

# “Lunger’s” Life – So You Like Breathing: Tuberculosis in Early Arizona History

This lesson is designed to provide students the opportunity to examine aspects of the migration to Arizona for tuberculosis treatments.

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<b>Grade Level</b>	7
<b>Duration</b>	2-3 class periods

## National Geography Standards

### ELEMENT FOUR: HUMAN SYSTEMS

9. The characteristics, distribution, and migration of human populations on earth’s surface.

## Arizona Geography Strand

### Grade 7

#### Concept 4: Human Systems

- PO 1.** Discuss the implications of the demographic structure of places and regions.
- PO 2.** Describe the push and pull factors (e.g., need for raw materials, enslavement, employment opportunities, impact of war, religious freedom, political freedom) that cause human migrations.
- PO 3.** Describe the effects of human migration (e.g., imperialism, quota system, changing of political boundaries, multiculturalism) in the U.S. and regions of the world.

## Other Arizona Standards

### Grade 7

#### Strand 1 American History

##### Concept 1: Research Skills for History

- PO 1.** Construct charts, graphs, and narratives using historical data.
- PO 2.** Interpret historical data displayed in graphs, tables, and charts.

##### Concept 7: Emergence of the Modern United States

- PO 2.** Describe how the United States was positively and negatively affected by factors and events resulting from the arrival of a large numbers of immigrants.
- PO 5.** Analyze the impact of industrialization on the United States:
- rural to urban migration
  - factory conditions
  - unions
  - influence of big businesses

### Math Common Core Standards

#### Standards for Mathematical Practice (MP)

- 7.MP.3.** Construct viable arguments and critique the reasoning of others.
- 7.MP.4.** Model with mathematics.

### ELA Common Core Standards

#### Reading Standards for Literacy in

#### History/Social Studies 6\_12

##### Key Ideas and Details

**6-8.RH.1** Cite specific textual evidence to support analysis of primary and secondary sources.

##### Integration of Knowledge and Ideas

**6-8.RH.7** Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.

##### Range of Reading and Level of Text Complexity

**6-8.RH.10** By the end of grade 8, read and comprehend history/social studies texts in the

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grades 6–8 text complexity band independently and proficiently.

### **Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6–12**

#### **Text Types and Purposes**

**6-8.WHST.1** Write arguments focused on *discipline-specific content*.

- a. Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.
- b. Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.
- c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.
- d. Establish and maintain a formal style.
- e. Provide a concluding statement or section that follows from and supports the argument presented.

#### **Production and Distribution of Writing**

**6-8.WHST.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

- a. Produce clear and coherent functional writing (e.g., formal letters, envelopes, procedures, labels, timelines, graphs/tables, experiments, maps, captions, charts, diagrams) in which the development, organization, and style are appropriate to task, purpose, and audience.

#### **Research to Build and Present Knowledge**

**6-8.WHST.9** Draw evidence from informational texts to support analysis reflection, and research.

### **Overview**

This lesson explains how the Arizona population changed during the 1900s because of migration for tuberculosis (TB) treatments. The lesson outlines living conditions, locations of population, and treatments provided. The lesson also provides historical data relating to the migration to Arizona for tuberculosis treatments. The students will make meaning of the data in relation to its historic and current value.

### **Purpose**

In this lesson students will gain a better understanding through the use of data and statistics of how the West and people's lives changed because of TB

### **Materials**

- “Lungers” reading assignment
- What Do We Know? handout
- Lungers Lab Sheet

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- Lungers Lab Sheet –Answer Key
- Lungers Rubric
- Arizona's Cities and Counties map
- Circle graph blackline
- Graph paper
- Paper, pencil
- Calculators – optional
- Colored Markers (for extension activity, avoid light colors)

### Objectives

The student will be able to:

1. Make conjectures about changes and influences on Arizona populations and from historical data.
2. Make visual representations from the data.

### Procedures

*Students should have experience with fractions, percents, and decimals.*

#### SESSION ONE

1. As a whole class, read the “Lungers” reading assignment.
2. Break children into small groups (3-4 students). Give each group the Arizona Cities and Counties map, “What Do We Know,” and “Lunger Lab Sheet.”
3. Allow students to work in groups for the rest of the period. Allow plenty of time for this portion of the activity. Provide the Lungers Rubric, so students will understand how they will be assessed.

#### SESSION TWO

1. Students should continue to create their visual representation and their letter to the Arizona Historical Society. The completion of this assignment might be given as a homework

assignment if students are not done by the 2<sup>nd</sup> session.

#### SESSION THREE

1. Have each group share their findings with the rest of the class. Have classmates grade each other and/or do the self-assessment.

### Assessment

#### Math Assessments

The Lungers Lab sheet question #2 (a-e) can be graded. Reasonable answers for 4 out of the 5 questions are considered mastery.

The visual representation should be graded according to the Lungers Rubric. Mastery is considered 10 out of the 12 points.

#### Geography Assessment

The letter to the Arizona Historical Society should contain facts relating to the statistics and the Arizona map (20 points) and why this information is important for students to know (5 points). Mastery is considered 20 points or higher.

### Extensions

1. Tuberculosis stigma may have influenced the population distribution in Arizona. Have the students consider how the people of “Lungers” cities would encourage people to move there after the epidemic had diminished. Have them create brochures that “sell” the benefits of their city.
2. Have the students color code the Arizona Cities with TB statistics map. (For instance, marking cities with the highest death rate per capita in red, and so on.)

### Sources

A special thanks to Liz Williams and Marty Huber at the Arizona CDC.

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Kay McClain at Vanderbilt University

<http://www.jantb.com/historytb1.htm>

<http://www.demog.berkeley.edu/~andrew/1918/>

<http://publichealth.lacounty.gov/tb/index.htm>

<http://www.niaid.nih.gov/news/Pages/default.aspx>

<http://www.azstarnet.com>

<http://library.columbia.edu/indiv/dsc.html>