H5713a  **What Is Statistics?**  30 min.  
Explains how this field of study evolved and what it does and does not do.

H5713b  **Picturing Distributions**  30 min.  
Constructs stemplots and histograms and explains the importance of pattern deviation.

H5714a  **Describing Distributions**  30 min.  
Examines the difference between mean and median and explains quartiles, box-plots, interquartile range, and standard deviation.

H5714b  **Normal Distributions**  30 min.  
Shows the progression from histogram to a single normal curve for standard measurement.

H5715a  **Normal Calculations**  30 min.  
Uses emission standards and cholesterol studies to provide examples of normal calculations at work.

H5715b  **Time Series**  30 min.  
Explains how statistics identify patterns over time, answering questions about stability and change, as seen in the stock market.

H5716a  **Models for Growth**  30 min.  
Topics include linear growth, least squares, exponential growth, and straightening an exponential growth curve by logic.

H5716b  **Describing Relationships**  30 min.  
Covers scatterplots, smoothing scatterplots of response versus explanatory variables by median trace, and least squares regression lines.

H5717a  **Correlation**  30 min.  
Explains how to derive and interpret the correlation coefficient using the relationship between a baseball player’s salary and his home run statistics.

H5717b  **Multidimensional Data Analysis**  30 min.  
Recaps the data analysis by showing by showing computing technology at Bell Communications Research.

H5718a  **The Question of Causation**  30 min.  
Examines the relationship between smoking and lung cancer and illustrates Simpson’s paradox using a study of admissions data.

H5718b  **Experimental Design**  30 min.  
Explains the difference between observational studies and experiments and discusses the basic principles of design including comparison, randomization, and replication.