

Unit Name: Core Concepts Part 3: Climates and Ecosystems (Pearson – myWorld Geography)
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UNIT

Subject:	Social Studies/Geography	Country:	USA
Course/Grade:	myWorld Geography/5th	State/Group:	NJ
School:	Dr. Joyanne D. Miller School		

UNIT SUMMARY

Students will demonstrate the following enduring understandings:

- The water cycle and wind patterns are closely related to how and when air rises and sinks.
- Ecosystems depend on a consistent climate to survive and thrive

UNIT RESOURCES

Pearson myWorld Geography Core Concepts Handbook Teacher Edition, T26 – T39

Section 1: Climate Campaign, p. T28-T29

Section 2: Latitudes Quiz Show, p. T30-T31

Section 3: Water and Climate, p. T32-T33

Section 4: Air Circulation and Precipitation, p. T34-T35

Section 5: Types of Climate, p. T36 – T37

Pearson myWorld Geography Student Textbook

Read Hurricane Katrina Strikes, p. 30 - 31

Read Section 3.1 Climate and Weather, p.32 - 33

3.2 Temperature, p 34 -35

3.3 Water and Climate, p. 36 - 37

3.4 Air Circulation and Precipitation, p. 38 - 39

3.5 Types of Climate, p. 40 – 41

3.6 Ecosystems, p. 42 - 43

Answer Part 2 Assessment Questions, p 44 – 45 includes Document Based Questions

Pearson myWorld Geography Student Journal

Core Concepts 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 Word Wise and Sum It Up, p. 14 - 20

Pearson myWorld Geography Exam View Test Bank CD-Rom

Pearson myWorld Geography Assessment Handbook

Pearson myWorld Geography Unit ProGuide

Pearson myWorld Geography Activity Kit

Pearson myWorld Geography Essential Question Posters

Pearson my World Geography Wall Maps

Internet Resource Links:

<http://my.worldgeography.com>

Student Center and Teacher Center

On Assignment

Visual Glossary

Active Atlas

Data Discovery

Time Line

Culture Close-up

Self Test

Success Tracker

21st Century Learning Online Tutor

myworldgeography.com Student Center or GIS.com

<http://ph.infoplease.com/>

STAGE ONE

GOALS AND STANDARDS

Standard State: NJ

6.1 U.S. History: America in the World. All students will acquire the knowledge and skills to think analytically about how past and present interactions of people, cultures, and the environment shape the American heritage. Such knowledge and skills enable students to make informed decisions that reflect fundamental rights and core democratic values as productive citizens in local, national, and global communities.

6.2 World History/Global Studies: All students will acquire the knowledge and skills to think analytically and systematically about how past interactions of people, cultures, and the environment affect issues across time and cultures. Such knowledge and skills enable students to make informed decisions as socially and ethically responsible world citizens in the 21st century.

6.3 Active Citizenship in the 21st Century. All students will acquire the skills needed to be active, informed citizens who value diversity and promote cultural understanding by working collaboratively to address the challenges that are inherent in living in an interconnected world.

ENDURING UNDERSTANDINGS

1. The water cycle and wind patterns are closely related to how and when air rises and sinks.
2. Ecosystems depend on a consistent climate to survive and thrive.

ESSENTIAL QUESTIONS

1. What are the various elements that make up the climate and what are the effects on our region?
2. How does the tilt of Earth's axis explain changes in temperature from one season to another in each our climate zone?
3. What is the relationship between ocean currents and air temperature and climate?
4. How do physical processes such as air circulation and precipitation affect humans?
5. What three factors make up a climate?

KNOWLEDGE AND SKILLS

Core Concepts 3.1 Climate and Weather - Students will differentiate between weather and climate.

Core Concepts 3.1 Climate and Weather - Students will analyze climate graphs to identify average temperature and precipitation.

Core Concepts 3.2 Temperature - Students will identify Earth's zones of latitude and their temperature characteristics.

Core Concepts 3.2 Temperature - Students will describe how Earth's tilt affects temperature in each hemisphere and latitude.

Core Concepts 3.3 Water and Climate - Students will identify major ocean currents and their effects on water and air temperature.

Core Concepts 3.3 Water and Climate - Students understand the stages of the water cycle.

Core Concepts 3.4 Air Circulation and Precipitation - Students will discover how and where winds are produced.

Core Concepts 3.4 Air Circulation and Precipitation - Students will learn the connection between wind and precipitation and how this can produce extreme weather.

Core Concepts 3.5 Types of Climate - Students will review the importance of temperature, precipitation, and wind in shaping climate regions.

Core Concepts 3.5 Types of Climate - Students will compare and contrast several different climate regions.

