

**MIAMI-DADE COUNTY PUBLIC SCHOOLS  
2013-2014 District Pacing Guide**

**GRADE 5**

**Course Code: 5020060**

**BODY OF KNOWLEDGE: L: Life Science – N: Nature of Science**

Pacing	Date (s)
5 Days	03-31-14 to 04-04-14

**TOPIC XVII: Human Body Organs and Functions**

NEXT GENERATION SUNSHINE STATE STANDARD(S)	ESSENTIAL CONTENT	OBJECTIVES	INSTRUCTIONAL TOOLS	PRIOR GRADE LEVEL PREREQUISITE BENCHMARKS
<p><b>Big Idea 14: Organization and Development of Living Organisms</b> <b>SC.5.L.14.1</b></p> <p><b>Big Idea 1: The Practice of Science</b> <b>SC.5.N.1.1</b> <b>SC.5.N.1.2</b> <b>SC.5.N.1.3</b> <b>SC.5.N.1.4</b> <b>SC.5.N.1.5</b> <b>SC.5.N.1.6</b></p> <p><b>Big Idea 2: The Characteristics of Scientific Knowledge</b> <b>SC.5.N.2.1</b> <b>SC.5.N.2.2</b></p>	<p>A. Human body organs and their functions</p> <ol style="list-style-type: none"> <li>1. skin</li> <li>2. brain</li> <li>3. heart</li> <li>4. lungs</li> <li>5. stomach</li> <li>6. liver</li> <li>7. intestines               <ol style="list-style-type: none"> <li>a. small intestine</li> <li>b. large intestine</li> </ol> </li> <li>8. pancreas</li> <li>9. muscles</li> <li>10. skeleton</li> <li>11. female reproductive organs               <ol style="list-style-type: none"> <li>a. ovary</li> </ol> </li> <li>12. male reproductive organs               <ol style="list-style-type: none"> <li>a. testes</li> </ol> </li> <li>13. kidneys</li> <li>14. bladder</li> <li>15. sensory organs               <ol style="list-style-type: none"> <li>a. eyes</li> <li>b. ears</li> <li>c. nose</li> <li>d. tongue</li> <li>e. skin</li> </ol> </li> </ol>	<ul style="list-style-type: none"> <li>• Identify the parts of the human body including the skin, brain, heart, lungs, stomach, liver, intestines, pancreas, muscles, skeleton, reproductive organs, kidneys, bladder, and sensory organs.</li> <li>• Describe the functions of these human body organs including the skin, brain, heart, lungs, stomach, liver, intestines, pancreas, muscles, skeleton, reproductive organs, kidneys, bladder, and sensory organs.</li> <li>• Raise questions related to human body organs and their functions, do research, make a hypothesis, plan the investigation, collect and record data, draw a conclusion, and share results.</li> <li>• Compare and contrast the function of organs and/or other physical structures of animals and/or plants (see SC.5.L.14.2).</li> </ul>	<p><b>Text Book:</b> pp. 57 – 79, 88</p> <p><b>Vocabulary:</b> skin, brain, heart, lungs, stomach, liver, bones, skeleton, bladder, muscles, kidneys, pancreas, small intestine, large intestine, testes, ovaries, fertilization.</p> <p><b>Technology:</b> (see p. 6-8) Gizmos: <a href="#">Circulatory System</a> <a href="#">Digestive System</a> <a href="#">Inheritance</a></p> <p><b>Strategies:</b> Use the Five E's, Inquiry, Think/Pair/Share, Centers/Stations, Cooperative Learning Groups,</p> <ul style="list-style-type: none"> <li>○ <b>ELL:</b></li> <li>○ <b>Enrichment:</b></li> <li>○ <b>SPED:</b></li> </ul> <p><b>Assessment:</b> Teacher Observation, Portfolio Assessments, Journal, Lab Report</p> <p><b>Labs:</b> (see p. 6-8) Directed Inquiry: How can you observe your pulse? p. 60 Quick Activity p. 70, 74 Guided Inquiry: What is your lung capacity? pp. 80 – 81 Essential Lab #9 "Feel the Beat: Pulse Rate" (see p. 6)</p> <p><b>CPALMS:</b> (see p. 6) Systems of the Human Body <a href="http://www.cpalms.org/Resources/PublicPreviewResource1308.aspx">http://www.cpalms.org/Resources/PublicPreviewResource1308.aspx</a></p>	<p><b>SC.2.L.14.1</b> Distinguish human body parts (brain, heart, lungs, stomach, muscles, and skeleton) and their basic functions.</p>

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**BODY OF KNOWLEDGE: LIFE SCIENCE**

**Big Idea 14: Organization and Development of Living Organisms**

- A. All plants and animals, including humans, are alike in some ways and different in others.
- B. All plants and animals, including humans, have internal parts and external structures that function to keep them alive and help them grow and reproduce.
- C. Humans can better understand the natural world through careful observation.

