
Introduction to the Human Resource System

The Goals

This system is designed to help the management of a company, whether the owner or a production manager, to effectively manage the field staff. The idea is simple, specify the tasks each person is responsible for, test them, set goals and then promote when ready.

This system will enable the owner or Production Manager of a company to:

1. Establish responsibilities for each position of employment.
2. Interview potential employees to determine if they fit in the position.
3. Evaluate potential employees with written and skills tests to determine if they qualify for the position.
4. From the evaluation, hire into the position that best fits their skills.
5. Provide training to new employees before they go out in the field.
6. Set appropriate pay ranges for each position in the company
7. Set goals for the employee to achieve in order to earn a pay increase within a position and to be promoted to a new position.
8. Evaluate employees using the Job Description as the standard for fair, objective and accurate evaluations.
9. Provide skills training on the site.
10. Place responsibility for learning and increasing earning power on the employee.

The Need

For anyone that is in the business of running a remodeling company or a small building company knows that the biggest challenge is hiring, training, maintaining, and perhaps firing employees. This is also the area that we have the least amount of information about with regards to training seminars. The seminars that do exist are usually focused on the need and the how to's but little is done because of the need to tend to the everyday burdens of this kind of business.

Here are a few of the typical problems in personnel management that these businesses face.

1. You need to hire right away.
 - a. How do you know they will work out?
 - b. What can they really do?
 - c. How much will you pay them to start?
2. You have employees that have been around for years. They are good people but are not contributing to the company any more than when they started. Yet they want a raise every year.
3. You have trouble getting your employees motivated to increase their knowledge.
4. You have an employee on the site that is just not working out and yet there always seems to be a reason why it is beyond their control.

Systems to handle these kinds of problems help to take the guesswork out of the process and establish understood guidelines for advancement and pay scales.

For example, if you have an interview and testing process for each position it eliminates some of the guesswork and fear that an individual will work well in that position. It will also help to establish what they know and don't know so that you and your staff will not assume they know all they should. Those assumptions have led to more mistakes and money losses than can be described here. Once the problem areas have been brought to light, they can be addressed in training to bring an employee up to speed for your company.

Another benefit of an organized hiring system is after finding out what the applicant really knows and does not know, you can set pay and benefits in a realistic fashion. When each position in a company has pay ranges attached, applicants know where they stand and the employer can be firmer with initial hiring wages.

A system of this kind creates other benefits as well. By identifying positions and pay ranges, the employer can also designate learning goals for advancement. This creates motivation for growth and places the responsibility on the shoulders of the employee. In other words if the employee is going to rise in position and earn more it will be because they have achieved certain goals not because they have been around another year. The employee is given the learning goals, the resources materials to learn the information or skill, and is tested for each goal to see if it is learned. If they pass they are promoted, if not they continue in the position they are in until the goals are learned. By being set up in an objective way the system provide employers the ability to separate discussions of wages from perceptions and personal feelings.

The Positions

In this system there are 5 positions. This section will describe briefly how each position is defined and who would most likely fit in that position.

- **Entry Level** – This position involves the typical laborer type work. Moving lumber, digging, cleaning up and some limited carpentry exposure as needed by the company. Position requires the ability to read and write, as well as use a tape properly. This position will always be supervised.

This is an individual that has little or no construction experience. They have come from another field and want to learn construction or are beginning the work time of their lives and believe that construction is what they want to do.

- **Carpenter I** – This position involves the use of primary tools on the job site. Assembling walls, roofs, installation of doors, windows, roofing etc. This position is a supervised position and requires little or no ability to work alone or be responsible for the progress of the job. The position requires the ability to know what the major components of a project are so they can respond to instructions properly.

This is an individual that has been around some construction, know a variety of information and has some skills. They are not able to work unsupervised yet and need help in seeing the big picture.

- **Carpenter II** – This position involves the ability to complete all the technical work required by the company on a project. Being able to use all common tools involved in construction safely and with efficiency. A complete knowledge of how things go together, safety, water infiltration issues, etc is required.

This is an individual that has construction experience. They have tools and have demonstrated and ability to work unsupervised and at times supervise others on the site.

- **Lead Carpenter** – This position involves all the qualities of the Carpenter II plus the ability to manage the job site. This involves supervision of the client, subs, employee, paperwork, and materials. It requires the ability to look ahead, know how to get things done, and know how to get the best out of others. This position requires an ability to organize the work so that it is done efficiently. It also requires an ability to understand the job budget, set a schedule, and keep the job on both.

This person will be someone who has demonstrated carpentry skills and management skill but wants to continue working in the field.

- **Production Manager** – This position involves the management of the people and the process. They are responsible for the production system. It involves hiring, supervision, scheduling, evaluating all the employees working in the field. It also involves working with the owner of the company, the client, and perhaps outside design professionals. It requires the ability to manage the system not the individual job site. A working knowledge of the building process is helpful although not required.

This person is someone that has demonstrated ability to work with people, has strong organizational skills, and pays attention to detail.

The Pieces

- **Job Description** – This defines the job of the person in this position. It includes specific responsibilities and general responsibilities. It is designed to be as concise as possible and still explain the job, as clearly as possible for that position, doable by the person who has learned all the skills of that position, and controllable by the employee. This is the guide that will dictate the other parts of the System. If you are customizing this system for your company each part will need to be customized to match the Job Description.
- **Interview Questions** – This section gives the employer specific questions designed to solicit answers that will tell you whether the applicant knows about the topic. These are multiple answer questions, meaning that the questioner needs to have thought through what he/she thinks the answer should be and that they listen carefully. Because the questions are designed to not be simple answers the system allows for a space with each question so that the interviewer can make notes about the answers. Care should be given to note whether the answer was correct or not at the time of the interview not simply to note the answer given.
- **Skills Evaluation** – The second part of the interview process is a skills evaluation. Part is written and part is technical. This section provides the interviewer with a list of what must be assembled before some one is interviewed. This will enable you to do all of the process at one time. In general this will include a written evaluation from the System Book and a list of building materials and tools.
- **Applicant Evaluation** – This section provides a written evaluation and instructions for a technical evaluation. The written evaluation will be keyed for answer. The technical evaluation will have to be assessed by the interviewer.
- **Employee Training** – Once it has been determined to hire an individual into a position, the interview can provide information on what the employee needs to learn to be effective in the company. Some of the information needs to be trained before the employee even goes out in the field. Some information needs to be trained simply because the employee is new to the company. This section will provide information on the materials and process for training before the employee goes into the field to work. In each position some of this information will be the same such as safety, policies, and Time cards.

