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One set per unit of the following components:

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- Answers
- LAP Sheet
- Written Test
- Handouts (as appropriate)
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One set per unit of the following components:

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- Information Sheet
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SPECIAL THANKS

Many thanks go to the professionals at the Oklahoma Department of Career and Technology Education whose hard work and support made this publication possible, especially Larry Bullock in the Trade and Industrial Education Division. At the Curriculum and Instructional Materials Center, we are grateful for the support of Kimberly Sadler and Craig Maile. Also at CIMC, thanks to Ranae Abraham for handling the contracts, correspondence, and committee meetings related to this publication.

We are also very grateful to the Marshalltown Trowel Company, Marino/WARE, and the Western Wall and Ceiling Contractor’s Association for providing many of the photographs.

This publication could not have been printed without the expertise and commitment of the Printing Plant staff under the supervision of Danny Darrow. Delivery of the final product was accomplished through the excellence of the Curriculum Customer Service staff under the direction of Lana Austin, and the CIMC Warehouse staff, under the direction of Darrell Stiles.

Randy Kirk
Project Manager

We would like to thank the membership of the Operative Plasterers and Cement Masons International Association for their hard work, dedication, and innovation. Their commitment to quality is reflected in the pages of this manual.

John J. Dougherty
General President, OPCMIA
BASIC SKILLS IN CURRICULUM

The CIMC has always been mindful of the importance of reinforcement (and sometimes remediation) of students' academic skills as they progress through vocational training, and has always included activities in its materials to enhance and promote use of these skills.

<table>
<thead>
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<th>ASSIGNMENT SHEET</th>
<th>PLANNING LIVING SPACE FOR HUMAN NEEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name ____________________________</td>
<td>Score ____________</td>
</tr>
</tbody>
</table>

OBJECTIVE 10

Define personal territory.

BASIC SKILLS

- As discussed in objective 1, each person has an invisible "space bubble" or comfort zone. A comfort zone is the space between oneself and others that brings a feeling of well-being. When one's comfort zone is crowded or invaded, discomfort often results. Therefore, personal territory needs should be a prime consideration when planning living space.

- For each of the following situations, draw your estimated comfort zone around the figures provided.

- Indicate how many inches from your body the comfort zone extends.

- Consider how that comfort zone changes in different situations. Answer the questions that follow.
Recent state and federal legislation mandates vigorous basic skills development in vocational education in the wake of demands by industry that workers must be academically, as well as technically, competent, given the nature of the highly complex work place. In response, the CIMC has taken the following steps to document that, indeed, the instructional materials do combine academic skills training with the vocational training. In addition, concerted efforts have been made to “beef up,” or enhance the basic skills instruction already present.

**Basic Skills Icons**

To assist teachers and students in identifying activities that promote basic skills development, the CIMC has implemented a marking system that uses simple graphic symbols, or icons, to identify the basic skill or skills that are called for in each Job or Assignment Sheet, and in focus assignments.

Each of the ten broad skills areas—reading, writing, mathematics, science, oral communication, interpersonal or relating, creative thinking and problem solving, employability, social studies, and Technology—is represented by the icon presented below.

When an activity involving one of these basic skills is identified, the corresponding icon is placed on the Job or Assignment Sheet.

As an example, an exercise that requires a student to conduct library research would make necessary the use of specific reading comprehension and research and reference skills. The basic skills that the exercise promotes would be depicted as follows:
MEASURING STUDENT PERFORMANCE GAINS

When you examine this book, you will notice that separate written pretests are no longer included in the units of instruction. Each CIMC unit now contains only a single Written Test. This test should be used as both pretest and posttest by giving it once before students start a unit and again when they have completed the unit.

The reason for using a single instrument as both pretest and posttest is so that direct comparison of each student’s competencies before and after instruction can be made accurately. This comparison enables precise calculation, documentation, and evaluation of student performance gains.

Accurate performance gains analysis is an important requirement of the new Carl Perkins legislation for vocational education. Teachers can make an important contribution to the performance accountability mandated by the new federal legislation by carrying out accurate performance gains analysis for their students, and making this data available to students, parents, and administrators.

