

UNIT 1 | COUNTING POPULATIONS

LOOK IT UP!

METHOD

Students use easy-to-find reference materials (print and online) such as almanacs, encyclopedias, atlases, and dictionaries to find data on population and the environment.

MATERIALS

- Library reference books and multi-media (World almanac, dictionary, atlas, encyclopedias)
- Student Worksheet
- Internet access

INTRODUCTION

Students can put populations in perspective by comparing the number of people who live in their city, state, country, and other places around the world. In this activity, students will gain experience finding information on population and endangered species in reference materials (print and online) and finding different points on maps, globes, and online resources, such as Google Earth.

A class trip to the school library is recommended for this activity to use printed reference books, CDs, and/or the computers with Internet access. If using the Internet primarily, students can use computers in the classroom or computer lab.

PROCEDURE

1. Distribute copies of the Student Worksheet.
2. Decide whether you would prefer for students to use printed resources in the school library, Internet reference sites, or a combination of the two.

For questions whose answers can be found in an almanac, either use a current print version on hand or direct students to www.factmonster.com, from the publishers of the Information Please Almanac.

For dictionary definitions, direct students to either use a printed dictionary or an online dictionary such as www.dictionary.com.



CONCEPT

Global, national, and local population information is within easy reach from print and online sources. Finding comparative data helps students put population numbers in perspective.

GRADE LEVEL

Upper elementary

SUBJECTS

Social Studies, Science, Language Arts, Math

OBJECTIVES

Students will be able to:

- Collect data on population and the environment using printed reference materials in the library.
- Collect data and information on population and the environment using Internet resources.

SKILLS

Using library reference materials and reference websites, conducting Internet research, reading charts and maps, drawing connections

(Note that online dictionaries do have ads and do not require students to use alphabetizing skills, as the print versions do.)

For questions on endangered species where an encyclopedia is recommended, you can use what is in your school's library (which will likely be on CD-ROM or via online subscription) or have the students use online resources. A recommended site is www.arkive.org which has images and a range of facts about many of the world's animal and plant species.

For World Atlas questions, an online alternative would be Google Earth, which can be downloaded for free or National Geographic's Kids World Atlas, www.nationalgeographic.com/kids-world-atlas.

If relying more on printed resources, you may want to confer with your school's librarian before beginning this activity with your students. He or she can give you an inventory of reference materials appropriate for your students and may help you come up with additional questions for the Student Worksheet which can be answered by looking through other reference sources. If students are not familiar with using an atlas or almanac, you may have to provide them with an orientation. Unlike an encyclopedia or dictionary, entries in the atlas and almanac are not arranged in alphabetical order. The index at the beginning of the almanac is listed alphabetically, but students will need to know which categories to look under. There are many recommended reference materials written for elementary students.

3. Divide students into pairs for locating information in the school library or working at a computer, and recording answers on their worksheets. If using reference books, allow more time for students to share these resources. Looking up the answers online will be quicker.
4. After students have completed the worksheets, go over them as a class and synthesize students' understanding of the lesson by leading them in the following Discussion Questions.

STUDENT WORKSHEET ANSWERS

Answers to Almanac Questions (as of 2012):

1. California, Texas, New York, Florida, Illinois
2. Wyoming
3. Alaska; No
4. Rhode Island; No
5. New York City; 8.2 million people
6. China, India, U.S., Indonesia, Brazil
7. Shanghai, China (17.8 million in city proper)
8. Answers will vary
9. Answers will vary

Dictionary and Encyclopedia answers will vary.

Answers to Atlas Questions:

1. Beijing; On most maps, the capital is indicated by a symbol, such as a star or double-ringed dot.



2. A number of countries contain tropical forest. The five countries with the largest amounts are in Brazil, Congo (Democratic Republic), Peru, Indonesia, and Colombia. Brazil and Indonesia are also in the top five for population size.
3. Shanghai, China has the largest population of any city. Tokyo, Japan is the most populous urban area (so either answer could be considered correct). Both cities are in Asia.