- **Evaluations** – Each position will have a Job Description. This is the backbone of the Evaluation. The Evaluation will be used on a six-month basis to evaluate the employee against the job description. A review of the skills learned and need to be learned will be included. If the employee has demonstrated the acquisition of all the skills needed to advance then the employee will advance and goals for the next position will be established. If not goals for the current position will be established.
- **Learning Goals** – Each position has Learning Goals that are assigned in order to advance. These learning goals are listed so that the employee can see what has to be learned for pay increases and advancement in position.
- **Field Sign Off Cards** – These pages give a break down of the Learning Goals into measurable goals. In order to advance or receive a pay increase the employee must get a signature from a Certified Company Trainer, typically any of the Lead Carpenters. These skills are the skills that are to be tested or demonstrated in the field.
- **Advancement Evaluating** – Each set of Learning Goals has a component that must be evaluated by a written evaluation. This section will have that evaluation and an answer sheet. This section will also set guidelines for promotion vs. not.
- **Resource Guide** – This section will list resources for each position. This will enable the employee to find information on their own and progress at their pace. This will also put the responsibility of the employee to invest in resources that will help them for a long time.

Carpenter II

Job Description

Reports to Lead Carpenter

Knowledge and Abilities

Pass the knowledge Evaluation for advancement/placement to Carpenter II

Have sign off on all skill tests in field by company certified trainer.

General Responsibilities

1. As an employee of this company you are expected to represent the professional image of this company by:
 - a. The standard workday is _____ AM to _____ PM .Be on time to work everyday, calling before the start of the workday if illness or family emergency prevent your attendance that day. These are the two recognized reasons for missing work without prior notice.
 - b. You are expected to invest your own money in the purchase of tools that will be necessary for the job classification you are in within 6 months of obtaining that designation.
 - c. This job is a career choice. It is your responsibility to learn and demonstrate knowledge and ability to advance in position and pay scale.
2. When designated to do so by the Lead Carpenter, supervise Entry Level and Carpenter I employees in activities that they are assigned.
3. It is every employee's responsibility to be productive on the job site. If you have completed an assigned task, ask to be given another. If the Lead Carpenter is busy use the time well by cleaning up, stocking materials, etc.
4. Safety is important on many fronts. You are responsible for your own safety and the safety of those working for you. You must learn the safety practices of this company and adhere to them.
5. Time cards are due on _____ at _____ PM. It is your responsibility to fill in your time card everyday and turn in to the office. Time cards that are not turned in on time or that are incomplete will not be paid until the next pay period.
6. At times you will be asked to work independently. This will require attention to detail, quality, and an ability to stay on task until finished.
7. In the absence of the Lead Carpenter, due to illness or attending to other responsibilities, you are responsible for seeing that other employees remain on task and are productive. At times this will mean assigning new tasks in the flow of work.
8. With the assistance of Carpenter I track inventory of job site at the beginning, during, and at the end of the job. When items need to be restocked take action to be sure they are there when needed.

Customer Satisfaction

1. Keeping the job clean.
 - a. Broom clean on a daily bases.
 - b. Vacuum clean at the end of each week.

Job Site Supervision

1. Arriving on the job before ____ AM to allow for setup and remain on the job until ____ PM
2. Taking a one half hour lunch and breaks as needed to ensure a safe job site.
3. Creating a working environment that brings the best out in other employees and that uses time as efficiently as possible.
4. Installing all dust, safety, and security protections before and work is started on the project.
5. For enforcing all company policies regarding safety, foul language, drugs, drinking and smoking. If someone continues to violate these policies it is your responsibility to report them to you supervisor.
6. Enforcing all company safety policies and provide safe conditions for both workers and clients.
7. Not performing any work not in the contract unless authorized by a signed Change Order.
8. At the request of the Lead Carpenter unlocking the job site at the beginning of each day and securing the property at the end of the day.
9. Protecting the client's property from theft, damage, or weather related loss.
10. Protecting any items that will be reused or cannot be removed from the construction area, such as cabinets, bushes, or pool tables.
11. Installing and maintaining a company job sign in the front of the job.
12. Maintaining a clean job site as seen from the street.
13. Removing large quantities of debris on a weekly basis or as needed.
14. Never using a client's property or tools.
15. All tasks assigned by Lead Carpenter including but not limited to:
 - a. Cleaning site – Materials stacked neatly, floors clean, tools put away, yard clean, trash pile neat, mud off driveway and roads.
 - b. Digging footers
 - c. Moving lumber
 - d. Install dust protection before work begins
 - e. Tool set up and break down each day
 - f. Studying materials provided by Production Manager for advancement
 - g. Learning by watching, asking questions, and participating in the work.

Carpentry Labor

1. Knowing and understanding all plans and specifications.
2. Getting answers to questions when plans and specifications are unclear
3. Completing all work related to carpentry and other work generally done by this company, such as:
 - a. Framing
 - b. Exterior trim
 - c. Install windows and doors
 - d. Install siding of all varieties
 - e. Install interior doors
 - f. Install interior trim of all varieties
 - g. Install cabinets
 - h. Install and hook up appliances
 - i. Install hardwood floors

4. Having all the tools required for proper installation of the above-mentioned tasks.
 5. Supervising all work done by other employees to ensure conformance with company standards and specifications.
-

Supervision and Scheduling of Subcontractors

1. As directed by the Lead Carpenter
 - a. Being prepared for the subcontractor on the day they are scheduled. If not you are responsible for giving them at least one weeks notice.
 - b. Providing each subcontractor with information concerning the job before they arrive to facilitate a smooth beginning once they arrive.
 - c. Providing the sub with accurate paperwork such as revised plans and specifications.
 2. Either cleaning up of ensuring that the subs clean up.
-

Inspections

1. If directed by the Lead Carpenter, be on site when the inspector arrives, accompanying them in the inspector, and dealing with issues that arise.
 2. Staying as current as possible on codes that effect your work.
-

Material Management

1. Assist Lead Carpenter in ordering the proper amount of materials to ensure that trips to the lumberyard during the working day are limited to one every two weeks.
 2. Receive material deliveries, sign receipts, and check to ensure proper quantities and quality.
 3. Returning undamaged materials that cannot be used at the first available time.
 4. Storing materials in a way that reduces damage after they are delivered to the site.
-

Maintenance of Job Paperwork

1. Completing your time card at the end of every day.
2. Submitting all receipts of purchased or delivered items every Friday.

