

Project Title: Cell Phone Usage**Materials Needed:**

Calculator / Internet Access / Paper / Pen or Pencil

**Introduction – Background Information**

Everyone knows cell phones continue to gain in popularity. According to **CTIA: The Wireless Association®**, there were 322.8 million wireless subscribers in June 2011. This is up from 219.6 million in June 2006.

Analyze Change**Wireless Subscribers**

Using the information from the introduction, calculate the Amount of Change and the Percent of Change in number of wireless subscribers using the following formulas:

Amount of Change = New Value – Earlier Value

Percent of Change = $\frac{\text{Amount of Change}}{\text{Earlier Value}}$

Text Messaging

According to the same website, there were 196.9 billion text messages sent monthly in 2011. Using the number of wireless subscribers above, calculate the average number of SMS (Short Message Service) texts per wireless subscriber.

According to the same website, there were 12.5 billion text messages per month sent in 2006. Calculate the average number of texts per wireless subscriber in 2006. Then find the Amount of Change and Percent of Change for the number of text messages sent from 2006 to 2011.

Project Title: Cell Phone Usage

Materials Needed:

Calculator / Internet Access / Paper / Pen or Pencil

The Project Includes the Following Subject Areas and Topics:

Business – Communication, Computation, Information Technology
English Language Arts – Reading, Writing, Literacy in History/Social Studies
Mathematics – Mathematical Practices, Number and Quantity, Statistics and Probability
Social Studies – Science, Technology and Society

Student Assignments:

Introduction – Background Information
Analyze Change

- Wireless Subscribers
- Text Messaging

Teacher Notes

In addition to the calculations related to change in this project, search “**Wireless Quick Facts**” for other data on usage. The statistics reported provide a rich resource for additional analysis. Students will likely be interested in the volume of wireless activity. In addition, they will gain experience in finding specific data in an industry report that also includes connections with the broader economy.

Consider asking students to gather information from their peers regarding their own text messaging patterns to compare with the industry statistics.

Answers

Wireless Subscribers

2006-2011 Amount of Change: $322,800,000 - 219,600,000 =$
103,200,000 subscriber increase

Percent of Change: $103,200,000 \div 219,600,000 =$ **47% increase**

Text Messaging

2011 Texts per Subscriber: $196,900,000,000 \div 322,800,000 =$
610 texts per subscriber per month

2006 Texts per Subscriber: $9,800,000,000 \div 207,900,000 =$
57 texts per subscriber per month

Amount of Change: $196,900,000,000 - 12,500,000,000 =$
184,400,000,000 texts increase

Percent of Change: $184,400,000,000 \div 12,500,000,000 =$ **1,475% increase**