

BCCS
High School ENVIRONMENTAL SCIENCE Curriculum Map
 (Revised 5-27-08)

Month	Content What topic(s) is being covered and what is the important vocabulary? What do students need to know?	Skills What do students have to be able to do connected to the Content?	Essential Questions What are fundamental, enduring questions that will guide study and instruction?	Standards / Benchmarks What benchmarks are met through this topic?	Instruction What activities are used to develop the skills and knowledge?	Resources What materials, texts, videos, internet, software, or human resources support instruction?	Assessment What evidence (products and/or performances) is collected to establish that the Content and Skills have been learned?
September	Ecosystems	<ul style="list-style-type: none"> ▪ Students will construct an ecosystem and maintain it for one month, keeping accurate records 	<ul style="list-style-type: none"> ▪ What is an ecosystem? ▪ How does it compare to an environment? ▪ What is it made up of? 	NA	<ul style="list-style-type: none"> ▪ Lecture notes ▪ Written assignments ▪ Hands on projects ▪ Field trips 	<ul style="list-style-type: none"> ▪ Quizzes / tests ▪ Graded project ▪ Daily time use / management ▪ Chapter 1 of blue book ▪ Chapter 7 of green book 	
	Requirements of Life	<ul style="list-style-type: none"> ▪ Mostly informational 	<ul style="list-style-type: none"> ▪ What do all living things need? ▪ How do they receive these? ▪ How do plants and animals differ? 	N/A	<ul style="list-style-type: none"> ▪ Notes ▪ Reading and writing assignments ▪ Matching exercise 	<ul style="list-style-type: none"> ▪ Quiz ▪ Daily written work graded 	
	Food chains and webs	<ul style="list-style-type: none"> ▪ Students will construct a food chain and web. They will predict what the affect would be by removing one organism 	<ul style="list-style-type: none"> ▪ What is a good chain / web? ▪ What feeds on what? ▪ What is the affect of removing a link in the chain? 	N/A	<ul style="list-style-type: none"> ▪ Reading and note lecture ▪ Hands on work ▪ Field trip to school forest ▪ Video ▪ Terms i.e. herbivore, carnivore, omnivore 	<ul style="list-style-type: none"> ▪ Graded food web ▪ Quiz ▪ Daily ??? 	
	Symbiosis	<ul style="list-style-type: none"> ▪ Covered in previous column 	<ul style="list-style-type: none"> ▪ How do organisms in nature interact? ▪ Are all interactions good? Bad? 	N/A	<ul style="list-style-type: none"> ▪ Reading and lecture notes ▪ Research examples to present to class ▪ Field trip to school forest to try and identify one symbiotic relationship 	<ul style="list-style-type: none"> ▪ Daily notes graded ▪ Quiz ▪ Graded field sheet ▪ Time on task grade 	
October	Cycles in Nature	<ul style="list-style-type: none"> ▪ Students will draw / outline a cycle to reinforce the pattern of repetition 	<ul style="list-style-type: none"> ▪ What is a cycle? ▪ Do we have cycles around us? ▪ Can you give an example? 	N/A	<ul style="list-style-type: none"> ▪ Demonstrations ▪ Video ▪ Lecture ▪ Labs ▪ Lecture notes 	<ul style="list-style-type: none"> ▪ Hands on drawing - chapter 3 of blue book ▪ Unit test on cycles 	

BCCS
High School ENVIRONMENTAL SCIENCE Curriculum Map
 (Revised 5-27-08)

Month	Content What topic(s) is being covered and what is the important vocabulary? What do students need to know?	Skills What do students have to be able to do connected to the Content?	Essential Questions What are fundamental, enduring questions that will guide study and instruction?	Standards / Benchmarks What benchmarks are met through this topic?	Instruction What activities are used to develop the skills and knowledge?	Resources What materials, texts, videos, internet, software, or human resources support instruction?	Assessment What evidence (products and/or performances) is collected to establish that the Content and Skills have been learned?
October – continued	Water Cycle	<ul style="list-style-type: none"> ▪ Students must demonstrate an example of one of the sets of the water cycle 	<ul style="list-style-type: none"> ▪ What is happening over and over in the water cycle? ▪ How much water is there on earth and is it increasing or decreasing? ▪ What affects does the water cycle have on living organisms? 	N/A	<ul style="list-style-type: none"> ▪ Lecture ▪ Reading ▪ Written assignments ▪ Video ▪ Lab / demos 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ Daily use of time ▪ Quiz ▪ Demo. presentations
	Carbon/Oxygen Cycle	<ul style="list-style-type: none"> ▪ Students will be able to trace the source of carbon and oxygen as it passes through nature 	<ul style="list-style-type: none"> ▪ How do plants and animals depend on one another? ▪ Is one more important? ▪ Where does the carbon come from to make our food? 	N/A	<ul style="list-style-type: none"> ▪ Lecture notes ▪ Reading and writing ▪ Examples and demonstrations ▪ Drawings and charts 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ Mainly quizzes and graded diagrams from Chapter 3 of the blue book
	Nitrogen Cycle	<ul style="list-style-type: none"> ▪ Students will understand the importance of bacteria and how N is changed to allow other organisms to use it ▪ How does nitrogen get back into the atmosphere 	<ul style="list-style-type: none"> ▪ How abundant is nitrogen? ▪ What is nitrogen used for? ▪ How do we get it? 	N/A	<ul style="list-style-type: none"> ▪ Graphs and charts ▪ Demonstration ▪ Lecture ▪ Reading and written assignments 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ List parts of the nitrogen cycle ▪ Show what happens if one part is removed ▪ Quiz ▪ Graded cycle drawing

BCCS
High School ENVIRONMENTAL SCIENCE Curriculum Map
 (Revised 5-27-08)

Month	Content What topic(s) is being covered and what is the important vocabulary? What do students need to know?	Skills What do students have to be able to do connected to the Content?	Essential Questions What are fundamental, enduring questions that will guide study and instruction?	Standards / Benchmarks What benchmarks are met through this topic?	Instruction What activities are used to develop the skills and knowledge?	Resources What materials, texts, videos, internet, software, or human resources support instruction?	Assessment What evidence (products and/or performances) is collected to establish that the Content and Skills have been learned?
November	Wildlife	<ul style="list-style-type: none"> ▪ Students will understand the natural selection value of wildlife ▪ What we receive from it ▪ How to manage wildlife ▪ The need for good management 	<ul style="list-style-type: none"> ▪ What is wildlife? ▪ How does it affect humans? ▪ What are some of its values? 	N/A	<ul style="list-style-type: none"> ▪ Presentation from a conservation officer ▪ Lecture notes ▪ Videos ▪ Reading and writing assignments 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ Graded quizzes and tests
	Habitat conservation and sustaining wildlife	<ul style="list-style-type: none"> ▪ Students will make a wildlife management plan for a specific species. Factors to consider is how wildlife will respond 	<ul style="list-style-type: none"> ▪ How does habitat impact wildlife populations? ▪ What can I do to improve habitat for specific wildlife ▪ What actions of humans affects habitat negatively? 	N/A	<ul style="list-style-type: none"> ▪ Lecture notes ▪ Make a list of all the local predators they can name ▪ Find some animals that are both predator and prey ▪ Do an owl pellet dissection 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ Graded lab presentation ▪ Quiz on food chains / webs
	Predator / prey relationships	<ul style="list-style-type: none"> ▪ Students will understand how predators fit into a food web and how they hunt and obtain food ▪ The skeletal anatomy of a mammal 	<ul style="list-style-type: none"> ▪ How does a predator / prey relationship affect local food webs? ▪ What gives predators the advantage? 	N/A	<ul style="list-style-type: none"> ▪ Lecture notes ▪ Make a list of all the local predators they can name ▪ Find some animals that are both predator and prey ▪ Do an owl pellet dissection 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ Quiz ▪ Food web / predator list ▪ Daily owl lab ▪ Time on task ▪ Final owl pellet display ▪ Quiz – chapter 17
	Game vs non-game	<ul style="list-style-type: none"> ▪ Students will understand how hunting and trapping fit into a wildlife management plan on both a micro and macro scale 	<ul style="list-style-type: none"> ▪ Why do we harvest some animals? ▪ What is a “population” ▪ What if we didn't harvest any of a particular species? 	N/A	<ul style="list-style-type: none"> ▪ Reading and translation of hunting guide for Michigan ▪ Lecture notes ▪ Video of un-endangered species ▪ Guest speaking from DNR 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ Carrying capacity project ▪ Quizzes ▪ Graded oral reports ▪ Unit test

