



# School District of the City of St. Charles

## PLTW Medical Detectives (Addendum to 7-12 Science)

Approved by the Board of Education  
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## **PLTW Medical Detectives Curriculum**

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## **District Mission**

The City of St. Charles School District will REACH, TEACH, and EMPOWER all students by providing a challenging, diverse, and innovative education.

## **District Vision**

The City of St. Charles School District will be an educational leader recognized for high performance and academic excellence that prepares students to succeed in an ever-changing global society.

## **District Values**

We, the City of St. Charles School District community of students, parents, staff, and patrons, value:

- High quality education for all students which includes:
  - Lifelong learning from early childhood through adult education
  - Rigorous learning experiences that challenge all students
  - Instruction that meets the needs of a diverse community
  - Respect for all
  - Real world, critical thinking and problem-solving skills to prepare students for the 21<sup>st</sup> Century
  - Developing caring, productive, and responsible citizens
  - Strong engagement of family and community
  - A safe, secure, and nurturing school environment
- Achievement through:
  - Celebration of individual success

- Collaboration with parents and community stakeholders
- Exploration, Innovation, and creativity
- High quality staff by:
  - Hiring and retaining highly qualified and invested employees
  - Providing professional development and collaboration focused on increasing student achievement
  - Empowering staff to use innovative resources and practices
- Informed decisions that are:
  - Student-centered
  - Focused on student achievement
  - Data Driven
  - Considerate of all points of view
  - Fiscally responsible

# District Goals

For planning purposes, five overarching goals have been developed. These goals are statements of the key functions of the school district.

1. Student Performance
  - Develop and enhance the quality educational/instructional programs to improve student performance and enable students to meet their personal, academic, and career goals.
2. Highly qualified staff
  - Recruit, attract, develop, and retain highly qualified staff to carry out the District's mission, vision, goals, and objectives.
3. Facilities, Support, and Instructional Resource
  - Provide and maintain appropriate instructional resources, support services, and functional and safe facilities.
4. Parent and Community Involvement
  - Promote, facilitate and enhance parent, student, and community involvement in district educational programs.
5. Governance
  - Govern the district in an efficient and effective manner providing leadership and representation to benefit the students, staff, and patrons of the district.

## School District Philosophical Foundations

Teachers in the School District of the City of St. Charles share in and ascribe to a philosophy that places children at the heart of the educational process. We feel that it is our professional responsibility to strive to be our best at all times and to maximize our efforts by ensuring that the following factors are present in our classrooms and our schools.

1. Learning is developed within the personal, physical, social, and intellectual contexts of the learner.
2. A strong educational program should provide developmental continuity.
3. The successful learner is motivated, strategic, knowledgeable, and interactive.
4. Children learn best when they have real purposes and can make connections to real life.
5. Effective learning is a combination of student exploration and teacher and mentor modeling.
6. Assessment is an ongoing and multidimensional process that is an integral part of instruction.
7. Making reading and writing connections across multiple sources and curricula facilitates meaning.
8. Literacy for the future means literacy in multiple technologies.
9. Education must respond to society's diverse population and serve all children.
10. Interactions among students, teachers, parents, and community form the network that supports learning.

## **Medical Detectives Rationale**

Students become medical detectives and solve medical mysteries. They apply experimental design, creative thinking, and problem solving to investigate the inner-workings of the human body, diagnose disease, and improve human health.

## **Medical Detectives Program Goals**

Big Ideas:

- Diagnosing, treating, and preventing illnesses requires analyzing vital signs, patient medical history, physical exams, and test results.
- The nervous system takes in information through our senses, processes the information and triggers reactions.
- When investigating disease outbreaks, epidemiologists look for patterns to prevent further illness.

