Objective: Students will be able to:

- Describe how a price index is constructed and used.
- Explain that an increase in the price level indicates inflation while a decrease in the price level indicates deflation.
- Make observations on changes in the cost of going to a ballgame using the Fan Cost Index.

Time Required: 1 class period

Materials Needed:
- Printed copies of the Fan Cost Index 2011 and Fan Cost Index 2010 for all students (found at the websites listed below)
- Printed copies of the Fan Cost Index Worksheets for all students (included)

Sources:

Vocabulary:
**Consumer Price Index (CPI)** - A price index that measures the cost of a fixed basket of consumer goods and services and compares the cost of this basket in one time period with its cost in some base period. Changes in the CPI are used to measure inflation.

**Deflation** - A sustained decrease in the average price level of all the goods and services produced in the economy.

**Inflation** - A rise in the general or average price level of all the goods and services produced in the economy.

**Market Basket** - A selected group of goods and services.

**Price Stability** - The absence of inflation or deflation; a broad social goal and criterion for measuring the performance of an economic system.
Applicable Common Core State Standards:

**CCSS.ELA-Literacy.W.9-10.2, W.11-12.2** Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

**CCSS.ELA-Literacy.W.9-10.4, W.11-12.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

**CCSS.Math.Content.HSS-IC.B.6** Evaluate reports based on data.
1. Open this lesson by engaging students with some general questions. Let’s say you’re going out to dinner and a movie with some of your friends. How much does it cost to buy a whole pizza? How much does it cost to buy a movie ticket? Now think back to a few years ago. How have prices changed? What about technology items like computers, game consoles, and mp3 players? How have the prices of those items changed? Why?

2. Review that prices of almost all goods and services change from year to year. Sometimes, the changes are so small, we don’t even notice. Other times, especially during years of economic trouble, prices change dramatically and everyone notices. You have probably heard reporters say things like, “Prices have risen 5 percent since 2010.” Where does the data come from? What does this mean?

3. Explain that the Bureau of Labor Statistics (BLS) keeps track of how prices change from month to month. They do this by having about 7,000 families in the U.S. write down everything they spend their money on throughout the year. This includes everything from quarters in a parking meter to airfare for the whole family to fly to Disney World. The Bureau of Labor Statistics collects all the expense information from these families, and then puts everything people listed into categories:

- **FOOD AND BEVERAGES** (cereal, milk, coffee, restaurant meals, snacks)
- **HOUSING** (rent, electricity, fuel oil, furniture)
- **APPAREL** (shirts, shoes, coats, jewelry)
- **TRANSPORTATION** (new vehicles, airline fares, gasoline, car insurance)
- **MEDICAL CARE** (prescription drugs and medical supplies, physicians' services, eyeglasses, hospital services)
- **RECREATION** (televisions, toys, pets and pet products, sports equipment, admissions)
- **EDUCATION AND COMMUNICATION** (college tuition, postage, telephone services, computer software and accessories)
- **OTHER GOODS AND SERVICES** (tobacco products, haircuts and other personal services, funeral expenses).
4. From this master list, the BLS chooses 400 items that represent what the “typical family” buys. These 400 items are referred to as a **market basket** - a group of goods and services.

5. Explain that each month, the BLS puts all of its new data into The Consumer Price Index, also known as the CPI. The CPI measures the monthly change in the cost of the items included in the market basket.

6. We can look at the annual CPI measurements from 2011 and 2012 (or any other set of years) to determine the rate of **inflation** or **deflation**.

7. Discuss that a price index can be created with almost any collection of goods and services. A company called Team Marketing tracks the average cost for a family of four to attend major league sporting events. The data the company compiles is put into The Fan Cost Index (FCI). The market basket for the FCI includes: 2 adult average-price tickets, 2 child average-price tickets, 2 small draft beers, 4 small soft drinks, 4 regular hot dogs, parking for 1 car, 2 game programs, and 2 adult-size souvenir caps. These prices are tracked at every major league stadium around the country.

8. Introduce the activity.
1. To begin this activity, discuss that looking at changes in the Fan Cost Index won’t tell us the rate of inflation or deflation like the Consumer Price Index does. It will, however, tell us how the cost of this type of entertainment has changed over time. We can also use the FCI to compare the cost of going to games at different stadiums.

2. Pass out the Fan Cost Index pages from Team Marketing for 2010 and 2011.

3. Have the students each choose a different team (or assign them to a team).

4. Pass out the Fan Cost Index worksheets.

5. Have students use the data from the Team Marketing pages to find or calculate the prices for each of the market basket items for both the 2010 and 2011 seasons. Their findings should be recorded on the Fan Cost Index Worksheet.

6. Then have students calculate the amount of change between the cost of the 2010 FCI and 2011 FCI.

7. Have students compare their findings. Discuss the following questions: Do prices generally increase or decrease at stadiums? At which stadium is the Fan Cost Index the least expensive for a fan? At which stadium is the FCI the most expensive? Did either the least expensive stadium or most expensive stadium change from 2010 to 2011? If so, how?

**Conclusion**
Once students have calculated the Fan Cost Index prices for 2010 and 2011, and discovered if there was an increase or decrease in prices overall, have each student write a news release similar to that of the Team Marketing Report.
Name: _______________________

**Fan Cost Index Worksheet**

<table>
<thead>
<tr>
<th>MARKET BASKET ITEMS:</th>
<th>2010</th>
<th>2011</th>
<th>Amt. of Change</th>
</tr>
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<tbody>
<tr>
<td>2 adult tickets</td>
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<tr>
<td>2 child tickets</td>
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<td>2 small draft beers</td>
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<td>4 small soft drinks</td>
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<td>4 regular hot dogs</td>
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<tr>
<td>Parking</td>
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<td>2 adult-sized souvenir caps</td>
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Fan Cost Index Total
