OTC MEDICATIONS

OUTCOMES

A better way to become a safe, informed consumer is to read and understand the information on OTC labels.

OBJECTIVES

Students will

- Use medical terminology and complete a vocabulary study.
- Pay close attention to labels and directions and determine what to keep in their medicine cabinets.
- Discover the differences and similarities between prescription drugs and over-the-counter drugs.
- Decide if medications are appropriate for their use in order to be safe.
- Understand possible side-effects associated with over-the-counter drugs.

TECHNOLOGY INTEGRATION

The new drug facts labels http://www.bemedwise.com/label/label.htm

What's Right for You? Brochure http://www.fda.gov/cder/consumerinfo/WhatsRightForYou.htm#open

MATERIALS

Over-the-counter medication labels

Empty bottles/boxes, directions

Forms of Medication pictures

Compare/Contrast OTC and Rx

What Does the Label Tell Us? Resource

Correct Dosages Handout

LEARNER PRIOR KNOWLEDGE

List products or items students have in their homes which they consider medicine. Organize their list of medications into groups using the *Forms of Medication* pictures.

Procedures

1. What's OTC? As a large group, compare and contrast Over-the-Counter (OTC) and Prescription (Rx) Medications using the handout with the Venn diagram. Depending on reading levels of this group, the teacher or students may want to read the paragraphs aloud. Students can practice reading silently first.

2. Bring in labels from different over-the-counter drugs such as Tylenol, aspirin, Excedrin, cough syrup, vitamins, and others. Divide students into small groups of 3 or 4. Provide them with several labels to compare and contrast. Look at the labels and see if there is acetaminophen on it. Identify other common ingredients in the medications. The group may need to study vocabulary terms and practice building medicine terminology before continuing. Each group can list unfamiliar terms and then group into types - ingredients, dosing directions, etc. Find common terms and guide group through dictionary use to determine definitions.

Debrief the activity by making a list of those drugs that contain acetaminophen in them. Also list other common ingredients and what types of medications they are most found in. What drugs contain acetaminophen? What other common ingredients did you find in medications (decongestant, antihistamine)? Do all medications for colds, headaches, etc. contain similar products? What conclusions can you draw from knowing this information?

3. Practice reading and understanding medicine labels and instructions. Using the *What Does the Label Tell Us?* Resource, work through each of the categories that would be included in the packaging.

Help students understand medication directions by completing *Correct Dosages* handout. Use measuring spoons and other appropriate implements to have class practice measurements according to package instructions.

4. For additional practice or as an evaluation, students can work through the online activity *Taking Medicines Responsibly* at http://www.tv411.org/lessons/cfm/learning.cfm?str=learning&num=12&act=1

5. Have a discussion about what to keep in your medicine cabinet, using http://www.thebeehive.org/HEALTH/MEDICINE_CABINET/keep-in-medicine-cabinet.asp as a resource. Just like food, medicines expire. Check the dates on boxes and bottles of over-the-counter medicines and prescription drugs. The expiration date tells you when the drug "goes bad" or loses its powerful effect. If you don't see an expiration date, ask the pharmacist to point it out. Some drugs last longer than the expiration date, but ask the doctor, pharmacist, or health care professional to be sure. Look through your medicine cabinet at least every three months. Throw out anything that's past the expiration date.

6. Conclude the lesson with a group discussion of the dangers of mishandling medications. Facilitate the discussion by proposing topics of interest:

- Storing medication out of children's reach and according to package instructions
- Dispensing outdated medication
- Use of prescription medications by someone other than person prescribed
- Taking drugs during pregnancy and breast-feeding
- Drug interactions

Extension

Students can read the *What's Right for You?* brochure to generate additional topics for further discussion.

Evaluation

Venn diagram

Correct Dosages comprehension questions

Taking Medicines Responsibly online activity

The teacher is very explicit about strategy instruction as they work through these activities. Students may be unfamiliar with using graphic organizers as a tool.

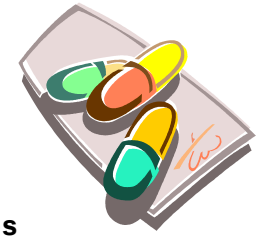
By using actual labels and directions, students are able to read and understand medications that they use in their everyday lives.

The Venn diagram is an excellent example of how to scaffold student learning.

Forms of Medication


Cream

Liquid


Capsules


Spray

Tablets

Drops

Over-The-Counter Medications (OTC)
http://www.thebeehive.org/health/medicine_cabinet/over-the-counter-medications.asp

What's Over-The-Counter Medication?
You can walk into any drugstore or grocery store and buy over-the-counter (OTC) medicines right off the shelf. Aspirin, cold medicine, and healing creams are some common OTCs.

You can take these medicines for less serious conditions, and they're safe to use if you follow the directions carefully. There are usually lots of different types to choose from, so feel free to talk to the pharmacist about what you should buy, how to take the medication, or ask any other questions.

What are some common OTCs?
Before buying any OTCs, compare the ingredients listed on the package. If the ingredients for brand names and generics are the same, you can save money on the generics. Here's a list of some of the most common OTCs.

