ABSTRACT

This publication is designed to help home economics teachers reinforce basic skills in their curriculum. It contains a series of information sheets explaining basic concepts in sentence grammar, writing, mathematics, speech, and reading. Each concept is defined and illustrated with a home economics example. Step-by-step procedures are ready to reproduce and distribute to those students who need extra help to achieve mastery. Grammar concepts include the following: writing a basic sentence, subject and verb agreement, pronoun and verb agreement, spelling, capitalization, and punctuation. Prewriting, drafting, revising, editing, and publishing are the writing topics discussed. The following mathematics concepts are covered: place values, addition, subtraction, multiplication, division, decimals, fractions, proportion, average, rank order, measurement, and graphs and tables. Speech concepts are as follows: choosing a topic, determining the purpose, gathering information, making an outline, organizing content, writing a speech, rehearsing, and delivering a speech. Reading concepts include: (1) identifying the main idea, sequence, specific details, correct information, and key words; and (2) using a dictionary, table of contents, thesaurus, and card catalog call number. A list of 29 references is appended. (YLB)
Strengthening Basic Academic Skills
Through Home Economics

Mastery of Academic Basic Skills

Improved Quality of Life

Better Job Opportunities

BEST COPY AVAILABLE

Cecelia Thompson
Linda Floyd

HEEA/ HOME ECONOMICS EDUCATION ASSOCIATION
1201 Sixteenth Street, Northwest, Washington, D.C. 20036
Strengthening Basic Academic Skills Through Home Economics

Instructional Activities for Home Economics Students

Cecelia Thompson
Linda Floyd
1990
ACKNOWLEDGMENT

For her initial idea and support, we thank Emily Oates, program manager of Home Economics Education, Arkansas State Department of Education. For her sensitive criticism of the mathematics section, we thank Anna Spear, technical mathematics instructor, Northwest Arkansas Vocational Technical School. For her thoughtful corrections of the grammar section, we thank Greta Marlow, communications instructor, Arkansas Valley Vocational Technical School.

For all their help and patience, we thank our families — Dale, Mandy, Belinda, Luke, and Tracy.

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Waldron, Arkansas
FOREWORD

The integration of basic skills content has been and will continue to be a priority for all programs in the public schools. Home economics teachers have recognized the importance of basic skills attainment for students in their programs and have created ways to highlight the application of basic skills into real life situations. The Reconceptualization Of Home Economics Content Steering Committee in their publication *Home Economics Concepts: A Base for Curriculum Development* stressed in their rationale the "ample opportunities to supplement the learning of basic skills in the home economics curriculum."

One of the frustrations home economics teachers face in the integration of basic skills is how "basic" are the basic skills that their students need. Often assumptions that are made about the prior knowledge students are expected to have is inaccurate, and teachers are required to review content which may seem extremely elementary. The focus must be on where the students are, and teachers must be willing to work with a variety of needs in basic skill development.

*Strengthening Basic Academic Skills through Home Economics* is the second monograph related to basic skills produced by HEAA. The first monograph *Teaching Basic Skills through Home Economics* was published in 1989 and is available for purchase from HEAA. This second monograph compliments the first one as it serves as a handbook for ideas for teaching basic skills in grammar, writing, mathematics, speech, and reading. Home economics teachers can review the basic skills provided and emphasize certain ones in their daily lessons. Students can utilize the step-by-step procedures to achieve mastery in areas in which they need more assistance.

As in most things that we teach, the best teaching method that we can use is one of modeling the skills. This monograph provides examples of ways in which home economics teachers can model for students how they are using basic skills in their daily life activities. This integration of basic skills needs to be a component in our daily lesson planning.

The Home Economics Education Association appreciates the efforts of Cecelia Thompson in the development of this monograph. She and Linda Floyd have provided a resource which will enable home economics educators to integrate basic skills into their programs, as well as address the variety of basic skill competencies with which learners are struggling to master. I would also like to thank Jan Wissman for her competent editing as Chair of our Publications Committee. Her commitment is a critical component to the success of our association.

Cathleen T. Lowe
President, HEAA, 1989-1991
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INTRODUCTION
What are basic skills?

Basic skills are abilities essential to one’s survival in today’s society. This handbook addresses the basic academic skill areas of writing, reading, speaking, and computing as related to home economics.

Why are basic skills important?

The lack of mastery of basic skills by our youth is a national concern. Currently, many students are not prepared for work force demands or college level work upon graduation. Basic skills are important because an individual cannot succeed in our society without at least the basic skills of writing, reading, speaking, and computing. Students without basic skills are more likely to drop out of school and be unemployed. These students are considered to be academically at-risk students and are tracked into the group that has a greater chance of living in poverty. Time spent in mastery of academic basic skills will pay dividends now and in the future. When basic skills are mastered, students understand content as independent learners. As members of the future work force, they can compete for satisfying jobs. Basic skills, when mastered, offer lifelong benefits to the quality of work and family life.

Basic skills in the home economics classroom.

Basic skills are recognized as an integral part of the educational process; however, basic skills are too easily diminished in the curriculum.

There are three basic steps which ensure that each lesson reinforces basic skills.

1. Be alert to opportunities to enhance basic skills.
2. Examine lessons and make a note on lesson plans where a basic skill could be emphasized.
3. Reinforce the lesson with supportive material and point out how basic skill concepts are used.

By devoting a few minutes each day to basic skill instruction, an instructor can demonstrate the importance of writing, reading, speaking, and computing.

Using this publication

This publication is designed to help home economics teachers reinforce basic skills in their curriculum. It contains a series of information sheets explaining basic concepts in writing, reading, speaking, and computing. Each concept is illustrated with a home economics example. Concepts are defined and step-by-step procedures are ready to reproduce and distribute to those students who need extra help to achieve mastery.

The information sheets should be used as tools for the students when a teacher is emphasizing a basic skill. Students should be provided with a copy of the monograph for reference or copies of appropriate information sheets.
Example: If students are assigned a report, the teacher and learners would review the steps in the writing process in the writing section.

Example: If students are increasing recipes, the teacher and learners would review the sections on multiplication and multiplying fractions.

Example: If students are writing essays, teacher and learners would review one or two punctuation rules in the writing section.

Example: If students are presenting orally, teacher and learners would review the speech section.

Example: Before reading assignments, teacher and learners would review a skill in the reading section.
SENTENCE GRAMMAR

Sentence grammar is the system of word structures and arrangements of language.

SKILL: WRITING A BASIC SENTENCE

Sentences always have a subject and a predicate. The subject of a sentence usually tells who or what the sentence is about. The predicate tells what the subject is or what action the subject takes.

HOW THE SKILL WORKS

EXAMPLES

The predicate tells what the subject is.

Mrs. Smith is a home economics teacher.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>PREDICATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mrs. Smith</td>
<td>is a home economics teacher.</td>
</tr>
<tr>
<td>noun</td>
<td>verb</td>
</tr>
</tbody>
</table>

The predicate tells what action the subject takes.

Julie deposited her paycheck.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>PREDICATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Julie</td>
<td>deposited her paycheck.</td>
</tr>
<tr>
<td>noun</td>
<td>verb</td>
</tr>
</tbody>
</table>
SKILL: RECOGNIZING SENTENCE FRAGMENTS

A sentence fragment lacks a subject, verb, both subject and verb, or begins with a subordinating word.

HOW THE SKILL WORKS

If a word group does not meet these three tests, it is a fragment and needs to be revised.

1. Find a subject.

2. Find a verb.

3. Determine if there is a subordinating word at the beginning of the word group. Subordinating clauses depend on other words within a sentence and cannot stand alone. Subordinating clauses begin with words such as after, before, since, when, or because.

EXAMPLE

| NO SUBJECT — Placed the food items in the proper storage area. |
| CORRECT — He placed the food items in the proper storage area. (He is the subject.) |
| NO VERB — Children four to six years old at the child care center. |
| CORRECT — Children four to six years old are at the child care center. (Are is added as a verb.) |
| CONTAINS SUBORDINATING WORD — Because it is a nutritious food. |
| CORRECT — It is a nutritious food. (Omit the word because.) |
SKILL: AGREEMENT OF SUBJECT AND VERB

Agreement is another way of stating that the subject and verb are both written in the singular or plural form. A singular subject requires a singular verb. If the subject names one person, place, thing, or idea, it is singular, and a singular verb is used. Singular verbs usually end in s. A plural subject requires a plural verb. If the subject names more than one person, place, thing, or idea, it is plural, and a plural verb is used.

HOW THE SKILL WORKS

Use a singular verb with singular nouns.

EXAMPLE

A nutritious diet is important.

Use verbs ending with s or es with "all" third person singular subjects.

EXAMPLE

INCORRECT
Sarah resist any kind of change in her diet.
CORRECT
Sarah resists any kind of change in her diet.

Use the noun ending s or es to make "most" nouns plural. If the noun is plural use a plural verb.

EXAMPLE

INCORRECT
The coat were available in many different styles.
CORRECT
The coats were available in many different styles.

Use a plural verb with plural nouns.

EXAMPLE

Children need to hear praise from parents and babysitters.

The pronouns I, you, we, or they always needs a plural verb.

EXAMPLE

You are my special friend. I appreciate your friendship.

Modifiers between the subject and verb do not affect agreement of subject and verb.
EXAMPLE

The vote of the FHA/HERO members is unanimous.

Either, neither, anyone, someone, and everybody are singular subjects.

EXAMPLE

Either of these jobs is interesting.
SKILL: USING CORRECT VERB FORMS

Verb tense tells you when something happens. It tells you if it is happening now, in the past, or will happen in the future.

EXAMPLE

<table>
<thead>
<tr>
<th>FORM</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>present</td>
<td>save</td>
</tr>
<tr>
<td>past</td>
<td>saved</td>
</tr>
<tr>
<td>future</td>
<td>will save</td>
</tr>
</tbody>
</table>

HOW THE SKILL WORKS

Present form is used when the verb’s action occurs in the present and the subject is a plural noun or the pronoun I, we, they, or you.

EXAMPLE

I save my allowance.

Past tense form indicates the verb’s action occurred in the past. It is usually formed by adding ed or ed to the present form.

EXAMPLE

I saved my allowance for three weeks.

Future tense shows action that will happen. Verbs use the helping verb “will.”

EXAMPLE

I will save my allowance for three more weeks.
SKILL: DETERMINING PRONOUN-VERB AGREEMENT

A pronoun is a word that can take the place of a noun. A pronoun is usually controlled by an antecedent. The pronoun means the same thing as the antecedent.

EXAMPLE

I have written to the ninth grade home economics students to invite them to join FHA/HERO. (Ninth grade home economics student is the antecedent. Them is a pronoun that replaces the antecedent.)

Only the pronouns I, you, he, she, it, we, or they can be used as the subject of a sentence.

EXAMPLE

INCORRECT
Her liked home economics class.
CORRECT
She liked home economics class.

Pronouns can be singular or plural, masculine, feminine, or neutral. Neutral pronouns refer to nonhuman antecedents.

Singular Pronouns
First person—I, me, my, mine
Second person—you, your, yours
Masculine—he, him, his
Feminine—she, her, hers
Neutral—it, its

Plural Pronouns
First person—we, us, our, ours
Second person—you, your, yours
Third person—they, their, theirs

Singular pronouns require a singular verb. Plural pronouns require a plural verb.

EXAMPLE

INCORRECT
We has completed the food science experiment.
CORRECT
We have completed the food science experiment.
SKILL: SPELLING

Spelling is the correct order of letters to make up a word.

HOW THE SKILL WORKS

These are simple rules that will help you spell many words.

I before e or e before i? Remember this little jingle: Write i before e except after c, or when pronounced “ay” as in weigh.

EXAMPLE

<table>
<thead>
<tr>
<th>I before E —</th>
<th>believe, chief, friend</th>
</tr>
</thead>
<tbody>
<tr>
<td>El after C —</td>
<td>perceive, receive, ceiling</td>
</tr>
<tr>
<td>El sound as AY —</td>
<td>neighbor, vein, beige</td>
</tr>
</tbody>
</table>

(There are exceptions to this rule. One example is “weird.” Check the dictionary for correct spelling.)

