

An online exploration  
of the biotic  
communities of  
Arizona with an  
emphasis on  
Language Arts and  
Social Studies

# Exploring Arizona's Biotic Communities

## Lesson 5: Group Presentations

### LESSON OVERVIEW

In this lesson, students will first research an assigned biotic community and then design a visual display of their community and present it to the class.

### SUGGESTED GRADE LEVELS

- 6 – 10

### ENDURING UNDERSTANDINGS

- Arizona has a tremendous natural diversity because of the state's variety of ecosystems.
- Ecosystems, which are based on differences in soil, climate, and human and natural disturbances, can be defined on local or global scales.
- Plants and animals are adapted to survive in the environment in which they live.
- Ecosystems change over time due to natural and human events.

### OBJECTIVES

Students will:

- Use the Internet and library to research a specific biotic community.
- Describe features of their biotic community and differentiate it from others.
- Create a visual display of their biotic community.

### ARIZONA DEPARTMENT OF EDUCATION STANDARDS

Grade	Reading	Writing	Social Studies
6	S3-C1-01; S3-C1-07	S1-C5-01; S1-C5-03	S4-C2-02
7	S3-C1-01; S3-C1-08		S4-C2-01; S4-C2-02; S4-C5-03
8	S3-C1-01; S3-C1-08		S4-C5-01
9	S3-C1-05; S3-C1-08	S1-C5-01; S1-C5-02	S4-C2-01; S4-C5-05
10	S3-C1-05; S3-C1-08		

Note: The full text of these standards can be found in Appendix A.

### TIME FRAME

- 3 days (2 days for groups to plan presentations, 1 day for groups to share)



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## **MATERIALS**

- *Arizona: A Land of Many Communities* Newsletter and Rubric (one per student)
- Access to Internet and color printers or copiers
- Display board (one per group)
- Markers or colored pencils (one set per group)
- Glue sticks (one per group)
- Plant and animal cards previously created

## **TEACHER PREPARATION**

- Assign students to teams of four. Students may continue to work in the same teams they were assigned to for previous biotic community lessons.

## **SUGGESTED PROCEDURES**

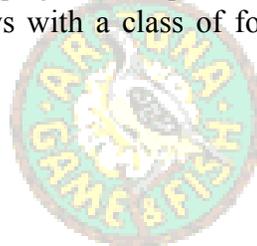
1. Give students the *Arizona: A Land of Many Communities* newsletter and rubric. Go over the requirements together.
2. Each team will prepare a visual display about their biotic community. The following should be included:
  - a. Physical Features: topography, temperature range, precipitation, and elevation
  - b. Plant life: general description of the kinds of vegetation found in the biotic community as well as detailed information about at least two specific plants
  - c. Wildlife: general description of the kinds of wildlife found in the biotic community along with detailed information about at least two animals
  - d. Changes over time: a discussion of the most critical recent changes in the area due to natural or human causes
3. Each team member will take responsibility for one of the above areas.
4. The display will include photos or sketches of the biotic community as well as the plant and animal cards made in Lesson 4 – Which Team Are You On?
5. The display will include a map of where the biotic community is located in Arizona.
6. Teams will present their displays to the class.

## **ASSESSMENT**

- Display boards using the rubric provided
- Informal evaluation of oral presentation

## **EXTENSIONS**

- Students could share their displays at an Open House or Parent Night.
- Students could share displays with a class of fourth graders who have been studying Arizona.



## **Appendix A: Arizona Department of Education Standards – Full Text**

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### **Reading Standards**

<b>Grade</b>	<b>Strand</b>	<b>Concept</b>	<b>Performance Objective</b>
6	3	1 – Expository Text	1 – Restate the main idea (explicit or implicit) and supporting details in expository text 7 – Interpret graphic features (e.g., charts, maps, diagrams, illustrations, tables, timelines, graphs) of expository text
7	3	1 – Expository Text	1 – Restate the main idea (explicit or implicit) and supporting details in expository text 8 – Interpret graphic features (e.g., charts, maps, diagrams, illustrations, tables, timelines, graphs) of expository text
8	3	1 – Expository Text	1 – Restate the main idea (explicit or implicit) and supporting details in expository text 8 – Interpret graphic features (e.g., charts, maps, diagrams, illustrations, tables, timelines, graphs) of expository text
9	3	1 – Expository Text	5 – Interpret graphic sources of information (e.g., charts, maps, diagrams, illustrations, tables, timelines, graphs) to support ideas 8 – Support conclusions drawn from ideas and concepts in expository text
10	3	1 – Expository Text	5 – Interpret graphic sources of information (e.g., charts, maps, diagrams, illustrations, tables, timelines, graphs) to support ideas 8 – Support conclusions drawn from ideas and concepts in expository text