DISCUSSION QUESTIONS

1. If you had more time, which other places would you want to look up in the almanac to determine their populations? Would you prefer to live in an area of the country with more people or fewer? Why?
2. What do you think it would be like to live in the most populated city in the world? How would your daily life be different than it is now? (List some ideas on the board.)
3. What do endangered species have to do with human population numbers? Were there many endangered species on the list in the almanac which are native to our area? Can you think of ways to prevent more species from becoming endangered in our area? (List these on the board.)

Answers will vary but may include: protecting that species' habitat from development and pollution; raising public awareness about the species.

MEASURING LEARNING

Check students' worksheets to see if they used their skills to find all of the information and gauge their participation in class discussion. Have them turn in an exit slip that includes the most interesting fact that they found during their fact-finding tour of the reference materials.

FOLLOW-UP ACTIVITY

There are a growing number of features for students to explore online using Google Earth or National Geographic Kids World Atlas. The National Geographic site has a MapMaker Interactive area (http://education.nationalgeographic.com/education/mapping/interactive-map/?ar_a=1) which allows users to view the world map with different layers to show climate, land features, and population density. Now that students know which countries have the most people, they can go to this site to see a population density overlay to find those countries on the map. They can also see the Lights at Night around the world and land areas that have been most affected by human development. If a Smart Board is available in your classroom, you can view these images together in class. Point out the countries and cities that students identified as most populated on their worksheets (Answers to 1, 5, 6, and 7).

Recommended Reference Materials for Kids:

Almanacs

World Almanac for Kids
National Geographic Kids Almanac
TIME for Kids Almanac

Atlases

National Geographic World Atlas for Young Explorers (3rd grade and up)
National Geographic United States Atlas for Young Explorers (3rd grade and up)
National Geographic Kids Beginner's World Atlas (Kindergarten and up)
TIME for Kids World Atlas (2nd grade and up)

LOOK IT UP!

STUDENT WORKSHEET

Name: _____

Date: _____

Working in pairs, you will need to go on a scavenger hunt through the suggested library resources or online at www.factmonster.com to find the answers to the following questions on populations and endangered species.

WORLD ALMANAC

1. What are the five most populated states in the U.S.?

_____	_____
_____	_____

2. Which U.S. state has the fewest people? _____

3. Which state is the largest in land area? _____ Is it the same as the state with the most people? _____

4. Which state has the smallest land area? _____ Is it the same as the state with the fewest people? _____

5. Which U.S. city has the largest population? _____ How many people live there? _____

6. What are the five most populated countries in the world?

_____	_____
_____	_____

7. What is the world's largest city? _____ How many people live there? _____

8. Find the section of the almanac where "Endangered Species" are listed. List three mammals and three birds from that list.

_____	_____
_____	_____
_____	_____

9. Look at the list of endangered species again. Are any of the species listed native to the area where you live? If so, which ones?

DICTIONARY

Using a print or online dictionary, find and write down the definitions for the following words.

Endangered

Resource

Population

Habitat

ENCYCLOPEDIA

Using encyclopedias, or online resources such as www.arkive.org, find information on one of the endangered species you identified in the almanac. Write down five facts about the species, such as its habitat, range, diet, appearance, size, and/or why it is endangered.

1.

2.

3.

4.

5.

In the almanac, you identified the five most populated countries in the world. Look up one of them in the encyclopedia or online at www.factmonster.com and write down five facts about that country, such as geographical features, natural resources, climate, language(s) spoken, major exports, or anything else you find of interest.

1.

2.

3.

4.

5.

WORLD ATLAS

1. Using a printed world atlas or an online source (such as Google Earth), find the country that has the most people (from your answer to #6 under the almanac questions).

What is the country's capital city? _____

How do you know this from looking at the map?

2. Some countries contain tropical rainforests. Tropical rainforests are home to most of the world's plant and animal species and these forests help control the world's climate and help clean the air. On a topographical map (shows forests, mountains, deserts, etc.) of the world in the atlas or on Google Earth, find the countries which contain tropical rainforests.

Are any of these countries the same ones which have the most people?

If so, which ones? _____

3. Find the world's largest city in the atlas. What is the name of the city? _____

What country is it in? _____ What continent is it on? _____