








# Multiple Category Scope and Sequence: Scope and Sequence Report For Course Standards and Objectives, Content, Skills, Vocabulary

Wednesday, August 20, 2014, 1:33PM



	Unit	Course Standards and Objectives	Content	Skills	Vocabulary
District Basic <u>Construction Trades Foundation (46.0000) (District)</u>  2014-2015 <u>Collaboration</u>	<u>Disclosure,photo,</u> (Week 1, 1 Week)  	UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Construction Trades Foundation Standard 07 The student will understand the need for professional development. <ul style="list-style-type: none"> <li>▪ Objective 0702 Set and meet goals.</li> </ul> Standard 09 The student will understand the need for career planning. <ul style="list-style-type: none"> <li>▪ Objective 0908 Give a talk about your career.</li> </ul>	Documents are due second week of class.  We need the documents so we can take pictures in class and post on the GTI web site.	This will help the students learn some soft skills and how to fill out forms. This will also give the students and parents the chance to see what our class will be doing.	Disclosure  Photo release
	<u>power tool safety</u> 1, 1 Week)  	UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Construction Trades Foundation Standard 03 The student will recognize and demonstrate the hand tools. <ul style="list-style-type: none"> <li>▪ Objective 0301 Recognize basic hand tools used in the construction trade.</li> <li>▪ Objective 0302 Safely use these basic hand tools.</li> </ul> Standard 04 The student will recognize and demonstrate power tools. <ul style="list-style-type: none"> <li>▪ Objective 0401 Identify commonly used power tools of the construction trade.</li> <li>▪ Objective 0403 Explain the procedures to properly maintain these power tools.</li> </ul>	We use circular saws, miter box saws, saw zalls, and nail guns.  They will learn to keep hands and fingers at a safe distance and hair an clothing also.  They learn how to take care of the power tools and make sure the tool is working properly.	We want the students to be able to use all power tools safely and with confidence, and to pass the safety test at 100%.	Circular saw  Sawzall  Miter box saw  Nail gun  safety

**relo lot prep and grade**



(Week 2, 1 Week)

UT: CTE: Skilled and Technical Sciences,  
UT: Grades 9-12, Carpentry 2  
Standard 05  
Students will be able to understand and demonstrate framing of flooring systems, wall and ceilings and roofing systems.

- Objective 0508  
Demonstrate the ability to:
  - a. Layout and construct a floor assembly
  - b. Install joists for a cantilever floor
  - c. Install a single floor system using tongue and groove plywood/OSB panels

Why it's important to start with a perfectly square building layout.

By using a 3,4,5 triangle you can square up a build lot or building.

Using a builders level you can create a perfectly square platform to build on.

We want the students to be able to use the 3,4,5 triangle to lay out and square a building.

Triangle  
Builders Level  
Square  
Lay out  
Platform  
Pythagorean Theory

**blueprint reading and**

**floor framing**



(Week 2, 5

Weeks)

UT: CTE: Skilled and Technical Sciences,  
UT: Grades 9-12, Construction Trades  
Foundation  
Standard 05  
The student will identify and demonstrate how to read blueprints.

- Objective 0501  
Identify and recognize basic blueprint terms and symbols.
- Objective 0502  
Relate information on prints to real parts and locations.

That you find the what the scale is on a plan usually at the bottom of the blue print.

That there are symbols for nailing, plumbing fixtures, lighting fixtures and framing.

The layout on a floor system will be 16 inches on center.

That 2" X 10" X 14' are used for the floor joist and 3/4" OSB is used for the sheeting.

Tongue and groove is for flooring for more strength.

Students will be able to read plans and lay out floors.

Oriented  
Strand Board  
Tongue and Groove  
Flooring  
Blue print  
Scale  
Floor system  
Layout

UT: CTE: Skilled and Technical Sciences,  
UT: Grades 9-12, Carpentry 1  
Standard 5  
Students will be able to understand and demonstrate framing of flooring systems, wall and ceilings and roofing systems.

- Objective 2  
Identify floor and sill framing and support members.
- Objective 5  
List and recognize different types of flooring materials.
- Objective 8  
Demonstrate the ability to:
  - a. Layout and construct a floor assembly
  - b. Install joists for a cantilever floor
  - c. Install a single floor system using tongue and groove plywood/OSB

[relo wall framing/ doors and window framing](#) 

(Week 5, 7 Weeks) 

panels

UT: CTE: Skilled and Technical Sciences,  
UT: Grades 9-12, Construction Trades  
Foundation  
Standard 05  
The student will identify and demonstrate  
how to read blueprints.

- Objective 0502  
Relate information on prints to real  
parts and locations.

UT: CTE: Skilled and Technical Sciences,  
UT: Grades 9-12, Carpentry 1  
Standard 2  
Students will be able to understand and  
demonstrate the use of wood building  
materials, fasteners and adhesives.