Core Concepts 3.6 Ecosystems - Students will examine the interdependent relationships of plants and animals within an ecosystem.

Core Concepts 3.6 Ecosystems - Students will learn the characteristics of specific ecosystems.

STAGE TWO

ASSESSMENT DATA/PERFORMANCE TASKS

Students may write their responses to the Assessment questions in their notebooks and complete Word Wise in their Journals for each lesson. Check answers in their notebooks and Student Journal for understanding of the Key Ideas, Key Terms, and objectives.

Core Concepts Part 3 Climate and Ecosystems Test B

Student Journal: Core Concepts Part 3 Activity: Sum It Up - Students may make connections using the text and maps from Core Concepts 3 to fill in the circles of this concept web. Describe the features of a tropical wet and dry climate.

Core Concepts Part 3 Climate and Ecosystems Success Tracker Online Formative Assessment includes Document Based Questions

OTHER EVIDENCE

Student completion of myWorld Activity and myWorld Activity Support

- * Section 3.1: p. T28 – T29 Climate Campaign – Campaign Design
- * Section 3.2: p. T30 – T31 Latitudes Quiz Show – Quiz Show Preparation
- * Section 3.3: p. T32 – T33 Evaporation Theater – Skit Planning
- * Section 3.4: p. T34 – T35 How Winds Blow – Process Steps
- * Section 3.5: p. T36 – T37 Climate Recipe Cards – Recipe Record
- * Section 3.6: p. T38 – T39 Ecosystem Equation – Equation Sheet

- Student completion of Word Wise in their Student Journals

- * Core Concepts 3.1: Word Wise - Sentence Builder, complete the sentence using information you have Learned in this section. Include terminal punctuation.
- * Core Concepts 3.2: Word Wise - Crossword Puzzle
- * Core Concepts 3.3: Word Wise – Choose one word from the Word Bank to fill in each blank to complete a short summary of important ideas
- * Core Concepts 3.4: Word Wise - Words in Context, write an answer that demonstrates understanding of Boldfaced key terms
- * Core Concepts 3.5: Word Wise – Choose one word from the Word Bank to fill in each blank to complete a short summary of important ideas
- * Core Concepts 3.6: Word Wise - Vocabulary Quiz Show

p. 29 21st Century Learning: Make a Difference – “Give an Effective Presentation” Research and deliver an illustrated oral presentation on the features of one of the ecosystems described in Lesson 6. Be sure to address the following topics:

- Climate Characteristics
- Effect of Climate on animal and plant life
- Effect of climate on human life, including the economy

If students need help with this skill, direct them to the 21st Century Online Tutor Give an *Effective Presentation*(make a rubric)

Success Tracker Online Formative Assessment: Administer Part 2 tests and remediate understanding

STAGE THREE

LEARNING ACTIVITIES

Title: Climates and Ecosystems

Students may explore myworldgeography.com *Visual Glossary* to deepen their understanding of the following Key Terms found in Part 3 of the Core Concepts Handbook. Through the *Visual Glossary* students will read descriptions and view illustrations of Key Terms, listen to audio explanations of Key Terms and watch animations of complex concepts.

- altitude
- arid
- climate
- coniferous tree
- deciduous tree
- ecosystem
- evaporation
- high latitudes
- humid subtropical
- hurricane
- intertropical convergence zone
- low altitudes
- maritime
- middle zones
- polar zones
- * precipitation
- * savanna
- * semiarid
- * subarctic
- * temperate zone
- * temperature
- * tornado
- * tropical cyclone
- * tropical wet
- * tropical wet and dry
- * tropics
- * tundra
- * weather
- * water cycle

Students will read and discuss Hurricane Katrina Strikes

Making Connections: Students may write in their notebooks about a time when they had to change their plans due to the weather. Tell students to write about how they felt having to change their plans, and whether they wish they lived in a place with different weather.

Students may go online to myworldgeography.com Student Center or GIS.com - *Geographic Information System* (GIS) maps to virtually examine every region.

Students may go online to <http://ph.infoplease.com/> to further explore Key Terms and issues introduced through the Core Concepts Handbook

Students may go online to myworldgeography.com Student Center Self Test to assess their own knowledge of Key Ideas and Key Terms

Title: Core Concepts 3.1 Climates and Ecosystems: Climate and Weather

Students will read and discuss Climate and Weather

myWorld Activity 3.1: Climate Campaign - Have students work in small groups to design an advertising campaign for their town or city based on regional climate. Tell students to first identify their region's climate, including temperatures and types of precipitation. Students should then use this information to create a poster encouraging people to visit the city based on activities associated with the climate. Assign roles such as marketing expert, artist, and copywriter. Have students use Activity Support: Campaign Design to complete the activity. (Verbal/Visual)

Students may complete Core Concepts 3.1 *Word Wise*: Sentence builder – Complete the sentences using the information they have learned in 3.1.