Keep or drop the final e when adding a suffix? A suffix is an ending which modifies the meaning of a word. The suffix added to “useful” is ful. The suffix added to “erased” is ed. The suffix added to eyes is s. Drop the final e if the ending begins with a vowel. Vowels are a, e, i, o, and u. All other letters are consonants. Keep the final e if the ending begins with a consonant.

EXAMPLE

| Drop the e because the ending begins with a vowel — advertise + able = advisable |
| Keep the e because the ending begins with a consonant — care + ful = careful |

(There are exceptions to this rule. One example is “manageable.” Check the dictionary for correct spelling.)

Keep or drop the final y when adding a suffix? Change the y to i when it follows a consonant. Keep the y when it follows a vowel, ends in ing, or ends a proper name.

EXAMPLE

| Change y to i — beauty to beauties |
| Keep the Y — day to days, marry to marrying, Mary to Marys |

A noun names a person, place, or thing. Most nouns are made plural by adding an s. If a noun ends in a sound that is easily united with an s, simply add s to the word to make it describe more than one.

EXAMPLE

| Add an s — chair becomes chairs, member becomes members |

If a noun ends in a sound that cannot be smoothly united with an s, add es to make it plural.
Add es — tax becomes taxes, pass becomes passes

Other nouns form their plurals in other ways.

Some nouns have the same spelling for the singular and plural.

EXAMPLE

Same spelling — deer - deer, sheep - sheep

If a noun ends in s, sh, ch, x, or z, add an es.

EXAMPLE

Add es — church + es = churches

Remember to check the dictionary for the correct spelling of any word you are unsure of.
SKILL: AGREEMENT OF PRONOUN AND ANTECEDENT

A pronoun is a word used in place of a noun.

EXAMPLE

I, you, he, she, it, they, and who are all examples of pronouns.

The antecedent of a pronoun is the noun or other pronoun it replaces or refers to. Jane is the antecedent in “Suzy saw Jane and spoke to her.”

HOW THE SKILL WORKS

A pronoun must agree with its antecedent in number, gender, and person.

NUMBER — Use a singular pronoun to describe a singular antecedent. Use a plural pronoun to describe a plural antecedent.

EXAMPLE

SINGULAR
The child took a toy that belonged to him. Him, a singular pronoun, is used because child is singular.

PLURAL
The children will complete the project after their nap. Their, a plural pronoun, is used because children is plural.

Sue and John completed their project for housing class. Their, a plural pronoun, is used because two singular antecedents are joined by and.

GENDER — Nouns are classified as masculine, feminine, and neuter. He, his, and him are masculine pronouns. She and her are feminine pronouns. It, that, and which are neuter pronouns with no gender.

EXAMPLE

Walter completed his project for STAR events. His, a masculine pronoun, is used because Walter is male.

Every girl in housing class worked independently on her project. Her, a feminine pronoun, is used because girl is a feminine noun.

Home economics is a useful class. You will enjoy it. It, a pronoun with no gender, is used because the antecedent is home economics.
Pronouns are classified as first, second, and third person. First person pronouns are used by the person writing or speaking. I, my, mine, me, we, our, and us are first person pronouns. Second person pronouns are used to address a person. You and your are second person pronouns. Third person pronouns describe persons, places, or things. He, she, it, his, her, him, it, they, their, and them are third person pronouns.

Most pronoun antecedents are third person.

EXAMPLE

SECOND PERSON — Susan, will you accept the nomination for FHA/HERO president? You, a second person pronoun, is used because Susan is being addressed.

THIRD PERSON — Susan said that she would accept the nomination for FHA/HERO president. She is third person because it describes Susan.
SKILL: RECOGNIZING FUSED SENTENCES

An independent clause is a group of words containing a subject and a verb. An independent clause can stand alone as a sentence. Fused sentences are two independent clauses that are joined without a word to connect them or a punctuation mark to separate them.

HOW THE SKILL WORKS

Fused sentences may be corrected in the following ways.

1. Separate the clauses into two separate sentences.

2. Add a comma (,) and coordinating conjunction. Conjunctions are words used to join words, phrases and clauses. Coordinating conjunctions connect words, phrases, and clauses of equal rank. And, but, or, nor, so, yet, and for are coordinating conjunctions.

3. Add a semicolon (;) between clauses.

4. Add a comma and a subordinating conjunction to turn an independent clause into a dependent clause and join to the other independent clause. Some subordinating conjunctions are after, although, as if, when, since, and because.

EXAMPLE

INCOMPLETE — An effective management technique for young children is redirection; children should be redirected to other activities when they misbehave.

CORRECT

SEPARATE SENTENCES — An effective management technique for young children is redirection. Children should be redirected to other activities when they misbehave.

COMMA AND COORDINATING CONJUNCTION — An effective management technique for young children is redirection, and children should be redirected to other activities when they misbehave.

SEMICOLON — An effective management technique for young children is redirection; children should be redirected to other activities when they misbehave.

SUBORDINATING CONJUNCTION — Because an effective management technique for young children is redirection, children should be redirected to other activities when they misbehave.
SKILL: PLACING MODIFIERS

A phrase is a group of words without a subject-verb combination. A clause is a group of words containing a subject and verb. A phrase or clause that helps limits or enhances the meaning of another word is a modifier.

HOW THE SKILL WORKS

As people read, they link a phrase to the nearest word it could describe or modify. The modifier must be placed so that it clearly modifies the intended word, not some other word in the sentence.

EXAMPLE

MISPLACED MODIFIER
Child guidance students served snacks to the children on paper plates.

Who or What was on the paper plates? Were the children on paper plates?

CORRECT
Child guidance students served the children snacks on paper plates.

Limiting modifiers modify the expression that follows them. Examples of limiting modifiers include almost, even, just, only, simply and exactly. Limiting modifiers placed before the verb modify the entire sentence.

EXAMPLE

They only saw each other during class.

Does this mean they had eyes only for each other?
Does this mean they saw each other only at class time?

CORRECT
They saw only each other during class.
They saw each other only during class.

A modifier must have something to modify. Dangling modifiers occur when modifiers are not related to the remainder of the sentence. Dangling modifiers occur most often in word groups before the main clause of the sentence.

EXAMPLE

Planning a large meal, the protein dish was left out. (Who was planning?)

CORRECT
Planning a large meal, the students left out the protein dish.
SKILL: CAPITALIZATION

Capitalization is to begin a word with a capital letter.

HOW THE SKILL WORKS

Some words are always capitalized. Here are some of the rules.

EXAMPLE

<table>
<thead>
<tr>
<th>RULE</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Word of Every Sentence</td>
<td>Capitalize the first word of every sentence.</td>
</tr>
<tr>
<td>Title of a Work</td>
<td>Capitalize important words in titles of works.</td>
</tr>
<tr>
<td>Pronoun I</td>
<td>Capitalize the pronoun I.</td>
</tr>
<tr>
<td>Proper Nouns</td>
<td>Capitalize proper nouns.</td>
</tr>
<tr>
<td>Trade Names</td>
<td>Capitalize trade names.</td>
</tr>
<tr>
<td>Title That Precede Proper Names</td>
<td>Capitalize titles only if they preceed proper names.</td>
</tr>
<tr>
<td>First Letter in a Quote</td>
<td>Capitalize the first letter in a quotation.</td>
</tr>
</tbody>
</table>

- **First Word of Every Sentence**
  - Capitalize the first word of every sentence.
  - *Carrots* are a good source of vitamin A.

- **Title of a Work**
  - Capitalize important words in titles of works.
  - *Money Management for Teens* is a good book to read when you begin to budget.

- **Pronoun I**
  - Capitalize the pronoun I.
  - I will compare prices at the store.

- **Proper Nouns**
  - Capitalize proper nouns. Proper nouns are names of a particular person, place, or thing.
  - In New York City, I saw the Statue of Liberty.

- **Trade Names**
  - Capitalize trade names.
  - *Pampers* disposable diapers are an environmental problem because they are not biodegradable.

- **Title That Precede Proper Names**
  - Capitalize titles only if they preceed proper names.
  - *Professor Ann Keller* wrote articles about children.
  - (Ann Keller was a professor who wrote about children.)

- **First Letter in a Quote**
  - Capitalize the first letter in a quotation.
  - Tom said, “We share household chores because my mom works.”
SKILL: PUNCTUATION

Punctuation is a system of marks in a sentence to help emphasize meaning.

HOW THE SKILL WORKS

PERIOD (.)

A period is used to end sentences that are statements or mild commands. A period is also used with abbreviations.

EXAMPLE

<table>
<thead>
<tr>
<th>STATEMENT</th>
<th>MILD COMMAND</th>
<th>ABBREVIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>We are going to visit the textile laboratory.</td>
<td>Please do not smoke.</td>
<td>Mr., Mrs., Ph.D., Mrs. L. E. Smith, Little Rock, Ark.</td>
</tr>
</tbody>
</table>

(Do not put a period after state abbreviations using two capital letters, as AR for Arkansas.)

QUESTION MARK (?)

A question mark is used to end a direct question.

EXAMPLE

<table>
<thead>
<tr>
<th>DIRECT QUESTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is one way to save energy in your home?</td>
</tr>
</tbody>
</table>

EXCLAMATION POINT (!)

Use the exclamation point after an emphatic statement, strong command, or a strong interjection. An interjection is a word that expresses emotion.

EXAMPLE

<table>
<thead>
<tr>
<th>EMPHATIC STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>I will not go out with you!</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STRONG COMMAND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Come here immediately!</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INTERJECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ouch! You are hurting me.</td>
</tr>
</tbody>
</table>
**COMMAS (,)** are used within sentences to show the relationship of a word or group of words to other words in the sentence. A comma is used in each of the situations listed below.

**EXAMPLE**

<table>
<thead>
<tr>
<th><strong>AFTER INTRODUCTORY ELEMENTS</strong> (phrases and clauses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without much money, Sarah was able to create a nutritious meal.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SEPARATE ITEMS IN A SERIES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bob, Mary, and I gathered the ingredients, equipment, and evaluations for lab.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>ADDRESSES AND DATES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The FHA/HERO meeting is in Springfield, Missouri, on October 1, 1987.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SET OFF QUOTES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>“I want to explain how to mend this torn coat,” stated Ray.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SET OFF YES OR NO</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, the speaker made several interesting points.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>TAG QUESTIONS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>She didn’t ask us to go, did she?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>DIRECT ADDRESS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sam, please put the aluminum cans in the recycling bin.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>MILD INTERJECTION</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Well, we will probably go ahead without them.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>ABSOLUTE PHRASE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>All the projects evaluated, the students took a break.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>PHRASE EXPRESSING CONTRAST</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>It is not time we need, but a management plan.</td>
</tr>
</tbody>
</table>
Because commas are the most commonly used type of punctuation mark, they are often misused. Here are some rules to help avoid errors with commas.

