



7th Grade Science Curriculum & Instruction Unit Development



Unit Title: Matter & Energy in Digestive System	Time Frame: 1 week
Six Weeks: 3 rd	Unit Number: 3.2
Curriculum	
<p>Enduring Understandings (Big Ideas):</p> <ul style="list-style-type: none"> All organisms convert matter and energy from one form to another. 	<p>The student will know:</p> <ul style="list-style-type: none"> Large molecules are broken down through chemical and physical changes to provide energy. Energy transformation takes place during digestion. Identify carbon as the primary element of an organic compound. <p>The student will be able to:</p> <ul style="list-style-type: none"> Distinguish between physical and chemical changes during digestion.
<p>Essential Questions:</p> <ul style="list-style-type: none"> What changes take place in order to get energy from food? 	
<p>Student Understanding (student friendly TEKS):</p> <ul style="list-style-type: none"> I can tell the difference between a chemical change and a physical change during digestion. I can recognize how large molecules are broken down into smaller molecules. I can show how energy is transferred from the food I eat. 	



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TEKS:

Objectives/TEKS 1A, 4B, 6A, B, C, 7B

PROCESS SKILLS

- 1A – demonstrate safe practices during laboratory and field investigations as outlined in the Texas Safety Standards.
- 4B – use models to represent aspects of the natural world such as human body systems and plant and animal cells.

CONTENT

- *6A Supporting Standard- identify that organic compounds contain carbon and other elements such as hydrogen, oxygen, phosphorus, nitrogen, or sulfur.*
- *6B Supporting Standard– Distinguish between physical and chemical changes in matter in the digestive system.*
- 6C – Recognize how large molecules are broken down into smaller molecules such as carbohydrates can be broken down into sugars.
- 7B – Illustrate the transformation of energy within an organism such as the transfer from chemical energy to heat and thermal energy in digestion.

Targeted College Readiness Standards:

VII.A.1; VII.E.1; VII.E.5; VIII.D.2

Targeted ELPs:

Learning Strategies: C1D
Listening: C2D, C2G, C2H, C2I
Speaking: C3D, C3E, C3H
Reading: C4D, C4G, C4J
Writing: C5B, C5G

Academic Vocabulary:

physical property/change
chemical property/change
molecule
carbohydrate

Language of Instruction:

sugars, thermal energy, chemical energy, transfer of energy



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Instruction	
Instructional Resources: Digestive System Wksht Digestive Diagram Digestive PPT Digestive PPT 2 100 Activities Blue Book for 7 th grade *NEW edition (2010 TEKS) pp.100-103	Lab Activities: Cracker Lab (possible Engage) Digestion Lab/Digestion Lab Data Table It's All Mouth
Technology: PASCOs	Career Connections/Real Life Application:
Exemplar Lessons:	Research Based Instructional Strategies:
Assessment	
Student self-assessment & reflection:	Acceptable evidence or artifacts: