

# Regional Center VI

## Grade 8 Honors Earth Space Science Focus Calendar

Week 1 : 8/18 – 8/22

**First Nine Weeks**

Text/Alignment	Content Cluster & Focus Benchmark	Ongoing Benchmark	CRISS Strategy/Activity	Vocabulary	Math	Home Learning	Supplemental Materials
Earth Science (Holt)  <b>Chapter 1</b> Orientation Introduction to Earth Space  Science - Lab Safety -Measurement <ul style="list-style-type: none"> <li>• Metric System</li> <li>• Unit Conversion</li> <li>• Density</li> <li>• Scientific Notation</li> </ul>	<b>Nature of Science</b>  The student will be able to: <ul style="list-style-type: none"> <li>• identify the four branches of Earth Space Science</li> <li>• identify and utilize basic lab equipment</li> <li>• implement proper lab safety procedures</li> </ul> <p><b>SC.H.1.4.1</b> The student knows that investigations are conducted to explore new phenomena, to check on previous results, to test how well a theory predicts, and to compare different theories. <b>AA</b></p> <p><b>SC.H.1.4.4</b> The student knows that scientists in any one research group tend to see things alike and that therefore scientific teams are expected to seek out the possible sources of bias in the design of their investigations and in their data analysis.</p> <p><b>SC.H.1.4.5</b> The student understands that new ideas in science are limited by the context in which they are conceived, are often rejected by the scientific establishment, sometimes spring from unexpected findings, and usually grow slowly from many contributors.</p> <p><b>SC.H.1.4.7</b> The student understands the importance of a sense of responsibility, a commitment to peer review, truthful reporting of the methods and outcomes of investigations, and making the public aware of the findings.</p> <p><b>SC.H.2.4.2</b> The student knows that scientists control conditions in order to obtain evidence, but when that is not possible for practical or ethical reasons, they try to observe a wide range of natural occurrences to discern patterns.</p> <p><b>SC.H.3.4.3</b> The student knows that scientists can bring information, insights, and analytical skills to matters of public concern and help people understand the possible causes and effects of events.</p>	SC.H.1.3.1 SC.H.1.4.1 SC.H.1.4.5 SC.H.1.4.7 SC.H.2.4.2 SC.H.3.4.3 SC.H.1.4.1 SC.H.1.4.4 SC.H.1.4.5 SC.H.1.4.7 SC.H.3.4.3	-Bell Ringer ( <b>FCAT Transparencies</b> ) Aligned with Benchmarks - Concept Map - Foldable- (KWL) using vocabulary words -Two-Column Notes <b>Classroom Expectations and School wide rules and regulations.</b>	Astronomy Branches of science Constant Controlled experiment Critical thinking Data Density Dependent Variable Geology Hypothesis Independent Variable Infer Mass Meteorology Model Observation Oceanography Peer review Science System Technology Variable Volume	<b>MA.E.131</b> Applying Math (making a Data Table) - Seasonal Temperature, - Practice Problem (pg 17)	<b>Lab Safety / Rules</b>  <b>Key Terms</b>  <b>Classroom Expectations and School wide rules and regulations</b> (Contract)	<b>Competitions:</b> SECME <a href="http://www.dade.k12.fl.us/USI/secme.html">http://www.dade.k12.fl.us/USI/secme.html</a> Fairchild Tropical Challenge <a href="http://www.fairchildgarden.org">http://www.fairchildgarden.org</a>  <b>Activities/Labs:</b> <b>Lab Safety:</b> <a href="http://library.thinkquest.org/2923/safe2.html">http://library.thinkquest.org/2923/safe2.html</a> <a href="http://www.chem.unl.edu/safety/hslabcon.html">http://www.chem.unl.edu/safety/hslabcon.html</a>  <b>Metric:</b> <a href="http://edhelper.com/metric_system.htm">http://edhelper.com/metric_system.htm</a> <a href="http://www.edhelper.com/metric_math640.htm">http://www.edhelper.com/metric_math640.htm</a> <a href="http://theworksheetsonline.com/subscr/english/metric_conversions.html">http://theworksheetsonline.com/subscr/english/metric_conversions.html</a>  <b>Density:</b> <a href="http://educ.queensu.ca/~science/main/concept/chem/c07/C07DESU2.html">http://educ.queensu.ca/~science/main/concept/chem/c07/C07DESU2.html</a> <a href="http://educ.queensu.ca/~science/main/concept/chem/c07/C07DESU1.html">http://educ.queensu.ca/~science/main/concept/chem/c07/C07DESU1.html</a>  <b>Gizmo:</b> <a href="http://explorellearning.com/index.cfm?method=cResource.dspView&amp;ResourceID=362">http://explorellearning.com/index.cfm?method=cResource.dspView&amp;ResourceID=362</a>  <b>AP:</b> Lab Safety Rules (AP, p. 4) Chocolate Chip Cookie Lab (AP p.6) Sample Size and Accuracy: (TX p. 12)  <b>CD:</b> Scientific Methods Making observations  <b>RG Labs:</b> What's before your eyes p. 37 Testing a prediction p. 41
			<b>Lab Activities / Differentiated Instruction</b>	<b>ESOL Strategies</b>	<b>Assessment</b>		
			Lab safety rules (AP, p4) Precipitating Bubbles Intro to Scientific Method <i>See GSAP</i>  Scientific Methods <a href="http://www.sciencebuddies.org/mentoring/project_scientific_method.shtml">www.sciencebuddies.org/mentoring/project_scientific_method.shtml</a>  Nature of Science and Inquiry Science Inquiry Mini Lab Mini lab forming a Hypothesis	Buddy System/Cooperative Grouping/Peer Helpers  Visual Cues  Reading orally or chorally  Questioning	Chapter Test A/B - RG Mind Jogger Activities Daily Quiz Lab Section mini assessment Chapter FCAT Practice Test Exam view Chapter Test		

**Legend:**

AP = Activity Packet ([http://mathscience.dadeschools.net/scope\\_n\\_sequence/Earth.htm](http://mathscience.dadeschools.net/scope_n_sequence/Earth.htm))  
 CD = Holt One-Stop Planner Resource Disc  
 GZ = Gizmo Learning ([www.explorellearning.com](http://www.explorellearning.com))  
 HL = Home Learning

IP = Instructional Planner (<http://www.dadeschools.net/> education portal find lesson plans math and science) TX = Holt Earth Science  
 RG = Resource Guide (<http://mathscience.dadeschools.net/9-12/>)  
 GO = Graphic Organizer  
 LC = Literacy Component  
 MTF = Mastering The FCAT  
 TE = Teacher Edition

PW= Power Writing  
 VN=Venn Diagram  
 GSAP= Grade 8 Activities Packet  
 Science Reference CD 6-8

# Regional Center VI

## Grade 8 Honors Earth Space Science Focus Calendar

First Nine Weeks

Week 2: 8/25 – 8/29

Text/Alignment	Content Cluster & Focus Benchmark	Ongoing Benchmark	CRISS Strategy/Activity	Vocabulary	Math	Home Learning	Supplemental Materials
Earth Science (Holt)  <b>Chapter 1</b> <b>Measurement</b> <ul style="list-style-type: none"> <li>• Metric System</li> <li>• Unit Conversion</li> <li>• Scientific Notation</li> </ul>	<b>Nature of Science</b> The student will be able to: <ul style="list-style-type: none"> <li>❖ measure properties of matter (e.g. length, volume, mass, density, and temperature)</li> <li>❖ convert between units of the metric system</li> <li>❖ convert numbers from standard to scientific notation</li> <li>❖ utilize the scientific method</li> </ul> <p><b>SC.H.1.4.1</b> The student knows that investigations are conducted to explore new phenomena, to check on previous results, to test how well a theory predicts, and to compare different theories. <b>AA</b></p> <p><b>SC.H.1.4.4</b> The student knows that scientists in any one research group tend to see things alike and that therefore scientific teams are expected to seek out the possible sources of bias in the design of their investigations and in their data analysis.</p> <p><b>SC.H.1.4.7</b> The student understands the importance of a sense of responsibility, a commitment to peer review, truthful reporting of the methods and outcomes of investigations, and making the public aware of the findings.</p> <p><b>SC.H.2.4.2</b> The student knows that scientists control conditions in order to obtain evidence, but when that is not possible for practical or ethical reasons, they try to observe a wide range of natural occurrences to discern patterns.</p> <p><b>SC.H.3.4.3</b> The student knows that scientists can bring information, insights, and analytical skills to matters of public concern and help people understand the possible causes and effects of events.</p>	SC.H.1.3.1 SC.H.1.4.1 SC.H.1.4.5 SC.H.1.4.7 SC.H.2.4.2 SC.H.3.4.3 SC.H.1.4.1 SC.H.1.4.4 SC.H.1.4.5 SC.H.1.4.7 SC.H.3.4.3	-Bell Ringer ( <b>FCAT Transparencies</b> ) Aligned with Benchmarks - Concept Map - Foldable- KWL: Scientific Method / -Two-Column Notes Lab Report  <u>Activities</u> <b>Direct Instruction:</b> Scientific Notation Practice problems on unit conversions and scientific notation Review the concepts and appropriate use of scientific prefixes and conversion  <u>Writing</u> -Reflective Writing in Science Journal -7 Steps for writing scientific conclusions. <b>PW See GSAP</b>	Accuracy Density Length Mass Precision Scientific Law Scientific Method Scientific Notation Scientific theory SI unit Volume	<b>MA.E.131</b> Applying Math (making a Data Table) - Seasonal Temperature, - Practice Problem (pg 17)  <b>MA.B.1.3.1</b> Mathematics Skills Activities: Activity 10 -11 Measurements (pg 19-21)	<b>Key Terms</b> <b>Directed Reading Worksheets (RG)</b>	<b>Competitions:</b>  <b>Science Fair:</b> <a href="http://science.dadeschools.net/scifair/">http://science.dadeschools.net/scifair/</a> <b>SECME</b> <a href="http://www.dade.k12.fl.us/USI/secme.html">http://www.dade.k12.fl.us/USI/secme.html</a> <b>Fairchild Tropical Challenge</b> <a href="http://www.fairchildgarden.org">http://www.fairchildgarden.org</a>  <b>Activities/Labs:</b> <b>Scientific Notation:</b> <a href="http://www.gomath.com/exercises/ScientificNotation.php">http://www.gomath.com/exercises/ScientificNotation.php</a> Worksheet: <a href="http://www.gomath.com/exercises/scientificworksheet.php">http://www.gomath.com/exercises/scientificworksheet.php</a> <a href="http://www.ieer.org/classroom/scidrill.html">http://www.ieer.org/classroom/scidrill.html</a> <a href="http://www.edhelper.com/exponents14.htm">http://www.edhelper.com/exponents14.htm</a> <a href="http://edhelper.com/exponents.htm">http://edhelper.com/exponents.htm</a>  Math/Graphing Skills: RG p. 22-25  <b>Labs:</b> Testing the Conservation of mass: RG p. 25 Energy Transfer: RG: p. 40
			<b>Lab Activities / Differentiated Instruction</b>	<b>ESOL Strategies</b>		<b>Assessment</b>	
			Scientific Methods *(CD, RG: p. 53) Sample Size and Accuracy *(CD, RG: p59 ) What's Before Your Eyes *(CD, RG: p. 57) Free fall (RG)	Buddy System/Cooperative Grouping/Peer Helpers  Visual Cues  Reading orally or chorally  Questioning		Critical Thinking: RG p. 3 Concept review: RG p. 1-2 Directed Reading: RG: p. 7-11 Section Quiz RG Chapter FCAT Practice Test Exam view Chapter Test	

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## Grade 8 Honors Earth Space Science Focus Calendar

Week 3: 9/2 – 9/5

**First Nine Weeks**

Text/Alignment	Content Cluster & Focus Benchmark	Ongoing Benchmark	CRISS Strategy/Activity	Vocabulary	Math	Home Learning	Supplemental Materials
Earth Science (Holt)  <b>Measurement</b> • Metric System • Unit Conversion • Scientific Notation  <b>Chapter 2 , 26</b> Earth as a system  ❖ Magnetosphere ❖ Rotation ❖ Revolution ❖ Seasons ❖ Time zones	<b>Nature of Science</b> The student will be able to: ❖ utilize the scientific method to solve real world problems and laboratory experiments ❖ identify and explain the components of the scientific method ❖ describe size, shape and compositional structure of earth's interior  <b>SC.H.1.4.1</b> The student knows that investigations are conducted to explore new phenomena, to check on previous results, to test how well a theory predicts, and to compare different theories. <b>AA</b> <b>SC.H.1.4.4</b> The student knows that scientists in any one research group tend to see things alike and that therefore scientific teams are expected to seek out the possible sources of bias in the design of their investigations and in their data analysis. <b>SC.H.1.4.7</b> The student understands the importance of a sense of responsibility, a commitment to peer review, truthful reporting of the methods and outcomes of investigations, and making the public aware of the findings. <b>SC.H.2.4.2</b> The student knows that scientists control conditions in order to obtain evidence, but when that is not possible for practical or ethical reasons, they try to observe a wide range of natural occurrences to discern patterns. <b>SC.H.3.4.3</b> The student knows that scientists can bring information, insights, and analytical skills to matters of public concern and help people understand the possible causes and effects of events.	SC.H.1.3.1 SC.H.1.4.1 SC.H.1.4.5 SC.H.1.4.7 SC.H.2.4.2 SC.H.3.4.3 SC.H.1.4.1 SC.H.1.4.4 SC.H.1.4.5 SC.H.1.4.7 SC.H.3.4.3	-Bell Ringer (FCAT Transparencies) Aligned with Benchmarks - Concept Map – Nitrogen / Carbon cycle - Foldable- (p.26) –Earth's structure -Two-Column Notes Carbon Cycle/Nitrogen cycle  <b>Activities</b> <b>Direct Instruction:</b> Outline Chapter 2 Sketch layers of earth VN- Earth's energy budget  <b>Writing</b> -Reflective Writing in Science Journal -7 Steps for writing scientific conclusions. <b>PW See GSAP</b>	Aphelion Asthenosphere Atmosphere Biosphere Carbon cycle Carrying capacity Core Crust Ecosystem Equinox Food web Geosphere Hydrosphere Lithosphere Mantle Mesosphere Nitrogen cycle Perihelion Revolution Rotation Solstice System	<b>MA.E.131</b> Applying Math (making a Data Table) - Seasonal Temperature, - Practice Problem (pg 17)  <b>MA.B.1.3.1</b> Mathematics Skills Activities: Activity 10 -11 Measurements (pg 19-21)  <b>MA.D.2.3.1</b> Applying Math (solve One-Step Equations) page 135 and (calculating Density) page 175	<b>Key Terms</b> <b>Directed Reading Worksheets (RG)</b>	<b>Competitions:</b>  <b>Science Fair:</b> <a href="http://science.dadeschools.net/scifair/">http://science.dadeschools.net/scifair/</a> <b>SECME</b> <a href="http://www.dade.k12.fl.us/USI/secme.html">http://www.dade.k12.fl.us/USI/secme.html</a> <b>Fairchild Tropical Challenge</b> <a href="http://www.fairchildgarden.org">http://www.fairchildgarden.org</a>  <b>Activities/Labs:</b>  <b>Labs:</b> Energy Transfer: RG: p. 40 Sunset in a bag: AP p. 8  <b>Interactive sites:</b> Carbon cycle: <a href="http://www.epa.gov/climatechange/kids/carbon_cycle_version2.html">http://www.epa.gov/climatechange/kids/carbon_cycle_version2.html</a> <a href="http://www.windows.ucar.edu/earth/climate/carbon_cycle.html">http://www.windows.ucar.edu/earth/climate/carbon_cycle.html</a>  Nitrogen cycle: <a href="http://soil.gsfc.nasa.gov/NFTG/nitrocyc.htm">http://soil.gsfc.nasa.gov/NFTG/nitrocyc.htm</a>  Gizmo: <a href="http://www.explorellearning.com/index.cfm?method=cResource.dspDetail&amp;ResourceID=374">http://www.explorellearning.com/index.cfm?method=cResource.dspDetail&amp;ResourceID=374</a> <a href="http://www.explorellearning.com/index.cfm?method=cResource.dspView&amp;ResourceID=468">http://www.explorellearning.com/index.cfm?method=cResource.dspView&amp;ResourceID=468</a>
			<b>Lab Activities / Differentiated Instruction</b>	<b>ESOL Strategies</b>	<b>Assessment</b>		
			Making Observations CD Sunset in a Bag *(AP page 8) LC: Ice Cores and Climate	Buddy System/Cooperative Grouping/Peer Helpers  Visual Cues  Reading orally or chorally  Questioning	Critical Thinking: RG p. Concept review: RG p Directed Reading: RG: p. Section Quiz RG Chapter FCAT Practice Test Exam view Chapter Test <b>EduSoft: 8 Grade ES Honors Test 1 Week 3</b>		

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## Grade 8 Honors Earth Space Science Focus Calendar

First Nine Weeks

Week 4: 9/8 – 9/12

Text/Alignment	Content Cluster & Focus Benchmark	Ongoing Benchmark	CRISS Strategy/Activity	Vocabulary	Math	Home Learning	Supplemental Materials
Earth Science (Holt)  <b>Chapter 22, 2</b> <b>Atmosphere</b> ❖ Layers ❖ Composition ❖ Global winds ❖ Local winds Energy ❖ Conduction ❖ Convection ❖ Radiation	<b>Atmospheric Forces</b> The student will be able to: • identify the layers of the atmosphere • list the major components of the atmosphere • describe the atmosphere, including composition, layers, differences in density and pressure, and changes over time <b>SC.B. 1.3.1</b> The student identifies forms of energy and explains that they can be measured and compared <b>AA</b> <b>SC.B.1.4.6</b> The student knows that the first law of thermodynamics relates the transfer of energy to the work done and the heat transferred. <b>SC.B.1.4.7</b> The student knows that the total amount of usable energy always decreases, even though the total amount of energy is conserved in any transfer. <b>SC.D.1.4.1</b> The student knows how climatic patterns on Earth result from an interplay of many factors (Earth's topography, its rotation on its axis, solar radiation, the transfer of heat energy where the atmosphere interfaces with lands and oceans, and wind and ocean currents). <b>AA</b> <b>SC.E.1.4.3</b> The student knows the various reasons that Earth is the only planet in our Solar System that appears to be capable of supporting life as we know it. <b>SC.H.3.4.1</b> The student knows that performance testing is often conducted using small-scale models, computer simulations, or analogous systems to reduce the chance of system failure.	SC.A.1.3.3 SC.B.1.3.1 SC.B.1.3.3 SC.B.1.3.4 SC.B.1.3.5 SC.B.2.3.1 SC.D.1.3.3 SC.D.1.3.5 SC.D.2.3.2	-Bell Ringer ( <b>FCAT Transparencies</b> ) Aligned with Benchmarks - Concept Map – p. 563 Winds - Foldable- (p.546) –Main Idea Booklet Ch.22 -Two-Column Notes – Atmospheric layers  <b>Activities</b> <b>Direct Instruction:</b> perform provided laboratory activities • create a small booklet or visual to study the general characteristics of the atmospheric layers • use CRISS strategies (e.g. two-column notes, concept maps) to emphasize topic  <b>Writing</b> -Reflective Writing on Science Journal -7 Steps for writing conclusions. <b>PW See GSAP</b>	albedo atmosphere atmospheric pressure conduction convection Coriolis effect electromagnetic spectrum exosphere greenhouse effect Jet stream mesosphere ozone Polar easterlies Radiation stratosphere thermosphere Trade winds troposphere Westerlies	<b>MA.E.131</b> Applying Math (making a Data Table) - Seasonal Temperature, - Practice Problem (pg 17)  <b>MA.B.1.3.1</b> Mathematics Skills Activities: Activity 10 -11 Measurements (pg 19-21)  <b>MA.D.2.3.1</b> Applying Math (solve One-Step Equations) page 135 and (calculating Density) page 175	<b>Key Terms</b> <b>Directed Reading Worksheets (RG)</b>	<b>Competitions:</b>  <b>Science Fair:</b> <a href="http://science.dadeschools.net/scifair/">http://science.dadeschools.net/scifair/</a> <b>SECME</b> <a href="http://www.dade.k12.fl.us/USI/secme.html">http://www.dade.k12.fl.us/USI/secme.html</a> <b>Fairchild Tropical Challenge</b> <a href="http://www.fairchildgarden.org">http://www.fairchildgarden.org</a>  <b>Activities/Labs:</b> <b>Labs:</b> Energy Absorption and Reflection *(TX page 570)  Jet Stream: <a href="http://www.srh.weather.gov/jetstream/">http://www.srh.weather.gov/jetstream/</a>  <b>Interactive sites:</b> Brainpop: <a href="http://www.brainpop.com/science/populationsresourcesandenvironment/greenhouseeffect/">http://www.brainpop.com/science/populationsresourcesandenvironment/greenhouseeffect/</a> <a href="http://www.brainpop.com/science/populationsresourcesandenvironment/airpollutionadvanced/">http://www.brainpop.com/science/populationsresourcesandenvironment/airpollutionadvanced/</a>  Gizmo: <a href="http://www.explorellearning.com/index.cfm?method=cResource.dspView&amp;ResourceID=372">http://www.explorellearning.com/index.cfm?method=cResource.dspView&amp;ResourceID=372</a> <a href="http://www.explorellearning.com/index.cfm?method=cResource.dspView&amp;ResourceID=435">http://www.explorellearning.com/index.cfm?method=cResource.dspView&amp;ResourceID=435</a>
			<b>Lab Activities / Differentiated Instruction</b>	<b>ESOL Strategies</b>	<b>Assessment</b>		
			Icy Boil *(AP page 10) Barometric Pressure *(CD)	Buddy System/Cooperative Grouping/Peer Helpers  Visual Cues  Reading orally or chorally  Questioning	Critical Thinking: RG Concept review: RG Directed Reading: RG: Section Quiz RG Chapter FCAT Practice Test Exam view Chapter Test		