- Objective 1  
Explain the terms commonly used  
in discussing wood and lumber.
- Objective 8  
List the basic nail and staple types  
and their uses.
  - a. Nails: Common, box, finish,  
casing, doublehead, T-nail, drywall,  
masonry, cut, roofing.
  - b. Staples: Chisel, crosscut chisel,  
outside chisel, inside chisel,  
divergent, outside chisel divergent,  
spear.

Standard 5  
Students will be able to understand and  
demonstrate framing of flooring systems, wall  
and ceilings and roofing systems.

- Objective 10  
Describe the procedure for laying  
out a wood frame wall, including  
plates, corner posts, door and  
window openings, partition T's,  
bracing, and firestops.
- Objective 11  
Describe the correct procedure for  
assembling and erecting an exterior  
wall.
- Objective 12

How to find and locate  
windows and doors.

We use dimensional lumber  
and OSB.

We use 8 penny and 16 penny  
nails.

There are studs, cripples,  
trimmers, headers, window  
sills, top and bottom plates and  
king studs.

The safest way to lift a wall is  
to use your legs and 10 to 12  
students.

We use OSB for sheathing a  
wall.

Students will learn how to to frame  
walls and window openings. They will  
also leans which type of nails to use  
when nailing different types of lumber  
together.

Windows  
Doors  
Studs  
Cripples  
King studs  
Trimmers  
Sills  
Sheathing  
Dimensional

Describe the common materials and methods used for installing sheathing on walls.

**relate roof sections/ beams and rafters**  (Week 9, 6 Weeks) 

UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Carpentry 1 Standard 5  
Students will be able to understand and demonstrate framing of flooring systems, wall and ceilings and roofing systems.

- Objective 14  
Understand the terms associated with roof framing.
- Objective 16  
Identify the various types of trusses used in roof framing.

How to lay out the roof system.

Lay out the rafters for sheathing and how to cut the birds mouth.

rafters

How far apart the rafters are installed.

birds mouth

What the nailing schedule is on the roof sheathing

schedule

sheathing

roof

trusses

**window and door installation**  (Week 13, 2 Weeks) 

UT: CTE: Skilled and Technical Sciences, UT: Grades 9-12, Carpentry 1 Standard 6  
Students will be able to understand and demonstrate installation of windows and exterior doors.

- Objective 1  
Identify various types of fixed, sliding, and swinging windows.
- Objective 2  
Identify the parts of a window installation.
- Objective 4  
Install a pre-hung window
- Objective 9  
Install a lockset.

What type of window we use.

Name the different steps to install a window and a door.

windows

That we use a metal door.

doors

How the windows are installed

lock set

How the door is installed

install

metal

**roof and wall insulation**  (Week 9, 6 Weeks) 

Students should understand how to choose the proper insulation for a given job.

Students should be able to calculate the proper type and amount of insulation for a job and install it,

R value

Faced



Students should know how to install insulation properly.

Unfaced

vapor barrier

fiber glass  
batting

chopped

**interior sheathing**  (Week  
12, 5 Weeks) 

UT: CTE: Skilled and Technical Sciences,  
UT: Grades 9-12, Carpentry 2  
Standard 05  
Students will be able to understand and  
demonstrate framing of flooring systems, wall  
and ceilings and roofing systems.

Students should understand  
why we sheath the interior of the  
relos.

Students should be able to measure  
cut and install the interior sheathing in  
the relos.

- Objective 0512  
Describe the common materials  
and methods used for installing  
sheathing on walls.
- Objective 0513  
Layout, assemble, erect, and brace  
exterior walls for a frame building.

cellulose  
blown in  
self expanding  
Sheeting  
plunge cut  
notch  
nail pattern

**hang sheetrock**  (Week  
17, 3 Weeks) 

UT: CTE: Skilled and Technical Sciences,  
UT: Grades 9-12, Carpentry 1  
Standard 7  
Students will be able to understand and  
demonstrate drywall installation and  
finishing.

Student should be able to  
determine what type of  
sheetrock is needed and how  
much is needed and be able to  
install it.

Students will be able to calculate the  
amount and type of sheetrock needed  
for a particular job and be able to  
install it.

- Objective 1  
Identify the different types of  
gypsum wallboard (drywall) and  
their uses.
- Objective 2  
Select the type and thickness of  
drywall required for specific  
installations.
- Objective 3  
Select fasteners for drywall  
installation.
- Objective 4  
Explain the fastener schedules for  
different types of drywall  
installations.
- Objective 5  
Perform single-layer and multi-layer  
drywall installations using different  
types of fastening systems,  
including:
  - a. Nails
  - b. Drywall screws

Gypsum  
Butt joint  
Factory joint  
Screwgun  
Drywall screws  
drywall  
adhesive  
Utility knife  
Drywall saw

c. Adhesives

[exterior metal](#)  (Week 9,  
11 Weeks) 

Students should know how to figure what type of exterior metal is needed, how much is needed and how to install it.

Students should know how to cut and fit the different parts needed to install on the relo.

Wall sheathing

Roof metal

Denver gable

J metal

soffit

Facia

Ridge cap

Corner metal