<table>
<thead>
<tr>
<th>Rule</th>
<th>Original Example</th>
<th>Corrected Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DO NOT USE A COMMA BEFORE A CONJUNCTION THAT JOINS TWO PHRASES THAT DO NOT MAKE A SENTENCE ALONE.</strong></td>
<td>Wrong: Personal time management is an important part of everyday life, and helps us find time for all of our activities.</td>
<td>Right: Personal time management is an important part of everyday life, and careful management helps us find time for all of our activities.</td>
</tr>
<tr>
<td><strong>DO NOT USE A COMMA BETWEEN TWO SUBJECTS.</strong></td>
<td>Wrong: Bill, and Amy are working on FHA/HERO projects.</td>
<td>Right: Bill and Amy are working on FHA/HERO projects.</td>
</tr>
<tr>
<td><strong>DO NOT PUT A COMMA BETWEEN SUBJECT AND VERB.</strong></td>
<td>Wrong: The housing students, finished their reports in 15 minutes.</td>
<td>Right: The housing students finished their reports in 15 minutes.</td>
</tr>
<tr>
<td><strong>DO NOT USE A COMMA BETWEEN THE VERBS AND WORDS THAT COMPLETE THE THOUGHT OF THE SENTENCE.</strong></td>
<td>Wrong: Susan will observe, any child in the child care center.</td>
<td>Right: Susan will observe any child in the child care center.</td>
</tr>
<tr>
<td><strong>DO NOT USE A COMMA BEFORE THE FIRST ITEM IN A SERIES.</strong></td>
<td>Wrong: Bill worked at the child care center, to obtain experience, to earn money, and to learn parenting skills.</td>
<td>Right: Bill worked at the child care center to obtain experience, to earn money, and to learn parenting skills.</td>
</tr>
<tr>
<td><strong>DO NOT USE A COMMA AFTER THE LAST ITEM IN A SERIES.</strong></td>
<td>Wrong: Candy, soda, and potato chips, provide empty calories.</td>
<td>Right: Candy, soda, and potato chips provide empty calories.</td>
</tr>
<tr>
<td><strong>DO NOT USE A COMMA AFTER THE LAST ADJECTIVE OR ADVERB DESCRIBING A WORD.</strong></td>
<td>Wrong: He demonstrated how to wash greasy, grimy, dirty, clothing.</td>
<td>Right: He demonstrated how to wash greasy, grimy, dirty clothing.</td>
</tr>
<tr>
<td><strong>DO NOT USE A COMMA AFTER WORDS LIKE &quot;THAT&quot; AND &quot;IS&quot; WHEN THOSE WORDS INTRODUCE A PHRASE.</strong></td>
<td>Wrong: I believe that, I will work in the field of child care.</td>
<td>Right: I believe that I will work in the field of child care.</td>
</tr>
</tbody>
</table>
SKILL: USING APOSTROPHEs

An apostrophe shows the possessive case of nouns. Possessive case shows ownership.

HOW THE SKILL WORKS

If a noun does not end in s, add an apostrophe and s to form the possessive.

EXAMPLE

He received the teacher's approval to complete the project.

If the singular of a word does end in s, add an apostrophe and s unless the second s makes the pronunciation difficult; in such cases, add only the apostrophe.

EXAMPLE

Lois's project and Moses' notebook can be used as an example.

Use an apostrophe to indicate the omission of a letter.

EXAMPLE

Use doesn’t for does not, it’s for it is, there’s for there is, who’s for who is, you’re for you are, and they’re for they are.

Use an apostrophe and s to form the plural of letters, numbers, and words used as words.

EXAMPLE

Cross your t’s and dot your i’s.

Do not use an apostrophe with his, hers, its, ours, yours, theirs, and whose. These pronouns are possessives and do not require the apostrophe.
WRITING
WRITING

Writing a letter, report, theme, or story includes choosing a topic of interest to you and following a few simple steps. The steps are prewriting, drafting, revising, editing, and publishing.

SKILL: PREWRITING

Prewriting is gathering your first thoughts and ideas about a topic and preparing for a writing assignment.

HOW THE SKILL WORKS

Prewriting includes reading the assignment for key words and writing down ideas and examples.

EXAMPLE

Read the following assignment, underline key words, and write down ideas and examples.

Write a letter of complaint to the Playtime Toy Company to report a problem with Tiny Cars. The small wheels come off the cars easily.

(The key words are letter, complaint, small wheels, and come off easily.)

Write down specific ideas and examples found in the assignment.

<table>
<thead>
<tr>
<th>Ideas</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>letter</td>
<td>use letter form</td>
</tr>
<tr>
<td>complaint</td>
<td>the letter must draw attention to a problem</td>
</tr>
<tr>
<td>small wheels</td>
<td>could be swallowed by a small child</td>
</tr>
<tr>
<td>come off easily</td>
<td>problem with toy</td>
</tr>
</tbody>
</table>
SKILL: DRAFTING

Drafting is the first attempt to organize and write ideas using paragraphs.

HOW THE SKILL WORKS

Write a draft with sentences made from key word and ideas.

EXAMPLE

I want to complain to your toy company about a problem. The small wheels on Tiny Cars could be swallowed by a small child. They come off easily creating a problem with the toy. Shouldn’t you fix this?
SKILL: REVISING

Revising is changing what you have written until the ideas are clear and supported by details or examples.

HOW THE SKILL WORKS

Review the draft to determine if sentences communicate the intended message. Arrange the sentence into paragraphs and add details. Make sure each paragraph has two or more sentences. Check for variety in writing style. Errors in spelling, grammar, and capitalization will be corrected as you edit.

EXAMPLE

<table>
<thead>
<tr>
<th>The purpose of this letter is to report a problem with a product produced by your company. The product is Tiny Cars.</th>
</tr>
</thead>
<tbody>
<tr>
<td>My father bought a Tiny Car, model 477, for my two-year-old brother. The car became my brother’s favorite toy. After two weeks of use, he pulled the wheels off the car. The wheels came off easily.</td>
</tr>
<tr>
<td>The wheels on the Tiny Car are very small and could be swallowed by a young child. This is a serious problem that should be corrected.</td>
</tr>
</tbody>
</table>

Read the letter to check clarity of message. The first paragraph should introduce the purpose of the letter. The second paragraph is the body of the letter where main points and supporting details are presented. The third paragraph concludes the letter and ties all the ideas together.

A sentence should be related to those sentences before and after it. Writing also needs to be interesting. To make sentences work together and to make writing interesting, the writer must vary the length, emphasis, word order, and complexity of ideas. This creates variety and interest.

Vary the sentence length. Short sentences are correct and effective; however, most sentences are an average length of 15 to 20 words.

Avoid overuse of simple sentences. Increase variety by combining two or more sentences that link important ideas.

Avoid excessive coordination. A group of simple sentences linked by conjunctions is usually weak.

Invert the normal word order. The normal word order of subject-verb-object can be inverted to make a statement sound more interesting.

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SKILL: EDITING

Editing is recognizing and correcting mistakes in spelling, grammar, capitalization, and punctuation.

HOW THE SKILL WORKS

Determine if all sentences are complete with subject and predicate. Check for subject and verb agreement. Check for capitalization, punctuation, and spelling.

EXAMPLE

| The purpose of this letter is to report a problem with a product produced by your company. The product is Tiny Cars. |
| My father bought a Tiny Car, model 477, for my two-year-old brother. The car became my brother's favorite toy. After two weeks of use, he pulled the wheels off the car. The wheels came off easily. |
| The wheels on Tiny Cars is very small and could be swallowed by a young child. This serious problem that should be corrected. |

The following mistakes should be corrected —

In the first sentence of the last paragraph, the subject is plural and the verb is singular.

The last sentence does not have a predicate.

| The wheels on Tiny Cars are very small and could be swallowed by a young child. This is a serious problem that should be corrected. |
SKILL: PUBLISHING

Publishing is completing the final product for the reader and checking the format required for an assignment.

HOW THE SKILL WORKS

Use correct form to write the final letter. A letter of complaint should be written in business letter form with address, salutation, closing, and signature. The letter should be written legibly or typed on a computer or typewriter.

EXAMPLE

205 Way
Sparksville, AR 72000
July 4, 1988

Playtime Toy Company
407 Fun Avenue
Walker, NY 10002

Dear Sir/Madam:

The purpose of this letter is to report a problem with a product produced by your company. The product is Tiny Cars.

My father bought a Tiny Car, model 477, for my two-year-old brother. The car became my brother’s favorite toy. After two weeks of use, he pulled the wheels off the car. The wheels came off easily.

The wheels on Tiny Cars are very small and could be swallowed by a young child. This is a serious problem that should be corrected.

Sincerely,

John Wiley

These steps — prewriting, drafting, revising, editing, and publishing — can be used to write any type of report, theme, note, article, or letter.
SKILL: MATHEMATICS

Mathematics is the use of numbers or symbols to solve problems.

HOW THE SKILL WORKS

Keys to successfully solving math problems are the ability to read and understand the problems, the choice of operations, and the way calculations are completed. Follow these suggestions when solving math problems.

1. Read the entire problem carefully.

2. Read the problem a second time and make sure you understand specific problem to be solved. Ask for help if you do not understand some of the words.

3. Look for key words that suggest an operation to use.

4. Draw a picture or make a diagram if necessary.

5. Perform the operation necessary to solve the problem. Write your calculations as you work.

6. Check your answer.
SKILL: PLACE VALUES

The same ten digits are used to write any number. The digits are 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9. Where a number is placed determines the value of the number.

EXAMPLE

If the number is 987, 9 is in the hundreds’ place and the value is 900. The 8 is in the tens’ place and the value is 80. The 7 is in the ones’ place and the value is 7. We read the number as nine hundred eighty-seven.

<table>
<thead>
<tr>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>

10 ones = 1 ten
10 tens = 1 hundred
10 hundreds = 1 thousand

(Note: children should learn to count starting with zero rather than one.)
SKILL: ADDITION

Addition is the process of combining two or more numbers into one sum.

EXAMPLE

If you have eaten a McDonald's Big Mac, regular fries, and a strawberry shake, how many calories have you consumed? (Big Mac — 531 calories, regular fries — 210 calories, and strawberry shake — 314 calories)

HOW THE SKILL WORKS

Add each column of numbers.

Step 1 — Add the ones column.

\[
\begin{array}{c}
5 \\
2 \\
+ 3
\end{array}
\quad \begin{array}{c}
3 \\
1 \\
4
\end{array}
\]

5 The ones column adds up to 5.

Step 2 — Add the tens column.

\[
\begin{array}{c}
5 \\
2 \\
+ 3
\end{array}
\quad \begin{array}{c}
3 \\
1 \\
4
\end{array}
\]

5 5 The tens column adds up to 5.

Step 3 — Add the hundreds column.

\[
\begin{array}{c}
5 \\
2 \\
+ 3
\end{array}
\quad \begin{array}{c}
3 \\
1 \\
4
\end{array}
\]

1 0 5 5 The hundreds column adds up to 10. Ten hundreds is equal to one thousand.

When a column of digits adds to a two or more digit number, put the ones digit in the answer row and move the tens digit into the next column.

(The sum is 1,055 calories. The number is read as one thousand fifty-five.)
SKILL: SUBTRACTION

Subtraction is the process of deducting or taking away one quantity from another quantity.

EXAMPLE

If there are 531 calories in a McDonald's Big Mac and 298 calories in a McDonald's cheeseburger, how many fewer calories are there in the cheeseburger than the Big Mac?

HOW THE SKILL WORKS

Subtract each column of numbers renaming the numbers when necessary.

Step 1 — You must rename the 3 tens and 1 ones in 531 to 2 tens and 11 ones and then subtract 8 from 11.

\[
\begin{array}{c}
2 & 1 & 1 \\
5 & 3 & 1 \\
\hline
2 & 9 & 8 \\
\hline
3
\end{array}
\]

Step 2 — You must rename the 5 hundreds and 2 tens in 531 to 4 hundreds and 12 tens and then subtract 9 from 12.

\[
\begin{array}{c}
4 & 1 & 2 \\
5 & 3 & 1 \\
\hline
2 & 9 & 8 \\
\hline
3 & 3
\end{array}
\]

Step 3 — Subtract the hundreds by subtracting 2 from 4.

\[
\begin{array}{c}
4 \\
5 & 3 & 1 \\
\hline
2 & 9 & 8 \\
\hline
2 & 3 & 3
\end{array}
\]

(The answer is 233 calories.)
SKILL: MULTIPLICATION

Multiplication is the addition of a number to itself as often as indicated by another number. When 3 is multiplied by 4 (3 x 4), 3 and 4 are called factors and the answer is called the product. To solve the problem 3 x 4, you can add 3 + 3 + 3 + 3. Memorizing multiplication tables helps you solve problems faster.

EXAMPLE

There are 30 Hershey Kisses on the table. There are 24 calories in 1 Kiss. How many calories will you have added to your diet after you have eaten all the Kisses on the table?