Transfer Goals:

- Asking questions and defining problems
- Developing and using models
- Planning and carrying out investigations
- Analyzing and interpreting data

## **Medical Detectives Course Descriptions**

In the PLTW Medical Detectives course, students play the role of real-life medical detectives as they collect and analyze medical data to diagnose disease. They solve medical mysteries through hands-on projects and labs, measure and interpret vital signs, dissect a sheep

brain, investigate disease outbreaks, and explore how a breakdown within the human body can lead to dysfunction. Throughout the course, students discover how healthcare professionals act as medical detectives to identify, treat, and prevent illness in their patients. Students apply their knowledge of the human body systems, analyze patient symptoms, perform lab analyses of patient samples, and use other clues to come up with diagnoses.

### **Medical Detectives Enduring Understandings/Essential Learning Outcomes**

- Patient health can be evaluated in a variety of ways, including collecting a patient's medical history and testing vital signs.
- Medical professionals use a sequential, logical process to evaluate, diagnose, and treat patients.
- A variety of health care professionals and scientists investigate medical mysteries.
- The nervous system collects and interprets input from the outside world using specialized receptors.
- The brain is a complex organ that is organized into specialized regions
- An epidemic is an infectious disease that spreads rapidly and sickens a large number of people.
- Rapid case detection and response are key to ending a disease outbreak through efficient surveillance and laboratory work, effective coordination and teamwork.

## PLTW Medical Detectives Course Overview

<b>Grade level(s): 7th Grade</b>	
<b>Course Rationale</b>	<b>Course Description</b>
Students become medical detectives and solve medical mysteries. They apply experimental design, creative thinking, and problem solving to investigate the inner-workings of the human body, diagnose disease, and improve human health.	In the PLTW Medical Detectives course, students play the role of real-life medical detectives as they collect and analyze medical data to diagnose disease. They solve medical mysteries through hands-on projects and labs, measure and interpret vital signs, dissect a sheep brain, investigate disease outbreaks, and explore how a breakdown within the human body can lead to dysfunction. Throughout the course, students discover how healthcare professionals act as medical detectives to identify, treat, and prevent illness in their patients. Students apply their knowledge of the human body systems, analyze patient symptoms, perform lab analyses of patient samples, and use other clues to come up with diagnoses.
<b>Transfer Goals/Big Ideas</b>	
<p><b>Big Ideas:</b></p> <ul style="list-style-type: none"> <li>● Diagnosing, treating, and preventing illnesses requires analyzing vital signs, patient medical history, physical exams, and test results.</li> <li>● The nervous system takes in information through our senses, processes the information and triggers reactions.</li> <li>● When investigating disease outbreaks, epidemiologists look for patterns to prevent further illness.</li> </ul> <p><b>Transfer Goals:</b></p> <ul style="list-style-type: none"> <li>● Asking questions and defining problems</li> <li>● Developing and using models</li> <li>● Planning and carrying out investigations</li> <li>● Analyzing and interpreting data</li> <li>● Using mathematics and computational thinking</li> <li>● Constructing explanations and designing solutions</li> <li>● Engaging in an argument from evidence</li> <li>● Obtaining, evaluating, and communicating information</li> </ul>	

**Missouri Learning Standards**

**NGSS.P1 Asking Questions and Defining Problems - Ask Questions**

- *that arise from careful observation of phenomena, models, or unexpected results, to clarify and/or seek additional information.*
- *to identify and/or clarify evidence and/or the premise(s) of an argument.*
- *to determine relationships between independent and dependent variables and relationships in models.*
- *to clarify and/or refine a model, an explanation, or an engineering problem.*
- *that can be investigated within the scope of the classroom, outdoor environment, and museums and other public facilities with available resources and, when appropriate, frame a hypothesis based on observations and scientific principles.*

**NGSS.P2 Developing and Using Models**

- *Evaluate limitations of a model for a proposed object or tool.*
- *Develop and/or use a model to predict and/or describe phenomena.*
- *Develop a model to describe unobservable mechanisms.*

**NGSS.P3 Planning and Carrying Out Investigations**

- *Plan an investigation individually and collaboratively, and in the design: identify independent and dependent variables and controls, what tools are needed to do the gathering, how measurements will be recorded, and how many data are needed to support a claim.*
- *Conduct an investigation and/or evaluate and/or revise the experimental design to produce data to serve as the basis for evidence that meet the goals of the investigation.*
- *Evaluate the accuracy of various methods for collecting data.*
- *Collect data to produce data to serve as the basis for evidence to answer scientific questions or test design solutions under a range of conditions.*

