum Health Education Guidelines V.1.07 11

STRAND 5: PERSONAL HEALTH AND WELLNESS

Standard 1: Core Concepts

5.2 Explain the importance of regular health screenings or exams.

Standard 2: Access Information

5.4 Demonstrate the ability to access valid information and resources in one's community and on the Internet related to personal health issues and concerns.

Standard 3: Health Behaviors

5.7 Apply knowledge about symptoms of illness to determine whether medical care is required.

Source:

https://www.michigan.gov/documents/mde/MMC_Guidelines_HS_Health_724247_7.pdf

Class Format:

The 60-minute All of Us program can be modified for class periods ranging from 45 to 90 minutes and includes:

- Interactive presentation led by Gift of Life Michigan educator
- Perspective from a transplant recipient including pre-transplant, transplant process and post-transplant
- Lung transplant and corneal blindness simulation
- Opportunity to view tissue specimens

Pre/post-presentation quizzes, extension activities, and a self-guided digital curriculum are also available upon request.

Class Outline:

1. Introduction / expectations
2. Gift of Life Michigan overview
3. Transplantable organs and tissues overview
4. Organ donation
 - a. The Waiting List and statistics
 - i. *Key terminology – diabetes, hypertension, heart disease*
 - b. Organ donor criteria –
 - i. *Concepts: process for determining organ donation potential*
 - ii. *Key terminology: brain death, donation after circulatory death, ventilator*
 - c. “Name the organ” – students will identify photos of diseased and healthy human organs.
 - i. *Concepts: Organ function, and factors contributing to organ failure*
 - ii. *Key terminology: cardiomyopathy, cystic fibrosis, pulmonary fibrosis, emphysema, fatty liver disease, regeneration, dialysis, polycystic kidney disease*
 - d. Organ allocation –
 - i. *Concepts: factors considered when transplanting organs, including blood type and histocompatibility.*
 - ii. *Key terminology: human leukocyte antigen, cross-matching*
 - e. Organ donation in multicultural communities –
 - i. *Concepts: multicultural communities are at greater risk for organ failure due to genetics and social determinants of health. Students will learn why a donor’s ethnicity and blood and tissue type are important factors for donor and recipient compatibility.*
 - f. Living donation
 - i. *Concepts: difference between deceased and living organ donation*
 - g. Transplant recipient perspective
5. Tissue donation
 - a. Pass around bone specimens for students to view
 - b. *Concepts: tissue donation requirements, transplantable tissues and applications*
 - c. *Key terminology: allograft, congenital*
6. Cornea donation
 - a. Pass around cornea glasses for students to experience corneal blindness
 - b. *Concepts: cornea donation requirements, and donation and transplantation process*
 - c. *Key terminology: fuchs’ dystrophy, avascular*
7. Michigan Organ Donor Registry
 - a. *Concepts: Registration criteria and importance of family discussion*
8. FAQs
9. Careers in donation and transplantation
10. Additional resources
11. Questions

School Districts That Have Implemented All of Us Curriculum

Allegan Area Educational Service Agency	Olivet Public Schools
Allendale Public Schools	Orchard View Public Schools
Anchor Bay School District	Pennfield Schools
Athens Area Schools	Portage Public Schools
Branch Intermediate School District	Portland St. Patrick School
Byron Center Public Schools	Reeths-Puffer Schools
Carmen-Ainsworth Community School Schools	Rockford Public Schools
Catholic Secondary Schools	Saginaw Career Complex
Chandler Park Academy	Sanilac Intermediate School District
Clio Community Schools	Saugatuck Public Schools
Comstock Park Public Schools	South Suburban Christian Schools
Davison Community Schools	St. Charles Community Schools
Detroit Public Schools	Swartz Creek Community Schools
Eastern Ottawa Christian Schools	Tri County Area Schools
Flushing Community Schools	Troy School District
Forest Hills Public Schools	Van Buren Intermediate School District
Fremont Public Schools	Vicksburg Public Schools
Grand Blanc Community Schools	West Bloomfield School District
Grand Haven Public Schools	Westwood Heights Schools
Grand Rapids Public Schools	
Grand Rapids Secondary Catholic Schools	
Grandville Christian Schools	
Greenville Public Schools	
Hamilton Public Schools	
International Academy	
Kalamazoo Public Schools	
Kalamazoo Regional Educational Service Agency	
Kearsley School District	
Kent City Schools	
Kent Intermediate School District	
Kentwood Public Schools	
L'anse Creuse School District	
Lapeer Education and Technology Center	
Linden Community Schools	
Lowell Public Schools	
Madison Heights School District	
Mecosta-Osceola Intermediate School District	
Montabella Community Schools	
Montrose Community Schools	
Morley Stanwood Public Schools	
Muskegon Area Intermediate School District	
Niles Community Schools	