HOW THE SKILL WORKS

Multiplying 30 times 24 is the same as adding 24 thirty times. The problem can be written two ways.

\[
\begin{array}{c}
30 \text{ Kisses} \\
\times 24 \text{ calories}
\end{array}
\]

Both problems are solved with the same steps. To solve the first problem:

Step 1--Multiply each digit in one number by the right most digit of the second factor. Multiply 30 by 4 ones. The answer is 120.

\[
\begin{array}{c}
30 \text{ Kisses} \\
\times 4 \text{ calories}
\end{array}
\]

\[
120
\]

Step 2--Repeat step 1 as many times as you have digits in your second factor moving one place left with each partial product. Multiply 30 by 2 tens. The answer is 60.

\[
\begin{array}{c}
30 \text{ Kisses} \\
\times 2 \text{ calories}
\end{array}
\]

\[
60
\]

Step 3--Add your partial products as they are aligned. Add 120 and 60. The answer is 720 calories.

\[
\begin{array}{c}
30 \text{ Kisses} \\
\times 24 \text{ calories}
\end{array}
\]

\[
\begin{array}{c}
120 \\
+ 60 \\
\hline
720
\end{array}
\]
SKILL: DIVISION

Division is the process of separating a quantity into equal parts. There are three ways you may see a division problem written.

\[
\begin{align*}
\text{quotient} & \quad \text{or} \quad \text{dividend} \div \text{divisor} = \text{quotient} \\
\text{divisor} & \quad \text{or} \quad \frac{\text{dividend}}{\text{divisor}} = \text{quotient}
\end{align*}
\]

EXAMPLE:

How long would you need to run in order to burn one extra pound if running 1 hour burns 400 extra calories?

Each extra pound in a person's body contains about 3500 calories. One way to lose a pound is to exercise enough to burn 3500 calories.

HOW THE SKILL WORKS

Divide 3500 by the number of calories burned while running one hour.

3500 is the dividend. This is the number of calories in an extra pound. 400 is the divisor. This is the calories burned by one hour of running. The answer will be the quotient.

The problem can be written three ways.

\[
\begin{align*}
3500 & \div 400 = ? \quad \text{or} \quad 400 \bigg| 3500 \quad \text{or} \quad \frac{3500}{400}
\end{align*}
\]

Step 1--Divide 3500 by 400. How many times does the divisor go into the first digit. Write that digit in the quotient.

\[
\begin{array}{c}
0 \\
400 \bigg| 3500
\end{array}
\]

How many times does the divisor go into the second digit?

\[
\begin{array}{c}
00 \\
400 \bigg| 3500
\end{array}
\]
How many times does the divisor go into the third digit?

\[
\begin{array}{c|c}
400 & 3500 \\
\hline
400 & 3500 \\
\end{array}
\]

How many times does the divisor go into the fourth digit?

\[
\begin{array}{c|c}
0008 & 3500 \\
\hline
400 & 3500 \\
\end{array}
\]

Step 2--Multiply the quotient digit times each digit in the divisor.

\[8 \times 400 = 3200\]

Step 3--Subtract your partial product from dividend.

\[
\begin{array}{c|c}
8 & 3500 \\
\hline
400 & -3200 \\
\hline
300 & \\
\end{array}
\]

Step 4--Three hundred is the remainder. Write the remainder by the quotient.

\[
\begin{array}{c|c}
8 & 300 \\
\hline
400 & 3500 \\
\hline
-3200 & \\
300 & \\
\end{array}
\]

Step 5--The remainder is written as a fraction with the remainder as the numerator or top number and the divisor as the denominator or the bottom number. The fraction can be stated in the lowest terms by canceling the zeros in the tens and ones place.

\[
\frac{300}{400} = \frac{3}{4}
\]

Step 6--The answer is 8 and 3/4 hours. The 3/4 hour can be changed to minutes by multiplying 3/4 by 60 minutes.

\[
\frac{3}{4} \times 60 \text{ minutes} = 45 \text{ minutes}
\]

(The answer is 8 hours and 45 minutes. It would take 8 hours and 45 minutes of running to burn one pound of extra fat.)

\[\boxed{42}\]
SKILL: ADDING DECIMALS

A decimal number is an amount expressed with the first number to the right of the decimal point expressing tenths and the second number expressing hundredths. Decimal numbers are just like money amounts.

\[ \$11.43 = 11 \text{ dollars} + 4 \text{ tenth units} + 3 \text{ hundredth units} \]

<table>
<thead>
<tr>
<th>tens</th>
<th>ones</th>
<th>tenths</th>
<th>hundredths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

Adding with decimals is just like adding with whole numbers except for placing a decimal point in the final answer. You must add tenths to tenths and hundredths to hundredths.

HOW THE SKILL WORKS

Use the following steps to place the decimal point in the correct place.

1. Line up the decimal points as you write the problem.
2. Add the numbers as if the dots were not there.
3. Bring the decimal point straight down into the sum (answer).

If a decimal point is not shown, it is understood to be to the right of the number.

EXAMPLE

If your mortgage payment is $125.62, your electricity bill is $36.81, and your Visa bill is $82.15, how much is your total payment?

1. Line up the decimal points.

\[
\begin{align*}
\$125.62 \\
+ 36.81 \\
+ 82.15 \\
\hline
\$244.58
\end{align*}
\]

3. Bring the decimal point straight down into the sum (answer). $244.58

(The answer is $244.58.)
When adding a whole number and a number with a decimal, remember that the digits must be in line with digits of the same place value. The tens, ones, tenths, and hundredths must be in alignment.

EXAMPLE

If you have 36 inches of blue fabric and 22.25 inches of brown fabric, how many inches of fabric do you have?

1. Write 36 as 36.00. Line up the decimal points

   Remember: If no dot is shown, the decimal is to the right of the number.

   \[
   \begin{array}{c}
   36.00 \\
   + \ 22.25 \\
   \end{array}
   \]

2. Add the numbers as if the dots were not there.

   \[58.25\]

3. Bring the decimal point straight down into the sum (answer).
**SKILL: SUBTRACTING WITH DECIMALS**

Subtracting with decimals is just like subtracting with whole numbers except for placing a decimal point in the final answer. You must subtract tenths from tenths and hundredths from hundredths.

**HOW THE SKILL WORKS**

Use the following steps to place the decimal point in the correct place.

1. Line up the decimal points.
2. Subtract the numbers.
3. Place a decimal point in the answer below the decimal points in the numbers in the problem.

**EXAMPLE**

If your weekly paycheck is $128.99 and your bills are $115.98, how much money do you have leftover for the week?

1. Line up the decimal points. 
   
   | $128.99   |
   | -115.98   |
   | $ 13.01   |

2. Subtract the numbers.

3. Place a decimal point in the answer below the decimal points in the numbers in the problem.

(The answer is $13.01.)

Remember: A good way to check subtracting is to add the answer and the second number and see if you get the top number.
When subtracting a whole number and a number with a decimal, remember that the numbers must be in line with numbers of the same place value. The tens, ones, tenths, and hundredths must be lined up with equal values.

EXAMPLE

If you need 22.22 inches of fabric for a project and you have 36 inches of fabric, how much fabric will be left?

1. Write 36 as 36.00. Line up the decimal points.

2. Subtract the numbers as if the dots were not there, renaming when necessary.

   (Note: Check the subtraction skill page to review renaming)

   \[
   \begin{array}{c}
   \text{5 9 10} \\
   \underline{36.00} \\
   \underline{- 22.22} \\
   \hline
   13.78
   \end{array}
   \]

3. Bring the decimal point straight down into the answer.

   (The answer is 13.78 inches.)
SKILL: MULTIPLYING DECIMALS

Multiplying decimals is just like multiplying with whole numbers except for placing a decimal point in the final answer.

HOW THE SKILL WORKS

1. Multiply as usual.

2. Count the number of digits to the right of the decimal point in both numbers.

3. The answer will have the same number of digits after the decimal point as found in step 2. Place the decimal point correctly in the answer.

EXAMPLE

If a student earned an average of $5.64 on fund raisers for FHA/HERO per month for 3.5 months, how much money has he/she raised?

1. Multiply as you would with whole numbers.

   $\begin{array}{c}
   5.64 \\
   \times \quad 3.5 \\
   \hline
   2820 \\
   1692 \\
   \hline
   19.740
   \end{array}$

2. Count the number of digits to the right of the decimal point in both numbers. There are two digits in 5.64 to the right of the decimal point. There is one digit in 3.5 to the right of the decimal point.

3. Place the decimal point correctly in the answer. Count from the last digit on the right toward the left.

   Remember: If you do not have enough digits in your answer to place the decimal correctly, add needed zeros on the left of the digits.

   (The answer is $19.74$.)
SKILL: DIVIDING DECIMALS

Division is the process of separating a quantity into equal parts. There are three ways you may see a division problem written.

\[
\frac{\text{dividend}}{\text{divisor}} = \text{quotient} \quad \text{or} \quad \text{dividend} \div \text{divisor} = \text{quotient}
\]

HOW THE SKILL WORKS

1. Make the divisor a whole number by moving the dot (decimal) to the right side of the last digit.
2. Move the dot the same number of places in the dividend.
3. Divide as usual.
4. Put a dot in the quotient (answer) directly above the dot in the dividend.

EXAMPLE

The FHA/HERO members have earned $1,702.45. They would like to buy computers for their classroom. Each computer costs $423.50. How many computers can they purchase?

1. Make the divisor a whole number by moving the decimal to the right side of the last digit.

\[
\begin{array}{c}
423.50. \\
\hline
1702.45
\end{array}
\]

2. How far did you move the dot in the outside number? Move the decimal the same number of places in the inside number. Add zeros if needed.

\[
\begin{array}{c}
42350. \\
\hline
170245.
\end{array}
\]

3. Divide as usual.

\[
\begin{array}{c}
42350. \\
\hline
170245. \\
169400 \\
845
\end{array}
\]
4. Put a dot in quotient (answer) directly above the dot in the dividend.

\[
\begin{array}{c}
42350.
\end{array}
\begin{array}{c}
170245.
\end{array}
\begin{array}{c}
169400
\end{array}
\begin{array}{c}
845
\end{array}
\]

(The answer is 4 computers.)

If there is a decimal point in the dividend and divisor, you must move both decimal points to the right an equal number of places.

EXAMPLE

Divide 811.2 by 2.6

1. Make the divisor a whole number by moving the dot (decimal) to the right side of the last digit.

\[
\begin{array}{c}
31 2.
\end{array}
\begin{array}{c}
2.6.
\end{array}
\begin{array}{c}
811.2.
\end{array}
\begin{array}{c}
-78
\end{array}
\begin{array}{c}
31
\end{array}
\begin{array}{c}
-26
\end{array}
\begin{array}{c}
52
\end{array}
\begin{array}{c}
-52
\end{array}
\]

3. Divide as you would with whole numbers.

4. Put a dot (decimal) in the quotient (answer) directly above the dot in the dividend.

(The answer is 312.)
SKILL: UNDERSTANDING FRACTIONS

Fractions express a specific part of a whole. Each whole can be divided into parts.

- This whole box is shaded.
- Half of this box is shaded.
- One-fourth of this box is shaded.

All of these amounts can be written as fractions.

\[
\begin{align*}
\text{This whole box} & = \frac{1}{1} \\
\text{Half of this box} & = \frac{1}{2} \\
\text{One-fourth of this box} & = \frac{1}{4}
\end{align*}
\]

Fractions have a numerator and a denominator. The numerator is the number on the top of a fraction and the denominator is the number on the bottom.

EXAMPLE

If a fraction is \( \frac{1}{2} \) the numerator is 1 and the denominator is 2.
SKILL: ADDING AND SUBTRACTING FRACTIONS

The denominators of fractions must be the same before they may be added or subtracted. When the denominators of fractions are the same, the numerator may be added or subtracted.

EXAMPLE

What is $\frac{1}{2}$ teaspoon plus $\frac{5}{8}$ teaspoon?

HOW THE SKILL WORKS

Step 1

Change $\frac{1}{2}$ to an equivalent fraction with a common denominator of 8.

$$\frac{1}{2} = \frac{2}{8}$$

Step 2

Add the numerators. The denominator will stay the same.

$$\frac{4}{8} + \frac{5}{8} = \frac{9}{8}$$

Step 3

The sum of the two fractions is greater than 1. When the numerator of a fraction is larger than the denominator, the fraction is greater than one. Divide the numerator by the denominator to find the whole number. The remainder becomes the numerator of the fractional part of the answer.

$$\frac{9}{8} = 1 \frac{1}{8}$$

(The answer is 1 and $\frac{1}{8}$.)
The denominator of fractions must be the same before they may be subtracted.

EXAMPLE

If you stitched a $\frac{5}{8}$ inch seam rather than a $\frac{1}{2}$ inch seam indicated in the pattern, how much too wide is your seam?

HOW THE SKILL WORKS

Step 1

Change $\frac{1}{2}$ to an equivalent fraction with a common denominator of 8.

\[
\frac{1}{2} = \frac{?}{8}
\]

(The answer is $\frac{1}{8}$ inch too wide.)

Step 2

Subtract the numerators. The denominator will stay the same.

\[
\frac{5}{8} - \frac{4}{8} = \frac{1}{8}
\]

(The answer is $\frac{1}{8}$ inch too wide.)
SKILL: MULTIPLYING FRACTIONS

HOW THE SKILL WORKS

The numbers in the numerator are multiplied together and the numbers in the denominator are multiplied together when fractions are multiplied.

EXAMPLE

\[
\frac{1}{4} \times \frac{3}{4} = \ ?
\]

1. \( \frac{1}{4} \times \frac{3}{4} = \ ? \)

2. \( \frac{1}{4} \times \frac{3}{4} = \frac{3}{16} \)

(The answer is \( \frac{3}{16} \).)
SKILL: DIVIDING FRACTIONS

HOW THE SKILL WORKS

The numerator and denominator are inverted in the second number when fractions are divided. Then the numerators are multiplied together and the numbers in the denominator are multiplied together.

EXAMPLE

\[
\frac{3}{4} \div \frac{1}{2} = \ ?
\]

1. \( \frac{3}{4} \div \frac{1}{2} = \ ? \)

2. \( \frac{1}{2} \) changes to \( \frac{2}{1} \) because the second number was inverted.

3. \( \frac{3}{4} \times \frac{2}{1} = \frac{6}{4} \) Reduce \( \frac{6}{4} \) by dividing 6 by 4 to \( 1 \frac{2}{4} \).

The sum of the two fractions is greater than 1. When the numerator of a fraction is larger than the denominator, the fraction is greater than one. Divide the numerator by the denominator to find the whole number. The remainder becomes the numerator of the fractional part of the answer.

4. \( 1 \frac{2}{4} \) can be stated in lower terms because both the numerator and denominator of \( \frac{2}{4} \) can be divided by 2.

\[
\frac{2}{4} = \frac{2}{4} \div \frac{2}{1} = \frac{1}{2}
\]

(The answer is \( 1 \frac{1}{2} \).)

Remember: Mixed numbers must be changed to improper fractions before inverting the second number.
SKILL: CHANGING MIXED NUMBERS TO IMPROPER FRACTIONS

Mixed numbers are a combination of whole numbers and fractions. Mixed numbers must be changed to improper fractions before starting to add, subtract, multiply and divide.

HOW THE SKILL WORKS

Write the mixed numbers as improper fractions by multiplying the whole number by the denominator and then adding the numerator and put back over the same denominator.

EXAMPLE

If you need 2 1/2 yards of fabric for a chair and 1 1/8 yard of the same fabric for a pillow, how much fabric should you buy?

1. Multiply the whole number by the denominator.
   
   \[
   \begin{align*}
   2 \frac{1}{2} & \times 2 (\text{denominator}) = 4 \\
   1 \frac{1}{8} & \times 8 (\text{denominator}) = 8 \\
   \end{align*}
   \]

2. Add the numerator to the product in step 1.
   
   \[
   \begin{align*}
   4 + 1 (\text{numerator}) = 5 \\
   8 + 1 (\text{numerator}) = 9 \\
   \end{align*}
   \]

3. Write the sum over the original denominator.
   
   \[
   \begin{align*}
   \frac{5}{2} \\
   \frac{9}{8} \\
   \end{align*}
   \]

4. The denominators must be the same before the amounts can be added. \( \frac{5}{2} \) must be changed to \( \frac{2}{8} \). Multiply the numerator and denominator of \( \frac{5}{2} \) by the same number.
   
   \[
   \begin{align*}
   \frac{5 \times 4}{2 \times 4} & = \frac{20}{8} \\
   \end{align*}
   \]

5. Follow the steps for adding fractions and write the answer as a mixed number.
   
   \[
   \begin{align*}
   \frac{20}{8} + \frac{9}{8} & = \frac{29}{8} \\
   \frac{29}{8} & = 3 \frac{5}{8} \\
   \end{align*}
   \]

(The answer is 3 and \( \frac{5}{8} \) yards of fabric.)
SKILL: DETERMINING PROPORTION

A proportion is two equal fractions.

HOW THE SKILL WORKS

Check to determine if two fractions are equal by using "cross multiplication". Notice the "cross-check" below.

\[
\frac{1}{2} \times \frac{2}{4}
\]

This means that \(1 \times 4\) is equal to \(2 \times 2\).

Proportion is used to solve problems if one of the numbers is not known.

\[
\begin{align*}
\frac{n}{3} & = \frac{6}{9} \\
3 \times 9 & = 3 \times 6 \\
n \times 9 & = 18 \\
9 \times n & = 18
\end{align*}
\]

To find \(n\), divide 18 by 9. The answer is \(n = \frac{2}{3}\).
The proportion of grams of flour to sugar in a recipe is 5 to 7. There is a total 105 grams of flour. How many grams of sugar are in the recipe?

Use the following steps to solve a proportion word problem.

1. Write the proportion or relationship in number of grams of sugar to flour as a fraction.
   
   5 to 7 means \( \frac{5}{7} \)

2. Find the words that describe these numbers.
   
   sugar to flour means \( \frac{sugar}{flour} \)

3. Write the proportion.
   
   \( \frac{5}{7} = \frac{sugar}{flour} \)

4. Match the remaining number in the problem with appropriate word.
   
   105 grams of flour Replace that word with the number.
   
   \( \frac{5}{7} = \frac{sugar}{flour} \quad 105 \)

5. Solve the proportion using cross multiplication.
   
   \( \frac{5}{7} \times \frac{sugar}{105} \)
   
   \( \frac{5}{7} = \frac{?}{105} \)
   
   \( 5 \times 105 = 7 \times ? \)
   
   \( 525 = 7 \times ? \)
   
   \( ? = \frac{525}{7} \quad ? = 75 \)

There are 75 grams of sugar in the recipe.
SKILL: COMPUTING AN AVERAGE

An average is a typical amount, rate, or quantity.

HOW THE SKILL WORKS

An average is formed by: (1) adding all the single items and (2) dividing the sum of the single items by the number of single items.

To find the average of a group of numbers:

1. Add the items to be averaged.
2. Determine the number of items to be averaged.
3. Divide the sum of items to be averaged by the number of items.

EXAMPLE

Karen earned the following points on assignments and tests in her home economics class. What was her average number of points?

| Assignment #1 — 73 points |
| Assignment #2 — 61 points |
| Midterm Test — 72 points |
| Assignment #3 — 81 points |

Step 1: Find the total.  
Step 2: Divide by 4.

\[
\begin{align*}
73 & \quad 71.75 \\
61 & \quad 4 \\
72 & \quad 287.00 \\
81 & \\
287 &
\end{align*}
\]

(Karen’s average was 71.75.)
SKILL: DETERMINING RANK ORDER

Rank order determines how one element precedes another.

HOW THE SKILL WORKS

Rank ordering means arranging numbers from largest to smallest or smallest to largest.

1. List the digits in each number in a column with the decimal points in alignment.

2. List the numbers in order from highest to lowest (large to small).

EXAMPLE

FHA/HERO members sold healthy snacks for a money making project. The students and amount sold by each student are listed below.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Carol</td>
<td>$45.32</td>
</tr>
<tr>
<td>Cecelia</td>
<td>10.25</td>
</tr>
<tr>
<td>Kim</td>
<td>22.23</td>
</tr>
<tr>
<td>Floyd</td>
<td>10.09</td>
</tr>
<tr>
<td>Don</td>
<td>14.22</td>
</tr>
<tr>
<td>Paul</td>
<td>52.99</td>
</tr>
</tbody>
</table>

Who sold the second highest amount?

SOLUTION: List the numbers in order from highest to lowest.

Paul 52.99
Carol 45.32
Kim 22.23
Don 14.22
Cecelia 10.25
Floyd 10.09

52.99 • first
45.32 • second

(Carol sold the second highest amount.)
SKILL: Rounding Numbers

When decimals are added, subtracted, multiplied, or divided, the answer may have more decimal places than you wish. The answer can be rounded to fewer decimal places or to a whole number.

How the Skill Works

1. Locate the digit to which the number is to be rounded.

2. Check the digit to the right of the key digit.

3. If the digit is to the right is 5 or greater, add 1 to the key digit.

5.6 rounds to 6

4. Drop all digits to the right of the key digit if you are dealing with a decimal fraction. If you are rounding to tens, hundreds, etc., change the digits to zero.

5.3 rounds to 5

Example

On Sarah's income tax return, she can round all the numbers to the nearest dollar. If her income is $2,234.65, what is the rounded amount?

If Sarah's income of $2,234.35 is rounded to the nearest dollar, we only look at the last place we want to round to and the first digit to the right. If the first digit to the right is 5 or more, add one to the digit in the place to which you wish to round.

| $2,234.65  | Look at the last number in the dollar amount. |
| $ 4.65   | Look at the number to the right. Since it is more than 5, add 1 to the 4. |
| $ 5.00   | Her income rounded to the nearest dollar is $2,235.00. |
SKILL: COMPUTING A PERCENTAGE

A percent is another name for a fraction (ratio) which has a denominator of 100.

HOW THE SKILL WORKS

The top stand for part: For example, 25% means \( \frac{25}{100} = \frac{\text{part}}{\text{whole}} \).

Use the following steps to solve a word problem involving percentages.

1. Write the percent as a fraction.
2. Write the \( \frac{\text{part}}{\text{whole}} \) proportion.
3. Match the remaining number in the problem with "part" or "whole". Replace "part" or "whole" with that number.
4. Solve the proportion using cross multiplication.

EXAMPLE

There are 375 grams of flour in the bread recipe. Forty-four percent of the flour is whole wheat. How many grams of whole wheat flour are used?

1. Write the percent as a fraction.
   \[ 44\% \text{ means } \frac{44}{100} \]
2. Write the \( \frac{\text{part}}{\text{whole}} \) proportion.
   \[ \frac{44}{100} = \frac{\text{part}}{\text{whole}} \]
3. Match the remaining number in the problem with "part" or "whole". The number 375 stands for grams of flour in the recipe. It replaces "whole".
   \[ \frac{44}{100} \]
4. Solve the proportion using cross multiplication.

\[
\frac{44}{100} = \frac{n}{375} \quad (n \text{ stands for unknown number})
\]

\[
\frac{44}{100} = \frac{n}{375}
\]

\[
44 \times 375 = 100 \times n \quad \frac{375}{16,500} = 100 \times n \quad \text{x44}
\]

\[
\begin{array}{c}
1500 \\
150 \\
16500
\end{array}
\]

\[n = \frac{165}{100} \left[ \frac{16,500}{-100} \right] \]

\[
\begin{array}{c}
650 \\
-600
\end{array}
\]

\[
\begin{array}{c}
500 \\
-500
\end{array}
\]

\[0\]

(The answer is 165 grams of whole wheat flour.)

This problem could be solved another way.

1. Change the percent to a decimal by moving point two places to the left.

   44\% \text{ means } \frac{44}{100} \text{ which is equal to .44}

2. Multiply the decimal by the total grams of flour.

\[
\frac{375}{x} \cdot .44
\]

\[
\begin{array}{c}
1500 \\
1500
\end{array}
\]

\[165.00 \quad (\text{The answer is 165.})\]
EXAMPLE

Mr. Rogers wants to lose 25% of his body weight. If his weight loss goal is 50 pounds, how much does he weigh?

HOW THE SKILL WORKS

1. Write the percent as a fraction.
   
   \[
   25\% = \frac{25}{100}
   \]

2. Write the part/whole proportion
   
   \[
   \frac{25}{100} = \frac{\text{part}}{\text{whole}}
   \]

3. Match the remaining number in the problem with "part" or "whole". The number 50 stands for the weight Mr. Rogers wants to lose. It will replace "part".

   \[
   \frac{25}{100} = \frac{50}{\text{part}}
   \]

4. Solve the proportion using cross multiplication.

   \[
   \frac{25}{100} = \frac{50}{n}
   \]
   
   \[
   50 \times 100 = 25 \times n \times 100
   \]
   
   \[
   5000 = 25 \times n \times \frac{50}{5000}
   \]
   
   \[
   n = \frac{200}{25 \times 5.000}
   \]
   
   \[
   n = 200
   \]

(The answer is 200 pounds.)
EXAMPLE

Sally has a monthly income of $800. She budgets $40 a month for insurance. What percentage of her monthly income is spent on insurance?

HOW THE SKILL WORKS

Divide the amount spent on insurance by the total monthly income to find the percentage of Sally’s monthly income spent on insurance.

Step 1

\[
\begin{array}{c}
\text{.05} \\
800 \underline{40.00} \\
40.00 \\
0
\end{array}
\]

(The answer is 5%.)

Step 2

Convert .05 to a percentage by moving the dot two places to the right:

\[
.05 \times 100 = 5\
\]
SKILL: COMPUTING WITH MEASUREMENT DATA

Measurement may be determined by units on a measuring instrument such as a thermometer, scale, measuring cup, or measuring spoon. The chart below lists some examples of measurement and units.

<table>
<thead>
<tr>
<th>Type of Measurement</th>
<th>Unit of Measurement</th>
<th>Abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance</td>
<td>inch</td>
<td>in. or &quot;</td>
</tr>
<tr>
<td></td>
<td>foot</td>
<td>ft. or '</td>
</tr>
<tr>
<td></td>
<td>yard</td>
<td>yd.</td>
</tr>
<tr>
<td></td>
<td>mile</td>
<td>mi.</td>
</tr>
<tr>
<td>Temperature</td>
<td>degree</td>
<td>°</td>
</tr>
<tr>
<td>Weight</td>
<td>ounce</td>
<td>oz.</td>
</tr>
<tr>
<td></td>
<td>pound</td>
<td>lb.</td>
</tr>
<tr>
<td>Area</td>
<td>square inch</td>
<td>sq. in.</td>
</tr>
<tr>
<td></td>
<td>square foot</td>
<td>sq. ft.</td>
</tr>
<tr>
<td></td>
<td>square yard</td>
<td>sq. yd.</td>
</tr>
<tr>
<td>Volume</td>
<td>cup</td>
<td>c.</td>
</tr>
<tr>
<td></td>
<td>tablespoon</td>
<td>T. or Tbsp.</td>
</tr>
<tr>
<td></td>
<td>teaspoon</td>
<td>t. or tsp.</td>
</tr>
</tbody>
</table>

When you compute measurements, you may add, subtract, multiply, or divide similar units of measurement. It is often necessary to change from one unit of measurement to a smaller or larger unit.

Distance
1 foot = 12 inches
1 yard = 3 feet
Fahrenheit to Celsius
\[ C = \frac{5}{9} (F - 32) \]
\( C = \text{Celsius} \) and \( F = \text{Fahrenheit} \)

Weight
1 pound = 16 ounces

Volume
16 tablespoons = 1 cup
3 teaspoons = 1 tablespoon
Look at the measurement scales on a ruler to determine length. Add measurement data as you would whole numbers. Convert measurement data to larger and smaller units when necessary.

HOW THE SKILL WORKS

Read the nearest measurement mark on a ruler or tape measure to determine length. Add as you would with whole numbers, making necessary conversions.

EXAMPLE

If you are making a picture frame for the illustration below, how many inches of frame would you need?

Solution steps:

1. Read the ruler to determine the width and height. Width = 3 inches, Height = 1 and 3/4 inches

2. To frame the illustration, the height must be used two times, and the width must be used two times.
   
   3 inches $\times$ 2 = 6 inches
   1 3/4 inches $\times$ 2 = 3.5 inches

3. Add to find the length of frame needed.

   $6$ inches
   + $3.5$ inches
   $= 9.5$ inches
EXAMPLE

If you had two pieces of ribbon, one 5 feet 3 inches and one 2 feet 8 inches, how much ribbon would you have?

HOW THE SKILL WORKS

<table>
<thead>
<tr>
<th>Problem</th>
<th>Step 1</th>
<th>Step 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 feet 3 inches</td>
<td>5 feet 3 inches</td>
<td>5 feet 3 inches</td>
</tr>
<tr>
<td>+ 2 feet 8 inches</td>
<td>+ 2 feet 8 inches</td>
<td>+ 2 feet 8 inches</td>
</tr>
<tr>
<td></td>
<td>11 inches</td>
<td>7 feet 11 inches</td>
</tr>
</tbody>
</table>

Add the number of inches together: 

8 + 3 = 11

Add the number of feet together: 

5 + 2 + 7

Thus: 

5 feet 3 inches
+ 2 feet 8 inches
7 feet 11 inches

Convert 7 feet to yards: 

(3 feet = 1 yard)

\[
\begin{align*}
2 \text{ yards} \\
3 \text{ feet} & \quad 7 \text{ feet} \\
6 & \quad 1 \text{ foot}
\end{align*}
\]

(The answer is 2 yards, 1 foot, 11 inches.)
SKILL: SUBTRACTING MEASUREMENT DATA

Subtraction is the process of deducting a part from a whole. Subtract measurement data as you would whole numbers making conversions when necessary.

EXAMPLE

To purchase material for a long coat, you need 6 yards and 1 foot of fabric. You could make a shorter coat with 2 yards and 2 feet less fabric. How much fabric should you purchase for the short coat?

HOW THE SKILL WORKS

STEP 1.

<table>
<thead>
<tr>
<th>6 yards 1 foot</th>
<th>- 2 yards 2 feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

STEP 2.

<table>
<thead>
<tr>
<th>6 yards 1 foot</th>
<th>Exchange 1 yard for 3 feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2 yards 2 feet</td>
<td>(1 yard = 3 feet)</td>
</tr>
</tbody>
</table>

STEP 3.

<table>
<thead>
<tr>
<th>5 yards 4 feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2 yards 2 feet</td>
</tr>
<tr>
<td>3 yards 2 feet</td>
</tr>
</tbody>
</table>

(The answer is 3 yards, 2 feet or 3 and 2/3 yards.)
SKILL: MULTIPLYING MEASUREMENT DATA

Multiplying is the addition of a number to itself as often as indicated by another number. Multiply measurement data as you would whole numbers, making conversions when necessary.

EXAMPLE

You are making muffins for your class picnic. The recipe must be increased six times. The recipe calls for 3 tablespoons of sugar. How much sugar will you need?

HOW THE SKILL WORKS

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 : tablespoons</td>
<td>Convert 18 tablespoons into cups:</td>
</tr>
<tr>
<td>\times 6</td>
<td>16 tablespoons = 1 cup</td>
</tr>
<tr>
<td>18</td>
<td>1 cup R. 2 tablespoons</td>
</tr>
<tr>
<td></td>
<td>16 [\bar{1} \ 18]</td>
</tr>
<tr>
<td></td>
<td>16 [\bar{16}]</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

The amount is 1 cup and 2 tablespoons.
SKILL: DIVIDING MEASUREMENT DATA

Division is the process of separating a whole into equal parts. Divide measurement data as you would whole numbers, making conversions when necessary.

EXAMPLE

You have purchased 3 pounds 8 ounces of meat to divide into 4 ounce portions. How many portions will you have?

HOW THE SKILL WORKS

Step 1  Convert 3 pounds into ounces.

1 pound = 16 ounces

16 ounces
x 3 pounds
48 ounces

Step 2  Add 8 ounces to 48 ounces

48 ounces
+ 8 ounces
56 ounces

Step 3  Divide 56 ounces (weight of meat) by 4 ounces (portion size)

14 servings
4
56
4
16
16
0

(The answer is 14 servings.)
**SKILL: GRAPHS AND TABLES**

Graphs and tables show information. Information may be illustrated in a bar graph, line graph, circle graph, or table. A graph is interpreted by comparing the illustrated information to markings on the graph or table’s scale.

**SKILL: READING A BAR GRAPH**

A bar graph shows information with vertical or horizontal bars.

**HOW THE SKILL WORKS**

Read the scale on the left to find a particular label. Follow the bar across and read the scale on the bottom.

**EXAMPLE**

After the international foods unit, how many students said that American foods were their favorite?

<table>
<thead>
<tr>
<th>Students' Favorite Foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexican</td>
</tr>
<tr>
<td>Italian</td>
</tr>
<tr>
<td>American</td>
</tr>
<tr>
<td>Chinese</td>
</tr>
<tr>
<td>French</td>
</tr>
</tbody>
</table>

Number of Students

1. Find the bar that stands for American foods.

2. Read the number on the scale at the bottom of the graph.

(The answer is 25.)
SKILL: READING A LINE GRAPH

A line graph shows information with lines connecting points on a scale.

HOW THE SKILL WORKS

Look for upward or downward trends in lines. Read down or across to a scale.

EXAMPLE

During what period of time did the percentage of working students decline?

Find the part of the working students line that goes downward from left to right.

Percentage of Working Students

1. Read the years at the bottom of the graph.
2. Note the downward line.

(The answer is 1981-82.)
SKILL: READING A CIRCLE GRAPH

A circle graph shows information with “slices” of a circle.

HOW THE SKILL WORKS

Read labels on each slice of the chart.

EXAMPLE

What percentage of families are married without children?

U.S. Household Types

- Married Couples with Children (27%)
- Non-families (28%)
- Families without a Married Couple (15%)
- Married Couples Without Children (30%)

Thirty percent of U.S. families are married couples without children.

SKILL: READING A COLUMN GRAPH

A column graph lists information in columns.

HOW THE SKILL WORKS

Read across the columns to discover information about items.

EXAMPLE

Which item increased by 32 cents from 1978 to 1990?

Table 1

<table>
<thead>
<tr>
<th>Grocery Items</th>
<th>1978 Price</th>
<th>1990 Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 oz. canned corn</td>
<td>.31</td>
<td>.42</td>
</tr>
<tr>
<td>16 oz. canned green beans</td>
<td>.32</td>
<td>.38</td>
</tr>
<tr>
<td>14 oz. frozen peas</td>
<td>.56</td>
<td>.65</td>
</tr>
<tr>
<td>10 oz. frozen peaches</td>
<td>.63</td>
<td>.85</td>
</tr>
<tr>
<td>12 oz. canned soft drink</td>
<td>.40</td>
<td>.55</td>
</tr>
<tr>
<td>5 lb. sugar</td>
<td>1.28</td>
<td>1.60</td>
</tr>
</tbody>
</table>

Read across the columns to items.

1. Locate the 1978 column.
2. Locate the 1990 column.
3. To determine the increase between these two years, subtract the 1978 column from the 1990 column.

   1.00 - 1.28 = .32 or 32¢

   (The answer is sugar.)
SKILL: READING A THERMOMETER

Look at the scale marked on a thermometer to determine the temperature.

HOW THE SKILL WORKS

Read the mercury level to the closest marking on the thermometer scale.

EXAMPLE

If a recipe requires 300 degrees, how much more must the temperature on the thermometer rise?

Solution steps:

1. Read thermometer to determine current temperature. (260)

2. Subtract current temperature reading from 300. (300 - 260)

(The answer is 40.)
Speech
SPEECH

A speech allows you to communicate your ideas to a group of people.

HOW THE SKILL WORKS

There are nine basic steps to follow in preparing a speech.

1. Analyzing the audience.
2. Choosing a topic.
3. Determining the purpose of the speech.
5. Making an outline.
6. Organizing the content.
7. Writing a full sentence speech.
8. Rehearsing the speech.
9. Delivering the speech.
SKILL: ANALYZING THE AUDIENCE

A variety of factors make people who they are, and these factors must be considered when preparing a speech. Analyze your audience and the situation before you begin to write a speech.

Who are the audience? What are their age, sex, and education?

What is the attitude of the audience? Will the audience have a positive or negative attitude about the topic?

What is the size of the audience? Is it a small or large group? A small group will usually be more attentive to the speaker.

What is the situation? You may be on stage or behind a podium with a large group.

