

# Resource Page: Statistical Reasoning

## General Outcome

### Specific Outcomes

#### 1. Demonstrate an understanding of normal distribution, including:

- standard deviation • z-scores. [CN, PS, T, V] [ICT: C6–4.1, C7–4.2]

#### 2. Interpret statistical data, using:

- confidence intervals
- confidence levels
- margin of error

## Lesson 1: Exploring Data

**Absolute Value Workbook: Statistics: Lesson 1 -- Pages 199 - 208**

### Video Links:

- [Average or Central Tendency: Arithmetic Mean, Median, and Mode](#)
- <http://youtu.be/279Z3xBNMoY>
- <http://youtu.be/Lu09pTqgiqg>

## Lesson 2: Frequency Tables, Histograms, and Frequency Polygons

**Absolute Value Workbook: Statistics: Lesson 1 -- Pages 199 - 208**

### Lesson 3: Standard Deviation

Absolute Value Workbook: Statistics: Lesson 2 -- Pages 209 - 218

#### Lesson Links:

- [Name 3 ways that you can use standard deviation in the real world?](#) Blog discussing real world applications of standard deviation.
- [Math is Fun](#) -- Website on Standard Deviation and Variance
- [Wiki How to Do Anything](#) -- Website with Visuals on how to calculate standard deviation on the calculator and with EXCEL
- [Sophia Webpage](#) -- Defines Standard Deviation and shares some real life applications

#### Video Links:

- [Algebra II: Mean and Standard Deviation](#)
- <http://youtu.be/GUwGfzKwZ0g>
- <http://youtu.be/DMOXzwC2vzg>

### Lesson 4: The Normal Distribution

Absolute Value Workbook: Statistics: Lesson 3 -- Pages 219 - 230

#### Video Links:

- <http://youtu.be/2fCSBIFyTdE>
- <http://youtu.be/4uiJoYVPmMw>
- <http://youtu.be/2fzYE-Emar0>
- <http://youtu.be/OhRr26AfFBU>
- <http://youtu.be/79duxPXpyKQ>

## Lesson 5: Z-Scores

Absolute Value Workbook: Statistics: Lesson 4 - 6 -- Pages 231 - 250

### Video Links:

- <http://youtu.be/QBz5YrEcmo0>
- <http://youtu.be/c1WU6Qgw9xc>
- <http://youtu.be/y6sbghmHwQA>
- <http://youtu.be/Wp2nVlzBsE8>
- <http://youtu.be/Msyto4gMoh8>
- <http://youtu.be/xUNaiWz1E8k>
- <http://youtu.be/ro2U2Ld1d84>

## Lesson 6: Confidence Intervals

Absolute Value Workbook: Statistics: Lesson 7 -- Pages 251 - 264

### Video Links:

- <http://youtu.be/taEmnrTxuzo>