Tools

required for Carpenter II and Lead Carpenters

1. 30 foot tape measure
2. Screw driver set
 - a. Phillips heads #1, #2
 - b. Flat head #1, #2
3. Flat bar
4. Cat's paw nail puller
5. 4 foot level
6. Tin snips (straight)
7. Chalk-line (blue or red)
8. Nail set
9. Utility knife
 - a. Heavy duty blades
10. Hammer (framing)
11. Carpenters apron or bags
12. Knee pads
13. 25 foot extension cord
14. Tool box
15. Carpenters Pencils
16. Caulk gun
17. Gloves
18. Quart chalk gun
19. Adjustable crescent wrench (10")
20. 4 piece chisel set
21. Pliers
22. String line
23. 50 foot extension cord
24. Push broom
25. Skill saw
26. Electric Drill and Bits
27. Screw gun
28. Sawsall
29. Miter box
30. Coping Saw
31. Multiple socket head for cords
32. Voltage tester

Carpenter II

Interview Questions

1. Give me two reasons why you might miss work or arrive late without prior notice.

2. What time do you usually arrive on the job?

3. Which of these tools do you currently own that you will bring to work with you?

<input type="checkbox"/> 30 foot tape measure <input type="checkbox"/> Screw driver set <input type="checkbox"/> Phillips heads #1, #2 <input type="checkbox"/> Flat head #1, #2 <input type="checkbox"/> Flat bar <input type="checkbox"/> Cat's paw nail puller <input type="checkbox"/> 4 foot level <input type="checkbox"/> Tin snips (straight) <input type="checkbox"/> Chalk-line (blue or red) <input type="checkbox"/> Nail set <input type="checkbox"/> Utility knife <input type="checkbox"/> Heavy duty blades <input type="checkbox"/> Hammer (framing) <input type="checkbox"/> Carpenters apron or bags <input type="checkbox"/> Knee pads <input type="checkbox"/> 25 foot extension cord <input type="checkbox"/> Tool box <input type="checkbox"/> Carpenters Pencils	<input type="checkbox"/> Caulk gun <input type="checkbox"/> Gloves <input type="checkbox"/> Quart chalk gun <input type="checkbox"/> Adjustable crescent wrench (10") <input type="checkbox"/> 4 piece chisel set <input type="checkbox"/> Pliers <input type="checkbox"/> String line <input type="checkbox"/> 50 foot extension cord <input type="checkbox"/> Push broom <input type="checkbox"/> Skill saw <input type="checkbox"/> Electric Drill and Bits <input type="checkbox"/> Screw gun <input type="checkbox"/> Sawsall <input type="checkbox"/> Miter box <input type="checkbox"/> Coping Saw <input type="checkbox"/> Multiple socket head for cords <input type="checkbox"/> Voltage tester
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4. Do you have some money that you can invest in some tools before starting work here?

5. How much money does your budget allow for you to spend on tools?

6. If we hire you as a Carpenter II, what would you like to be doing in a year from now?

7. What are your five-year career goals?

8. In any other employment, have you ever not been paid because you did not turn in a time card on time?

9. Tell me about your experience with carpentry.
 - a. Framing
 - i. New Homes

 - ii. Remodeling

 - b. Trim
 - i. New Homes

 - ii. Remodeling

 - c. Siding
 - i. Wood

 - ii. Vinyl

 - d. Roofing

 - e. Painting

10. Tell me about your experience working at heights above 10 feet

Carpenter II

Placement Evaluation

Position: Carpenter II

Administrator: _____

Materials Needed for Carpenter II Evaluation

1. Skill saw
2. tape measure
3. pencil
4. safety glasses
5. 2 x 4 that is 92 5/8"
6. 12d nails
7. Framing hammer
8. Speed square
9. Extension cord
10. 2 x 6 x 8
11. 2 x 4 x 10
12. Evaluation Modules 1-10

Contents of Skills Evaluation

1. Cut this 2 x 4 x 92 5/8" into 4 equal parts.
2. Using the 2 x 6 layout and cut a common rafter with a 4/12 pitch and the run is 4 feet. Allow a 6 inch overhang.
3. Using the 2 x 4 x 10 layout a wall that has a corner on the left end, a window with the center 4 feet from the left end, rough opening is 2'2" x 5'4", and an intersecting wall that creates a 96" room, finish to finish. Assume 1/2" drywall.

Contents of Written Evaluation

1. Evaluation Module 1, Construction Math, page 7.1
2. Evaluation Module 2, General Knowledge, page 7.3
3. Evaluation Module 3, Safety, page 7.6
4. Evaluation Module 4, Terminology and Nailing Patterns, page 7.11
5. Evaluation Module 5, Blueprint Reading and Dust Protection Technique, page 7.16
6. Evaluation Module 6, Terminology, page 7.21
7. Evaluation Module 7, Advanced Math, page 7.26
8. Evaluation Module 8, Water Infiltration, page 7.31
9. Evaluation Module 9, Advanced Blueprint Reading, page 7.36
10. Evaluation Module 10 Intermediate Framing, page 7.37

Carpenter II

Training Module

Position: Carpenter II

Trainer: _____

Materials Needed for Carpenter II Training

1. Personal Safety Devices and a list of their uses
 - a. Gloves
 - b. Safety glasses
 - c. Steel toed shoes
 - d. Hard hat
 - e. Dusk masks
 - f. Ear plugs
 - g. Fall arresters
2. Time Card
3. Policies Sheets
 - a. Side work
 - b. Proper attire
 - c. Late/absences
 - d. Material Purchases
 - e. Evaluations
 - f. Chain of command

Contents

1. Demonstrate and discuss all safety equipment and proper use. Include discussion of safety policy and disciplinary actions for violations.
 - a. Gloves
 - b. Safety glasses
 - c. Steel toed shoes
 - d. Hard hat
 - e. Dusk masks
 - f. Ear plugs
 - g. Fall arresters
2. Discuss all company policies in detail.
 - a. Side work
 - b. Proper attire
 - c. Late/absences
 - d. Material Purchases
 - e. Evaluations
 - f. Chain of command
3. Demonstrate how to properly fill in a time card.
4. Train for any issues from Evaluation.