EXAMPLE

You will give a speech to the independent living class on any subject related to marriage. The audience is fifteen male and fifteen female class members.
SKILL: CHOOSING A TOPIC

Find a topic that is interesting to you.

HOW THE SKILL WORKS

Choose a topic that is interesting to the members of your audience and keep in mind their level of knowledge.

Choose a topic that is appropriate for you and interests you enough to do the necessary research.

Choose a topic that is appropriate for the situation.

EXAMPLE

The topic for this speech will be teenage marriage.
SKILL: DETERMINING THE PURPOSE

Decide on the purpose for giving the speech.

HOW THE SKILL WORKS

Almost every speech has at least one of three main purposes.

To inform: Explain how something works, how to do something, or what something means.

To persuade: A particular position is taken by the speaker who tries to get the audience to accept and support that position.

To entertain: A pleasant or humorous experience is provided for the audience in an informal setting.

EXAMPLE

The speech will attempt to persuade teens to delay marriage.
SKILL: GATHERING INFORMATION

If your speech requires information that you do not know, you will need to do research.

HOW THE SKILL WORKS

Use one of the following methods to gather more information for your speech.

Personal experience: Observe the subject matter yourself.

Interview an expert on the subject: Talk directly to someone who has first-hand knowledge.

Use the Library: Locate information in books, magazines, newspapers, and pamphlets. Use up-to-date references.

EXAMPLE

The following references were used to write the speech.

An interview with three women who were married as teenagers.


SKILL: MAKING AN OUTLINE

Standard outlines use Roman numerals and upper case letters to number the main points in an outline.

HOW THE SKILL WORKS

Plan your speech with an outline. Major points are indicated with Roman numerals and upper case letters. Minor points are numbered with Arabic numbers and lettered with lower case letters. Always have at least two points at the same level. Full sentence and key word are two major types of outlines.

Full sentence outlines contain ideas in complete statements.

Key word outlines give only important words and phrases.

The main function of an outline is to assist in writing the full text of a speech or to remind the speaker of ideas when delivering the speech.

EXAMPLE

<table>
<thead>
<tr>
<th>I.</th>
<th>Teens expect to live happily ever after.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Teen marriages are 2 to 4 times more likely to break up as marriages of people in their 20's.</td>
</tr>
<tr>
<td>B.</td>
<td>Sixty percent of all teen marriages end in divorce within 5 years.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II.</th>
<th>New choices must be made.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Who will cook?</td>
</tr>
<tr>
<td>B.</td>
<td>Who will pay the bills?</td>
</tr>
<tr>
<td>C.</td>
<td>Should I quit school?</td>
</tr>
<tr>
<td>D.</td>
<td>Who will make car payments?</td>
</tr>
<tr>
<td>E.</td>
<td>Who will clean?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>III.</th>
<th>Teens who marry have similar characteristics.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>They have not developed a strong self identity.</td>
</tr>
<tr>
<td>B.</td>
<td>They are still changing.</td>
</tr>
<tr>
<td>C.</td>
<td>They lack job skills.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IV.</th>
<th>Building a marriage is hard.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>It is difficult at any age.</td>
</tr>
<tr>
<td>B.</td>
<td>It is more difficult for a teenager.</td>
</tr>
</tbody>
</table>
SKILL: ORGANIZING THE CONTENT

Most speeches are organized in three parts, just the same as in writing (composing) a paper — introduction, body, and conclusion.

HOW THE SKILL WORKS

Organize ideas and information so you can see all the parts and how they relate to the whole outline format. After the content is organized, choose a title.

Introduction

The introduction of the speech gives an idea of what the speech is about. An introduction peaks the audience’s interest, while previewing the main points. Some attention-getting devices are:

* humor
* anecdotes
* experiences
* startling information
* questions
* personal experiences

Body of the Speech

The body presents the main points with supporting details. Always make sure the details are closely related to the topic and that they are interesting. Main points may be presented in order of importance, order of occurrence, or from simple facts to complex ideas.

The organizational pattern is the way you arrange or structure the body of the speech. Some organizational patterns are:

* Cause and Effect — This type speech is divided into two major parts. One part is the cause (why something happened), and the other is the effect (what impact it is having).

* Problem and Solution — This type speech is divided into two major parts. One part deals with the problem, and the other with the solution.

* Time and Order — This speech shows development over time.

* Spatial Order — This speech shows the audience how the parts make up the whole. The audience can visualize the topic.
* Motivated Sequence: speech develops a problem solving pattern. The sequence is designed to persuade listeners to a point and then motivate them to take action. The full pattern has five steps.

1. Attention — call attention to the subject.
2. Need — develop the need for change.
3. Satisfaction — present the solution.
4. Visualization — show the result with the solution.
5. Action — indicates the type of action necessary.

Conclusion

The conclusion should help the audience feel that the speech is finished and tie all ideas together. It may summarize main ideas and use quotations. This is the last opportunity to leave the audience something to think about.

Title

Choose a title that is interesting and conveys the message of the speech.

EXAMPLE

This speech follows a topical pattern of organization. All the main points are illustrations of the central idea that teenage youth have great expectations about marriage. These expectations often do not come true. The speech outline is on the left. The commentary is on the right.

TITLE: Great Expectations

SPECIFIC PURPOSE: To persuade teens to delay marriage and become aware of some marriage responsibilities

CENTRAL IDEA: Teenage youth have great expectations from marriage that often do not come true.

INTRODUCTION:

Greg Weaver moved next door to Lisa Carr in January. Since Greg was new in town, Lisa invited him to the high school valentine dance. They were voted the cutest couple at the dance. During the next weeks, they spent all their free time together.

Lisa's father received a wonderful promotion and had to relocate to another city. Greg and Lisa felt they couldn't be separated by so many miles and decided to get married.

Like most teens, Greg and Lisa planned to live happily ever after! They entered their marriage with great expectations.

(When you add a new main point, ask yourself if it ties directly with your purpose and central idea.)

(Using a hypothetical narrative allows the audience to identify with the topic.)
The sad fact is that marriages between teenagers are 2 to 4 times more likely to break up than marriages of people in their 20's.

BODY:
I. According to information from the Planned Parenthood organization, 60% of all teenage marriages end in divorce within 5 years.

A. Many teens dream of their wedding day, the honeymoon, and having their own home and family. Their marriage will be different.

B. They will have many new choices unlike any they have dealt with before.
1. Eat what they want — Who will cook it?
2. Spend money as you want — Bills, bills, bills.
3. Quit school — Few job choices will be available.
4. Own your own car — Complete with payments and repairs.
5. Clean your room — Clean all rooms, vacuum, and mop.

C. An individual who marries while still a teenager frequently has not had time to develop a strong self-identity.
1. People change during adolescent years.
2. Teens lack job skills.

CONCLUSION: Building a lifelong relationship is a challenge at any age; however, for a teenage child the great expectations of a beautiful life together is much harder to achieve.
SKILL: WRITING A FULL SENTENCE SPEECH

A full sentence speech is the complete text of a speech. A speaker may choose to use a full sentence speech or talk from an outline. The speech should not be memorized or read to the audience. The speaker should use the complete text or outline to “speak” the speech.

HOW THE SKILL WORKS

The speech may be written in paragraph form following the outline.

EXAMPLE

<table>
<thead>
<tr>
<th>GREAT EXPECTATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Specific purpose</strong> of the speech is to delay marriage and become aware of some of the responsibilities of marriage.</td>
</tr>
<tr>
<td><strong>Central idea</strong> is teenage youth have great expectations for marriage that too often do not come true.</td>
</tr>
<tr>
<td>Greg Weaver moved next door to Lisa Carr. Since Greg was new in town, Lisa invited him to the high school Valentine dance. They were voted the cutest couple at the dance. During the next weeks, they spent all their free time together.</td>
</tr>
<tr>
<td>Lisa’s father received a wonderful promotion and relocated to another city. Greg and Lisa felt they couldn’t be separated by so many miles. They decided to get married. Like most teens, Greg and Lisa planned to live happily ever after. They entered the marriage with great expectations.</td>
</tr>
<tr>
<td>The saddest fact is that marriages between teenagers are 2 to 4 times more likely to break up as marriages of people in their 20’s.</td>
</tr>
<tr>
<td>According to information from the Planned Parenthood organization, 60% of all teenage marriages end in divorce within 5 years. Many teens dream of their own home and raising a family. They know that their marriage will be different. It will fulfill their greatest expectation.</td>
</tr>
<tr>
<td>After the wedding, there are many new choices unlike any we have dealt with before. Although, now we can eat what we want to, who is going to cook it. Now we have a large family, the in-laws! Now we can spend our money without telling Dad where it went. Yes, now we can pay the rent bill, cable bill, electric bill, telephone bill, and those groceries really do cost a lot of money.</td>
</tr>
<tr>
<td>Oh wow! Now we don’t have to go to school. This helps when we decide which job to get as there are fewer job choices for a high school drop-out. And a dream come true — owning a car. The car comes complete with car payments, insurance bills, and expenses for gas, tires, and repairs when it breaks.</td>
</tr>
<tr>
<td>But now Mom doesn’t check to see if the bedroom is clean everyday. Yes, instead we get to clean the entire house! We can scrub the tub, clean the commode, sweep, mop, and vacuum.</td>
</tr>
<tr>
<td>Developmental psychologist Dr. Creggs stated that “An individual who marries while a teenager frequently has not had time to develop a strong self identity.” Changes during adolescent years are part of the reasons why teenage marriages fail. Another factor is the lack of training to get a good-paying job. Building a lifelong relationship is a challenge at any age; however, for a teenage child the great expectation of a beautiful marriage is much harder to achieve.</td>
</tr>
</tbody>
</table>
SKILL: REHEARSING

Practice will give you confidence and make you feel more comfortable when you give your speech. Remember that many people are nervous when they talk in front of a group.

HOW THE SKILL WORKS

Find the best way for you to practice.

1. Write or type your speech or the outline of your speech in large letters, double spaced on cards so it is easy to read.

2. Use the outline or read aloud from the manuscript. Repeat the speech until you feel comfortable.

3. Make a tape recording of the speech and listen to it critically.

4. Ask someone to listen to the speech, paying attention to posture and gestures.

5. Practice where you are to deliver your speech.

6. Practice with a podium, visual aid, or microphone, if they are to be used during the speech. Don’t lean on or clutch the podium.

7. Imagine an actual audience and practice how you will make eye contact with the audience.

8. Check the length of the speech.
SKILL: DELIVERING A SPEECH

Giving the speech delivers your message.

HOW THE SKILL WORKS

Appearance of the speaker should give the audience a good impression. Avoid distracting clothing or accessories. Stand or sit up straight, but relaxed. Don’t lean on the podium.

Body movements cause a response from the audience. Don’t look at the ceiling or the floor. Gestures help emphasize important parts when they are natural and smooth.

Voice tone can send information to the audience. Speak loudly enough to be heard and use loud or soft tones to emphasize points. Use a range of tones to direct the attention of the audience to what is important. Emphasis can also bring subtle changes in meaning.

Pace your speech. Don’t rush through the information. Take time to emphasize important points with short pauses.

Enunciation is important so the audience will understand what you are saying. Pronounce words correctly.

Visual aids can hold the attention of the audience, enliven a presentation, and illustrate a point.

Some examples of visual aids are:
- objects
- charts
- listing of main points
- pictures
- handouts
- drawings.

Use visual aids as supplements in areas that require explanation. Have the visual ready but not in a distracting place. Make sure equipment works on the day of your speech. Stand to the side of the aid and talk to the audience.
READING
SKILL: READING

Reading is interpreting written or printed material.

HOW THE SKILL WORKS

To become an independent learner, you must be able to locate materials on specific topics and to read and comprehend the information on your own.

Some specific skills to help you become a better reader are listed below.

1. Scan material for main ideas, specific details, facts, opinions, and sequence of details.
2. Read carefully to answer questions, draw conclusions, or predict outcomes.
3. Use a variety of references including an encyclopedia, a dictionary, and a thesaurus.
4. Use table of contents, indices, or the card catalogue in the library to locate information on topic.

