



# What Are All the Lights? U.S. Population

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**Grade Level** 5 and 7  
**Duration** 2 class periods

## National Standards

### Element 1: The World in Spatial Terms

1. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information

2. How to use mental maps (a person's internalized picture of a part of Earth's surface) to organize information about people places, and environments in a spatial context

3. How to analyze the spatial organization of people, places, and environments on Earth's surface

### Element 4: Human Systems

9. The characteristics, distribution, and migration of human population on earth's surface.

### Element 6: The Uses of Geography

18. How to apply geography to interpret the present and plan for the future.

## AZ Standards

### ELA

#### Reading

#### Key Ideas and Details

5.RI.3 Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text, based on specific information in the text.

7.RI.3 Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).

#### Writing

#### Text Types and Purposes

5.W.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.

b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.

c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).

d. Use precise language and domain-specific vocabulary to inform about or explain the topic.

e. Provide a concluding statement or section related to the information or explanation presented.

7.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts,

## Arizona Social Science Standards

### The use of geographic representations and tools help individuals understand their world.

5.G1.1 Use and construct maps and graphs to represent changes in the United States.

Key concepts include but are not limited to physical and human features of the United States, the regions of the United States and their characteristics, geographic location of major events, the growth of the United States through territorial expansion, demographic changes, and the states and their capitals

7.G1.1 Use and construct maps and other geographic representations to explain the spatial patterns of cultural and environmental characteristics.

Key tools and representations such as maps, globes, aerial and other photos, remotely sensed images, tables, graphs, and geospatial technology

7.G1.2 Analyze various geographic representations and use geographic tools to explain relationships between the location of places and their environments.

### Examining human population and movement helps individuals understand past, present, and future conditions on Earth's surface.

7.G3.2 Analyze how relationships between

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tables), and multimedia when useful to aiding comprehension.

b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.

c. Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.

d. Use precise language and domain-specific vocabulary to inform about or explain the topic.

e. Establish and maintain a formal style.

f. Provide a concluding statement or section that follows from and supports the information or explanation presented.

humans and environments extend or contract patterns of settlement and movement.

### SLOP Elements

<p><b>Preparation</b> Adapting content <b>Linking to background</b> <b>Linking to past learning</b> Strategies use</p>	<p><b>Scaffolding</b> Modeling Guided practice Independent practice Comprehensible input</p>	<p><b>Grouping Option</b> <b>Whole class</b> Small groups <b>Partners</b> Independent</p>
<p><b>Integrating Processes</b> Reading Writing <b>Speaking</b> <b>Listening</b></p>	<p><b>Application</b> Hands on Meaningful <b>Linked to objectives</b> <b>Promotes engagement</b></p>	<p><b>Assessment</b> <b>Individual</b> <b>Group</b> <b>Written</b> Oral</p>

### Arizona ELP Standards

#### Grade 5

##### Basic

##### Speaking and Writing

Standard 3 By the end of each language proficiency level, an English learner can speak and write about grade appropriate complex literary and informational texts and topics.

B-3 compose informational text that includes details to develop a topic while using appropriate conventions.

B-5: use examples of precise language and domain-specific vocabulary within informative texts.

##### Listening, Speaking, Reading, and Writing

Standard 9 By the end of each language proficiency level, an English learner can create clear and coherent grade-appropriate speech and text.

B-1: apply understanding of how text types are organized in increasingly complex texts (e.g., how a story is organized when writing and speaking sequentially versus how an informative text is organized by topic and details versus how an opinion text is organized by opinion and supporting reasons).

B-2: apply understanding of how ideas, events, or reasons are linked throughout a text by using frequently occurring linking words and temporal words when writing and speaking.

#### Grade 7

##### Basic

##### Speaking and Writing

Standard 3 By the end of each language proficiency level, an English learner can speak and write about grade appropriate complex literary and informational texts and topics.

B-3 compose informational text that includes details to develop a topic while using appropriate conventions.