BENCHMARK CODE	BENCHMARK
<b>SC.5.L.14.1</b>	Identify the organs in the human body and describe their functions, including the skin, brain, heart, lungs, stomach, liver, intestines, pancreas, muscles and skeleton, reproductive organs, kidneys, bladder, and sensory organs.  <i>Cognitive Complexity:</i> Moderate

**BODY OF KNOWLEDGE: NATURE OF SCIENCE**

**Big Idea 1: The Practice of Science**

- A: Scientific inquiry is a multifaceted activity; The processes of science include the formulation of scientifically investigable questions, construction of investigations into those questions, the collection of appropriate data, the evaluation of the meaning of those data, and the communication of this evaluation.
- B: The processes of science frequently do not correspond to the traditional portrayal of "the scientific method."
- C: Scientific argumentation is a necessary part of scientific inquiry and plays an important role in the generation and validation of scientific knowledge.
- D: Scientific knowledge is based on observation and inference; it is important to recognize that these are very different things. Not only does science require creativity in its methods and processes, but also in its questions and explanations.

BENCHMARK CODE	BENCHMARK
<b>SC.5.N.1.1</b>	Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions. AA  <i>Cognitive Complexity:</i> High
<b>SC.5.N.1.2</b>	Explain the difference between an experiment and other types of scientific investigation. Assessed as SC.N.1.1  <i>Cognitive Complexity:</i> Moderate
<b>SC.5.N.1.3</b>	Recognize and explain the need for repeated experimental trials. Assessed as SC.N.1.1  <i>Cognitive Complexity:</i> Moderate

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<b>SC.5.N.1.4</b>	Identify a control group and explain its importance in an experiment. Assessed as SC.N.1.1  <i>Cognitive Complexity:</i> Moderate
<b>SC.5.N.1.5</b>	Recognize and explain the authentic scientific investigation frequently does not parallel the steps of “the scientific method. Assessed as SC.N.1.1  <i>Cognitive Complexity:</i> Moderate
<b>SC.5.N.1.6</b>	Recognize and explain the difference between personal opinion/interpretation and verified observation. Assessed as SC.N.1.1  <i>Cognitive Complexity:</i> Moderate
<p><b>Big Idea 2: The Characteristics of Scientific Knowledge</b>            A: Scientific knowledge is based on empirical evidence, and is appropriate for understanding the natural world, but it provides only a limited understanding of the supernatural, aesthetic, or other ways of knowing, such as art, philosophy, or religion.            B: Scientific knowledge is durable and robust, but open to change.            C: Because science is based on empirical evidence it strives for objectivity, but as it is a human endeavor the processes, methods, and knowledge of science include subjectivity, as well as creativity and discovery.</p>	
BENCHMARK CODE	BENCHMARK
<b>SC.5.N.2.1</b>	Recognize and explain that science is grounded in empirical observations that are testable; explaining must always be linked with evidence. AA  <i>Cognitive Complexity:</i> Moderate
<b>SC.5.N.2.2</b>	Recognize and explain that when scientific investigations are carried out, the evidence produced by those investigations should be replicable by others. AA  <i>Cognitive Complexity:</i> Moderate

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Health, Math and Language Arts benchmarks should be integrated in appropriate topics throughout the year.

**LANGUAGE ARTS: READING INFORMATIONAL TEXT**

<b>LACC.5.RI.1: Key Ideas &amp; Details</b>	
<b>BENCHMARK CODE</b>	<b>BENCHMARK</b>
<b>LACC.5.RI.1.3</b>	Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.
<b>LACC.5.RI.2: Craft and Structure</b>	
<b>BENCHMARK CODE</b>	<b>BENCHMARK</b>
<b>LACC.5.RI.2.4</b>	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topics or subject area.
<b>LACC.5.RI.4: Range of Reading and Complexity of Text</b>	
<b>BENCHMARK CODE</b>	<b>BENCHMARK</b>
<b>LACC.5.RI.4.10</b>	By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently.