This analysis is easy to do and requires only simple calculations and record keeping. Detailed information regarding performance gains analysis is contained in the CIMC publication, Measuring Learning Gains with Pretest/Posttest. Copies are available through your local testing liaison (in Oklahoma), or from the CIMC at 800-654-4502.
CORRECTIONS AND SUGGESTIONS

The Curriculum and Instructional Materials Center (CIMC) wants to provide vocational instructors and students with accurate and effective materials. Although the CIMC strives to maintain the highest standards of development and production, oversights sometimes do occur. If you find any errors in this or other CIMC publications, or have suggestions for improving their usefulness in vocational programs, please notify the CIMC staff. To do this, please identify the page(s) affected and write any comments to clarify the error or suggestion. Use the spaces below. Then, simply fold (bottom of page upward, top downward), secure, and mail.

This information will be used to correct the publication before the materials are reprinted. To ensure that the material is updated on a timely basis, notify the CIMC of necessary corrections as soon as possible after discovering the error.

Operative Plasterers: Book One

Unit/Page: Comments:

_____ _________________________________________________________________

_____ _________________________________________________________________

_____ _________________________________________________________________

_____ _________________________________________________________________

_____ _________________________________________________________________

_____ _________________________________________________________________

Thank you for your comments. If we have questions, how may we contact you:

____________________________________________________________________________________

1  Fold upward
CIMC
OKLAHOMA DEPARTMENT OF
CAREER AND TECHNOLOGY EDUCATION
1500 W. 7TH AVE
STILLWATER OK 74074-4364

ATTN: Corrections Department
INTRODUCTION

As you have discovered in your studies to this point, plaster is normally applied in layers known as coats. The application process, including the number of coats used, depends on a number of factors, including the type of plaster used and the function of the surface being plastered. Generally, plastering will require two or three coats. The first coat, or scratch coat, is used to make the base a better surface to which plaster can be applied. The second coat, or brown coat, is used to straighten the surface before application of the finish coat. Sometimes, depending on the type of plaster and the base, it is possible to accomplish the purposes of the scratch coat and brown coat with a single application, making it a two-coat process. In this module, you will learn about applying a scratch coat as if it is to be used in a three-coat process. The next unit covers application of the brown coat.

FOCUS ASSIGNMENTS

1. Think of two different plaster jobs you have worked on, one requiring two coats, one requiring three.

2. In one or two paragraphs, briefly describe the difference in the two jobs and why they required different treatment.

UNIT OBJECTIVE

After completing this unit, you will show the following competencies by mastering the activities on the Job Sheets and by scoring at least 85% on the Written Test.

1. State the purpose of each coat of the three-coat process.

2. Describe measures for plaster components.


5. State the meaning of scratch coat mixes.

6. Mix scratch coat. (Job Sheet 1)

7. State guidelines for applying scratch coat.

8. Match problems with plaster scratch coats to their causes and corrections.

9. Apply scratch coat with hawk and trowel. (Job Sheet 2)

10. Apply scratch coat with a plaster pump and nozzle. (Job Sheet 3)

11. Apply mechanical key over concrete. (Job Sheet 4)
Required Activities and Resources (R)

These are fully integrated components of this CIMC curriculum. They are usually packaged in or with the curriculum and are essential in meeting the learning objectives. To individualize this unit, use the LAP Sheet supplied in your resources.

Optional Activities and Resources (O)

These are suggested high-interest activities to help deliver learning objectives to students or to let students achieve objectives in an applied context. Select as many as you wish to use. Some activities use extra resources for further information about unit content. You can make them available in the classroom for in-depth study or optional activities, but their use is not required for meeting CIMC unit objectives.

FOCUS ASSIGNMENTS

1. Have the students think of two different plaster jobs they’ve worked on, one a two coat job and the other a three coat job.

2. Have the students write a brief description of why the jobs required different treatment.

GENERAL INSTRUCTIONS

Assignment Sheets

R Review the directions and any specific guidelines.

R Make certain that any needed materials from the Instructor’s Manual are available.

R Have the students complete the Assignment Sheet. Evaluate each student’s performance and provide reteaching and retesting as necessary. Have the students repeat the Assignment Sheet until they achieve mastery.

R Complete each student’s Profile of Training Mastery.

O Have the students volunteer to read aloud the directions and any special guidelines.

