Objective(s) of the lesson:
(What the students will learn and know):
Students will be able to create a scale model of the high school using ratios and proportions.

Standard: 8.M.1 Select, convert (within the same system of measurement), and use appropriate units of measurement or scale

8.M.2 Given the formulas, convert from one system of measurement to another. Use technology as appropriate.

8.N.3 Ratios and proportions in solving scale factors and unit rates

8.M.3 Demonstrate an understanding of the concepts and apply formulas and procedures for determining measures, including those of area and perimeter

8.D.3 Find, describe, and interpret appropriate measures of central tendency (mean, median, mode and range) that represent a set of data

Key Vocabulary:
Measure, foot, inch, yard, centimeter, unit, conversion

Materials: foam board, exactor knives, tape, clue, photo paper, camera, pencils, rulers, calculators.

Correlating Book and Chapter:
Activities that address the objectives: (What the students will do)
1. Students will use the data collected during “Taking a Step into the Future” to create a scale model representation of the high school.
2. Students will work in groups to create the scale model out of foam board after taking the measurements and converting them into proper scales using ratios and proportions.
3. A small group of students will also be taken outside to take photos of the building to then print out and cut down to be placed on the outside of the scale model.
4. At the same time, other groups of students will work on the poster representations of the measurement conversions of the high school data, the proportion of how many steps it is from the middle school to the high school, or the measurement conversions of the distance data between the middle school and the high school.
5. The final products will be presented at the closing ceremony.
**Assessment(s): (How the students will know if they have done a good job in meeting the objectives)**

Students will be assessed on their measurement calculations of the distances between the front door and the sidewalk, the appropriate use of technology to determine the distance from the middle school, the completion of the conversion chart, as shown in the poster display of all the calculations. Students will also be assessed on the final scale representation of the high school.

**Homework/ Reinforcement:**