**LANGUAGE ARTS: WRITING**

<b>LACC.5.W.3: Research to Build and Present Knowledge</b>	
<b>BENCHMARK CODE</b>	<b>BENCHMARK</b>
<b>LACC.5.W.3.8</b>	Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
<b>LACC.5.W.3.9</b>	Draw evidence from literary or informational texts to support analysis, reflection, and research.

**LANGUAGE ARTS: SPEAKING AND LISTENING SKILLS**

<b>LACC.5.SL.1: Comprehension and Collaboration</b>	
<b>BENCHMARK CODE</b>	<b>BENCHMARK</b>
<b>LACC.5.SL.1.1</b>	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

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**MATHEMATICS: MEASUREMENT AND DATA**

**MACC.5.MD.2: Represent and interpret data.**

BENCHMARK CODE	BENCHMARK
<b>MACC.5.MD.2.2</b>	Make a line plot to display a data set of measurements in fractions of a unit ( $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{8}$ ). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.

**MATHEMATICS: GEOMETRY**

**MACC.5.G.1: Graph points on the coordinate plane to solve real-world and mathematical problems.**

BENCHMARK CODE	BENCHMARK
<b>MACC.5.G.1.1</b>	Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).

**HEALTH**

BENCHMARK CODE	BENCHMARK
HE.5.C.1.6	Explain how human body parts and organs work together in healthy body systems, including the endocrine and reproductive systems.

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Supplemental Resources		
Content	Title	
Grade 5 FCAT Science Test Item Specifications	FCAT 2.0	<a href="http://fcat.fldoe.org/fcat2/pdf/FL09G5Sci.pdf">http://fcat.fldoe.org/fcat2/pdf/FL09G5Sci.pdf</a>
Human Body	Chapter 3 Active Art: Cardiovascular System Games: Body Systems	<a href="https://www.pearsonsuccessnet.com/snpapp/login/login.jsp">https://www.pearsonsuccessnet.com/snpapp/login/login.jsp</a> If not registered, click on the register button. Enter the access code <b>SFSCAL07FLEN05T</b> and your school's zip code. Log in. Click on Take it to the Net. Select Games and the Life Science Unit A.
Human Body Investigation	Essential Lab # 9 "Feel the Beat: Pulse Rate" Resources	<a href="http://science.dadeschools.net/elem/instructionalResources.html">http://science.dadeschools.net/elem/instructionalResources.html</a> Click on Grade 5 Science Essential Lab Quarter 3
A diagram of the human body with the main organs labeled and descriptions of their functions.	The Human Body	<a href="http://www.quia.com/pages/humanbody2.html">http://www.quia.com/pages/humanbody2.html</a>
Function of the brain.	The Neuroscience coloring book	<a href="http://faculty.washington.edu/chudler/colorbook.html">http://faculty.washington.edu/chudler/colorbook.html</a>
Have Ruby make different movements and observe what these movements do to her heart.	Keeping Healthy	<a href="http://www.bbc.co.uk/schools/scienceclips/ages/9_10/keeping_healthy.shtml">http://www.bbc.co.uk/schools/scienceclips/ages/9_10/keeping_healthy.shtml</a>
Human Biology...the study of life on earth	Human Biology	<a href="http://www.Kidsbiology.com">www.Kidsbiology.com</a>
Video clips about how the human body works.	How the body works	<a href="http://www.kidshealth.org">www.kidshealth.org</a>
What would you like to explore?	Exploring the Human Body	<a href="http://www.kidsknowit.com">www.kidsknowit.com</a>
Human Body	Health and Human Body Links	<a href="http://www.sciencespot.net/Pages/classbio.html#anchorhmnbdy">http://www.sciencespot.net/Pages/classbio.html#anchorhmnbdy</a>
Human Body	Marlins Think Tank Lesson #3 Human Body	<a href="http://miami.marlins.mlb.com/mia/downloads/y2012/Science%205.3.pdf">http://miami.marlins.mlb.com/mia/downloads/y2012/Science%205.3.pdf</a>
CPALMS	My Epidermis Is Showing	<a href="http://www.cpalms.org/Resources/PublicPreviewResource.aspx?ResourceID=34536">http://www.cpalms.org/Resources/PublicPreviewResource.aspx?ResourceID=34536</a>
CPALMS	Are We Like Robots	<a href="http://www.cpalms.org/Resources/PublicPreviewResource.aspx?ResourceID=28009">http://www.cpalms.org/Resources/PublicPreviewResource.aspx?ResourceID=28009</a>
GIZMOS – Online Inquiry Human Body Organs and Functions	<a href="#">Circulatory System</a> <a href="#">Digestive System</a> <a href="#">Inheritance</a>	<a href="http://www.explorelearning.com/index.cfm?method=cResource.dspDetail&amp;ResourceID=662">http://www.explorelearning.com/index.cfm?method=cResource.dspDetail&amp;ResourceID=662</a> <a href="http://www.explorelearning.com/index.cfm?method=cResource.dspDetail&amp;ResourceID=1050">http://www.explorelearning.com/index.cfm?method=cResource.dspDetail&amp;ResourceID=1050</a> <a href="http://www.explorelearning.com/index.cfm?method=cResource.dspDetail&amp;ResourceID=657">http://www.explorelearning.com/index.cfm?method=cResource.dspDetail&amp;ResourceID=657</a>

