

Planned Course: Genetics	Course Number: S407	Department: Science
Unit: Review of Cell Parts and Cell Cycle	Grade Level: 10-12	
Estimated Time: 1 week	Level/Track:	Date Approved: 8/24/09

PA Academic Standards	▶ Core Concepts (in question format) • Skills/Knowledge	Activities/Strategies/Study Skills (identify some activities as remedial or enrichment activities)	Assessments (include types and topics)
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S11.B.1.1.1 Explain how structure determines function at multiple levels of organization.	<p>▶ How are the parts of the cell directly related to the functions they must carry out?</p> <ul style="list-style-type: none"> • Students will be able to explain the function of each cell part. • Students will be able to relate the cell parts shape to its job. 	<ul style="list-style-type: none"> – Teacher directed discussion on parts of a cell – Cell diagrams/transparencies 	<p>All assessments are aligned to the core concepts:</p> <ul style="list-style-type: none"> • Matching items and short answer questions on Chapter test • End of chapter assessment questions
S11.B.1.1.2 Compare and contrast the structural and functional similarities and differences among living things.	<p>▶ How are prokaryotic cells different than eukaryotic cells?</p> <ul style="list-style-type: none"> • Students will be able to discuss how cells differ. <p>▶ How do plant and animal cells differ?</p> <ul style="list-style-type: none"> • Students will be able to discuss differences such as cell walls, true nuclei and the endomembrane system. 	<ul style="list-style-type: none"> – Teacher directed discussion on parts of cells and differences between different kinds of cells – Transparencies – Lab – Mitosis onion root tip 	<ul style="list-style-type: none"> • Lab packet for mitosis • Chapter test matching items and short answer questions
S11.B.1.1.3 Compare and contrast cellular processes. S11.B.2.2.2 Compare and contrast the functions of mitosis and meiosis in passing	<p>▶ What are the key differences between Mitosis and Meiosis?</p> <ul style="list-style-type: none"> • Students will be able to discuss chromosome 	<ul style="list-style-type: none"> – Teacher lecture – Video/transparencies – Lab –Mitosis onion root tip – Internet websites 	<ul style="list-style-type: none"> • Essay on Chapter test • Chapter test matching items and short answer questions

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on genetic information.	<p>numbers in each process.</p> <ul style="list-style-type: none"> • Students will be able to discuss where each process occurs. • Students will be able to discuss differences in timing of both cycles. 		
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