- Pain relievers (Ibuprofen)
- Fever Reducers (aspirin)
- Stomach Soothers (Antacid, Pepto Bismol)
- Antihistamines (for allergies)
- Cough and Cold
- Anti-itch (Calamine Lotion, Cortaid)
- Laxatives (for constipation)
- Anti-fungal (athlete's foot)
- Yeast infection medicine
- Sleep aids
- Aids to stop smoking (Nicorette)

Prescription Medications (Rx)

http://www.thebeehive.org/health/medicine_cabinet/prescription-medication.asp

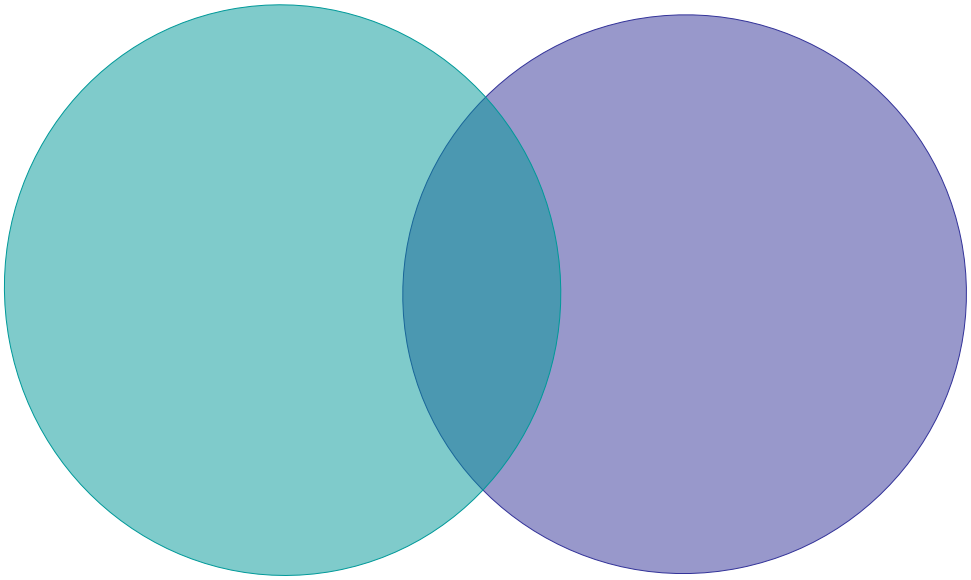
What is prescription medication?
Prescription medication is medication available with permission from a doctor. When you go to the doctor to find out what's making you sick, the doctor will identify the best medication or drug for you to take. The doctor will write you a prescription, you take it to the drugstore or grocery store, and you can get it filled.

Prescription drugs are usually stronger than over-the-counter drugs, so you need to be very careful taking them. Prescriptions come with warning labels that tell you what you need to watch out for, like taking the medicine with food or on an empty stomach, and possible side effects, like sleeplessness, dizziness, drowsiness, rash, or headache.

Prescriptions can be very expensive with or without health insurance. If you have health insurance, Medicaid, or Medicare, your prescriptions will cost less than without coverage. There are programs available to help you cover the costs of prescription medications.

COMPARE/CONTRAST OTC AND RX DRUGS

DIRECTIONS: Using this Venn diagram, compare and contrast over-the-counter and prescription medications.



***What Does the Label Tell Us?* Resource**

Understanding Labels and Instructions
http://www.thebeehive.org/health/medicine_cabinet/understanding-labels-and-instructions.asp

Before buying over-the-counter medication or taking prescription drugs, it's important that you know how to read the instructions. It's also important to know if there's something you're allergic to in the medication.

Reading the label is the most important part of taking care of yourself or your family when using over-the-counter (OTC) medicines. This is especially true because you probably take OTC medicines without seeing a doctor first. Sometimes changes are made to the products you use all the time, so make sure you check the label.

If you read the label and still have questions, talk to a pharmacist, doctor, or another healthcare professional. Use the links below to get more information and step-by-step guides

Always Read the Label
http://my.webmd.com/content/article/61/67580.htm?lastselectedguid=%7B5FE84E90-BC77-4056-A91C-9531713CA348%7D

Reading the product label is the most important part of taking care of yourself or your family when using over-the-counter (OTC) medicines (those that are available without a prescription). This is especially true because you probably take OTC medicines without first seeing a doctor. The OTC medicine label contains important, easy-to-read usage and safety information.

An FDA regulation makes sure the labels on all OTC medicines (from a tube of fluoride toothpaste to a bottle of cough syrup) have information listed in the same order; are arranged in a simple, eye-catching, consistent style; and may contain easy-to-understand words.

If you read the OTC medicine label and still have questions about the product, talk to your doctor, pharmacist, or other healthcare professional.

What's on the Label

All nonprescription, over-the-counter (OTC) medicine labels have detailed usage and warning information so consumers can properly choose and use the products. You'll find this information:

- **Product Name.**
- **Active Ingredient**. Therapeutic substance in product; amount of active ingredient per unit.
- **Uses**. Symptoms or diseases the product will treat or prevent.
- **Warnings**. When not to use the product; conditions that may require advice from a doctor before taking the product; possible interactions or side effects; when to stop taking

the product and when to contact a doctor; if you are pregnant or breastfeeding, seek guidance from a health care professional; keep product out of children's reach.