Follow Up Exercises

1. Have employee demonstrate safety equipment and discuss when their use is required by the company.
2. Have employee fill in a time card.
3. Have the employee discuss one of the company policies.
4. Administer Evaluation Module 3, Safety, page 7.6

Carpenter II

Job Performance Evaluation

Reports to Lead Carpenter

Name of Employee: _____

Evaluation Done By: _____

Date of Evaluation: _____

Score: _____

General Abilities and Qualifications

Demonstrates knowledge and abilities of Carpenter I Job Description

Pass written test for advancement

Obtain sign off on field skills test by company certified trainer.

General Responsibilities

1. As an employee of this company you are expected to represent the professional image of this company by:
 - a. The standard workday is _____ AM to _____ PM. Be on time to work everyday, calling before the start of the workday if illness or family emergency prevent your attendance that day. These are the two recognized reasons for missing work without prior notice.Yes ___ No ___
2. You are expected to invest your own money in the purchase of tools that will be necessary for the job classification you are in within 6 months of obtaining that designation.Yes ___ No ___
3. This job is a career choice. It is your responsibility to learn and demonstrate knowledge and ability to advance in position and pay scale.Yes ___ No ___
4. When designated to do so by the Lead Carpenter, supervise Entry Level and Carpenter I employees in activities that they are assigned.....Yes ___ No ___
5. It is every employee’s responsibility to be productive on the job site. If you have completed an assigned task, ask to be given another. If the Lead Carpenter is busy use the time well by cleaning up, stocking materials, etc.Yes ___ No ___
6. Safety is important on many fronts. You are responsible for your own safety and the safety of those working for you. You must learn the safety practices of this company and adhere to them.Yes ___ No ___
7. Time cards are due on _____ at _____ PM. It is your responsibility to fill in your time card everyday and turn it in to the office. Time cards that are not turned in on time or that are incomplete will not be paid until the next pay period.....Yes ___ No ___
8. At times you will be asked to work independently. This will require attention to detail, quality, and an ability to stay on task until finished.....Yes ___ No ___

9. In the absence of the Lead Carpenter, due to illness or attending to other responsibilities, you are responsible for seeing that other employees remain on task and are productive. At times this will mean assigning new tasks in the flow of work.Yes ___ No ___
10. With the assistance of Carpenter I track inventory of job site at the beginning, during, and at the end of the job. When items need to be restocked take action to be sure they are there when needed.....Yes ___ No ___

Customer Satisfaction

1. Keeping the job clean.
 - a. Broom clean on a daily bases.Yes ___ No ___
 - b. Vacuum clean at the end of each week.Yes ___ No ___

Job Site Supervision

1. Arriving on the job before ____ AM to allow for setup and remain on the job until ____ PMYes ___ No ___
2. Taking a one half hour lunch and breaks as needed to ensure a safe job site.....Yes ___ No ___
3. Creating a working environment that brings the best out in other employees and that uses time as efficiently as possible.Yes ___ No ___
4. Installing all dust, safety, and security protections before and work is started on the project.Yes ___ No ___
5. For enforcing all company policies regarding safety, fowl language, drugs, drinking and smoking. If someone continues to violate these policies it is your responsibility to report them to you supervisor.....Yes ___ No ___
6. Enforcing all company safety policies and provide safe conditions for both workers and clients.Yes ___ No ___
7. Not performing any work not in the contract unless authorized by a signed Change Order.Yes ___ No ___
8. At the request of the Lead Carpenter unlocking the job site at the beginning of each day and securing the property at the end of the day.....Yes ___ No ___
9. Protecting the client’s property from theft, damage, or weather related loss.Yes ___ No ___
10. Protecting any items that will be reused or cannot be removed from the construction area, such as cabinets, bushes, or pool tables.....Yes ___ No ___
11. Installing and maintaining a company job sign in the front of the job.Yes ___ No ___
12. Maintaining a clean job site as seen from the street.Yes ___ No ___
13. Removing large quantities of debris on a weekly basis or as needed.....Yes ___ No ___
14. Never using a client’s property or tools.....Yes ___ No ___
15. All tasks assigned by Lead Carpenter including but not limited to:
 - a. Cleaning site – Materials stacked neatly, floors clean, tools put away, yard clean, trash pile neat, mud off driveway and roads.....Yes ___ No ___
 - b. Digging footersYes ___ No ___
 - c. Moving lumberYes ___ No ___
 - d. Install dust protection before work beginsYes ___ No ___

- e. Tool set up and break down each day.....Yes ___ No ___
- f. Studying materials provided by Production Manager for advancement.....Yes ___ No ___
- g. Learning by watching, asking questions, and participating in the work.....Yes ___ No ___

Carpentry Labor

- 1. Knowing and understanding all plans and specifications.Yes ___ No ___
- 2. Getting answers to questions when plans and specifications are unclearYes ___ No ___
- 3. Completing all work related to carpentry and other work generally done by this company. Such as:
 - a. FramingYes ___ No ___
 - b. Exterior trimYes ___ No ___
 - c. Install windows and doorsYes ___ No ___
 - d. Install siding of all varietiesYes ___ No ___
 - e. Install interior doorsYes ___ No ___
 - f. Install interior trim of all varietiesYes ___ No ___
 - g. Install cabinetsYes ___ No ___
 - h. Install and hook up appliancesYes ___ No ___
 - i. Install hardwood floorsYes ___ No ___
- 4. Having all the tools required for proper installation of the above-mentioned tasks.....Yes ___ No ___
- 5. Supervising all work done by other employees to ensure conformance with company standards and specifications.....Yes ___ No ___