**NGSS.P4 Analyzing and Interpreting Data**

- *Analyze and interpret data to provide evidence for phenomena.*
- *Analyze and interpret data to determine similarities and differences in findings.*

**NGSS.P5 Using Mathematics and Computational Thinking**

- *Apply mathematical concepts and/or processes (e.g., ratio, rate, percent, basic operations, simple algebra) to scientific and engineering questions and problems.*

**NGSS.P6 Constructing Explanations and Designing Solutions**

- *Construct an explanation that includes qualitative or quantitative relationships between variables that predict(s) and/or describe(s) phenomena.*
- *Construct an explanation using models or representations.*
- *Apply scientific reasoning to show why the data or evidence is adequate for the explanation or conclusion.*

**NGSS.P7 Constructing Explanations and Designing Solutions**

- *Construct, use, and/or present an oral and written argument supported by empirical evidence and scientific reasoning to support or refute an explanation or a model for a phenomenon or a solution to a problem.*

**NGSS.P8 Obtaining, Evaluating, and Communicating Information**

- *Critically read scientific texts adapted for classroom use to determine the central ideas and/or obtain scientific and/or technical information to describe patterns in and/or evidence about the natural and designed world(s).*
- *Communicate scientific and/or technical information (e.g. about a proposed object, tool, process, system) in writing and/or through oral presentations*

**6-8.LS1.A.1** - *Provide evidence that organisms (unicellular and multicellular) are made of cells and that a single cell must carry out all of the basic functions of life.*

**6-8.LS1.A.2** - *Develop and use a model to describe the function of a cell as a whole and ways parts of the cells contribute to that function.*

**6-8.LS1.A.4** - *Present evidence that body systems interact to carry out key body functions, including providing nutrients and oxygen to cells, removing carbon dioxide and waste from cells and the body, controlling body motion/activity and coordination, and protecting the body.*



**Unit 1: Disease Detectives**  
***Desired Results***

Standards	Transfer Goal(s) /Big Ideas	
<p><a href="#">Missouri Learning Standards</a> (NGSS)</p> <ul style="list-style-type: none"><li>● <b>6-8.LS1.A.1</b></li><li>● <b>6-8.LS1.A.4</b></li><li>● <b>NGSS.P1</b></li><li>● <b>NGSS.P3</b></li><li>● <b>NGSS.P4</b></li><li>● <b>NGSS.P6</b></li><li>● <b>NGSS.P7</b></li><li>● <b>NGSS.P8</b></li></ul>	Students discover how healthcare professionals act as medical detectives to identify, treat, and prevent illness in their patients. Students collect and interpret vital signs to evaluate patient health, explore different infectious disease agents, and design and conduct experiments to test the effectiveness of antibiotics on bacteria. In the end-of-lesson project, students collect and analyze medical data to diagnose a patient with a mystery illness.	
	<b>Enduring Understandings</b>	<b>Essential Questions</b>

	<ul style="list-style-type: none"> <li>● Patient health can be evaluated in a variety of ways, including collecting a patient's medical history and testing vital signs.</li> <li>● Medical professionals use a sequential, logical process to evaluate, diagnose, and treat patients.</li> <li>● A variety of health care professionals and scientists investigate medical mysteries.</li> </ul>	<ol style="list-style-type: none"> <li>1. What can patient signs and symptoms tell us about what's happening in the human body?</li> <li>2. How do medical detectives investigate their cases?</li> <li>3. What does effective teamwork look like?</li> </ol>
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**Learning Targets**

- Students will...*
- Collect and analyze vital signs to draw conclusions.
  - Explain differences among vital sign readings.
  - Use the experimental design process to investigate a question.
  - Design and conduct an experiment to draw conclusions.
  - Analyze a patient's signs and symptoms to diagnose a problem.
  - Design, document, and conduct an experiment to draw conclusions and provide treatment options.
  - Explore how disease agents are transmitted and treated.
  - Use aseptic technique to culture bacteria.
  - Analyze a patient's medical file and physician notes to request and interpret lab tests.
  - Identify the purpose of positive and negative controls.
  - Conduct interviews to gather information.
  - Provide a diagnosis and treatment for a patient based on test results, patient interviews, and medical file information.
  - Collaborate within a team.
  - Demonstrate effective communication skills.

