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| **Lesson Title : Optimizing Organ Donation** | **Unit #:**  **1** | **Lesson #:**  **2** | **Activity #:**  **5** |
| **Activity Title: Ask an Expert** |

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| **Estimated Lesson Duration:** | **6 days** |
| **Estimated Activity Duration:** | **2 days** |

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| **Setting:** | **Rm 2610, Scott High School** |

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| **Activity Objectives:** |

Students will be able to:

1. Organize a list of questions for a mentor interview,
2. Discuss the list of questions with a mentor, and
3. Use this lesson to compose a plan to optimize organ donation.

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| **Activity Guiding Questions:** |

* What do you already know about organ donation?
* What do you need to know about organ donation?
* What are the eligibility requirements for organ donors?
* What are the eligibility requirements for organ recipients?
* What needs to happen during an organ donation?
* What other careers are connected to organ donation?
* Can there be living donors?
* What can be donated in a transplant?

| **Next Generation Science Standards (NGSS)** | |
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| **Science and Engineering Practices (Check all that apply)** | **Crosscutting Concepts (Check all that apply)** |
| Asking questions (for science) and defining problems (for engineering) | Patterns |
| Developing and using models | Cause and effect |
| Planning and carrying out investigations | Scale, proportion, and quantity |
| Analyzing and interpreting data | Systems and system models |
| Using mathematics and computational thinking | Energy and matter: Flows, cycles, and conservation |
| Constructing explanations (for science) and designing solutions (for engineering) | Structure and function. |
| Engaging in argument from evidence | Stability and change. |
| Obtaining, evaluating, and communicating information |  |

| **Ohio’s Learning Standards for Science (OLS)** |
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| **Expectations for Learning - Cognitive Demands (Check all that apply)** |
| Designing Technological/Engineering Solutions Using Science concepts **(T)** |
| Demonstrating Science Knowledge **(D)** |
| Interpreting and Communicating Science Concepts **(C)** |
| Recalling Accurate Science **(R)** |

| **Ohio’s Learning Standards for Math (OLS) and/or**  **Common Core State Standards -- Mathematics (CCSS)** | |
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| **Standards for Mathematical Practice (Check all that apply)** | |
| Make sense of problems and persevere in solving them | Useappropriate tools strategically |
| Reason abstractly and quantitatively | Attendto precision |
| Construct viable arguments and critique the reasoning of others | Look for and make use of structure |
| Model with mathematics | Look for and express regularity in repeated reasoning |

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| **Unit Academic Standards (NGSS, OLS and/or CCSS):** |

LS 1-2 - Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.

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| **Materials**: (Link Handouts, Power Points, Resources, Websites, Supplies) |

None

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| **Teacher Advance Preparation:** |

Set up mentor day/time in advance of beginning the unit

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| **Activity Procedures:** |

Day 1:

1. **Enter Slip:** Write what you think the answers are to the essential questions.
   1. Share with a neighbor.
   2. Share as a table.
   3. Share as a class - write ideas on board.
2. Lead in from Enter Slip to Activity
   1. What is our ultimate goal (challenge)?
   2. What do we need to know to get there? List guiding questions on the board
   3. What do we already know? Cross out questions we know the answers to
   4. What can we do to find answers?
   5. Mentors coming tomorrow to answer questions (20 minutes)
      1. ~15-20 questions that you will ask them to help guide you in your challenge
      2. Questions should not have one answer - should be open ended
      3. Brainstorm 3-5 questions to get them started
      4. Can ask other questions that are job-related
      5. Question ideas
         1. Describe your typical workday
         2. What skills are required
         3. What do you find most challenging?
         4. What do you find most enjoyable?
         5. What are the pros of your job? Cons?
         6. How many hours/week do you work?
         7. How would you describe the culture where you work?
         8. Too many/few people entering profession?
         9. What is some research that could benefit what you do?
         10. Who are some important people in your industry?
         11. What is a reasonable salary range?
         12. How did you get your job?
         13. What educational preparation did you do?
         14. What experiences did you have before beginning your job?
         15. What would be good resources to use to find more information on \_\_\_\_\_?
         16. What other career paths are related to what you do?
   6. How should we treat the mentors
      1. Welcoming/greeting
      2. Classroom expectations
      3. What are our expectations for mentors
      4. What should tomorrow look like? Sound like?
      5. If Dr. Sapp walked in, what would we want him to see?
3. **Exit Slip:**Write one sentence about what you did today. Write one sentence explaining why it was important (relate this back to your essential questions!). Write one sentence about where you could use what you did today again. Write one sentence about how well you worked today in class. Write one sentence about what you think the next step should be. Please turn your exit slips to the homework bin

Day 2:

1. **Enter Slip:** Please have your list of questions for your mentors on your desk, along with something to write ***with*** and something to write ***on***.
2. 5 min - prep work with group (allow mentors time to get settled and set up)
3. Mentor interviews
4. **Exit Slip:** Based on what you know and what you have learned from your interviews, please write the answers to the essential questions in your notebook.

**Formative Assessments:** Link the items in the Activities that will be used as formative assessments.

Monitor student questions as they are being written, monitor interviews, review exit slips

**Summative Assessments:** These are optional; there may be summative assessments at the end of a set of Activities or only at the end of the entire Unit.

Unit test at the completion of this unit and the subsequent unit.

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| **Differentiation:** Describe how you modified parts of the Lesson to support the needs of different learners.  Refer to Activity Template for details. |

No differentiation – class discussion

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| **Reflection:** Reflect upon the successes and shortcomings of the lesson. |

I need to do some more work on guiding the students before this activity. Ms. Daley and her team did a fantastic job at coming in and answering questions for the students about organ donation, the process, and how all the pieces fit together. Now that I have seen the presentation several times, I would like to re-work some of the previous work into fitting more into what Ms. Daley will present. She does a lot with human body systems and how they link together, which I think the students were able to grasp onto and get interested in.