Supervision and Scheduling of Subcontractors

- 1. As directed by the Lead Carpenter
 - a. Being prepared for the subcontractor on the day they are scheduled. If not you are responsible for giving them at least one weeks notice.....Yes ___ No ___
 - b. Providing each subcontractor with information concerning the job before they arrive to facilitate a smooth beginning once they arrive.....Yes ___ No ___
 - c. Providing the sub with accurate paperwork such as revised plans and specifications.Yes ___ No ___
- 2. Either cleaning up of ensuring that the subs clean up.....Yes ___ No ___

Inspections

- 1. If directed by the Lead Carpenter, be on site when the inspector arrives, accompanying them in the inspector, and dealing with issues that arise.Yes ___ No ___
- 2. Staying as current as possible on codes that effect your work.Yes ___ No ___

Material Management

1. Assist Lead Carpenter in ordering the proper amount of materials to ensure that trips to the lumberyard during the working day are limited to one every two weeks.Yes ___ No ___
2. Receive material deliveries, sign receipts, and check to ensure proper quantities and quality.Yes ___ No ___
3. Returning undamaged materials that cannot be used at the first available time.Yes ___ No ___
4. Storing materials in a way that reduces damage after they are delivered to the site.Yes ___ No ___

Maintenance of Job Paperwork

1. Completing your time card at the end of every day.Yes ___ No ___
2. Submitting all receipts of purchased or delivered items every Friday.Yes ___ No ___

Does the employee have these tools?

- | | |
|---|---|
| <input type="checkbox"/> 30 foot tape measure | <input type="checkbox"/> Caulk gun |
| <input type="checkbox"/> Screw driver set | <input type="checkbox"/> Gloves |
| a. Phillips heads #1, #2 | <input type="checkbox"/> Quart chalk gun |
| b. Flat head #1, #2 | <input type="checkbox"/> Adjustable crescent wrench (10") |
| <input type="checkbox"/> Flat bar | <input type="checkbox"/> 4 piece chisel set |
| <input type="checkbox"/> Cat's paw nail puller | <input type="checkbox"/> Pliers |
| <input type="checkbox"/> 4 foot level | <input type="checkbox"/> String line |
| <input type="checkbox"/> Tin snips (straight) | <input type="checkbox"/> 50 foot extension cord |
| <input type="checkbox"/> Chalk-line (blue or red) | <input type="checkbox"/> Push broom |
| <input type="checkbox"/> Nail set | <input type="checkbox"/> Skill saw |
| <input type="checkbox"/> Utility knife | <input type="checkbox"/> Electric Drill and Bits |
| a. Heavy duty blades | <input type="checkbox"/> Screw gun |
| <input type="checkbox"/> Hammer (framing) | <input type="checkbox"/> Sawsall |
| <input type="checkbox"/> Carpenters apron or bags | <input type="checkbox"/> Miter box |
| <input type="checkbox"/> Knee pads | <input type="checkbox"/> Coping Saw |
| <input type="checkbox"/> 25 foot extension cord | <input type="checkbox"/> Multiple socket head for cords |
| <input type="checkbox"/> Tool box | <input type="checkbox"/> Voltage tester |
| <input type="checkbox"/> Carpenters Pencils | |

Learning Goals for Advancement

1. _____
2. _____
3. _____

Carpenter II

Learning Goals for Advancement to Lead Carpenter

1. Have advanced knowledge of blueprints
2. Have a working knowledge of the Building code
3. Be able to assign tasks to all employees on your job for the most efficient use of their time.
4. Have a working knowledge of floor loads and terminology
5. Be able to layout all components of the house
 - a. Roof
 - b. Walls
 - c. Floors – I joists
6. Have advanced problem solving skills and take responsibility for the solutions
7. Be able to cut and assemble stairs
8. Be able to install cabinets
9. Know how to layout and assemble any wall
10. Have personnel management skills
11. Know paperwork issues
12. Have subcontractor management skills
13. Know communication basics
14. Have pre job planning skills
15. Drywall and Paint
16. Have scheduling skills
17. Have material management skills
18. Have customer service skills
19. Have working knowledge of budgeting and job costing

Carpenter II

Evaluation Tools for Advancement

Sign off skills cards

1. Carpenter II to Lead Carpenter, page 4.16

Evaluation Modules 1-21

1. Module 1, page 7.1
2. Module 2, page 7.3
3. Module 3, page 7.6
4. Module 4, page 7.11
5. Module 5, page 7.16
6. Module 6, page 7.21
7. Module 7, page 7.26
8. Module 8, page 7.31
9. Module 9, page 7.36
10. Module 10, page 7.37
11. Module 11, page 7.40
12. Module 12, page 7.43
13. Module 13, page 7.45
14. Module 14, page 7.48
15. Module 15, page 7.51
16. Module 16, page 7.53
17. Module 17, page 7.56
18. Module 18, page 7.58
19. Module 19, page 7.62
20. Module 20, page 7.64

Carpenter II to Lead Carpenter

Field Skills Sign Off Card

By initialing and dating an area below, I certify that _____ has completed training and has demonstrated an ability to complete the following skills.

Skills and knowledge that can be tested in the field.