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	<p><b>Video</b></p>	<p>Tissues, Organs, and Organ Systems Heart and Circulatory System Lungs and Diaphragm Upper Digestive System Small Intestine Pancreas, Liver, and Large Intestine Systems The Skeletal System Central Nervous System Peripheral Nervous System Skin Skin Hemispheres of the Brain Mission Control: Your Brain The Parts of Your Brain The Heart: The Heart of the Circulatory System How the Heart Works Lungs and Diaphragm The Respiratory System Digestion: Mouth to Stomach Bones and Muscles Muscle Types The Female Reproductive System The Male Reproductive System The Female Reproductive System The Male Reproductive System Eyes Taste and Smell</p>
	<p><b>Instructional Images</b></p>	<p>Brain, model of; side view Heart, human; model Lung, model of Muscle, types of</p>
	<p><b>eBooks</b></p>	<p>Your Brain: Keeping Connected Lungs: Catchin' Air Take a Breather Different Types of Muscles Skeletal Muscles--Move That Body!</p>
	<p><b>Reading Passages</b></p>	<p>Different Types of Muscles Messages in Motion A Day in Your Digestive System</p>

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		<a href="#">Pizza Delivery!</a> <a href="#">Your Brain: Keeping Connected</a> <a href="#">Lungs: Catchin' Air</a> <a href="#">Take a Breather</a> <a href="#">Bones and Muscles: Working Together</a> <a href="#">The Skeleton and Muscles</a>
	<b>Exploration</b>	<a href="#">Digestion and Excretion</a> <a href="#">Nervous System</a> <a href="#">Circulation and Respiration</a> <a href="#">Muscles and Bones</a>
	<b>Animation</b>	<a href="#">organ</a> <a href="#">heart</a> <a href="#">Lungs</a> <a href="#">intestine</a> <a href="#">stomach</a> <a href="#">muscle</a> <a href="#">bladder</a>
	<b>Skill Builder</b>	<a href="#">Science Lab: The Human Body</a>
	<b>Instructional Game</b>	<a href="#">The Whaddaya Know Quiz Show: The Human Body</a>



**MIAMI-DADE COUNTY PUBLIC SCHOOLS  
Instructional Focus Calendar**

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Date	Pacing guide Benchmark(s)	Data Driven Benchmark(s)	Activities	Assessment(s)	Strategies
03-31-14 to 04-04-14	<p><b>SC.5.L.14.1</b> Identify the organs in the human body and describe their functions, including the skin, brain, heart, lungs, stomach, liver, intestines, pancreas, muscles and skeleton, reproductive organs, kidneys, bladder, and sensory organs.</p> <p><b>SC.5.N.1.1</b>  <b>SC.5.N.1.2</b>  <b>SC.5.N.1.3</b>  <b>SC.5.N.1.4</b>  <b>SC.5.N.1.5</b>  <b>SC.5.N.1.6</b>  <b>SC.5.N.2.1</b>  <b>SC.5.N.2.2</b></p>				