

**Lesson Plan for *Antarctica, Land of Exploration WebQuest***  
**Developed by Marianne Kaput**  
**Troy Intermediate School, Avon Lake Ohio**

*"The land looks like a fairytale."* — Amundsen (1872-1928), about Antarctica.

*"Great God! this is an awful place."* — Scott (1868-1912), referring to the South Pole.

**Grade Level: 4-7**

**Overview:** This is a WebQuest in which each student assumes a specific scientific role and researches various aspects of Antarctica using Internet resources. Each student then joins a group consisting of each type of scientist. The groups pool resources in order to prepare a comprehensive presentation or letter persuading their principal to let them go on a trip to Antarctica. This activity's goal is to provide students with background information on Antarctica from different curricular perspectives.

**National Science Standards Grades 5-8:**

[NS.5-8.1 SCIENCE AS INQUIRY](#)

[NS.5-8.3 LIFE SCIENCE](#)

[NS.5-8.6 PERSONAL AND SOCIAL PERSPECTIVES](#)

[NS.5-8.7 HISTORY AND NATURE OF SCIENCE](#)

**National Social Studies Standards:**

[NSS-G.K-12.1 THE WORLD IN SPATIAL TERMS](#)

[NSS-G.K-12.2 PLACES AND REGIONS](#)

[NSS-G.K-12.5 ENVIRONMENT AND SOCIETY](#)

**National Language Arts Standards:**

[NL-ENG.K-12.1 READING FOR PERSPECTIVE](#)

[NL-ENG.K-12.3 EVALUATION STRATEGIES](#)

[NL-ENG.K-12.4 COMMUNICATION SKILLS](#)

[NL-ENG.K-12.5 COMMUNICATION STRATEGIES](#)

[NL-ENG.K-12.12 APPLYING LANGUAGE SKILLS](#)

**National Technology Standards:**

[NT.K-12.3 TECHNOLOGY PRODUCTIVITY TOOLS:](#)

[NT.K-12.5 TECHNOLOGY RESEARCH TOOLS](#)

**Materials: Computers with Internet access, Rubrics for assessment**

**Procedure:**

1. Have students go to this web address: <http://www.kn.sbc.com/wired/fil/pages/webantarctica.html>
2. Read the introductions aloud and check for student understanding by asking for clarification of directions.
3. Divide the students into groups. Each group will contain each of the four roles. Depending on your student's individual learning needs, you may choose to have students work in pairs or as individuals in each of the roles.
4. Provide each individual with a rubric for their individual role and also for the group project.
5. Circulate to assist individuals as needed.

**Assessment:**

Rubric assessment is included for each individual as well as a group presentation/writing rubric (see next page).

**Extensions:**

Students who finish early may choose from the following activities:

- Research other scientific research teams who have visited Antarctica and find out why they went, what they were researching and who funded their trip.
- Choose a famous explorer who visited Antarctica and explain the purpose of their voyage and any other interesting information. Explorers may include: Roald Amundsen, Ernest Shackleton, Richard Byrd or Sir Edmund Hilary. Then write an obituary for the deceased explorers.
- Create a travel brochure of Antarctica enticing tourists to visit.

## Antarctica WebQuest Group Rubric

Name: \_\_\_\_\_ Teacher: \_\_\_\_\_

Date Submitted: \_\_\_\_\_ Title of Work: \_\_\_\_\_

### Introduction

4 points: All questions were answered completely and rationales for the answers **were** clearly stated.

3 points: All questions were answered completely, but rationales for the all the answers **were not** clearly stated.

2 points: Not all questions were answered completely, or greater than 2 rationales for the all answers **were not** clearly stated.

1 point: All questions **were not** answered completely.

SCORE:

### Task

4 points: All areas of the task were addressed and handled with a high degree of sophistication. The plan followed by the team demonstrated a great deal of thought.

3 points: At least one area of the task **was not** addressed. The plan followed by the team demonstrated a great deal of thought.

2 points: At least two areas of the task **were not** addressed. The plan followed by the team demonstrated a moderate level of thought.

1 point: The task is incomplete and/or it is apparent that little effort went into the development of the task.

SCORE:

### Process: Teamwork

4 points: It is evident that a mutual effort and cohesive unit created the final product.

3 points: The team worked well together, but could have utilized each other's skills to a better degree.

2 points: The team had problems working together. Little collaboration occurred.

1 point: The final product is not the result of a collaborative effort. The group showed no evidence of collaboration.

SCORE:

### Process: Originality

4 points: The ideas expressed by the body of work demonstrate a high degree of originality.