- | | | | |
|---|-------|-------|-------|
| 1. Assign tasks to all employees on your job for the most efficient use of their time | _____ | _____ | _____ |
| 2. Layout all components of the house | | | |
| a. Roof | _____ | _____ | _____ |
| b. Walls | _____ | _____ | _____ |
| c. Floors – I joists | _____ | _____ | _____ |
| 3. Have advanced problem solving abilities and take responsibility for the solution | _____ | _____ | _____ |
| 4. Cut and assemble stairs | _____ | _____ | _____ |
| 5. Install cabinets | _____ | _____ | _____ |
| 6. Layout and assemble any wall | _____ | _____ | _____ |
| 7. Be aware of the schedule and prep for upcoming events | _____ | _____ | _____ |
| 8. Note materials/supplies and be sure they are ordered | _____ | _____ | _____ |
| 9. Be aware of schedule and note changes to subcontractors needed | _____ | _____ | _____ |

5. Through which of these areas does dust migrate without us knowing it?
 - a. Through the return air grill
 - b. Under doors
 - c. On our feet
 - d. All of the above

6. When looking at a blueprint what does this symbol mean? 
 - a. Hole in the wall
 - b. Receptacle
 - c. More nails here
 - d. A post

7. Assuming that a door swings into a room, how can you tell the swing of the door?
 - a. You can't
 - b. From outside the room whichever side the hinges are on is the handing
 - c. Put your butt to the hinge side of the jamb, the door swings to the right it is right handed
 - d. Both b and c will get you the right answer

8. What is a good rule of thumb for ordering the proper number of studs for walls?
 - a. One for every 16 inches
 - b. One for every foot
 - c. Get a whole bundle and send back what you don't need
 - d. Lay the walls out and count the studs needed

9. On a truss diagram, there are three numbers for each measurement. These numbers represent what?
 - a. Yards- Feet- Inches
 - b. Feet – Inches – 16ths of inches
 - c. Meters – Inches – 1/2 inches
 - d. I just measure the truss to see what it is

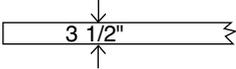
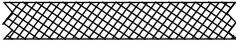
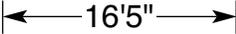
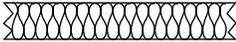
10. On a typical blueprint which of these would you look at to find the location of the stair openings?
- a. Roof framing
 - b. Finish details
 - c. Floor framing
 - d. Exterior details
11. Where would you look to find the type of material that would be used for siding?
- a. Roof layout
 - b. Exterior elevations
 - c. Site plan
 - d. Soffit details
12. If a window is designated by 28 x 56 the first number tells you what?
- a. The width
 - b. The rough opening height
 - c. The manufactures width designation
 - d. Not very much
13. If you want to find the actual rough opening for a window where would you look?
- a. The floor plan
 - b. The spec sheet
 - c. The manufacturers cut sheet
 - d. The floor of your truck
14. Most dimensions on a floor plan are given to what surfaces?
- a. Finished drywall
 - b. Finished trim
 - c. Framing
 - d. It depends on the style of house

15. To find the height of a doorway, where will you look?
- Interior section drawing
 - Floor plan
 - Exterior detail sheet
 - Plumbing diagram
16. The first sheet of most blueprints is where you will find what information?
- What the symbols mean
 - Who drew the plans
 - List of the pages included in the plan
 - All of the above
17. At what point should you review the roof-framing plan?
- When the first floor is framed
 - When the top plates are set
 - Before you start any framing
 - When it is time to install the roof
18. If a floor plan calls for joists 16" on center what formula would you use to calculate how many joist you will need?
- Length of run x 16
 - Length of run in feet, multiple by 12 and divide by 16"
 - Length of run multiplied by .75
 - Length of run multiplied by .75 plus one
19. What do these numbers stand for – 4/12?
- The type of lumber we are using
 - The slope or pitch of the roof
 - The date the plans were drawn
 - An indication about where is the specs you can find this information

20. What is the difference between live load and dead load?

- a. Live load is when people are living it. Dead load is when they are dead.
- b. Live load is the weigh of any living creature. Dead load is the weight of all inanimate objects such as furniture.
- c. Live load is the weigh of all expected uses including furniture and people. Dead load is the weigh of the structure itself.
- d. Live load represents the amount of flex that will be in the structure. Dead load represents the amount load that will break the structure.

21. Identify these symbols commonly found on blueprints

- a.  _____
- b.  _____
- c.  _____
- d.  _____
- e.  _____
- f.  _____
- g.  _____
- h.  _____
- i.  _____
- j.  _____
- k.  _____
- l.  _____
- m.  _____
- n.  _____
- o.  _____
- p.  _____
- q. _____
- r.  _____

2. When is cross bracing preferable to solid bracing?
 - a. When there is no solid stock laying around
 - b. When utilities may have to run through a joist bay
 - c. When it is too hard to nail in solid blocking
 - d. It really doesn't matter
3. A cripple stud is used for what?
 - a. Filling in space
 - b. Keep the spacing of studs for interior finishes
 - c. Under window openings
 - d. Both b and c
4. When installing exterior wood siding it is important to
 - a. Glue it up
 - b. Paint the cut ends
 - c. Caulk the gaps before the owner sees them
 - d. Only use finish nails
5. Shear walls are used to
 - a. Keep the walls plumb and straight
 - b. Keep the wind from shearing off the siding
 - c. Help support heavy beams
 - d. To take up space
6. A raised heel on a truss allows for
 - a. Proper insulation (R30) installation
 - b. Better look from the street
 - c. Easier access for rough-ins
 - d. Easier installation

7. Fire stopping is intended to
 - a. Keep fires from starting
 - b. Stop the draft from floor to floor
 - c. Make us work harder
 - d. Keep fires from spreading
8. A rough opening is
 - a. A hole that is cut with a chain saw
 - b. An opening that is oversized to allow ease of installation of a door or window
 - c. A term used to describe what the electrician does when installing the wiring
 - d. The entrance to a crawl space
9. By doubling the top plate of a wall we
 - a. Straighten the wall
 - b. Add strength
 - c. Help distribute the load above
 - d. All of the above
10. Backing or deadwood is installed to
 - a. Use up scrape
 - b. Use up time
 - c. Support drywall or plaster in corners
 - d. Keep floor joists from squeaking
11. Chair rail is installed to
 - a. Hang chairs on
 - b. To keep chairs from banging the drywall or plaster
 - c. Show defects in the drywall
 - d. Cover defects in the wall

12. A vanity cabinet is
- a. A cabinet with a mirror
 - b. A cabinet used by rich people
 - c. A bathroom cabinet with a sink
 - d. All of the above
13. When trimming 90° corners of a window, what type of trim would suggest using a butt joint?
- a. Square stock
 - b. Colonial casing
 - c. Circle top trims
 - d. Plinth blocks
14. Crown mold is typically installed between what two surfaces?
- a. Wall and floor
 - b. Wall and wall
 - c. Wall and ceiling
 - d. Ceiling and ridge beam
15. When installing Baseboard you should be careful to nail
- a. Top and bottom
 - b. Into the studs
 - c. Only b
 - d. Both a and b
16. Shoe mold is typically used
- a. To fill the gap between the baseboard and the finished floor
 - b. To build shoe cabinets
 - c. To keep shoes from marking up doors and steps
 - d. Cover sanding marks on a wood floor