Students may write their answers to Core Concepts Lesson 3.1 Assessment Questions in their notebooks.
Check notebook answers for understanding

Title: Core Concepts 3.2 Climates and Ecosystems: Temperature

Students will read and discuss Climates and Ecosystems: Temperature

myWorld Activity 3.2: Latitudes Quiz

Students may complete Activity Support: Quiz Show preparation before beginning the quiz show. Then quiz students on characteristics of the different latitudes and hemispheres. Group students into small teams. Post a large world map that all students can see as you quiz them. Ask, If I live in Haiti, what zone or latitude do I live in? I live in the low latitudes. What are my seasons like? If it's winter in Canberra, Australia, where must it be summer?(Visual/Logical)

Students may complete Core Concepts 3.2 *Word*: Word Wise Words in Crossword Puzzle - The clues describe key terms from this section. Fill in the numbered *Across* boxes with the correct key terms. Then, do the same with the *Down* clues.

Students may write their answers to Core Concepts Lesson 3.2 Assessment Questions in their notebooks.
Check notebook answers for understanding.

Title: Core Concepts 3.3 Climates and Ecosystems: Water and Climate

Students will read and discuss Water and Climate

myWorld Activity 3.3: Evaporation Theater

Students may work in pairs to write a skit (no longer than two minutes) about a drop of water that wants to see more of the world through the water cycle. Encourage them to incorporate what they know of the different stages of the water cycle into the skit. If time allows, have partners perform their skits. Pairs should use Activity Support: Skit Planning to plan their skit. (Verbal/Kinesthetic)

Students may complete *Word Wise* Section 3.3: Word Bank – Choose one word from the word bank to fill in each blank. When you have finished, you will have a short summary of important ideas from this section.

Students may write their answers to Core Concepts Lesson 3.3 Assessment Questions in their notebooks.
Check notebook answers for understanding.

Title: Core Concepts 3.4 Climates and Ecosystems: Air Circulation and Precipitation

Students will read and discuss Air Circulation and Precipitation

myWorld Activity 3.4: How Winds Blow

Have pairs cut out the steps of the air-circulation process on Activity Support: Process Steps and, without looking at their textbooks, rearrange them in the correct order by attaching them to a new sheet of paper. Partners should then draw their own version of the diagram in the lesson to match the rearranged steps. Remind students that since the process is a cycle, any step can come first as long as the steps are in the correct order. (Logical/Visual)

Students may complete *Word Wise* 3.4: *Word Wise*: Word Wise Words in Context, write an answer that demonstrates understanding of boldfaced key terms

Students may write their answers to Core Concepts Lesson 3.4 Assessment Questions in their notebooks. Check notebook answers for understanding.

Title: Core Concepts 3.5 Climates and Ecosystems: Types of Climate

Students will read and discuss Types of Climate

myWorld Activity 3.5: Climate Recipe Cards

Tell students to create “recipe cards” for three different climate regions, using only temperature, precipitation, and wind as “ingredients.” Encourage students to use phrases like *add a dash*, *a lot of* or *a pinch* of to form their recipes. Then have students swap recipe cards with a classmate to see if they agree with each other’s ingredients. Students should use Activity Support: Recipe Record to complete the activity. (Verbal/Interpersonal)

Students may complete *Word Wise* 3.5: Word Bank – Choose one word from the word bank to fill in each blank. When you have finished, you will have a short summary of important ideas from this section.

Students may write their answers to Core Concepts Lesson 3.5 Assessment Questions in their notebooks. Check notebook answers for understanding.

Title: Core Concepts 3.6 Climates and Ecosystems: Ecosystems

Students will read and discuss Ecosystems

myWorld Activity 3.6: Ecosystems

Tell students to use what they have learned about the importance of temperature and precipitation in ecosystems to draw and label text and picture equations that explain how the climate of an ecosystem directly affects its plant and animal life. Review the sample description on Activity Support: Equation Sheet with students before they begin. (Verbal/Visual)

Students may complete *Word Wise* 3.6: *Word Wise*: Word Wise Vocabulary Quiz Show – Some quiz shows ask a question and expect the contestant to give an answer. In other shows, the contestant is given an answer and must supply. If the blank is in the question column, write the question that would result in the answer given. If the question is supplied, write the appropriate answer.

Students may write their answers to Core Concepts Lesson 3.6 Assessment Questions in their notebooks. Check notebook answers for understanding.