O Return the completed Assignment Sheets to the students so that they may use them for later reference if needed.
Job Sheets

Review the introduction and evaluation criteria for the Job Sheet. Remind the students that they should not fill in the blanks in the Yes/No columns.

Review and explain all general guidelines, safety cautions, and warnings.

Make sure that all tools, equipment, and supplies are available.

Demonstrate each of the procedures outlined in the Job Sheet.

✓ NOTE: Some Job Sheets involve the use of specialized equipment. Because such equipment requires specific operation and maintenance procedures that can vary greatly from one piece of equipment to another, it is not practical to provide step-by-step procedures in those Job Sheets. Thus, such Job Sheets will refer you to operator manuals and other relevant resources to support your instruction. Obtain manufacturer’s equipment instructions as required for equipment in your facility. Demonstrate the use of such equipment, providing step-by-step instruction equivalent to a Job Sheet. Perform evaluations based on your instruction.

Allow the students to practice the Job Sheet skills before skills testing. Coach, correct, and supervise as necessary.

Have the students complete the Job Sheet. Evaluate each student’s performance and provide remediation as necessary. Have the students repeat the Job Sheet until they achieve mastery.

Complete each student’s Profile of Training Mastery.

Return the completed Job Sheets to the students so that they may use them for later reference if needed.

Have the students volunteer to read aloud the job guidelines, cautions, and warnings.

LAP Sheets

The LAP Sheets are an optional component that can be used to individualize instruction. The following instructions should be followed only if you are using the LAP Sheets.
Explain the specific procedures to be followed to the students before they begin using the LAP Sheet. Be sure that each student understands the procedures for using the LAP Sheet.

If you want the students to complete any of the assignments on the LAP Sheet that are labeled optional, assign these to the students. Be sure to provide any needed resources.

Show the students the PowerPoint® presentations that accompany this unit.

**OBJECTIVE 1**

**State the purpose of each coat of the three-coat process.**

Show students examples of the three coats.

**OBJECTIVE 2**

**Describe measures for plaster components.**

Demonstrate the measuring of plaster ingredients using various measuring devices.

Allow the students to practice measuring ingredients. Weigh their measures (such as a No. 2 shovel) to determine how close they are. Use sands with varying degrees of moisture. Give the students problems using common mixing ratios and have them calculate common measures. For example, if the mix ratio is 2:1 sand to gypsum and 100 pounds of gypsum will be used, how many shovelfuls of sand will be required?

**OBJECTIVE 3**

**State guidelines for machine mixing gypsum plaster scratch coat.**

Demonstrate machine mixing of a scratch coat.

Demonstrate safety considerations in the use of mixing machines.

Demonstrate various types of mixers or mixing machines.

**OBJECTIVE 4**

**State guidelines for hand mixing gypsum plaster scratch coat.**

Demonstrate hand mixing of scratch coat.
OBJECTIVE 5

State the meaning of scratch coat mixes.

Display samples of the various types of mixes and discuss mixing them and their uses.

OBJECTIVE 6

Mix scratch coat. (Job Sheet 1)

See the general instructions for all Job Sheets.

OBJECTIVE 7

State guidelines for applying scratch coat.

Demonstrate the application of scratch coat. Discuss the effects of temperature, humidity, air circulation, base, and type of plaster on application considerations. Emphasize the manipulation of the trowel and the transition from one stroke to another.

Allow the students to practice handling the tools and materials with various types of bases.

OBJECTIVE 8

Match problems with plaster scratch coats to their causes and corrections.

Display examples of the various problems and discuss the causes. Demonstrate corrective actions when practical.

Have the students calculate the cost in materials and time involved in replacing the plaster in an entire room as a result of one of the problems that would require replacement as a corrective action.

OBJECTIVE 9

Apply scratch coat with hawk and trowel. (Job Sheet 2)

See the general instructions for all Job Sheets.

OBJECTIVE 10

Apply scratch coat with a plaster pump and nozzle. (Job Sheet 3)

See the general instructions for all Job Sheets.
OBJECTIVE 11

Apply mechanical key over concrete. (Job Sheet 4)

See the general instructions for all Job Sheets.

EVALUATION

Pretest

- Use the unit Written Test for both the pretest and posttest. Give the students the pretest before they begin the unit.

- Use pretest results to guide individual students in progressing through the unit, doing enrichment work, or moving to the next unit.