BCCS
High School ENVIRONMENTAL SCIENCE Curriculum Map
 (Revised 5-27-08)

Month	Content What topic(s) is being covered and what is the important vocabulary? What do students need to know?	Skills What do students have to be able to do connected to the Content?	Essential Questions What are fundamental, enduring questions that will guide study and instruction?	Standards / Benchmarks What benchmarks are met through this topic?	Instruction What activities are used to develop the skills and knowledge?	Resources What materials, texts, videos, internet, software, or human resources support instruction?	Assessment What evidence (products and/or performances) is collected to establish that the Content and Skills have been learned?
December	Wildlife plants	<ul style="list-style-type: none"> ▪ Students will understand and appreciate the value of green plants in our environment. ▪ They will understand how plants grow and what they use and produce 	<ul style="list-style-type: none"> ▪ What role do plants play in the environment? ▪ What do we get from plants? ▪ What do plants need to survive? 	N/A	<ul style="list-style-type: none"> ▪ Unit 7 of text ▪ Plant anatomy pictures ▪ Balance photosynthesis equation ▪ Know the functions carried on by plants ▪ Grow a green plant and record its changed 	▪	<ul style="list-style-type: none"> ▪ Graded plant lab ▪ Quiz on anatomy ▪ Quiz on photosynthesis ▪ A photosynthesis poster ▪ Chapter worksheet
	Plant succession / evolution	<ul style="list-style-type: none"> ▪ Students will construct a normal succession chart for their area. 	<ul style="list-style-type: none"> ▪ What is succession? ▪ How does primary and secondary succession differ? ▪ What is a climax society? 	N/A	<ul style="list-style-type: none"> ▪ Lecture notes and overhead examples ▪ Personal information from instructor and students ▪ Walking fieldtrip to school forest 	▪	<ul style="list-style-type: none"> ▪ Quiz on lecture notes and fieldtrip ▪ Chapter 16 quiz
	Tree Identification	▪	<ul style="list-style-type: none"> ▪ What kind of tree is that? ▪ How can you tell? ▪ What is it used for? 	N/A	<ul style="list-style-type: none"> ▪ Short lecture introduction ▪ Hands on view of school forest (fieldtrip) ▪ Some ID hints 	▪	<ul style="list-style-type: none"> ▪ Tree ID walking quiz through school forest ▪ Trees will be tagged
	Soil	<ul style="list-style-type: none"> ▪ Students will learn the basic parts of any soil. They will understand how soil related to plants, how plants get nutrition from the soil and how to improve poor soil 	<ul style="list-style-type: none"> ▪ What is soil? ▪ Is it different than "dirt"? ▪ Do plants "eat soil"? ▪ What makes soil good or bad? 	N/A	<ul style="list-style-type: none"> ▪ We will relate back to the Nitrogen cycle to see how soil organisms "fix" nitrogen and how the nitrogen gets to all other living organisms 	▪	<ul style="list-style-type: none"> ▪ Hands on soil lab ▪ Graded soil profile project ▪ Soil quiz ▪ Chapter 13 of text
January	Natural resources	<ul style="list-style-type: none"> ▪ Students will understand renewable vs non-renewable resources 	<ul style="list-style-type: none"> ▪ What is a renewable resource? ▪ How can we protect our non-renewable resources? 	N/A	<ul style="list-style-type: none"> ▪ Lecture notes ▪ Video ▪ Chapter worksheet 	▪	<ul style="list-style-type: none"> ▪ Unit quiz ▪ ID for a list of those resources that are re and non ▪ ID re and non in our school

BCCS
High School ENVIRONMENTAL SCIENCE Curriculum Map
 (Revised 5-27-08)