3 points: The ideas expressed by the body of work are mostly original. The group may have improved upon a previous idea.

2 points: The ideas expressed by the body of work demonstrate a low degree of originality.

1 point: There were no original ideas expressed in this project.

SCORE:

### Grammar, Format, and Spelling

4 points: The final body of work was free of grammar, spelling, and formatting errors.

3 points: The final body of work had 1 error related to grammar, spelling, and/or formatting errors.

2 points: The final body of work had 3-5 grammar, spelling, and/or formatting errors.

1 point: The final body of work had major grammar, spelling, and/or formatting errors.

SCORE:

TEACHER COMMENTS:

TOTAL SCORE:

## Antarctica Persuasive Writing Rubric

Name: \_\_\_\_\_ Teacher: \_\_\_\_\_

Date Submitted: \_\_\_\_\_ Title of Work: \_\_\_\_\_

### Position Statement

4 points: Position is clearly stated and consistently maintained. Clear references to the issue(s) are stated.

3 points: Position is clearly stated and consistently maintained. References to the issue(s) at hand are **missing**.

2 points: Position is stated, but is **not maintained consistently** throughout work.

1 point: Statement of position **cannot** be determined.

SCORE:

### Supporting Information

4 points: Evidence clearly supports the position; evidence is **sufficient**.

3 points: Evidence clearly supports the position; but there is **not enough evidence**.

2 points: Argument is supported by **limited evidence**.

1 point: Evidence is **unrelated** to argument.

SCORE:

### Organization

4 points: Structure of work is **clearly** developed.

3 points: Structure developed reasonably well, but **lacks clarity**.

2 points: Some attempt to structure the argument has been made, but the structure is **poorly developed**.

1 point: There is a **total lack** of structure.

SCORE:

### Tone Of Letter

4 points: Tone is **consistent** and enhances persuasiveness.

3 points: Tone enhances persuasiveness, but there are **inconsistencies**.

2 points: Tone **does not** contribute to persuasiveness.

1 point: Tone is **inappropriate** to purpose.

SCORE:

### Sentence Structure

4 points: Sentence structure is **correct**.

3 points: Sentence structure is generally correct. Some **awkward sentences** do appear.

2 points: Work contains structural **weaknesses and grammatical errors**.

1 point: Work **pays little attention** to proper sentence structure.

SCORE:

### Punctuation & Capitalization

4 points: Punctuation and capitalization are **correct**.

3 points: There is **one error** in punctuation and/or capitalization.

2 points: There are **two or three** errors in punctuation and/or capitalization.

1 point: There are **four or more** errors in punctuation and/or capitalization.

SCORE:

TEACHER COMMENTS:

TOTAL SCORE:

# Antarctica Presentation Rubric

Name: \_\_\_\_\_ Teacher: \_\_\_\_\_

Date of Presentation: \_\_\_\_\_ Title of Work: \_\_\_\_\_

## Organization

- 4 points: Student presents information in logical, interesting sequence which audience can follow.
- 3 points: Student presents information in logical sequence which audience can follow.
- 2 points: Audience has difficulty following presentation because student jumps around.
- 1 point: Audience cannot understand presentation because there is no sequence of information.

SCORE:

## Content Knowledge

- 4 points: Student demonstrates full knowledge (more than required) with explanations and elaboration.
- 3 points: Student is at ease with content, but fails to elaborate.
- 2 points: Student is uncomfortable with information and is able to answer only rudimentary questions.
- 1 point: Student does not have grasp of information; student cannot answer questions about subject.

SCORE:

## Visuals

- 4 points: Student used visuals to reinforce screen text and presentation.
- 3 points: Visuals related to text and presentation.
- 2 points: Student occasional used visuals that rarely support text and presentation.
- 1 point: Student used no visuals.

SCORE:

## Mechanics

- 4 points: Presentation has no misspellings or grammatical errors.
- 3 points: Presentation has no more than two misspellings and/or grammatical errors.
- 2 points: Presentation had three misspellings and/or grammatical errors.
- 1 point: Student's presentation had four or more spelling errors and/or grammatical errors.

SCORE:

## Delivery

- 4 points: Student used a clear voice and correct, precise pronunciation of terms.
- 3 points: Student's voice is clear. Student pronounces most words correctly.
- 2 points: Student incorrectly pronounces terms. Audience members have difficulty hearing presentation.
- 1 point: Student mumbles, incorrectly pronounces terms, and speaks too quietly for students in the back of class to hear.

SCORE:

TEACHER COMMENTS:

TOTAL SCORE: