

Chapter 14 Lesson Plan

Production

Chapter Resources		
Textbook Activity	Teacher CD	Online Learning Center
Assemble an Assembly Line Set up and run an assembly line.	Lesson Plan Flash® Presentation <i>ExamView®</i> Chapter Test	Chapter Activities Chapter Quizzes

FOCUS

Chapter 14 tells about the process of producing a product, including procedures such as inventory control and quality assurance.

Objectives

- Explain the difference between components and assemblies.
- List the purposes of packaging.
- Describe how production and product quality are controlled.
- Explain how inventory is controlled.

Tying to Previous Knowledge

Select an object from the classroom and ask the students how they think it may have been manufactured. Try to list the steps as they are suggested. (Ordering the list can be a separate assignment.) Afterward, summarize how the manufacturing process may have occurred.

TEACH

1. **Quality control.** If your students are producing products, help them design a quality control system to assure that they produce the best possible products. Discuss prevention and detection of defects and, as a class, decide whether the students will need one or both of these methods. Define roles and goals of the quality assurance team.
2. **Inventory.** Suggest to the class how the supplies ordered by teachers are inventoried. How does a teacher know how much of a supply is left from the last year? How are supplies accounted for as they are delivered?
3. **Assembly.** Acquire a good amount of machine screws (not too small) and compatible nuts and washers to fit onto the screws. Lay them out and have the students assemble into sets one screw, washer, and nut. Point out that after a little practice, the operation can almost be done without even looking (that is, without much effort). Efficient assembly is a hallmark of mass production. Discuss how the completed set can be thought of as an assembly of individual components or parts.

Chapter 14 Lesson Plan

Production (continued)

4. **Demonstration.** Select a product and ask the class to design some sort of objective test or testing device to see if the product is working satisfactorily (or assembled correctly). Suggest that this would be a form of quality control.

ASSESS

Have students complete Chapter Test 14. Chapter tests are found in the *ExamView*® Assessment Suite on this Teacher Resource CD-ROM.

Reteach

1. Stretch out a container, such as an empty cereal box, onto a flat surface. Show the class the stretchout (or pattern) with the inside surface towards them so as not to see any labeling. Ask them what the shape of the box will be when folded or assembled, and what might have been packaged in it.
2. Prepare a schedule of class activities for a week in advance (such as lesson plans). Show it to the class after the week has passed. Everyone should look at it and decide what things changed and what was done essentially as originally planned. Discuss how production schedules are also subject to change.

Enrich

1. Ask the class to evaluate the “measure twice, cut once” advice as it relates to production.
2. Ask the class to evaluate the saying “a stitch in time saves nine (stitches).” Why would this be good advice for a production manager?

REFLECT

Production is like any other undertaking—preparation and experience are of great value. The planning that is needed to successfully manufacture, assemble, package, and ship a quality product is extensive and demanding. Ask the class to describe from personal experience one undertaking that required careful preparation.