**Unit Duration:**

**6 weeks**



## Unit 2: Mysteries of the Human Body

### *Desired Results*

Standards	Transfer Goal(s) /Big Ideas	
<p><a href="#">Missouri Learning Standards</a> (NGSS)</p> <ul style="list-style-type: none"> <li>● <b>6-8.LS1.A.2</b></li> <li>● <b>NGSS.P1</b></li> <li>● <b>NGSS.P2</b></li> <li>● <b>NGSS.P3</b></li> <li>● <b>NGSS.P4</b></li> <li>● <b>NGSS.P6</b></li> <li>● <b>NGSS.P7</b></li> <li>● <b>NGSS.P8</b></li> </ul>	<p>This unit introduces the human body as a collection of body systems, with a focus on the nervous system. Students investigate how the nervous system collects information from the outside world, moves this information through neurons, processes this information in the brain, and initiates the body’s response accordingly. Students create neuron models and perform a sheep brain dissection. They use their knowledge to explore symptoms as they relate to specific nervous system dysfunction and analyze evidence to identify the cause of the dysfunction. In the end-of-unit project, students create educational resources to help their patient understand the medical condition.</p>	
	Enduring Understandings	Essential Questions
	<ul style="list-style-type: none"> <li>● The nervous system collects and interprets input from the outside world using specialized receptors.</li> <li>● The brain is a complex organ that is organized into specialized regions.</li> </ul>	<ol style="list-style-type: none"> <li>1. What can patient signs and symptoms tell us about what’s happening in the human body?</li> <li>2. How does the nervous system allow our bodies to interact with the outside world?</li> <li>3. How do medical detectives investigate their cases?</li> <li>4. What does effective teamwork look like?</li> </ol>

### Learning Targets

*Students will...*

- Describe how the nervous system works to sense, process, and respond to stimuli in the world.
- Identify the path of input and output signals through the nervous system.
- Describe the structure and function of neurons.
- Model how a signal is transferred through and among neurons.
- Explore types of neurological tests.
- Analyze a patient’s medical file, physician notes, and medical examination tests to draw conclusions.

- Identify the communication breakdown of a nervous system dysfunction.
- Describe the structure and function of the brain and its parts.
- Compare human and sheep anatomy.
- Predict dysfunction based on the location of brain injury or disorder.
- Plan an investigation to solve a problem.
- Support the diagnosis with facts from the investigation.
- Collaborate within a team.
- Demonstrate effective communication skills.

**Unit Duration:**


**8 weeks**



### Unit 3: Outbreak! *Desired Results*

Standards	Transfer Goal(s) /Big Ideas	
<p><a href="#">Missouri Learning Standards</a> (NGSS)</p> <ul style="list-style-type: none"> <li>● <i>NGSS.P1</i></li> <li>● <i>NGSS.P3</i></li> <li>● <i>NGSS.P4</i></li> <li>● <i>NGSS.P5</i></li> <li>● <i>NGSS.P6</i></li> <li>● <i>NGSS.P7</i></li> <li>● <i>NGSS.P8</i></li> </ul>	<p>A mysterious toxin is endangering the health of a community. Using their understanding of human body systems, students describe how the suspected toxin has impacted the health of the patient. Students analyze patient symptoms and perform lab analyses of patient samples to identify the culprit and determine how it’s spreading. In the end-of-unit problem, students locate the source of the toxin using a map of the community, patient histories, and lab data, then present their findings to help community leaders mitigate the situation.</p>	
	Enduring Understandings	Essential Questions
	<ul style="list-style-type: none"> <li>● An epidemic is an infectious disease that spreads rapidly and sickens a large number of people.</li> <li>● Rapid case detection and response are key to ending a disease outbreak through</li> </ul>	<ol style="list-style-type: none"> <li>1. What can patient signs and symptoms tell us about what’s happening in the human body?</li> <li>2. How does the nervous system allow our bodies to interact with the outside world?</li> <li>3. How do medical detectives investigate their cases?</li> <li>4. What does effective teamwork look like?</li> </ol>