- **Inactive Ingredients**. Substances such as colors or flavors.
- **Purpose**. Product action or category (such as antihistamine, antacid, or cough suppressant.)
- **Directions**. Specific age categories, how to take, how much, how often, and how long.
- **Other Information**. How to store the product properly, and required information about certain ingredients (such as the amount of calcium, potassium, or sodium the product contains)
- **The expiration date.** When applicable (date after which you should not use the product).
- **Lot or batch code.** (Manufacturer information to help identify the product).
- **Name and address of manufacturer, packer, or distributor.**
- **Net quantity of contents.** (How much of the product is in each package).
- **What to do if an overdose occurs.**

The manufacturers of OTC medicines sometimes make changes to their products or labeling (new ingredients, dosages, or warnings). Make sure to read the label each time you buy the product. Always look for special "flags" or "banners" on the front product label alerting you to such changes.

Understand Over-the-Counter Drug Labels
WebMD Public Information with the FDA

Use actual labels, such as this example, that include the following information:

FOR EXAMPLE ONLY:

Drug Facts

Active ingredient (in each tablet) ***Purpose***
Name of Medication 2 mg . . . . . Antihistamine

Uses temporarily relieves these symptoms due to hay fever or other upper respiratory allergies:
■ sneezing ■ runny nose ■ itchy, water eyes
■ itchy throat

Warnings
Ask a doctor before use if you have
■ glaucoma ■ a breathing problem such as emphysema or chronic bronchitis
■ trouble urinating due to enlarged prostate gland

Ask a doctor or pharmacist before use if you are **taking tranquilizers or sedatives**

When using this product
■ You may get drowsy ■ avoid alcoholic drinks alcohol, sedatives, and tranquilizers may increase drowsiness ■ be careful when driving a motor vehicle or operating machinery
■ excitability may occure, especially in children

If pregnant or breast-feeding, ask a health professional before use.
Keep out of reach of children. In case of overdose, get medical help or cantact a Poison Control Center right away.

Directions

adults and children 12 years and over	take 2 tablets every 4 to 6 hours; not more than 12 tablets in 24 hours
children 6 years to under 12 years	take 1 tablet every 4 to 6 hours; not more than 6 tablets in 24 hours
children under 6 years	ask a doctor

Other information store at 20-25° C (68-77° F)
■ protect from excessive moisture

Inactive ingredients D&C yellow no. 10, lactose, magnesium stearate, microcrystalline cellulose, pre-gelatinized starch

CORRECT DOSAGES HANDOUT

Warnings:

Do not exceed recommended dosage because at higher doses, nervousness, dizziness, or sleeplessness may occur. If symptoms do not improve within se en days, or are accompanied by a high fever, consult a physician before continuing use. Do not take the preparation if you have high blood pressure, heart disease, diabetes, thyroid disease, or difficulty in urination due to enlargement of the prostate gland, except under the advice and supervision of a physician. In the case that you are pregnant or nursing a baby, seek the advice of a health professional before using this product.

Drug Interaction Precaution:

Do not take this product if you are presently taking a prescription anti-hypertension or anti-depressant drug containing a monoamine oxidase inhibitor except under the advice and supervision of a physician.

KEEP THIS AND ALL MEDICATIONS OUT OF CHILDREN'S REACH.

In case of accidental overdose, seek professional assistance or contact a Poison Control Center immediately.

1. *What might happen if you take too much of this medicine?*

2. *Who should not use this medicine?*

3. *What should you do in case of an overdose?*

Teacher Notes on Drug Interactions

Discuss the reasons we have medication and why we use it. Next, brainstorm the pros and cons of following other actions and directions. Talk about the medical profession, its reliability and expertise, and the government and its rules on the regulation of drugs. Students can also identify any medications that they know of that have been approved for use by the government and later found to be harmful to humans.

Everyone needs to be an informed consumer. Discuss how students can become informed about medications that they may be taking. Examples may include: reading the warning labels or prescription information, discussing the pros and cons of a medicine with a doctor, researching the medication, etc. Have the students discuss the effects that medications may have on them. Discuss the need for each student to become aware that there are medications on the market that may be harmful and to find out what ones might be harmful for them.

Ask: Has anyone ever known someone who has had a reaction to an over the counter drug, such as Tylenol, cough syrup, or vitamins? Does anyone have an allergy to something? Examples could include reactions to bee stings, penicillin, different materials, etc. Discuss the consequences of reactions such as swelling, difficulty in breathing, etc. What can be done to prevent another reaction or to inform others of the possibility of a reaction? Examples may include: medical records of allergies, medical cards in one's billfold, a medallion worn on a chain, etc.

Higher Level Activity: Have students search for articles on medications that have severe side effects. Create a list of the different medications and a short synopsis of the side effects. Have students share with the class their findings and what the findings could mean to them.

References

The United States Food and Drug Administration website

www.thebeehive.org