### **Writing Standards**

<b>Grade</b>	<b>Strand</b>	<b>Concept</b>	<b>Performance Objective</b>
6, 7, 8	1	5 – Publishing	1 – Prepare writing in a format (e.g., oral presentation, manuscript, multimedia) appropriate to audience and purpose 3 – Use graphics (e.g., drawings, charts, graphs), when applicable, to enhance the final product



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### Writing Standards Continued

Grade	Strand	Concept	Performance Objective
High School	1	5 – Publishing	1 – Prepare writing that follows a format appropriate for the purpose (e.g., for display, sharing with others, or submitting to a publication). 2 – Include such techniques as principles of design (e.g., margins, tabs, spacing, and columns) and graphics (e.g., drawings, charts, graphs), when applicable, to enhance the final product

### Social Studies Standards

Grade	Strand	Concept	Performance Objective
6	4	2 – Places and Regions	2 – Describe the factors that cause regions and places to change
7	4	2 – Places and Regions	1 – Describe the human and physical characteristics of places and regions 2 – Explain the concept of regions and why they change
		5 – Environment and Society	3 – Describe how humans modify environments (e.g., conservation, deforestation, dams) and adapt to the environment
8	4	5 – Environment and Society	1 – Describe how humans modify environments (e.g., deforestation and desertification)
High School	4	2 – Places and Regions	1 – Identify the characteristics that define a region: <ul style="list-style-type: none"> <li>a. Physical processes (i.e., climate, terrain, resources)</li> <li>b. Human processes (i.e., religion, political organization, economy, demographics)</li> </ul>
		5 – Environment and Society	5 – Analyze how humans impact the diversity and productivity of ecosystems (e.g., invading non-native plants and animals)



## ***Appendix B: Worksheets and Overheads***

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The pages that follow contain the worksheets listed below:

- A. *Arizona: A Land of Many Communities* Newsletter/Scoring Rubric – A double-sided handout to introduce the narrative essay to the students (2 pages)



## Arizona: A Land of Many Communities

You are a member of a team of scientists that has been studying Arizona's biotic communities. You have been asked to create a visual display about one of Arizona's biotic communities for a group of middle school students who will be attending the International Science Fair. Most have never been to Arizona, and may hold many misconceptions about our area.

Your display should include images and information about:

**Physical Features:** topography, temperature range, precipitation, and elevation

**Plant life:** general description of the kinds of vegetation found in the biotic community as well as detailed information about at least two specific plants.

**Wildlife:** general description of the kinds of wildlife found in the biotic community along with detailed information about at least two animals.

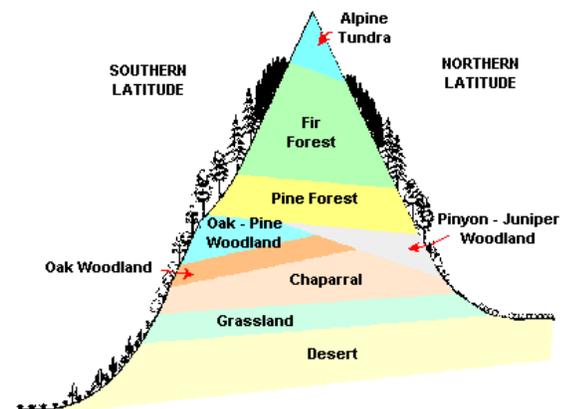
**Changes over time:** a discussion of the most critical recent changes in the area due to natural or human causes.

## Individual Responsibilities

Each team member is responsible for one of the areas: physical features, plant life, wildlife, and changes over time.

Your display should include pictures of the biotic community and the plant and animal cards team members made.

Show your biotic community's location on a map.



Group score for display elements: labels, images, layout, and neatness.

# Group Project Rubric

CATEGORY	4	3	2	1
Required Elements (INDIVIDUAL SCORE)	The report includes all required elements as well as additional information.	All required elements are included on the report.	All but 1 of the required elements are included on the report.	Several required elements were missing.
Labels (GROUP SCORE)	All items of importance are clearly labeled with labels that can be read from at least 3 ft. away.	Almost all items of importance are clearly labeled with labels that can be read from at least 3 ft. away.	Several items of importance are clearly labeled with labels that can be read from at least 3 ft. away.	Labels are too small to view OR no important items were labeled.
Attractiveness (GROUP SCORE)	The display is exceptionally attractive in terms of design, layout, and neatness.	The display is attractive in terms of design, layout and neatness.	The display is acceptably attractive though it may be a bit messy.	The display is distractingly messy or very poorly designed. It is not attractive.
Conventions (GROUP SCORE)	Spelling, grammar and punctuation are correct throughout the report.	There is 1 error in spelling, grammar or punctuation.	There are 2 errors in spelling, grammar or punctuation.	There are more than 2 errors in spelling, grammar or punctuation.