Month	Content What topic(s) is being covered and what is the important vocabulary? What do students need to know?	Skills What do students have to be able to do connected to the Content?	Essential Questions What are fundamental, enduring questions that will guide study and instruction?	Standards / Benchmarks What benchmarks are met through this topic?	Instruction What activities are used to develop the skills and knowledge?	Resources What materials, texts, videos, internet, software, or human resources support instruction?	Assessment What evidence (products and/or performances) is collected to establish that the Content and Skills have been learned?
January – continued	Recycle, reuse, and reduce	<ul style="list-style-type: none"> ▪ Students will understand the difference between recycle and reuse. ▪ Students will participate in a recycle program ▪ Students will be able to explain how recycle and reuse protects our resources 	<ul style="list-style-type: none"> ▪ What do the 3 r's of resource managements mean? ▪ How do they differ? 	N/A	<ul style="list-style-type: none"> ▪ Recycle project ▪ Lecture notes ▪ Chapter 21 ▪ Video on solid waste 	▪	<ul style="list-style-type: none"> ▪ Poster of recyclable materials commonly discarded (could be from high school trash) ▪ Quiz ▪ Create a chart showing energy saved by the 3 r's
	Solid waste / land pollution	<ul style="list-style-type: none"> ▪ Students will understand characteristics of a modern landfill ▪ They will understand the difference between that and a dump 	<ul style="list-style-type: none"> ▪ What is a "landfill"? ▪ How does it differ from a "dump"? ▪ Can we really discard our trash safely? 	N/A	<ul style="list-style-type: none"> ▪ Diagram a modern landfill and explain the parts ▪ Lecture notes ▪ Video of landfill ▪ Chapter 21 	▪	<ul style="list-style-type: none"> ▪ Graded drawing ▪ Quiz ▪ Class project of model of landfill
	Toxic waste	<ul style="list-style-type: none"> ▪ Students will understand the meaning of radiation and how it can be harmful ▪ Different types of radiation will be explained 	<ul style="list-style-type: none"> ▪ How does toxic or hazardous waste differ from normal solid waste? ▪ Where should we put this special waste? ▪ What makes it toxic? 	N/A	<ul style="list-style-type: none"> ▪ Video ▪ Lecture notes ▪ Chapter 22 	▪	<ul style="list-style-type: none"> ▪ Quiz ▪ Unit test ▪ Graded notes
	Radioactive waste	<ul style="list-style-type: none"> ▪ Students will understand the meaning of radiation and how it can be harmful ▪ Different types of radiation will be explained 	<ul style="list-style-type: none"> ▪ What is radiation? ▪ What is half-life? ▪ How can it harm me? ▪ Why do we have such dangerous material? ▪ How can we store them safely? 	N/A	<ul style="list-style-type: none"> ▪ Chapter 22 notes ▪ Video "Back to Chernoble" ▪ Unit worksheet out of the blue book 	▪	<ul style="list-style-type: none"> ▪ Diagram an atom ▪ Diagram an isotope ▪ Quiz ▪ Video notes ▪ Written worksheet ▪ List uses for radiation

BCCS
High School ENVIRONMENTAL SCIENCE Curriculum Map
 (Revised 5-27-08)

Month	Content What topic(s) is being covered and what is the important vocabulary? What do students need to know?	Skills What do students have to be able to do connected to the Content?	Essential Questions What are fundamental, enduring questions that will guide study and instruction?	Standards / Benchmarks What benchmarks are met through this topic?	Instruction What activities are used to develop the skills and knowledge?	Resources What materials, texts, videos, internet, software, or human resources support instruction?	Assessment What evidence (products and/or performances) is collected to establish that the Content and Skills have been learned?
February	Minerals	<ul style="list-style-type: none"> ▪ Students must be able to read and use the periodic table ▪ Understand the building blocks of minerals ▪ See how just a tiny change in a molecule can make a huge change in it properties 	<ul style="list-style-type: none"> ▪ What is a mineral? ▪ Where do they come from? ▪ What are they made of? ▪ What is an atom, molecule, compound element? 	N/A	<ul style="list-style-type: none"> ▪ Unit 18 worksheet ▪ Element collection ▪ Periodic table ▪ Lecture notes 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ Element quiz ▪ Exercise on chaining one atom to make entirely different compound ▪ Lecture notes ▪ Quiz
	Erosion	<ul style="list-style-type: none"> ▪ Students will understand the difference between aesthetic and case value ▪ How to protect the land from erosion ▪ How erosion can cost money 	<ul style="list-style-type: none"> ▪ What is erosion? ▪ What causes it? ▪ How can it be reduced? ▪ How can land be polluted? ▪ What is aesthetic value? 	N/A	<ul style="list-style-type: none"> ▪ News article on erosion ▪ Lecture ▪ Erosion lab ▪ Effects of erosion, both good and bad 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ Graded lab ▪ Worksheet ▪ Quiz ▪ Points for news article
	Mineral extraction / mining and drilling	<ul style="list-style-type: none"> ▪ Students will understand how minerals are mined and the negative affect this can have on the environment ▪ They will also learn how to reduce that negative affect to create something positive 	<ul style="list-style-type: none"> ▪ How do we get minerals from the ground? ▪ Does this action harm the earth? ▪ How are modern extraction methods different from past methods? 	N/A	<ul style="list-style-type: none"> ▪ Lecture notes ▪ Unit 18 plus chapter 2 of book 2 in the blue books ▪ Video ▪ Half the class will extract ore from a model mine with no environmental control ▪ Half the class will practice reclamation 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ Class presentation of mining method ▪ Chapter worksheets ▪ Quiz