	efficient surveillance and laboratory work, effective coordination and teamwork.	
<b>Learning Targets</b>		
<p><i>Students will...</i></p> <ul style="list-style-type: none"> <li>● Organize and analyze data to calculate probability.</li> <li>● Use attack rate calculations to determine the likely source of illness.</li> <li>● Analyze medical evidence to determine the source of an outbreak.</li> <li>● Develop and carry out a plan to determine the source of illness.</li> <li>● Use evidence from an investigation to support a claim.</li> <li>● Communicate effectively to the public about the source of the outbreak.</li> <li>● Collaborate within a team.</li> </ul>		
<b>Unit Duration:</b>		
4 weeks		

 <b>Assessment Evidence</b>	
Rubric/Scoring	Assessment
<a href="#">Project 1.5: Diagnostic Detectives Summative Assessment Rubric</a>  <a href="#">Project 2.5: Mystery Disease Summative Assessment Rubric</a>	<ul style="list-style-type: none"> <li>● Formative assessments (<a href="#">1.5 Formative Assessment</a>, <a href="#">2.4 Control Center Assessment</a>)</li> <li>● Summative assessments (<a href="#">Diagnostic Detectives</a>, <a href="#">Mystery Disease</a>, <a href="#">Disease Detectives</a>)</li> <li>● Show criteria and models in advance</li> <li>● Exit Tickets</li> <li>● Conclusion Questions for each lesson</li> <li>● Provide feedback early and often</li> </ul>