17. A toe kick is
- a. Used to kick doors open
 - b. Used to provide space in front of a cabinet for your toes to slide
 - c. Used in installing carpet to be sure it is tight
 - d. Used to install drywall to lift the drywall into place on a wall
18. Pre Hung doors are great because
- a. You do not have to shim them
 - b. They have the hinges installed already
 - c. They are lighter
 - d. I hate them
19. An island is
- a. A piece of land surrounded by water
 - b. A cabinet that stands alone
 - c. A place I would like to visit
 - d. Both a and b but a does not apply to this evaluation
20. Casing is the trim that
- a. Makes a nice box
 - b. Used to hang pictures
 - c. Used around windows, doors, and opening
 - d. Something they carry caskets on

Evaluation Module 7

Advanced Math

Possible Score 23

Administrator: _____

Passing Score 17

Date: _____

Score _____

Employment Date: _____

Time Since Last Promotion: _____

1. The use of a 3-4-5 triangle is primarily for
 - a. Adding up linear ft of wall plate
 - b. Squaring up any parts that form right angles
 - c. Cutting roof plywood
 - d. Calculating neck material

2. If a house is 30 ft x 50 ft, which of the following combinations would you use to check the square of the foundation?
 - a. 3-4-5
 - b. 30-40-50
 - c. 30-50-58.31
 - d. The concrete sub always gets it right

3. A knowledge of the math behind the 3-4-5 rule will help in which of the following situations?
 - a. Roof framing
 - b. Determining the length of ceiling joists
 - c. Setting a ridge beam
 - d. All of the above

4. On a common gable roof, if the pitch is $4/12$ and the house is 18 feet wide what will be the height of the peak?
- a. 3
 - b. 6
 - c. 8
 - d. Not enough information to calculate
5. The basic equation for finding the diagonal of a house foundation that is 20 ft x 40 ft is
- a. $20 \times 40 = x$
 - b. $20^2 + 40^2 = x$
 - c. $20^2 + 40^2 = x^2$
 - d. I really don't care
6. Write the fraction equivalents of each decimal number
- a. .25 _____
 - b. .50 _____
 - c. .75 _____
 - d. .125 _____
 - e. .625 _____
 - f. .563 _____
7. In a house using 2 x 12 floor joists, precut $92 \frac{5}{8}$ " studs and $\frac{3}{4}$ " decking what will be the floor to floor heights? (Assume a 2 x 12 is $11 \frac{1}{4}$ " deep)
- a. 8' 1 $\frac{1}{8}$ "
 - b. 9' $\frac{3}{8}$ "
 - c. 9' 1 $\frac{1}{8}$ "
 - d. 9' 2 $\frac{1}{4}$ "

8. In the example used in question #7 we are going to order pre-built stairs to run from first floor to the second. Assuming the floor coverings are the same on each floor what would the riser heights be to achieve 14 risers?
- a. $7 \frac{3}{4}$ "
 - b. 6"
 - c. $7 \frac{1}{2}$ "
 - d. $7 \frac{13}{16}$ "
9. For the same example what should the range be for the rough tread cuts be?
- a. 9-10"
 - b. 10-12"
 - c. $9 \frac{1}{2}$ "
 - d. It depends on some other factors
10. What formula would you use to calculate the number of pieces of plywood needed to deck a rectangular floor that is 20 ft x 40 ft?
- a. $(20 + 40) / 48$
 - b. $(40 \times 20) / 48$
 - c. $(20 \times 40) / 32$
 - d. $(40 \times .75) + 1$
11. For a foundation that is 20 ft x 40 ft which formula would you use to order the correct number of 12' floor joists for a 16" OC layout? (Assume the middle support beam runs along the 40' dimension.)
- a. $(20 \times 40) / 32$
 - b. $[(40 \times .75) + 1] \times 2$
 - c. $(80 \times .75) + 1$
 - d. Lay the tape out and count the 16 OC marks

12. You are using some $5\frac{1}{2}$ " x 16' material to deck a back deck. How many pieces will you need for a 16' x 16' deck?
- 32
 - 34
 - 35
 - 36
13. You are using some $5\frac{1}{2}$ " x 16' material to deck an exterior deck. How many pieces will you need for a 16' x 20' deck? (Assume the deck is 20' wide and projects 16' from the house.)
- 42
 - 43
 - 44
 - 45
14. To calculate the concrete needed for a slab that is 4" thick x 20' x 40' you would use which of these equations?
- $(20' \times 40') \times 4 = x$
 - $(20' \times 40') \times .33 = x$
 - $(20' \times 40') \div 81 = x$
 - Either c or d
15. For a concrete slab that is 20' x 40' and 8" thick you would use which equation?
- $(20' \times 40') \div 81 = x$
 - $(20' \times 40') \times .66 = x$
 - $(20' \times 40') \times 8 = x$
 - Both a and b
16. The formula for calculating concrete for a footer is:
- $(\text{Length in feet} \times \text{width in feet} \times \text{depth in feet}) \div 27$
 - $\text{Length in feet} \times \text{width in feet} \times \text{depth in inches}$
 - $\text{Length in feet} \times 11.2$
 - I usually guess - it works pretty well

17. You are pouring a continuous footer for a house that is a 20' x 40' rectangle. The plan calls for the footer dimensions to be 16" wide x 8" thick. How would you calculate the material needed in cubic yards?
- a. $(20' \times 40') \times (16" \times 8") = x$
 - b. $120' \times 1.33 \times .66 = x$
 - c. $(120' \times 1.33 \times .66) \div 27 = x$
 - d. $(120' \times 1.33 \times .66) \div 81 = x$
18. The engineer has spec'd a turn-down slab with an integral footer. The slab will sit on grade and is 6" thick. The footer must go to 24" below grade for frost protection. The footer is 16" wide. The house is 20' x 40'. Assume the footers are a consistent depth and width from bottom of slab to bottom of footer. How many cubic yards of concrete will be required to pour the slab? Please show your work.