Focus Assignment

- Use an informal evaluation of the focus assignments as a diagnostic tool for determining if any students need extra help in basic skills. Refer these students to the appropriate instructor, Learning Resource Center, or Educational Enhancement Center.

Assignment Sheet

- Evaluate students on Assignment Sheet activities. Students must repeat an Assignment Sheet until they have mastered the activity.

- Complete each student’s Profile of Training Mastery.

Skill Test

- Explain to the students that they will be asked to demonstrate the procedures on the Job Sheets as a skills test.

- Describe the rating scale used on the skills test.

- Reteach and retest as necessary.

- Complete each student’s Profile of Training Mastery.

Posttest

- After they have completed the unit, give students the Written Test again.

- Explain to the students that they will be asked to demonstrate on the Written Test actions listed in the specific objectives.
• Reteach and retest as necessary to meet individual student needs and state standards for student learning and competency gains.

• Complete the appropriate sections of the Profile of Training Mastery.

• Review individual and group performance to evaluate teaching effectiveness. Adjust scope, sequence, or instructional methods for additional lessons as required.

**Online Resources**

✔ **NOTE:** Web site addresses were accurate and all content on referenced web sites was appropriate during development and production of this product. However, web sites sometimes change; the CIMC takes no responsibility for a site's content. The inclusion of a web site does not constitute an endorsement of that site's other pages, products, or owners. You are encouraged to verify all web sites prior to use.

• The National Institute for Safety and Health (NIOSH)
  [www.cdc.gov/niosh/homepage.html](http://www.cdc.gov/niosh/homepage.html)

• Plasterers’ and Cement Masons’ Job Corp Training Program
  [http://opcmia.jobcorps.gov](http://opcmia.jobcorps.gov)

• U.S. Department of Labor, The Occupational Safety and Health Administration (OSHA)
  [www.osha.gov](http://www.osha.gov)

**Videos**

• Review the *Make Your Video Count* brochure.

✔ **NOTE:** This video is available from the Curriculum and Instructional Materials Center, Oklahoma Department of Career and Technology Education, 1500 W. Seventh Avenue, Stillwater, OK 74074. To place an order, call 800-654-4502.
**Publications**


OBJECTIVE 9  Evaluated on Job Sheet 2.

OBJECTIVE 10  Evaluated on Job Sheet 3.

OBJECTIVE 11  Evaluated on Job Sheet 4.
Check the blank as you complete each step.

1. **Take** ___ the pretest provided by your instructor. Have your instructor evaluate your completed test. After your test has been evaluated, follow your instructor’s recommendations.

2. **Read** ___ the introduction, unit objective, and specific objectives.

3. **Do** ___ the focus assignments.

4. **Stop** ___ and have your instructor evaluate your work from the focus assignment. After your work has been evaluated, follow your instructor’s recommendations.

5. **Study** ___ the Information Sheet, objectives 1-5.

6. **Ask** ___ your instructor to demonstrate guidelines and procedures in Job Sheet 1. Use the Job Sheet to follow along. Pay careful attention to any guidelines, cautions, and warnings.

7. **Practice** ___ the procedure demonstrated by your instructor. Use the Job Sheet as a guide. Notify your instructor when you are ready to perform the procedures for evaluation.

8. **Stop** ___ and have your instructor evaluate your work from the Job Sheet. After your work has been evaluated, follow your instructor’s recommendations.

9. **Study** ___ the Information Sheet, objectives 7 and 8.
10. Ask __ your instructor to demonstrate guidelines and procedures in Job Sheets 2-4. Use the Job Sheets to follow along. Pay careful attention to any guidelines, cautions, and warnings.

11. Practice __ the procedures demonstrated by your instructor. Use the Job Sheets as a guide. Notify your instructor when you are ready to perform the procedures for evaluation.

12. Stop __ and have your instructor evaluate your work from the Job Sheets. After your work has been evaluated, follow your instructor's recommendations.

13. Take __ the posttest provided by your instructor. Have your instructor evaluate your completed test. After your test has been evaluated, follow your instructor's recommendations.
<table>
<thead>
<tr>
<th>WRITTEN TEST</th>
<th>MIX AND APPLY SCRATCH COAT</th>
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Instructors - the test questions and answers in this free sample have been deleted to prevent student access.
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