All of these skills will help you comprehend reading material.
SKILL: UNDERSTANDING TERMS

A term is a word or group of words serving as the specific name of something. Terms help us understand concepts and ideas.

HOW THE SKILL WORKS

When you know the meaning of terms, you are able to understand literature you read. You may be able to determine meaning from context clues. Context clues are other words in a reading that give hints about the meaning of words. You may need to check the dictionary for a definition.

After you determine the meaning of a term, use the term in a sentence and state the meaning in your own words. This will help you remember the definition.

EXAMPLE

The definition of nutrition in Webster's New Collegiate Dictionary is act or process of nourishing or being nourished; the sum of the processes by which an animal or plant absorbs or takes in and utilizes food substances.

A sentence using the word nutrition might read this way.

Good nutrition is the result of eating a variety of foods from each food group.
The main idea is a central idea in literature. Everything you read, from textbook assignments to newspapers has a main idea. If you can identify the main idea, you will understand what you are reading.

HOW THE SKILL WORKS

STATED main ideas will sum up the one central idea of the selection. The main idea may appear in the first sentence or in any other location within the paragraph.

Read the following selection and find the main idea.

EXAMPLE

Food labels and packages contain the universal product code. This is the small block of parallel black lines of various widths. Because the lines for each product are unique, computerized check-out equipment can read them and ring up the sale automatically. This saves time at the counter.


The first sentence states the main idea that food labels and packages contain the universal product code. The other information supports the main idea and gives details about it.

Sometimes the main idea is not directly stated. Details are given and the main idea must be determined by the reader.

Read the following paragraph. Determine the main idea.

EXAMPLE

Most utilities produce electricity by burning fuels — oil, coal, or natural gas. Some use natural gas. Some use hydro-electric power, which is generated by the force of falling water. Some use nuclear reactors to make electricity.


If you add the important details together, you can determine that the main idea of the paragraph is this — Various sources of power are used to produce electricity.
SKILL: IDENTIFYING SEQUENCE

Sequence requires you to determine what comes first, last, or immediately after a given event.

HOW THE SKILL WORKS

SEQUENCING DETAILS refers to the order of steps or events in a selection. When reading a selection, look for words that will help you determine sequence. Some words that will help are begin, before, preceding, prior, initial, first, second, then, now, last, soon, while, after, following, or finally.

Read the following selection carefully. Note the underlined words.

EXAMPLE

You’re getting a new desk in your room! But when you bring it home, you find that it’s one inch too wide to get through the doorway. What can you do? You should be able to get that desk in by taking the door off its hinges.

First, you’ll need a hammer and a screwdriver or wedge. Now, hold the screwdriver or wedge firmly, with the point just under the ball tip of the hinge bolt. A few blows with the hammer should loosen the bolt. Do the bottom hinge first. Next, the top one. After the desk is in your room, finally put the door back in place and hammer the bolts down.


Important words are first, now, next, after, and finally. According to the author, which bolt is taken off first?

(The answer is the bottom bolt.)
SKILL: IDENTIFYING SPECIFIC DETAILS

Details are specific pieces of information presented in writing. Details identify who, what, when, why, how, how much, or which. Reading for details might require you to read slowly, giving careful attention to each sentence in the selection. You read for details when completing most assignments.

HOW THE SKILL WORKS

SPECIFIC DETAILS usually describe a person, object, location, time, characteristic, or a quantity. Read the questions you need to answer before reading the selection. This provides key words to look for while reading.

Read the following selection carefully. Look for key words as you read the selection.

EXAMPLE

Child abuse occurs in all levels of society — among rich people and poor, among all races and minorities. Seventy-four percent of the victims are under five years old. If you suspect abuse of a child you know, seek guidance from your parents or another adult you can confide in. After you have talked it over, and if there really does seem to be a problem, the adult can call a local or national group that deals with child abuse.


According to this selection, if you suspect abuse of a child, what should you do?

(The answer is talk to an adult who can call a local or national group that deals with child abuse.)

Details may be given before the main idea. Read the following paragraph to find the details that are given before the main idea.

EXAMPLE

Imagine a room with square chairs, tall chairs, and short chairs of many styles and colors. It might be hard to relax in such a room. Designers usually advise clients to choose one color scheme and perhaps one general style of furniture to help create a feeling of unity. Unity means that all objects in a room should look like they belong together.


Details were given before the main idea. They support the main idea that objects in a room should look like they belong together.
SKILL: DISTINGUISHING FACT FROM OPINION

Not everything that appears in print is a fact. If you are reading a fictional short story or a factual news article, it is important to distinguish fact from opinion.

HOW THE SKILL WORKS

Facts can be proven.

Opinion is what a particular person thinks is true.

**FACT:** “One-third of the families in the United States are headed by females,” stated Dr. Papini.

**OPINION:** Children of single parents have a lot of trouble in school.

To check a fact, ask yourself “How can I prove it?” In this example, you can check the statistics from the Census Bureau.

To check the second statement, ask “How can I prove this?” This statement is not true in every case, so it is not a fact.

A fact is a statement that can be proven to be true. You may check a fact by using a reliable reference, such as an encyclopedia or dictionary.

How would you prove if the following statements were true or false?

1. One cup of milk contains 150 calories. (The answer is to check on the food value chart in a home economics textbook or read the nutritional information on a carton of milk.)

2. This has been the largest FHA/HERO group in the history of our school. (The answer is to check the school records.)

3. Pasteurization of milk kills germs. (The answer is to look in a science or home economics textbook.)

An opinion is a conclusion based on a person’s own beliefs, judgments, likes and dislikes. You have the right to agree or disagree with someone’s opinion.

Most Americans eat three nutritious snacks each day.

People must always have eight hours of sleep each night.

Neither of these statements is true in every case. Each is a personal opinion.

Information is often an opinion when words like usually, only, most, or probable are used. Words like terrible consequences or a fuller, happier life indicate opinions that appeal to emotions. Other words, such as always and never suggest that there is only one choice. If you can think of one exception, it is an opinion.
**Expert testimony** is a statement of opinion given by someone considered to be an expert on the subject. Check the qualifications of the person giving the testimony and judge whether the opinion is reliable.

Some examples of expert opinion are:

1. A university researcher states that most people in Arkansas should drink three glasses of milk each day.
2. A research scientist has tested all brands and reported that all are safe for human consumption.
3. Dr. Tara, a nutritionist, states that broccoli is more nutritious than popcorn.

**EXAMPLE**

Read the following sentences. Put an F in the blank if you think the sentence is a fact. Put an O in the blank if you think the sentence is an opinion.

1. The fruit and vegetable group offers the most variety of any food group.  
2. Fresh fruit and vegetables, also called produce, are very nutritious.  
3. Fruit and vegetables come in four basic forms — fresh, frozen, canned, and dried.  
4. Produce that is grown in California tastes better than that grown in Florida.  
5. Most produce is seasonal, which means that it is plentiful only at certain times of the year.

(The answer is 2, 3 and 5 could be proven factual. Number 1 and 4 are opinions.)
SKILL: IDENTIFYING CORRECT INFORMATION FROM REFERENCE MATERIAL

References help us locate information and details. Reference tools can be categorized as follows:

1. A reference tool that stores information alphabetically such as a dictionary or encyclopedia.
2. Books, textbooks, magazines, and newspapers
3. Book parts — table of contents, bibliography, and index

SKILL: IDENTIFYING KEY WORDS

Key words help you find information in reference tools and book parts.

HOW THE SKILL WORKS

Key words are found in dictionaries, encyclopedias, indices, and many other references. Look for key words alphabetically since most reference material is listed in this manner. Be sure to note subentries which may provide additional information.

EXAMPLE

Where would you check in this index section to find where to look for information about marriage?

<table>
<thead>
<tr>
<th>Manners, 26-29, 48, 358-9</th>
<th>Mass Media, 89, 91, 232</th>
</tr>
</thead>
<tbody>
<tr>
<td>Markdown, 410</td>
<td>Materials, sewing, 497</td>
</tr>
<tr>
<td>Marking, fabric, 432-3</td>
<td>Meals, planning, 292-6</td>
</tr>
<tr>
<td>Marriage, 162</td>
<td>Measurements, 414-415</td>
</tr>
</tbody>
</table>

Alphabetical Order | Entry | Page


(The answer is page 162.)
Guide words are the first and last words listed on a page. The following example requires you to use guide words to locate a word on a page in a dictionary or encyclopedia.

**EXAMPLE**

<table>
<thead>
<tr>
<th>First word on page</th>
<th>Page number</th>
<th>Last word on page</th>
</tr>
</thead>
<tbody>
<tr>
<td>goody</td>
<td>600</td>
<td>gorgonize</td>
</tr>
<tr>
<td>gorgonzola</td>
<td>611</td>
<td>Goudy</td>
</tr>
<tr>
<td>gouge</td>
<td>612</td>
<td>gracia</td>
</tr>
<tr>
<td>gracias</td>
<td>613</td>
<td>grain</td>
</tr>
</tbody>
</table>


To locate the answer, use your knowledge of alphabetical order. Since all words begin in “g”, go to the second letter. This will eliminate page 613. Next look at the third letter “gou”. This eliminates page 610. Add the fourth letter “gour”, and we are only left with page 612 for a possible place to find “gourmet”.

(The answer is page 612.)
SKILL: USING A DICTIONARY

A dictionary is a book of words arranged alphabetically, giving information about the spelling, meaning and pronunciation of each word.

HOW THE SKILL WORKS

Locate words in a dictionary using key words. Use parts of the dictionary entry to obtain needed information.

EXAMPLE

This a entry from Webster's Third New International Dictionary.

*home economist, n.* a specialist in home economics

<table>
<thead>
<tr>
<th>word</th>
<th>part of speech</th>
<th>definition</th>
</tr>
</thead>
</table>
SKILL: USING A TABLE OF CONTENTS

The table of contents is found at the beginning of the book.

HOW THE SKILL WORKS

The standard table of contents contains the chapter number, followed by the contents of that chapter and the page number on which to find it.

EXAMPLE

On what page would you find information on "What You Eat Matters"?

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Biting In</td>
<td>9</td>
</tr>
<tr>
<td>2. Your First Taste</td>
<td>11</td>
</tr>
<tr>
<td>3. What's the Use of Food, Anyway?</td>
<td>13</td>
</tr>
<tr>
<td>4. What You Eat Matters</td>
<td>15</td>
</tr>
<tr>
<td>5. How Much You Eat Matters</td>
<td>24</td>
</tr>
<tr>
<td>6. Once You Swallow</td>
<td>30</td>
</tr>
<tr>
<td>7. You Can Hurt Your Stomach's Feelings</td>
<td>36</td>
</tr>
<tr>
<td>8. How Well Do You Eat?</td>
<td>37</td>
</tr>
</tbody>
</table>


(The answer is page 15.)
SKILL: USING A THESAURUS

A thesaurus is a treasury of words. It is a collection of synonyms, antonyms, and other related words. A thesaurus is used to find appropriate or more descriptive substitutions for words.

HOW THE SKILL WORKS

Look up the word for which you wish to have a synonym, antonym, or a word related in some other way.

EXAMPLE

<table>
<thead>
<tr>
<th>batch, n. baking; set, series, run, lot, quantity</th>
</tr>
</thead>
</table>

Which word is a synonym for batch?

a. many    b. grand    c. lot    d. quality


(The answer is c.)
SKILL: USING A CARD CATALOG CALL NUMBER

The card catalog is the key to book placement in a library.

HOW THE SKILL WORKS

The cards are entered under the name of the author, the title, and one or more subjects. The call number indicates where you will find the book on the shelf.

EXAMPLE

<table>
<thead>
<tr>
<th>Library Call Number</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>636.08-S Home Economics Subject</td>
<td>Chamberlain, Valerie</td>
</tr>
<tr>
<td>Chamberlain, Valerie</td>
<td>Author</td>
</tr>
<tr>
<td>Teen Guide</td>
<td>Title</td>
</tr>
<tr>
<td>McGraw Hill, 1982 Publisher</td>
<td>Title</td>
</tr>
</tbody>
</table>

Where would you look on the library shelves for this book?

a. 100-199  b. 600-699  c. 700-799  d. 800-899

(The answer is b.)
REFERENCES


