

AGE: Teenagers LEVEL: Intermediate

TIME NEEDED: Approx. 90 minutes

OBJECTIVES: to create a population pyramid using class data; compare country population pyramids; practise using language related to

expressing comparisons.

KEY SKILLS: reading, speaking,

writing, listening

MATERIALS: one copy of the worksheet per

student; whiteboard; boards pens

Content focusPopulation pyramids

Warm-up: 10 minutes Activity 1: 6 minutes Activity 2: 6 minutes Activity 3: 8 minutes Activity 4: 15 minutes

Activity 5: 15 minutes (could be set as homework)

BEFORE THE LESSON

1. Draw the diagram below in the centre of the board. Complete it to include all twelve months of the year.

Girls



WARM-UP

- 2. Ask the class how they think birth months are distributed in the class. Ask the girls in the class to come to the board and write their names / initials next to the month in which they were born on the left side of the board. Then, ask the boys to do the same on the right side of the board. This creates a population pyramid based on sex and birth month.
- 3. Ask the students to see if they can find any patterns. Were more boys born in the summer months? Were there more births in the winter months?
- 4. Explain to the students that a similar approach is used to study the population patterns of countries.

ACTIVITY 1

5. Divide the students into groups of four. Ask them to brainstorm for two minutes about what population pyramids show and what they can be used for. Ask the students to read *Comparing populations* by themselves, compare it with their group's ideas, then discuss their conclusions as a group. Facilitate the groups as needed.

ACTIVITY 2

6. Ask the students to answer the questions on the worksheet related to Figure 1. Ask them to work alone, then join with their group and compare their answers.

Key

Boys

- 1. a. 1.85 million; b. 1.85 million; c. 3.85 million;
- d. 85 million
- 2. False
- 3. True
- 4. True

ACTIVITY 3

7. Divide the students into pairs. Ask the students to look at *Comparing population structures* and identify anything interesting. Share the ideas as a whole class. Write up two or three examples of the students' conclusions.

ACTIVITY 4

- 8. Ask the students to work on their own to construct some sentences comparing the population structures of Brazil and Germany at points *A*, *B* and *C* on Figure 2.
- 9. Encourage the students to use language related to comparisons. Refer the students to <u>Your CLIL:</u> <u>Comparisons: Geography</u> for useful phrases.

TEACHER'S NOTES



Comparisons: Geography by Keith Kelly

Key (suggested answers)

A. Brazil's pyramid has a broad base, which indicates a rapidly growing population, whereas Germany's pyramid has a narrow base, which indicates a slow-growing or declining population.

More of Brazil's population is under five than Germany's. B. Most of Brazil's population is in the lower part of the pyramid while more of Germany's population is in the middle to upper part of the pyramid.

C. Germany has a lower death rate than Brazil so it has a high population of people over 70.

Brazil has a younger population structure than Brazil.

ACTIVITY 5

10. Ask the students to find a current population pyramid for your / your students' country. Compare it to the UK pyramid (Figure 1; *Comparing populations*). Ask the students to write a paragraph comparing the two pyramids. Again, refer the students to <u>Your CLIL</u>: <u>Comparisons: Geography</u> for help in structuring their paragraph.



Language focus Comparisons

Activity 1: 5 minutes Activity 2: 15 minutes Activity 3: 15 minutes

ACTIVITY 1

1. Ask the students to complete the wordsearch to find the comparative and superlative forms.

Kev:

broader, broadest; faster, fastest; greater, greatest; higher, highest; lower, lowest; narrower, narrowest; older, oldest; slower, slowest; smaller, smallest; younger, youngest



ACTIVITY 2

2. Ask the students to complete the crossword. All the answers are words to do with comparisons.

Key:

Across: 2. than; 5. different; 6. more; 7. however;

8. similar

Down: 1. whereas; 3. nevertheless; 4. while; 9. less

ACTIVITY 3

3. Ask the students to choose the correct word to complete the sentences.

Key:

1. differ; 2. vary; 3. improve; 4. decline; 5. increase;

6. reduce



Content focus Population pyramids

WARM UP

Write your birth month on the board. What is the distribution of birth months in your class?

ACTIVITY 1

- a. Discuss the following question in groups of four: What is a population pyramid?
- b. On your own, read Comparing populations and look at Figure 1. How close are your ideas to the text? Share your ideas with the class.

COMPARING POPULATIONS

People who study population need to know certain things about the structure or composition of a country's population. For example, they might want to know:

- the age structure of the population the proportion of people in different age groups
- the sex structure of the population the proportion of males to females

The best way to illustrate age and sex structures is to use a diagram called a population pyramid. Figure 1 shows a population pyramid for the UK.

Population pyramids are drawn as a series of bars. The bars are laid flat, one on top of the other. The length of each bar shows the number of people in millions (or sometimes percentages of the total

population) within a certain age group. A scale near the base of the pyramid allows users to read the number or percentage. The youngest group (usually 0-4 years) is placed at the base of the pyramid. The next youngest group (usually 5-9 years) is placed on top of this, and so on, until the oldest group is placed at the top of the pyramid. The bars are divided by a vertical line. This separates males (on the left) from females (on the right).