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# Regional Center VI

## Grade 8 Honors Earth Space Science Focus Calendar

First Nine Weeks

Week 5: 9/15 – 9/19

Text/Alignment	Content Cluster & Focus Benchmark	Ongoing Benchmark	CRISS Strategy/Activity	Vocabulary	Math	Home Learning	Supplemental Materials
Earth Science (Holt)  <b>Chapter 22, 2</b> <b>Atmosphere</b> ❖ Layers ❖ Composition ❖ Global winds ❖ Local winds Energy transfer ❖ Conduction ❖ Convection ❖ Radiation Specific heat Solar radiation	<b>Atmospheric Forces</b>  The student will be able to: • compare the specific heat of various substances  <b>SC.B. 1.3.1</b> The student identifies forms of energy and explains that they can be measured and compared <b>AA</b> <b>SC.B.1.4.3</b> The student knows that temperature is a measure of the average translational kinetic energy of motion of the molecules in an object. <b>SC.D.1.4.1</b> The student knows how climatic patterns on Earth result from an interplay of many factors (Earth's topography, its rotation on its axis, solar radiation, the transfer of heat energy where the atmosphere interfaces with lands and oceans, and wind and ocean currents). <b>AA</b> <b>SC.B.1.4.6</b> The student knows that the first law of thermodynamics relates the transfer of energy to the work done and the heat transferred. <b>SC.H.3.4.1</b> The student knows that performance testing is often conducted using small-scale models, computer simulations, or analogous systems to reduce the chance of system failure.	SC.A.1.3.3 SC.B.1.3.1 SC.B.1.3.3 SC.B.1.3.4 SC.B.1.3.5 SC.B.2.3.1 SC.D.1.3.3 SC.D.1.3.5 SC.D.2.3.2	-Bell Ringer ( <b>FCAT Transparencies</b> ) Aligned with Benchmarks - Concept Map – Energy transfer - Foldable- (p.830) –3 laws of Thermodynamics  <u><b>Activities</b></u>  <b>Direct Instruction:</b> perform provided laboratory activities • perform provided laboratory activities • use CRISS strategies (e.g. two-column notes, concept maps) to emphasize topic • demonstrate differences in temperature of objects based on albedo (Outdoor Activity)  <u><b>Writing</b></u>  -Reflective Writing on Science Journal -7 Steps for writing conclusions. <b>PW See GSAP</b>	Specific heat Temperature Thermal energy albedo conduction convection Radiation First law of thermodynamics Second law of thermodynamics Third law of thermodynamics	<b>MA.D.2.3.1</b> Applying Math (solve One-Step Equations) page 135 and (calculating Density) page 175  <b>MA.A.3.3.1</b> Apply Math (calculate) page 144  <b>MA.A.3.3.2</b> Applying Math (use numbers) page 168	<b>Key Terms</b> <b>Directed Reading Worksheets (RG)</b>	<b>Competitions:</b>  Science Fair: <a href="http://science.dadeschools.net/scifair/">http://science.dadeschools.net/scifair/</a> <b>SECME</b> <a href="http://www.dade.k12.fl.us/USI/secme.html">http://www.dade.k12.fl.us/USI/secme.html</a> <b>Fairchild Tropical Challenge</b> <a href="http://www.fairchildgarden.org">http://www.fairchildgarden.org</a>  <b>Activities/Labs:</b> <b>Labs:</b> Effects of Solar Energy (CD) Absorb Solar Radiation Maps in Action (TX p. 572) LC: Energy from the Wind (TX p. 573)  <b>Interactive sites:</b> Brainpop: <a href="http://www.brainpop.com/science/energy/energy_sources/">http://www.brainpop.com/science/energy/energy_sources/</a> <a href="http://www.brainpop.com/science/energy/temperature/">http://www.brainpop.com/science/energy/temperature/</a>  Gizmo: <a href="http://www.explorellearning.com/index.cfm?meth od=cResource.dspView&amp;ResourceID=460">http://www.explorellearning.com/index.cfm?meth od=cResource.dspView&amp;ResourceID=460</a>
			<b>Lab Activities / Differentiated Instruction</b>	<b>ESOL Strategies</b>	<b>Assessment</b>		
			Heating and Cooling Rates of the Earth Surface *(AP page 12) Energy Absorption and Reflection *(TX page 570) Light and latitude (CD) Effects of Solar Energy (CD) Absorb Solar Radiation Maps in Action (TX p. 572) LC: Energy from the Wind (TX p. 573)	Buddy System/Cooperative Grouping/Peer Helpers  Visual Cues  Reading orally or chorally  Questioning	Critical Thinking: RG Concept review: RG Directed Reading: RG: Section Quiz RG Chapter FCAT Practice Test Exam view Chapter Test		

**Legend:**

AP = Activity Packet ([http://mathscience.dadeschools.net/scope\\_n\\_sequence/Earth.htm](http://mathscience.dadeschools.net/scope_n_sequence/Earth.htm))  
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 LC = Literacy Component  
 TE = Teacher Edition

PW= Power Writing  
 VN=Venn Diagram

GSAP= Grade 8 Activities Packet  
 Science Reference CD 6-8

# Regional Center VI

## Grade 8 Honors Earth Space Science Focus Calendar

First Nine Weeks

Week 6: 9/22 – 9/26

Text/Alignment	Content Cluster & Focus Benchmark	Ongoing Benchmark	CRISS Strategy/Activity	Vocabulary	Math	Home Learning	Supplemental Materials
Earth Science (Holt)  <b>Chapter 23, 2</b> <b>Water in the Atmosphere</b> ❖ humidity ❖ clouds ❖ precipitation Water Cycle	<b>Water in the Atmosphere</b>  The student will be able to: • diagram and explain the steps of the water cycle • calculate relative humidity using a sling psychrometer • explain the steps of cloud formation • identify and explain the phase changes of the water cycle  <b>SC.A.1.4.3</b> The student knows that a change from one phase of matter to another involves a gain or loss of energy. <b>AA</b> <b>SC.A.1.4.4</b> The student experiments and determines that the rates of reaction among atoms and molecules depend on the concentration, pressure, and temperature of the reactants and the presence or absence of catalysts. <b>AA</b> <b>SC.B.1.4.2</b> The student understands that there is conservation of mass and energy when matter is transformed. <b>SC.D.1.4.1</b> The student knows how climatic patterns on Earth result from an interplay of many factors (Earth's topography, its rotation on its axis, solar radiation, the transfer of heat energy where the atmosphere interfaces with lands and oceans, and wind and ocean currents). <b>AA</b>	SC.A.1.3.3 SC.B.1.3.1 SC.B.1.3.3 SC.B.1.3.4 SC.B.1.3.5 SC.B.2.3.1 SC.D.1.3.3 SC.D.1.3.5 SC.D.2.3.2	-Bell Ringer ( <b>FCAT Transparencies</b> ) Aligned with Benchmarks - Concept Map – Water cycle - Foldable- types of clouds  <b>Activities</b> <b>Direct Instruction:</b> perform provided laboratory activities • create a foldable booklet illustrating the different types of clouds • elicit prior knowledge by using a “Think/Pair-Share” technique • create a visual representation (e.g., chart paper, board) of the water cycle maps) to emphasize topic  <b>Writing</b> -Reflective Writing in Science Journal -7 Steps for writing conclusions. <b>PW See GSAP</b>	absolute humidity adiabatic cooling advective cooling change of state Cirrus cloud Cloud seeding coalescence condensation condensation nucleus cumulus cloud dew point evaporation Fog heat of vaporization heat of fusion humidity latent heat physical change precipitation relative humidity stratus cloud sublimation supercooling vaporization water cycle	<b>MA.D.2.3.1</b> Applying Math (solve One-Step Equations) page 135 and (calculating Density) page 175  <b>MA.A.3.3.1</b> Apply Math (calculate) page 144  <b>MA.A.3.3.2</b> Applying Math (use numbers) page 168	<b>Key Terms</b> <b>Directed Reading Worksheets (RG)</b> <b>GO: Comparison of clouds p. 585</b>	<b>Competitions:</b>  <b>Science Fair:</b> <a href="http://science.dadeschools.net/scifair/SECME">http://science.dadeschools.net/scifair/SECME</a> <a href="http://www.dade.k12.fl.us/USI/secme.html">http://www.dade.k12.fl.us/USI/secme.html</a> <b>Fairchild Tropical Challenge</b> <a href="http://www.fairchildgarden.org">http://www.fairchildgarden.org</a>  <b>Activities/Labs:</b> <b>Labs:</b> Cloud in a Jar <a href="http://schoolscience.rice.edu/duker/weamakecld.html">http://schoolscience.rice.edu/duker/weamakecld.html</a> Global warming: <a href="http://tea.armadaproject.org/activity/tea_activity_heat_is_on.html">http://tea.armadaproject.org/activity/tea_activity_heat_is_on.html</a>  <b>Interactive sites:</b> Brainpop: <a href="http://www.brainpop.com/science/weatherandclimate/watercycleadvanced/">http://www.brainpop.com/science/weatherandclimate/watercycleadvanced/</a> <a href="http://www.brainpop.com/science/weatherandclimate/earthsatmosphere/">http://www.brainpop.com/science/weatherandclimate/earthsatmosphere/</a> Gizmo: Humidity: <a href="http://www.explorellearning.com/index.cfm?method=cResource.dspView&amp;ResourceID=425">http://www.explorellearning.com/index.cfm?method=cResource.dspView&amp;ResourceID=425</a> Water cycle: <a href="http://www.epa.gov/safewater/kids/flash/flash_watercycle.html">http://www.epa.gov/safewater/kids/flash/flash_watercycle.html</a>
			<b>Lab Activities / Differentiated Instruction</b>	<b>ESOL Strategies</b>	<b>Assessment</b>		
			Relative Humidity *(CD) Dew Point *(CD), TX p. 579 How Big is a Raindrop? *(CD) Water Cycle *(CD) What is the Shape of a Raindrop? *(CD) LC: Light and Water in the Atmosphere *(TX page 576)	Buddy System/Cooperative Grouping/Peer Helpers  Visual Cues  Reading orally or chorally  Questioning	Critical Thinking: RG Concept review: RG. Directed Reading: RG Section Quiz RG Chapter FCAT Practice Test Exam view Chapter Test <b>EduSoft: 8 Grade ES Honors Test 2 Week 6</b>		