BCCS
High School ENVIRONMENTAL SCIENCE Curriculum Map
 (Revised 5-27-08)

Month	Content What topic(s) is being covered and what is the important vocabulary? What do students need to know?	Skills What do students have to be able to do connected to the Content?	Essential Questions What are fundamental, enduring questions that will guide study and instruction?	Standards / Benchmarks What benchmarks are met through this topic?	Instruction What activities are used to develop the skills and knowledge?	Resources What materials, texts, videos, internet, software, or human resources support instruction?	Assessment What evidence (products and/or performances) is collected to establish that the Content and Skills have been learned?
March	Energy	<ul style="list-style-type: none"> ▪ Students will be able to identify the major fossil fuels, and how they formed. ▪ They will understand that they are finite ▪ Major energy users will be identified and how this energy affects our daily lives 	<ul style="list-style-type: none"> ▪ What are the major fossil fuels? ▪ Where do they come from? ▪ How do we use them ▪ How can we preserve them? 	N/A	<ul style="list-style-type: none"> ▪ Lecture notes ▪ Chapter 25 – green book 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ Quiz ▪ Graded worksheet
	Alternative energy	<ul style="list-style-type: none"> ▪ Students will learn the various sources for energy i.e. wind, solar, water, geothermal, bio, etc. ▪ They will explore the advantages and disadvantages of each 	<ul style="list-style-type: none"> ▪ What does alternative mean? ▪ Where does the energy come from? ▪ Is it as good as fossil fuel? 	N/A	<ul style="list-style-type: none"> ▪ Lecture notes ▪ Chapter 1 – book 2 of blue book worksheet ▪ Alternative energy model project ▪ Survey of teachers as to all energy use 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ Energy unit test ▪ Quizzes ▪ Alternative energy graded model ▪ Survey sheet
	Energy conservation	<ul style="list-style-type: none"> ▪ Students will learn how even a small individual savings can have a huge impact ▪ Will understand diminishing returns when it comes to energy 	<ul style="list-style-type: none"> ▪ How can we save energy and money? ▪ Can we really have an impact? 	N/A	<ul style="list-style-type: none"> ▪ Lecture notes ▪ Student math problem related to savings (something like doubling a penny for a month) 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ Quiz ▪ Graded math paper

BCCS
High School ENVIRONMENTAL SCIENCE Curriculum Map
 (Revised 5-27-08)