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B-5: use examples of precise language and domain-specific vocabulary within informative texts.  
Standard 9 By the end of each language proficiency level, an English learner can create clear and coherent grade-appropriate speech and text.  
B-1: introduce and present facts about an informational topic and provide a conclusion when writing and speaking.

### Overview

Our country has an uneven population distribution. Using a nighttime map, students will examine where most of the people in the United States live based on the amount of lights visible at night around the country. They will recognize the geographic features that affect this settlement.

### Purpose

In this lesson, students will use geographic tools to analyze information about the settlement populations of the United States. Students will also use cause and effect to interpret the map's meaning and write an essay. This lesson includes adaptations for diverse learners (ELLs).

### Key Vocabulary

**desert** – large land that receives little rainfall

**ocean** – great body of saltwater that covers 2/3 of the earth

**river** – a large body of fresh water that moves from higher to lower land

**mountain** – land that rises much higher than the land around it

**population** – all the people in a country

### Materials

- City Lights of the United States 2012  
[https://eoimages.gsfc.nasa.gov/images/imagerecords/79000/79800/dnb\\_united\\_states\\_lrg.jpg](https://eoimages.gsfc.nasa.gov/images/imagerecords/79000/79800/dnb_united_states_lrg.jpg)
- Physical Regions of the United States (with elevations)  
[http://geoalliance.asu.edu/sites/default/files/maps/US\\_PHYSICAL\\_REGIONS.pdf](http://geoalliance.asu.edu/sites/default/files/maps/US_PHYSICAL_REGIONS.pdf)
- Cause and Effect Worksheet
- Expository Essay Instructions
- 6 Traits Writing Rubric

### Objectives

The student will be able to:

- Write an essay interpreting the city lights of the U.S.

- Recognize how physical features affect settlement patterns.

### Procedures

*Prerequisite knowledge: students should know how to write an expository essay. Note: When the 2020 Census information is available, please use the latest map of city lights.*

#### SESSION ONE

1. Introduce the lesson by having students describe their city at night. (**Preparation: Linking to background**)
2. Project the City Lights of the United States map. Have students describe the distribution of the U.S. population using the city lights map. Where do lots of Americans live? What is attractive about this area? Where do few Americans live? What is keeping people from living here? (**Preparation: Linking to past learning, Grouping Option: Whole class, Application: Promotes engagement**)
3. Distribute the Physical Regions of the United States (with elevations) map to students. Have students look at the City Lights map and circle areas that have many city lights. (**Application: Promotes engagement**)
4. Discuss and compare how the physical features correlate with areas of densely packed lights. ( *rivers, lakes, and oceans—transportation networks and a source of water*) (*coastal areas-immigrant arrivals and shipping/trade*) (*plains—good farmland*) (*metropolitan areas—more jobs, cultural activities, transportation hubs*) (**Application: Linked to objectives**)
5. Allow students to partner and fill out the Cause and Effect Worksheet. Remind students that every action, event or effect has a cause. Discuss possible causes for population settlement. They should also be able to show relationships with geographic features and population. An example would be: Cause = Good flat farmland Effect = People settled there. Allow students to search for causes and effects on the internet: What are the effects of city lights? (**Grouping: Partners, Application: Linked to objectives**)

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6. Have students share their causes and effects with the class. (**Integrated Processes: Listening and Speaking**)

### SESSION TWO

1. Review how to write an expository essay using the Expository Essay Instructions. (**Preparation: Linking to past learning**)
2. Have students write an essay discussing several reasons for low and high-density population. Have students include geographic features that might affect the distribution of people. ELLs can work with a partner on writing the essay. (**Grouping Option: Partners, Assessment: Written, Individual, Group**)

## Assessment

### ELA and Geography

Essay should include a variety of cause and effect relationships showing they understand why people tend to settle in certain areas. Score essay with the Six-Trait Writing Rubric for Content/Ideas and Organization. Mastery will be considered a 4 or higher.

## Extensions

Students could interview several adults and ask why they live where they do. Class could then group the responses and create a graph or chart.