## Lesson 8 <br> How much? <br> A math lesson using newspaper ads

Target Audience
This lesson is designed for secondary students with an intermediate to advanced level of English proficiency. It could be used in an ELL classroom or mainstream classroom.

Lesson Objectives: The students will:

1. do online/newspaper/experiential research to find and compare the prices for various goods, past to present and worldwide
2. discuss why prices vary so dramatically
3. calculate percent increase for data collected
4. read/interpret charts to make comparisons and draw conclusions
5. compare wages past to present and worldwide
6. using newspaper ads, calculate wages for a job of their choosing as well as rent for an apartment and make a judgment about the affordability of their chosen apartment with their chosen job that they can verify by their calculations

## Materials

Newspaper ads, "Then and Now: Prices" worksheet, computer access, "A World of Difference-An Updated Look at Cost of Living Around the Globe" handout, "Around the World: Prices Worksheet", overhead or whiteboard

## Vocabulary/ Math concepts

Percent increase, compare, most expensive, least expensive, reading/interpreting charts, wages, rent, average, annual
(These will already be familiar to the students. The activity is designed to practice cumulative skills in a real-life context.)

## Procedure

1. Distribute "Then and Now: Prices Worksheet". Students will be assigned a year and go to dMarie Time Capsule online to find the price of bread, milk, eggs, car, gas, house, stamp, and average income for that year. Together they will then construct a class chart on the overhead for price comparison. Follow this with a discussion of why prices differ so dramatically. Using the price of say, bread, ask pairs to determine what
percentage of increase is represented by their figures compared to the present price. Report those findings to the class.
2. Next distribute "A World of Difference-An Updated Look at Cost of Living Around the Globe" handout. Ask students: "Of the countries represented, which would be the most expensive/least expensive place to live?" "How does the United State compare?" Students have to examine the data represented in chart to draw their conclusions.
3. To further compare prices around the world, create a class chart comparing the prices of items, with students reporting the cost in their native countries. For the U.S. column, they may actually use newspaper ads to find correct prices. (For the other countries, you can rely on the students' experiential knowledge or use online resources.) Ask: "Do our informal results concur with the findings of the previous survey? Why do you think prices vary so much worldwide?
4. As a class, also compare wages then and now and wages worldwide for basic occupations such as manufacturing/production worker, cook, doctor, accountant, teacher, etc. Discuss how wages must increase as prices increase to insure affordability.
5. To make these concepts even more applicable to students' real world, have students work in pairs to complete the task that follows. The instructor may want to model how to complete the task and do the necessary calculations as a review.

Read the Help Wanted ads, find a job (preferably one you're interested in) that lists a salary, and calculate the following: hourly wage, daily wage, weekly wage, monthly wage, and annual wage. Please show your work. Next select an apartment listed in the classified ads for rent. Compute the total rent for a year. Based on your calculations (and assuming that no more than $30 \%$ of your wages should be spent on housing), determine whether or not a person holding the job listed in your ad could afford the apartment you have chosen. Defend your answer.

## Accommodations

## Resources

Relocation Journal-An Updated Look at Cost of Living Around the Globe DMarie Time Capsule
BBHQ: Prices-What Things Cost
Then and Now: Prices from the Michigan Historical Museum

## Then and Now: Prices Worksheet

Choose a year and go to dMarie Time Capsule online to find the following data for that year. We will complete the chart together afterward.

## Item <br> 1968

Bread
Milk
Eggs
Car

Gas
House $\quad \$ 26,600$
Stamp $\quad \$ 0.06$
Avg. income $\quad \$ 9,670 / \mathrm{yr}$

Then and Now: Prices

|  | Item | 1932 |
| :--- | :--- | :--- |
|  | 1962 | 2003 |
| Candy bar | .05 | .60 |
| Soft drink | .10 | .75 |
| Movie ticket | .50 | 6.00 |
| Music Album | 3.00 | 16.00 |
| Gallon of gas | .31 | 1.50 |
| Postage stamp | .04 | .37 |
| Doctor's office visit | 5.00 | 60.00 |
| New car | $15,500.00$ | 21,000 |
| New home | 6,000 | 145,000 |
| Median family income |  | 55,000 |