Month	Content What topic(s) is being covered and what is the important vocabulary? What do students need to know?	Skills What do students have to be able to do connected to the Content?	Essential Questions What are fundamental, enduring questions that will guide study and instruction?	Standards / Benchmarks What benchmarks are met through this topic?	Instruction What activities are used to develop the skills and knowledge?	Resources What materials, texts, videos, internet, software, or human resources support instruction?	Assessment What evidence (products and/or performances) is collected to establish that the Content and Skills have been learned?
March - continued	Nuclear energy	<ul style="list-style-type: none"> ▪ Students will understand how nuclear energy is applied to our everyday lives ▪ How we get electricity from uranium ▪ How clean it is, but also what the potential danger is ▪ What nuclear fusion and fission are 	<ul style="list-style-type: none"> ▪ How do we get electricity from uranium? ▪ Is nuclear energy safe? ▪ How clean is nuclear energy? ▪ How does fusion differ from fission? 	N/A	<ul style="list-style-type: none"> ▪ Lecture notes – chapter 1, book 2 ▪ Drawing of nuclear reactor with labels ▪ Video 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ Quiz
April	Pollution	<ul style="list-style-type: none"> ▪ Students will learn that pollution is inevitable, but can be managed 	<ul style="list-style-type: none"> ▪ What is pollution? ▪ Where does it come from? ▪ How can it be harmful? ▪ How can we reduce it? 	N/A	<ul style="list-style-type: none"> ▪ Lecture notes – blue book, chapter 3, book 2 ▪ Worksheet ▪ Demonstration of a pollution that is not visible 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ Pollution lab ▪ Quiz ▪ Worksheet
	Sources of pollution	<ul style="list-style-type: none"> ▪ Students will learn about where pollutions come from and how it can affect areas hundreds of miles away ▪ They will also learn that they contribute to pollution every day 	<ul style="list-style-type: none"> ▪ What is point source and non-point source pollution? ▪ Which is more difficult to control? 	N/A	<ul style="list-style-type: none"> ▪ Lecture notes ▪ Chapter 3, book 2 demo of both point and non-point pollution ▪ Variety of examples of where much of our pollution comes from 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ Quiz ▪ Paper that lists sources and student must ID a point and non-point ▪ Graded notes

BCCS
High School ENVIRONMENTAL SCIENCE Curriculum Map
 (Revised 5-27-08)

Month	Content What topic(s) is being covered and what is the important vocabulary? What do students need to know?	Skills What do students have to be able to do connected to the Content?	Essential Questions What are fundamental, enduring questions that will guide study and instruction?	Standards / Benchmarks What benchmarks are met through this topic?	Instruction What activities are used to develop the skills and knowledge?	Resources What materials, texts, videos, internet, software, or human resources support instruction?	Assessment What evidence (products and/or performances) is collected to establish that the Content and Skills have been learned?
	Air pollution	<ul style="list-style-type: none"> ▪ Students will learn how most air pollution originates and how it moves in the atmosphere ▪ They will explore natural and man made sources and control methods 	<ul style="list-style-type: none"> ▪ If the air looks clean, how can it be polluted? ▪ What is acid rain? ▪ How can the air in northern Michigan be polluted? ▪ What is an emission? ▪ How can we reduce air pollution? 	N/A	<ul style="list-style-type: none"> ▪ Air pollution testing lab ▪ Lecture notes ▪ Chapter 3, Book 2 blue book ▪ Video 	<ul style="list-style-type: none"> ▪ Unit quiz ▪ Lab grade ▪ Pollution poster with ID's of source and control 	
	Water pollution	<ul style="list-style-type: none"> ▪ Students will learn that all living things need water to survive ▪ That clean water is essential ▪ That pollution in the water is transferred to animals and people ▪ They will study sources and solutions 	<ul style="list-style-type: none"> ▪ How can you tell if water is polluted? ▪ What is "potable" water? ▪ How does water get polluted when there is no industry around? ▪ What are the environmental affects of water pollution? 	N/A	<ul style="list-style-type: none"> ▪ Lecture notes ▪ Chapter 3, Book 2 blue book and Chapter 15 of green book ▪ Water testing labs (4) ▪ Video 	<ul style="list-style-type: none"> ▪ Graded lab days ▪ Quizzes ▪ Pollution unit test 	
May	Ground Water	<ul style="list-style-type: none"> ▪ Students will learn the dynamics of groundwater, how it moves, how it gets replenish ▪ What if it gets contaminated? ▪ What the different layers represent 	<ul style="list-style-type: none"> ▪ How does "groundwater" appear beneath the surface? ▪ Is it connected to the surface water? ▪ Are there several layers? ▪ What if it gets polluted underground? 	N/A	<ul style="list-style-type: none"> ▪ Lecture notes ▪ Ground water simulator ▪ Diagram of cross-section of earth showing various layers ▪ How wells extract water ▪ Video ▪ Lab 	<ul style="list-style-type: none"> ▪ Cross-sectional view quiz ▪ General quiz ▪ Lab grade 	

BCCS
High School ENVIRONMENTAL SCIENCE Curriculum Map
 (Revised 5-27-08)

Month	Content What topic(s) is being covered and what is the important vocabulary? What do students need to know?	Skills What do students have to be able to do connected to the Content?	Essential Questions What are fundamental, enduring questions that will guide study and instruction?	Standards / Benchmarks What benchmarks are met through this topic?	Instruction What activities are used to develop the skills and knowledge?	Resources What materials, texts, videos, internet, software, or human resources support instruction?	Assessment What evidence (products and/or performances) is collected to establish that the Content and Skills have been learned?
May – continued	Surface water	<ul style="list-style-type: none"> ▪ Students will study ponds and lakes, rivers and streams, springs and swamps ▪ They will learn the value of these bodies of water to wildlife and domestic animals as well as plants and even us 	<ul style="list-style-type: none"> ▪ What are the different types of surface bodies of water? ▪ Are they all connected? ▪ How does surface water become polluted / cleaned? 	N/A	<ul style="list-style-type: none"> ▪ Lake / river reports (local bodies) ▪ Lecture notes ▪ Chapter 14 – green book 	<ul style="list-style-type: none"> ▪ Quiz ▪ Report ▪ Daily work 	
	Water treatment	<ul style="list-style-type: none"> ▪ Students will learn how waste treatment plants work, as well as domestic septic systems. ▪ They will learn how drinking water treatment plans work ▪ They will learn how septic lagoon systems work 	<ul style="list-style-type: none"> ▪ Where does our drinking water come from? ▪ Where does our waste water go? ▪ Do we reuse our waste water that goes down our drains? 	N/A	<ul style="list-style-type: none"> ▪ Chapter 15 ▪ Lecture notes ▪ Guest speaker from the Health Department ▪ Diagram of septic system ▪ Gray water vs septic water ▪ Water conservation video 	<ul style="list-style-type: none"> ▪ Quiz ▪ Chapter worksheet ▪ Have student check at home to see what type of waste water system they have and what kind of drinking water system 	
	Weather / Climate	<ul style="list-style-type: none"> ▪ Students will be able to distinguish between weather and climate ▪ They will learn the terms related to weather and climate so they can understand reports and what is going on around them outside 	<ul style="list-style-type: none"> ▪ What is weather? ▪ How is it different from climate? ▪ What are the main terms? ▪ How does weather and climate affect the environment, wildlife, us? 	N/A	<ul style="list-style-type: none"> ▪ Lecture notes ▪ Guest speaker from a weather station if available ▪ Video ▪ Outside testing weather elements i.e. barometric pressure, temp, rainfall, etc. ▪ Some cloud interpretation 	<ul style="list-style-type: none"> ▪ Graded weather poster about one of the measurable or visual factors related to weather ▪ Quizzes ▪ Weather test ▪ Outside labs 	

BCCS
High School ENVIRONMENTAL SCIENCE Curriculum Map
 (Revised 5-27-08)

Month	Content What topic(s) is being covered and what is the important vocabulary? What do students need to know?	Skills What do students have to be able to do connected to the Content?	Essential Questions What are fundamental, enduring questions that will guide study and instruction?	Standards / Benchmarks What benchmarks are met through this topic?	Instruction What activities are used to develop the skills and knowledge?	Resources What materials, texts, videos, internet, software, or human resources support instruction?	Assessment What evidence (products and/or performances) is collected to establish that the Content and Skills have been learned?
May – continued	Earths oceans	<ul style="list-style-type: none"> ▪ Students will learn the value of protecting the earth's oceans. ▪ They will understand how valuable oceans are, what we get from the, and how we must avoid polluting them ▪ They will study the organisms that live in oceans 	<ul style="list-style-type: none"> ▪ What is an ocean? ▪ How large are oceans? ▪ How does an ocean and a sea differ? ▪ What do we get from oceans? ▪ How can we protect them? 	N/A	<ul style="list-style-type: none"> ▪ Videos ▪ Lecture notes ▪ Chapter 3 of blue book ▪ Ocean poster 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ Graded poster ▪ Quizzes ▪ Ocean test ▪ Organisms reports