### *Learning Plan*



Week(s)	Topic	Resources/Texts	Learning Targets	Assessment
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6 weeks	<p>Unit 1: Disease Detectives</p> <ul style="list-style-type: none"> <li>Activity 1.1: Vital Signs</li> <li>Activity 1.2: Exploring What's Vital</li> <li>Activity 1.3: Disease Agents - GloGerm Activity</li> <li>Activity 1.4: Disease Diagnosis</li> <li>Project 1.5: Diagnostic Detectives</li> </ul>	<ul style="list-style-type: none"> <li><a href="http://my.pltw.org">my.pltw.org</a></li> <li><a href="https://human.biogigital.com/">https://human.biogigital.com/</a></li> <li><a href="http://blooket.com">blooket.com</a></li> <li><a href="http://flocabulary.com">flocabulary.com</a></li> <li><a href="http://classhook.com">classhook.com</a></li> <li><a href="http://khanacademy.org">khanacademy.org</a></li> <li><a href="http://cdc.gov">cdc.gov</a></li> <li><a href="http://quizlet.com">quizlet.com</a></li> <li><a href="http://edpuzzle.com">edpuzzle.com</a></li> <li><a href="http://contrib.pbslearningmedia.org">contrib.pbslearningmedia.org</a></li> <li><a href="http://www.purposegames.com">www.purposegames.com</a></li> <li><a href="http://kahoot.com">kahoot.com</a></li> </ul>	<ul style="list-style-type: none"> <li>Collect and analyze vital signs to draw conclusions.</li> <li>Explain differences among vital sign readings.</li> <li>Use the experimental design process to investigate a question.</li> <li>Design and conduct an experiment to draw conclusions.</li> <li>Analyze a patient's signs and symptoms to diagnose a problem.</li> <li>Design, document, and conduct an experiment to draw conclusions and provide treatment options.</li> <li>Explore how disease agents are transmitted and treated.</li> <li>Use aseptic technique to culture bacteria.</li> <li>Analyze a patient's medical file and physician notes to request and interpret lab tests.</li> <li>Identify the purpose of positive and negative controls.</li> <li>Conduct interviews to gather information.</li> </ul>	<p>Conclusion Questions:</p> <ul style="list-style-type: none"> <li>Why is it necessary to check more than one vital sign on a patient?</li> <li>How might vital signs impact a medical professional's decisions as they investigate an illness?</li> <li>How might a scientist use experimental design to investigate the effect of a new medication on an organism that infects humans?</li> <li>How can well-designed experiments help medical detectives solve cases?</li> <li>The group next to you completed the same experiment, but forgot to use a control. Why is this a problem?</li> <li>Your friend is complaining that he went to the doctor for a cold and the doctor did not prescribe him an antibiotic. Should you recommend that he see a different doctor? Why or why not?</li> <li>Why are positive and negative controls important when analyzing patient lab results?</li> </ul> <p>2. If you were Patient 1's physician, what would you tell her about the disease agent that caused the illness and how this illness was transmitted?</p> <p>If you were your patient's physician, what would you tell the patient about the disease agent that caused the illness and how they could have prevented this illness?</p> <p><a href="#">1.5 Formative Assessment</a></p>
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			<ul style="list-style-type: none"> <li>● Provide a diagnosis and treatment for a patient based on test results, patient interviews, and medical file information.</li> <li>● Collaborate within a team.</li> <li>● Demonstrate effective communication skills.</li> </ul>	<a href="#">Project 1.5: Diagnostic Detectives Summative Assessment - Rubric</a>
8 weeks	Unit 2: Mysteries of the Human Body <ul style="list-style-type: none"> <li>● Activity 2.1: Secrets of the Nervous System</li> <li>● Activity 2.2: Smart Signals</li> <li>● Activity 2.3: Mysterious Miscommunications</li> <li>● Activity 2.4: The Control Center</li> <li>● Project 2.5: Mystery Disease</li> </ul>	<ul style="list-style-type: none"> <li>● <a href="http://my.pltw.org">my.pltw.org</a></li> <li>● <a href="https://human.bioidigital.com/">https://human.bioidigital.com/</a></li> <li>● <a href="https://blooket.com">blooket.com</a></li> <li>● <a href="https://edpuzzle.com">edpuzzle.com</a></li> <li>● <a href="https://faculty.washington.edu/chudler/n eurok.html">https://faculty.washington.edu/chudler/n eurok.html</a></li> <li>● <a href="https://ezgif.com">ezgif.com</a></li> <li>● <a href="https://ed.ted.com">ed.ted.com</a></li> <li>● <a href="https://quizlet.com">quizlet.com</a></li> <li>● <a href="https://gimkit.com">gimkit.com</a></li> <li>● <a href="https://discoveryeducation.com">discoveryeducation.com</a></li> <li>● <a href="https://mysteryscience.com">mysteryscience.com</a></li> <li>● <a href="https://news24.com">news24.com</a></li> <li>● <a href="https://www.purposegames.com">www.purposegames.com</a></li> </ul>	<ul style="list-style-type: none"> <li>● Describe how the nervous system works to sense, process, and respond to stimuli in the world.</li> <li>● Identify the path of input and output signals through the nervous system.</li> <li>● Describe the structure and function of neurons.</li> <li>● Model how a signal is transferred through and among neurons.</li> <li>● Explore types of neurological tests.</li> <li>● Analyze a patient's medical file, physician notes, and medical examination tests to draw conclusions.</li> <li>● Identify the communication</li> </ul>	Conclusion Questions <ul style="list-style-type: none"> <li>● How do our bodies receive stimuli as input, and what part of the nervous system is responsible for that process?</li> <li>● How does the entire nervous system allow our bodies to interact with our world? Your response must include the following terms: <ul style="list-style-type: none"> <li>○ peripheral nervous system</li> <li>○ central nervous system</li> <li>○ sensory neurons</li> <li>○ motor neurons</li> </ul> </li> <li>● How do you think a problem with the sensory or motor neurons might affect your body?</li> <li>● Briefly describe how signals move through and between neurons.</li> <li>● What might happen if a neuron is unable to accurately pass signals?</li> <li>● What event do you think might have caused Patient 1's condition?</li> <li>● Why could an incomplete medical file be a problem when diagnosing neurological disorders?</li> </ul>

