# Pharmacology





#### Description

In this curriculum, students are introduced to both the therapeutic and research and design aspects of pharmacology. Students explore proper drug administration, common adverse effects, and various types of drugs. Students discover the history of pharmacology and drug regulations. Students also practice methods to reduce drug errors such as proper reading and writing of prescriptions and drug labels. Through the completion of the this curriculum, students gain insight into principles, techniques, and practices related to Pharmacology.

#### Skills

- Interpret insurance cards.
- · Identify proper steps for online adjudication.
- Demonstrate proper steps for completing mathematical equations related to pharmacology.
- Practice counseling procedures for over-the-counter (OTC) products.
- · Complete mathematical equations using Clark's Rule, Young's Rule, and the alligation method.
- Read and interpret prescriptions for proper labeling.
- Review fractions, decimal numbers, ratios, and proportions.
- Practice proper dispensing techniques.
- Identify SIG and DAW codes.
- Identify parts of a Drug Facts label.

# Knowledge

- · Identify the roles and responsibilities of a pharmacist and a pharmacy technician.
- Identify types of managed care programs.
- · Discuss FDA regulation of prescription and non-prescription drugs.
- · Discuss how germs invade the body.
- · Identify types of public health insurance.
- · Discuss how drugs fight disease and quell infection.
- Discuss administration routes and dosage forms for each.
- · Identify factors that affect drug action.

#### Activities

- · Activity 1 Introduction
- Activity 2 Pathogens and Disease
- Activity 3 Drug Classifications
- Activity 4 OTC Drugs and Medical Supplies
- Activity 5 Pharmacy Technician Responsibilities
- Activity 6 The Dispensing Process
- Activity 7 Pharmacy Calculations and Measurements
- Activity 8 Insurance and Payment Process
- Activity 9 Dispensing Practice
- Activity 10 Post-Test and Wrap-Up
- Activity 11 Bonus Activities
- Activity 12 Challenge
- Activity 13 Open-Ended Challenge
- Activity 14 Careers
- Activity 15 Job Shadow

# Standards

National Health Science Standards

#### Module Includes:

Student Workbook, Instructor's Manual, Installation CD, Bowl, Cake Pan, Chemical Splash Goggles, Chemplates, Cooking Thermometer, Ethanol, Flatware Set, Funnel, Glass Liquid Measuring Cup, Headphones, Hot Pad, Hydrochloric Acid, Iron Chloride, Mini Storage, Mixing Bowl, Mortar and Pestle, pH Strips, Pill Counting Tray and Spatula, Pipettes, Sauce Pan, Single Burner Hot Plate, Skills Cart, Slotted Spoon, Surgical Gloves, Surgical Gown, Teaspoon, Tray, 20 Dram Amber Vial, 13 Dram Green Vial, 6 Dram Blue Vial, 2 Liter Soda Bottle, White Stock Bottle, miscellaneous materials and consumables

Computer is required and sold separately.

Optional: Mini Fridge

# Requirements

Computer is required and sold separately.

# **Curriculum Specifications**

Instructions to download the recommended pharmacy simulation application is included in the curriculum.

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