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 Science Reference CD 6-8

# Regional Center VI

## Grade 8 Honors Earth Space Science Focus Calendar

First Nine Weeks

Week 7: 9/29 – 10/3

Text/Alignment	Content Cluster & Focus Benchmark	Ongoing Benchmark	CRISS Strategy/Activity	Vocabulary	Math	Home Learning	Supplemental Materials
Earth Science (Holt)  <b>Chapter 24</b> <b>Weather</b> ❖ air masses ❖ fronts ❖ weather instruments	<b>Weather</b> The student will be able to: • differentiate between the types of fronts and their associated weather • explain how high and low air pressure systems circulate in both of the Earth's hemispheres • explain the flow of heat using the second law of thermodynamics • differentiate between weather and climate  <b>SC.A.1.4.3</b> The student knows that a change from one phase of matter to another involves a gain or loss of energy. <b>AA</b> <b>SC.B.1.4.3</b> The student knows that temperature is a measure of the average translational kinetic energy of motion of the molecules in an object. <b>SC.D.1.4.1</b> The student knows how climatic patterns on Earth result from an interplay of many factors (Earth's topography, its rotation on its axis, solar radiation, the transfer of heat energy where the atmosphere interfaces with lands and oceans, and wind and ocean currents). <b>AA</b> <b>SC.E.2.4.7</b> The student knows that mathematical models and computer simulations are used in studying evidence from many sources to form a scientific account of the universe. <b>SC.H.3.4.1</b> The student knows that performance testing is often conducted using small-scale models, computer simulations, or analogous systems to reduce the chance of system failure. <b>SC.H.3.4.5</b> The student knows that the value of a technology may differ for different people and at different times. <b>SC.D.1.4.1</b> The student knows how climatic patterns on Earth result from an interplay of many factors (Earth's topography, its rotation on its axis, solar radiation, the transfer of heat energy where the atmosphere interfaces with lands and oceans, and wind and ocean currents). <b>AA</b>	SC.A.1.3.3 SC.B.1.3.1 SC.B.1.3.3 SC.B.1.3.4 SC.B.1.3.5 SC.B.2.3.1 SC.D.1.3.3 SC.D.1.3.5 SC.D.2.3.2	-Bell Ringer ( <b>FCAT Transparencies</b> ) Aligned with Benchmarks - Concept Map – GO: Storms p. 609 - Foldable- Key terms - p.600  <b>Activities</b>  <b>Direct Instruction:</b> • perform provided laboratory activities • use CRISS strategies (e.g. two-column notes, concept maps) to emphasize topic • use knowledge of fronts to interpret a weather map • utilize computer simulations to observe the flow of air masses and the movement of heat in the atmosphere  <b>Writing</b>  -Reflective Writing in Science Journal -7 Steps for writing conclusions. <b>PW See GSAP</b>	Air mass Anemometer Barometer Climate Cold front Coriolis effect Front Hurricane Jet Stream Midlatitude cyclone Occluded front Radar Radiosonde Station model Stationary front Thermometer Thunderstorm Tornado Warm front Weather Wind vane	<b>MA.A.3.3.2</b> (Applying Math) Use ratios page 252  <b>MA.B.1.3.2</b> (Applying Math) Wavelength of an FM station practice Problems page 265  <b>M.A.D.2.3.1</b> (Applying Math) Calculate efficiency and Waste Energy page 292  <b>MA.B.2.3.2</b> (Applying Math) Global Temperature page 281	<b>Key Terms</b> <b>Directed Reading Worksheets (RG)</b> <b>GO: Comparison of clouds p. 585</b>	<b>Competitions:</b>  <b>Science Fair:</b> <a href="http://science.dadeschools.net/scifair/SECME">http://science.dadeschools.net/scifair/SECME</a> <a href="http://www.dade.k12.fl.us/UI/secme.html">http://www.dade.k12.fl.us/UI/secme.html</a> <b>Fairchild Tropical Challenge</b> <a href="http://www.fairchildgarden.org">http://www.fairchildgarden.org</a>  <b>Activities/Labs:</b> <b>Labs:</b>  <a href="http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/af/home.rxml">http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/af/home.rxml</a>  Gizmo- winds and clouds: <a href="http://www.explorelarning.com/index.cfm?method=cResource.dspView&amp;ResourceID=438">http://www.explorelarning.com/index.cfm?method=cResource.dspView&amp;ResourceID=438</a>  Brainpop: <a href="http://www.brainpop.com/science/weatherandclimate/weatheradvanced/">http://www.brainpop.com/science/weatherandclimate/weatheradvanced/</a> <a href="http://www.brainpop.com/science/weatherandclimate/thunderstorms/">http://www.brainpop.com/science/weatherandclimate/thunderstorms/</a> <a href="http://www.brainpop.com/science/weatherandclimate/wind/">http://www.brainpop.com/science/weatherandclimate/wind/</a>  <b>Interactive sites:</b> <b>Weather:</b> <a href="http://schoolscience.rice.edu/duker/wealessindex.html">http://schoolscience.rice.edu/duker/wealessindex.html</a> <a href="http://school.discovery.com/lessonplans/activities/weatherstation/">http://school.discovery.com/lessonplans/activities/weatherstation/</a> <b>Severe weather:</b> <a href="http://www.nws.noaa.gov/">http://www.nws.noaa.gov/</a>
			<b>Lab Activities / Differentiated Instruction</b>	<b>ESOL Strategies</b>	<b>Assessment</b>		
			Coastal Winds & Clouds *(GZ) Correlating Weather Variables *(CD) Weather Forecasting *(CD) Wind Chill *(CD)	Buddy System/Cooperative Grouping/Peer Helpers  Visual Cues  Reading orally or chorally  Questioning	Critical Thinking: RG p. Concept review: RG p. Directed Reading: RG: p. 7 Section Quiz RG Chapter FCAT Practice Test Exam view Chapter Test		