Evaluation Module 8

Water Infiltration

Possible Score 26

Administrator: _____

Passing Score 20

Date: _____

Score _____

Employment Date: _____

Time Since Last Promotion: _____

1. What is the difference between damp proofing and water proofing?
 - a. Water proofing assures that water will not enter and damp proofing assure that dampness will not enter but water may
 - b. The are the same
 - c. Water proofing is used in high water tables and damp proofing is used where water is not an issue
 - d. It doesn't matter

2. A vapor barrier is designed to
 - a. Stop water in liquid form
 - b. Stop water in gas form
 - c. Slow down water
 - d. Divert water

3. The best form of water proofing a basement involves which of the following?
(Circle all that apply.)
 - a. An applied membrane
 - b. Exterior drainage
 - c. A weep/ protection board
 - d. Exit to daylight for the drains

4. In most houses foundation water is allowed to
 - a. Come through the foundation walls
 - b. Migrate through the footers to the slab
 - c. Run through pipes in footers to a sump pump
 - d. Form a swimming pool outside the house
5. Foundation drainage is designed to eliminate what?
 - a. Water
 - b. Mineral build-up
 - c. Hydrostatic pressure
 - d. Both a and c
6. When attaching a deck, to avoid water problems what should you do?
 - a. Use rubber washers on the lag bolts
 - b. Flash the band board with metal
 - c. Do not attach directly to the house, leave deck free standing
 - d. Put #30 felt behind the band board
7. Water can gain entrance to a house by which of these methods?
 - a. Through a hole
 - b. Through a crack
 - c. By the wind pushing it
 - d. All of the above
8. To prevent water from coming behind a window from the top you should?
 - a. Caulk really well with a 50 year silicon
 - b. Overlap the head of the window with the vapor barrier
 - c. Flash with a metal head flashing
 - d. All of the above

9. If you use flashing on a window the vapor barrier should be installed
- Behind the flashing
 - On top of the flashing
 - Right up to and taped to the flashing
 - If you use flashing you don't need a vapor barrier
10. When installing flashing, vapor barriers, and siding, what is the most important thing to consider?
- Water will rot wood
 - Water generally runs down hill
 - Trapped water is what causes the damage
 - All of the above
11. A major concern in many climates is damage to a roof because of water in the attic. The major source of this water is
- Plumbing penetrations
 - Vapors from baths and showers
 - Warm air rising and carrying moisture
 - Both b and c
12. The best way to deal with moisture in an attic is to
- Seal it up tight
 - Put plastic down to prevent air flow
 - Provide ventilation to allow moist air to escape
 - Paint framing members
13. What is the best way to provide ventilation for a gable roof?
- Wind turbines
 - A ridge vent
 - A power vent
 - Ridge vent and soffit vents

14. What is the most common reason that new soffit vents fail?
 - a. They get full of paint
 - b. The insulation is too thick at the top plate and blocks the flow of air
 - c. They are installed backwards
 - d. They are too small

15. When installing flashing on a brick chimney it is important to
 - a. Caulk the metal to the brick
 - b. Cut the flashing into mortar joints
 - c. Raise the flashing 12" above the roof
 - d. Both a and b

16. Ice and water shield is used to prevent water damage from
 - a. Tree damage
 - b. Waterborne molds
 - c. Ice Damming
 - d. Hurricanes

17. Ice and water shield can be used in what other locations to enhance water protection?
(Circle all that apply.)
 - a. Valleys
 - b. Ridges
 - c. Low pitched shingle roofs
 - d. Flashing dormers

18. If water penetrates a job, what factors are important to dry it out? (Circle all that apply)
 - a. Heat
 - b. Ventilation
 - c. Time
 - d. Attitude of the client

19. How do you know when the wood members of a job have reached the right moisture content?
- a. See how they feel
 - b. Look at them
 - c. Use a moisture meter
 - d. Use a barometer

Evaluation Module 9

Advanced Blueprint Reading

Possible Score 19

Administrator: _____

Passing Score 15

Date: _____

Score _____

Employment Date: _____

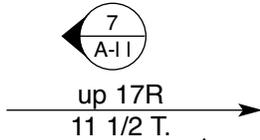
Time Since Last Promotion: _____

Identify these symbols commonly found on blueprints

a.  _____

b.  _____

c. In this section marking the 7 refers to _____ and the A-11 to _____

d.  _____

e.  _____

f.  _____

g. 6'8" AFF _____

h. +251.33 _____

i.  _____

j.  _____

k.  _____

l.  _____

m.  _____

n.  _____

o.  _____

p.  _____

q.  _____

r. **SDM** _____

5. When you are filling 9 1/2" insulation into the space between a top plate and the roof deck that is only 5 1/2" what should you do?
 - a. Stuff it in
 - b. Change to a 5 1/2" insulation so it fits
 - c. Don't put any in to allow air flow
 - d. Use an airflow baffle

6. For the geographic area that we work what is the code requirement for ceiling/roof insulation?
 - a. R 11
 - b. R 19
 - c. R 30
 - d. R 45

7. For the geographic area that we work what is the code requirement for exterior wall insulation?
 - a. R 11
 - b. R 13
 - c. R 19
 - d. R 30

8. For the geographic area that we work what is the code requirement for a floor over a crawl space insulation?
 - a. R 11
 - b. R 19
 - c. R 30
 - d. R 10

9. What problem may occur when insulating windows and door frames?
 - a. The jambs could be pushed out of true
 - b. Material could interfere with the drywall install
 - c. The material could make a mess on the floor
 - d. There are no potential problems

10. In a typical faced batts insulation in a home or addition, which of these areas could be failure points if not addressed specifically? (Circle all that apply)
- a. Around electrical boxes
 - b. Wall cavities
 - c. Around HV AC registers
 - d. Between wall plates and plywood deck
 - e. Cavities in corners and T's
 - f. Joist bays
 - g. Inside built up beams
 - h. Pipe penetrations of walls
 - 1. Wire penetrations of walls