

## Pathophysiology– Grade Levels 11-12 TEKS Manager

**Credit: (1/2)**

Place a check (✓) in each column to show TEKS taught.

	TEKS	1 <sup>st</sup> 6 wks	2 <sup>nd</sup> 6 wks	3 <sup>rd</sup> 6 wks
<p>(b) Introduction.</p> <p>(1) Science is a way of learning about the natural world. Students should know how science has built a vast body of changing and increasing knowledge described by physical, mathematical, and conceptual models, and that science may not answer all questions.</p> <p>(2) A system is a collection of cycles, structures, and processes that interact. Students should understand a whole in terms of its components and how these components relate to each other and to the whole. All systems have basic properties that can be described in terms of space, time, energy and matter. Change and constancy occur in systems and can be observed and measured as patterns. These patterns help to predict what will happen next and can change over time.</p> <p>(3) Investigations are used to learn about the natural world through questioning, observing and drawing conclusions. Students should understand that certain types of questions can be answered by investigations, and that conclusions and models built from these investigations change as new observations are made. Models of objects and events are tools for understanding the natural world and can show how systems work. They have limitations and, based on new discoveries, are constantly being changed to more closely reflect the physical world.</p> <p>(c) Knowledge and skills.</p>				
	<p>(1) The student <b>conducts</b> laboratory investigations and fieldwork using safe, environmentally appropriate, and ethical practices. The student is expected to:</p>	<p>(A) <b>demonstrate</b> safe practices during laboratory investigations and in fieldwork; and</p>		
	<p>(B) <b>make</b> wise choices in the conservation and use of resources and the disposal of materials.</p>			

	<b>TEKS</b>	<b>1<sup>st</sup> 6 wks</b>	<b>2<sup>nd</sup> 6 wks</b>	<b>3<sup>rd</sup> 6 wks</b>
(2) The student <b>uses</b> scientific methods in fieldwork and laboratory investigations. The student is expected to:	(A) <b>plan</b> and implement investigative procedures including but not limited to asking questions, formulating testable hypotheses, and selecting equipment and technology;			
	(B) <b>make</b> observations and measurements in collecting data;			
	(C) <b>organize</b> , analyze, evaluate, make inferences, and predict trends from data; and			
	(D) <b>communicate</b> valid conclusions.			
(3) The student <b>uses</b> critical thinking and scientific problem solving to make informed decisions. The student is expected to:	(A) <b>analyze</b> , review, and critique hypotheses and theories as to their strengths and weaknesses using scientific evidence and information;			
	(B) <b>make</b> responsible choices in selecting everyday products and services using scientific information;			
	(C) <b>evaluate</b> the impact of research on scientific thought, society, and the environment;			
	(D) <b>gather</b> information about future careers using a variety of sources; and			
	(E) <b>research</b> and describe the history of science and contributions of scientists.			
(4) The student <b>knows</b> the mechanisms of pathology. The student is expected to:	(A) <b>identify</b> biological and chemical processes at the cellular level;			
	(B) <b>analyze</b> how the body attempts to maintain homeostasis when changes occur;			
	(C) <b>detect</b> changes resulting from mutations and neoplasms by examining cells, tissues, organs, and systems;			
	(D) <b>identify</b> factors that contribute to disease, such as age, gender, environment, lifestyles, and heredity; and			
	(E) <b>evaluate</b> stages in the progression of disease.			
(5) The student <b>knows</b> the process of pathogenesis. The student is expected to:	(A) <b>identify</b> pathogenic organisms using technology;			
	(B) <b>illustrate</b> the stages of pathogenesis including incubation period, symptomatic period, and exacerbation or remission;			
	(C) <b>analyze</b> the body's natural defense systems against infection such as barriers, the inflammatory response, and the immune response; and			
	(D) <b>evaluate</b> the effects of chemical agents, environmental pollution, and trauma on the disease process.			

	<b>TEKS</b>	<b>1<sup>st</sup> 6 wks</b>	<b>2<sup>nd</sup> 6 wks</b>	<b>3<sup>rd</sup> 6 wks</b>
(6) The student <b>knows</b> a variety of human diseases. The student is expected to:	(A) <b>research</b> and report on the nature of diseases according to etiology, signs and symptoms, diagnosis, prognosis, and treatment options;			
	(B) <b>research</b> and report advanced technologies for the diagnosis and treatment of disease;			
	(C) <b>identify</b> and describe congenital disorders and childhood diseases; and			
	(D) <b>research</b> and explain how diseases affect multiple body systems.			
(7) The student <b>knows</b> the effects of disease prevention and control. The student is expected to:	(A) <b>evaluate</b> public-health issues related to asepsis, isolation, immunization, and quarantine;			
	(B) <b>analyze</b> the effects of stress and aging on the body;			
	(C) <b>evaluate</b> treatment options for diseases;			
	(D) <b>research</b> and describe diseases that threaten world health and propose intervention strategies; and			
	(E) <b>develop</b> a plan for personal health and wellness.			

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