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 Science Reference CD 6-8

# Regional Center VI

## Grade 8 Honors Earth Space Science Focus Calendar

First Nine Weeks

Week 8: 10/6 – 10/10

Text/Alignment	Content Cluster & Focus Benchmark	Ongoing Benchmark	CRISS Strategy/Activity	Vocabulary	Math	Home Learning	Supplemental Materials
Earth Science (Holt)  <b>Chapter 24</b> Severe weather ❖ hurricanes ❖ tomadoes ❖ Thunderstorms ❖ Cyclones Predicting weather ❖ Weather maps ❖ Weather instruments ❖ forecasting Storm tracking ❖ latitude ❖ longitude	<b>Severe Weather – Storms</b>  The student will be able to: • explain the formation of storms (thunderstorms, tornadoes, hurricanes) • describe the effects of storms • compare and contrast the characteristics and properties of storms  <b>SC.D.1.4.1</b> The student knows how climatic patterns on Earth result from an interplay of many factors (Earth's topography, its rotation on its axis, solar radiation, the transfer of heat energy where the atmosphere interfaces with lands and oceans, and wind and ocean currents). <b>AA</b> <b>SC.G.2.4.2</b> The student knows that changes in a component of an ecosystem will have unpredictable effects on the entire system but that the components of the system tend to react in a way that will restore the ecosystem to its original condition. <b>AA</b> <b>SC.H.2.4.1</b> The student knows that scientists assume that the universe is a vast system in which basic rules exist that may range from very simple to extremely complex, but that scientists operate on the belief that the rules can be discovered by careful, systemic study. <b>AA</b>	SC.A.1.3.3 SC.B.1.3.1 SC.B.1.3.3 SC.B.1.3.4 SC.B.1.3.5 SC.B.2.3.1 SC.D.1.3.3 SC.D.1.3.5 SC.D.2.3.2	-Bell Ringer (FCAT Transparencies) Aligned with Benchmarks - Concept Map – - Foldable-  <b>Activities</b>  <b>Direct Instruction:</b> perform provided laboratory activities • create a foldable booklet illustrating the Equipment and supplies needed during a hurricane • elicit prior knowledge by using KWL on storms Utilize real-time satellite images to observe weather patterns  <b>Writing</b>  -Reflective Writing “Preparing for a hurricane” Science Journal -7 Steps for writing conclusions. <b>PW See GSAP</b> -Report on local weather	Air mass Climate Coriolis effect downburst eye wall frontal thunderstorm Jet Stream Latitude Longitude Prime meridian sea-breeze storm surge super cell tropical cyclone Weather	<b>MA.A.3.3.2</b> (Applying Math) Use ratios page 252  <b>MA.B.1.3.2</b> (Applying Math) Wavelength of an FM station practice Problems page 265  <b>M.A.D.2.3.1</b> (Applying Math) Calculate efficiency and Waste Energy page 292  <b>MA.B.2.3.2</b> (Applying Math) Global Temperature page 281	<b>Key Terms</b> <b>Directed Reading Worksheets (RG)</b> <b>VN:</b> Hurricanes, cyclones, anticyclones – p. 609	<b>Competitions:</b>  <b>Science Fair:</b> <a href="http://science.dadeschools.net/scifair/">http://science.dadeschools.net/scifair/</a> <b>SECME</b> <a href="http://www.dade.k12.fl.us/USI/secme.html">http://www.dade.k12.fl.us/USI/secme.html</a> <b>Fairchild Tropical Challenge</b> <a href="http://www.fairchildgarden.org">http://www.fairchildgarden.org</a>  <b>Activities/Labs:</b> <b>Labs:</b> Real-Time Satellite Images <a href="http://www.Ssec.wisc.edu/data/">http://www.Ssec.wisc.edu/data/</a> Real-Time Weather Data <a href="http://www.Rap.ucar.edu/weather/">http://www.Rap.ucar.edu/weather/</a> Real-Time Hurricanes Data <a href="http://www.cof.edu/ete/modules/sevweath/swhurricaneinfo.html">http://www.cof.edu/ete/modules/sevweath/swhurricaneinfo.html</a>  Wind chill: TX p. 612 <b>Interactive sites:</b> Brainpop: <a href="http://www.brainpop.com/science/weatherandclimate/hurricanes/">http://www.brainpop.com/science/weatherandclimate/hurricanes/</a> <a href="http://www.brainpop.com/science/weatherandclimate/tornadoes/">http://www.brainpop.com/science/weatherandclimate/tornadoes/</a>  Gizmo: hurricane <a href="http://www.explorelarning.com/index.cfm?meth od=cResource.dspView&amp;ResourceID=427">http://www.explorelarning.com/index.cfm?meth od=cResource.dspView&amp;ResourceID=427</a>  Weather forecasting: Weather map interpretation: p. 626 TX Local weather: <a href="http://www.weather.com/">http://www.weather.com/</a>
			<b>Lab Activities / Differentiated Instruction</b>	<b>ESOL Strategies</b>	<b>Assessment</b>		
			Weather Related Disasters 1980 – 2003 *(TX page 628) Latent Heat and Thunderstorms*(CD) LC: Hail *(TX page 599) LC: Doppler Radar *(TX page 613) Correlating Weather Variables *(CD) Weather Forecasting *(CD) Wind Chill *(CD)	Buddy System/Cooperative Grouping/Peer Helpers  Visual Cues  Reading orally or chorally  Questioning	Critical Thinking: RG p. Concept review: RG p. Directed Reading: RG: p. Section Quiz RG Chapter FCAT Practice Test Exam view Chapter Test		