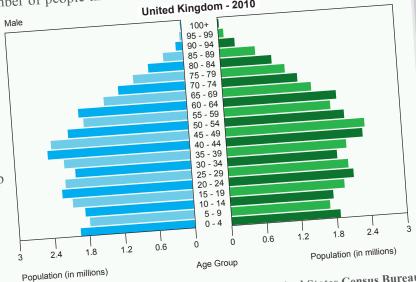


Figure 1: Population pyramid of the UK, 2010 Source: United States Census Bureau



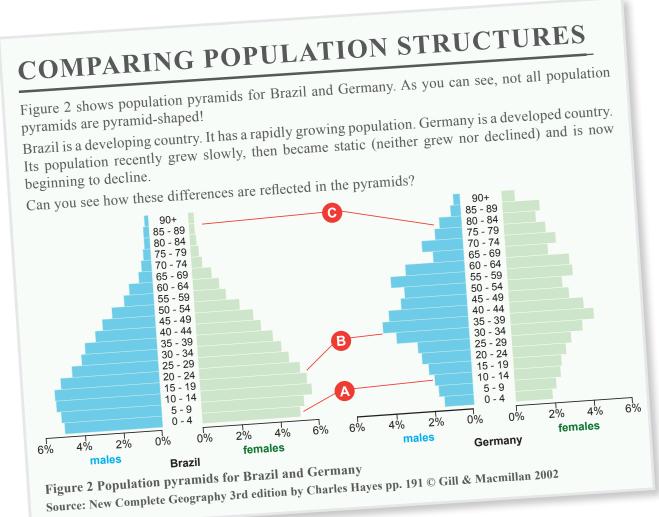
ACTIVITY 2

Working on your own, use Figure 1 to answer these questions. Hint: use a ruler to measure the bars if you're not sure!

- 1. What is the approximate population in millions for:
 - a. girls aged under 5
 - b. boys aged between 10-14
 - c. all children under 5
 - d. men aged between 60-64
- 2. There are more females aged between 40 and 44 than males. True or false?
- 3. On the whole, there are more females aged 65 and over than males. True or false?
- 4. The number of boys under 5 is greater than the number of girls. True or false?

ACTIVITY 3

In pairs, read *Comparing population structures*. Look at Figure 2. What interesting points can you see? Discuss your ideas as a pair and then share your ideas with the class.





ACTIVITY 4

Working on your own, make up some sentences comparing the population structures of Brazil and Germany at the points marked *A*, *B* and *C* on Figure 2.

Brazil has *more* people who ...

More of Germany's population is ...

Brazil's population is ... compared to Germany's population which is ...

Brazil ... whereas Germany ...

Brazil ... while Germany ...

ACTIVITY 5

Use the internet or textbooks to find a current population pyramid for your country. Compare it to the UK pyramid (Figure 1 *Comparing populations*). Then, write a paragraph comparing the two pyramids.



Language focus Comparisons

ACTIVITY 1

Complete the wordsearch and find the comparative and superlative forms of the adjectives.

S	P	U	N	Е	Υ	U	Υ	G	Z	С	R	Е	A	F	J	
S	F	Е	L	Н	0	Е	W	A	0	A	0	Е	D	G	Т	
M	K	W	Т	0	Ι	S	Ι	A	F	D	G	Ι	A	S	Т	broad
D	A	Q	0	S	W	G	R	S	M	A	L	L	Е	S	Т	fast
1	Ε	Ε	R	J	Н	Е	Н	Т	U	F	S	D	Е	X	Т	great
Α	N	V	K	P	W	Е	R	Е	W	R	L	Т	I	S	A	high
K	В	S	Ε	0	Е	0	W	В	R	0	A	D	Ε	S	Т	low
С	I	R	L	Е	F	Н	0	L	D	Е	R	G	В	S	Υ	narrow
F	M	S	0	0	K	1	В	G	R	1	Ν	Ε	Ε	M	Т	
Т	R	S	W	Α	K	G	Ε	G	R	U	Ε	W	S	Α	G	old
Υ	K	X	Ε	K	D	Н	V	R	0	Е	0	С	L	L	D	slow
R	R	N	S	ī	0	Е	L	Υ	0	R	Α	W	0	L	Α	small
F	A	S	Т	E	R	S	R	Н	R	Z	ī	Т	W	Е	S	young
L	С	N	Υ	Α	Е	Т	N	Α	R	R	0	W	Е	R	М	
M	X	M	N	Υ	0	U	N	G	Е	R	٧	S	S	R	G	
R	D	K	J	A	G	N	ı	W	ı	S	A	I	Т	Ε	V	

ACTIVITY 2

Complete the crossword. All the answers are words associated with comparisons.

Across							
2. As melted rock is lighte	er	solid rock, it moves its way upwards to the surfac					
through the buckled and t	folded rock layers.						
5. Describe how this settl	ement is	from settlements in other areas.					
6. The	independent south	ern countries become, the more prosperous they are					
likely to be.							
7. The world's population	is growing rapidly	, the growth rates vary greatly					
between poor, industrially	undeveloped count	ries and rich, industrially developed countries.					
8 Mudflows are	to had hi	rete					



Down	
1. Waves that erode are sometimes called 'destructive' waves,	waves that deposit
are sometimes referred to as 'constructive' waves.	
3. People in Brazil are living longer, most of Brazil's	population is in the lower part
of the pyramid.	
4. Some occupations in services are dominated by men	other services are
dominated by women.	
9. Many women are employed in light industry, but lots still earn	than men.

			¹ W						
		² T		³ N					
	⁴ W								
⁵ D									
		0							
		^{6}M							
		7	ı			ı			
		⁷ H							
				0			0		
				⁸ S			⁹ L		

ACTIVITY 3

Choose the right comparison word to complete the sentences. The first one has been completed for you.

	improve	increase	reduce	differ	vary	decline
1.	How do the photog glaciated valley?	raph and the ma	o <u>differ</u>	in the way	they represe	nt this
	Individual streets n As food supplies a more children.	,		, more people	e will live long	enough to have
5.	When a country be Better health care High child mortality	services could	t		of the over 7	•