			<p>breakdown of a nervous system dysfunction.</p> <ul style="list-style-type: none"> <li>● Describe the structure and function of the brain and its parts.</li> <li>● Compare human and sheep anatomy.</li> <li>● Predict dysfunction based on the location of brain injury or disorder.</li> <li>● Plan an investigation to solve a problem.</li> <li>● Support the diagnosis with facts from the investigation.</li> <li>● Collaborate within a team.</li> <li>● Demonstrate effective communication skills.</li> </ul>	<ul style="list-style-type: none"> <li>● Cerebral palsy is a condition that affects body movement and coordination. It's caused by brain injury or brain malformation that occurs before, during, or immediately after birth when an infant's brain is still developing. Which area or part of the brain is likely affected in a person with cerebral palsy who has movement problems in their right arm and hand? Explain your answer.</li> <li>● Return to the first paragraph of The Amazing Brain section and re-read the description of the baseball pitcher. Which brain region or part is responsible for this pitcher's experience?</li> <li>● Why is it important to communicate information clearly and completely with patients?</li> <li>● A man who's been battling lung cancer for the last three months is now experiencing personality changes and memory problems. Describe some of the different professionals who might be needed to diagnose and treat this man.</li> </ul> <p><a href="#">2.4 Control Center Assessment</a></p> <p><a href="#">Project 2.5: Mystery Disease Summative Assessment - Rubric</a></p>
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<p>4 weeks</p>	<p>Unit 3: Outbreak!</p> <ul style="list-style-type: none"> <li>● Activity 3.1: Food Fiasco</li> <li>● Problem 3.2: Disease Detectives</li> </ul>	<ul style="list-style-type: none"> <li>● <a href="http://my.pltw.org">my.pltw.org</a></li> <li>● <a href="http://kahoot.com">kahoot.com</a></li> <li>● <a href="http://quizizz.com">quizizz.com</a></li> <li>● <a href="http://gimkit.com">gimkit.com</a></li> <li>● <a href="http://blooket.com">blooket.com</a></li> <li>● <a href="http://discoveryeducation.com">discoveryeducation.com</a></li> <li>● <a href="http://cdc.gov">cdc.gov</a></li> <li>● <a href="http://sciencejournalforkids.org">sciencejournalforkids.org</a></li> <li>● <a href="https://faculty.washington.edu/chudler/n eurok.html">https://faculty.washington.edu/chudler/n eurok.html</a></li> <li>● <a href="http://playfactile.com">playfactile.com</a></li> <li>● <a href="http://flip">flip</a></li> </ul>	<ul style="list-style-type: none"> <li>● Organize and analyze data to calculate probability.</li> <li>● Use attack rate calculations to determine the likely source of illness.</li> <li>● Analyze medical evidence to determine the source of an outbreak.</li> <li>● Develop and carry out a plan to determine the source of illness.</li> <li>● Use evidence from an investigation to support a claim.</li> <li>● Communicate effectively to the public about the source of the outbreak.</li> <li>● Collaborate within a team.</li> </ul>	<p>Conclusion Questions:</p> <ul style="list-style-type: none"> <li>● What medical evidence can epidemiologists use to investigate the source of a foodborne illness?</li> <li>● Besides helping to identify the source of foodborne illnesses and preventing their impact, what other ways might epidemiologists assist in keeping the public safe from disease?</li> <li>● Why is it important for medical detectives to collect and analyze a variety of evidence to investigate a problem?</li> <li>● Why is it important to keep the public informed of an outbreak with timely and accurate updates?</li> </ul> <p><a href="#">Problem 3.2: Disease Detectives Summative Assessment - Rubric</a></p>
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