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# Regional Center VI

## Grade 8 Honors Earth Space Science Focus Calendar

First Nine Weeks

Week 9: 10/13 – 10/17
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Text/Alignment	Content Cluster & Focus Benchmark	Ongoing Benchmark	CRISS Strategy/Activity	Vocabulary	Math	Home Learning	Supplemental Materials
Earth Science (Holt)  <b>Storm tracking and preparation</b>  <b>Chapter 25</b> Climate	The student will be able to: • construct a hurricane preparation plan • describe the effects of storms • compare and contrast the characteristics and properties of storms • utilize maps and globes to develop familiarization with the geography of the Earth (include topics such as latitude, longitude, Tropic of Cancer and Capricorn, the poles, equator, prime meridian, time zones, continents, and oceans)  <b>SC.E.2.4.7</b> The student knows that mathematical models and computer simulations are used in studying evidence from many sources to form a scientific account of the universe. <b>SC.H.3.4.1</b> The student knows that performance testing is often conducted using small-scale models, computer simulations, or analogous systems to reduce the chance of system failure. <b>SC.H.3.4.3</b> The student knows that scientists can bring information, insights, and analytical skills to matters of public concern and help people understand the possible causes and effects of events. <b>SC.H.3.4.5</b> The student knows that the value of a technology may differ for different people and at different times. <b>SC.H.3.4.6</b> The student knows that scientific knowledge is used by those who engage in design and technology to solve practical problems, taking human values and limitations into account.	SC.A.1.4.3 SC.B.1.3.1 SC.B.1.3.3 SC.B.1.3.4 SC.B.1.3.5 SC.B.2.3.1 SC.D.1.3.3 SC.D.1.3.5 SC.D.2.3.2	-Bell Ringer (FCAT Transparencies) Aligned with Benchmarks - Concept Map – Water cycle - Foldable- types of clouds  <u>Activities</u>  <b>Direct Instruction:</b> • perform provided laboratory activities • use CRISS strategies (e.g. two-column notes, concept maps) to emphasize topic • elicit prior knowledge by using a KWL on hurricanes • obtain hurricane tracking maps from the local grocery store and use with real-time websites and graphing data • plot coordinates on a map  <u>Writing</u>  -Reflective Writing in Science Journal -7 Steps for writing conclusions. <b>PW See GSAP</b>	Climate Specific heat El Nino Monsoon Tropical climate Middle latitude climate Polar climate Microclimate Climatologist Global warming	<b>MA.B.1.3.2</b> Applying Math (solve One-Step Equations) page 535	<b>Key Terms</b> <b>Directed Reading Worksheets (RG)</b>	<b>Competitions:</b>  <b>Science Fair:</b> <a href="http://science.dadeschools.net/scifair/">http://science.dadeschools.net/scifair/</a> <b>SECME</b> <a href="http://www.dade.k12.fl.us/USI/secme.html">http://www.dade.k12.fl.us/USI/secme.html</a> <b>Fairchild Tropical Challenge</b> <a href="http://www.fairchildgarden.org">http://www.fairchildgarden.org</a>  <b>Activities/Labs:</b>  <b>Labs:</b> Weather Map Interpretation *(CD)  <b>Interactive sites:</b> Brainpop:  Gizmo: reading weather maps: <a href="http://www.explorellearning.com/index.cfm?method=cResource.dspView&amp;ResourceID=430">http://www.explorellearning.com/index.cfm?method=cResource.dspView&amp;ResourceID=430</a> : <a href="http://www.stormtracker.noaa.gov/">http://www.stormtracker.noaa.gov/</a> <a href="http://www.sun-sentinel.com/news/weather/hurricane/">http://www.sun-sentinel.com/news/weather/hurricane/</a>
			<b>Lab Activities / Differentiated Instruction</b>	<b>ESOL Strategies</b>		<b>Assessment</b>	
			Climate web site: <a href="http://www.noaa.gov/">http://www.noaa.gov/</a> Making a Weather Station *(CD) Gathering Weather Data *(CD) Weather Map Interpretation*(CD) Blowing in the Wind *(CD) LC: Meteorologists *(TX page 629)	Buddy System/Cooperative Grouping/Peer Helpers  Visual Cues  Reading orally or chorally  Questioning		Critical Thinking: RG p. Concept review: RG p. Directed Reading: RG: p. Section Quiz RG Chapter FCAT Practice Test Exam view Chapter Test <b>EduSoft: 8 Grade ES Honors Test 3 Week 9</b>	

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 GZ = Gizmo Learning ([www.explorellearning.com](http://www.explorellearning.com))  
 HL = Home Learning

IP = Instructional Planner (<http://www.dadeschools.net/> education portal find lesson plans math and science) TX = Holt Earth Science  
 RG = Resource Guide (<http://mathscience.dadeschools.net/9-12/>)  
 GO = Graphic Organizer  
 MTF = Mastering The FCAT  
 LC = Literacy Component  
 TE = Teacher Edition

PW= Power Writing  
 VN=Venn Diagram  
 GSAP= Grade 8 Activities Packet  
 Science Reference CD 6-8

# Regional Center VI

## Grade 8 Honors Earth Space Science Focus Calendar

First Nine Weeks

**Legend:**

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