

**CONSTRUCTION TECHNOLOGY
CURRICULUM MAP 2010-2011
HOGAN PROJECT**

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Email:

Month	Standard	Target Skills	Assessment	Recommended Resources	Recommended Teaching Strategies
AUG 2010	REVIEW SITE AND TOOL SAFETY 1.0 LAY OUT BUILDING LINES	<p><u>FIRST QUARTER</u></p> <p>Week 1</p> <p>Review site, hand and power tool safety</p> <p>Week 2</p> <p>1.1 - Demonstrate the use and care of precision measuring instruments 1.2 - Establish building lines 1.3 - Use a builder's level or transit and differential leveling procedures to determine site and building elevations 1.4 - Record site layout data and information in field notes using accepted practices</p> <p>Math - Trig. Geometry, Pythagorean theorem, measuring</p>	<p>Safety lists</p> <p>Chapter questions Observation Product accuracy</p>	Textbook	<p>Group collaboration</p> <p>Teacher demonstration Group collaboration</p>

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<p>SEPT 2010</p>	<p>6.0 IDENTIFY THERMAL AND MOISTURE PROTECTION</p>	<p>Week 3</p> <p>6.1 - Install insulation material 6.2 - Install vapor barrier</p> <p>Math- area, measuring, estimation</p>	<p>Chapter questions Observations</p>	<p>Textbook Hogan Plans</p>	<p>Group collaboration Teacher demonstration</p>
	<p>2.0 PERFORM CONCRETE/MASONRY WORK</p>	<p>Week 4,5 and 6</p> <p>Properly Install Reinforcement Bar 2.5 - Demonstrate the process of depositing, spreading, consolidating and striking off concrete in a form 2.6 - Construct concrete formwork 2.7 - Estimate the material needed for concrete/masonry work</p> <p>Math- linear footage, measuring, area, volume, conversion factors, estimation</p>	<p>Math worksheet Observation of installation</p>	<p>United Building Code book Textbook Hogan Plans Building Inspector</p>	<p>Group collaboration Teacher demonstration</p>

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OCT 2010	<p>3.0 LAY OUT AND INSTALL FLOOR SYSTEMS</p>	<p>Week 7 and 8</p> <p>3.1 - Install sill plate(s)</p> <p>Math- estimation of materials, linear feet, conversion factors</p>	<p>Observation Estimation worksheet</p>	<p>Textbook Hogan Plans</p>	<p>Teacher demonstration Group collaboration</p>
	<p>4.0 DEMONSTRATE WALL AND CEILING FRAMING</p>	<p>Week 9</p> <p>4.1 - Lay out wall lines including plates, corner posts, door and window openings, partition Ts, bracing and plan for installation of fire stops 4.4 - Lay out, assemble, erect and brace exterior walls for a frame building 4.6 - Estimate the materials required to frame walls and ceilings</p>	<p>Chapter questions Observation Estimation worksheet</p>	<p>Textbook Hogan Plans</p>	<p>Teacher demonstration Group collaboration</p>
		<p><u>SECOND QUARTER</u></p> <p>Week 1</p> <p>Continue and complete corners</p>			

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NOV 2010	4.0 DEMONSTRATE WALL AND CEILING FRAMING	Week 2 Straw bales delivered Begin stacking Math- measuring	observation	Straw bale building books Hogan Plans	Teacher Demonstration Group collaboration
NOV 2010		Week 3, 4 and 5 Stack straw bales Build RBA 's (Roof Box Beams) Math- angles, measuring, estimation	Observation	Textbook Hogan Plans	Teacher Demonstration Group collaboration ..
DEC 2010	5.0 FRAME AND FINISH A ROOF	Week 6,7,8 and 9 5.1 - Construct conventional roof and/or set truss systems 5.2 - Install roof sheathing and coverings 5.4 - Demonstrate the techniques for installing a variety of types of roofing materials 5.5 - Estimate the materials used in framing and sheathing a roof Math- pitch, slope, ratios Pythagorean theorem, area, linear footage	Chapter Questions Observations Estimation worksheets Internet Roof worksheet	Textbook Hogan Plans Internet Roof manufacturer data sheets	Teacher Demonstration Group collaboration

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JAN 2011	11.0 INSTALL ELECTRICAL COMPONENTS/SYSTEM (S)	<p><u>THIRD QUARTER</u></p> <p>Week 1,2</p> <p>11.1 - Identify electrical service entrance requirements 11.2 - Rough in switch boxes and outlet boxes 11.3 - Rough in feeder and circuit Install photovoltaic panels Install Heating Panels</p> <p>Math- Ohm's law, watt usage, conversion factors, measuring , solstice solar angles</p>	<p>Chapter questions Ohm's Law Worksheet Watt usage worksheet</p>	<p>Textbook Hogan Plans Internet Manufacturer data sheets PUSD Electrical Maintenance Dept</p>	<p>Teacher Demonstration Group collaboration</p>
	8.0 INSTALL DOORS AND WINDOWS	<p>Week 3</p> <p>8.1 - Install door systems 8.2 - Install door hardware 8.3 - Install window systems</p> <p>Math- Measuring</p>			

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<p>FEB 2011</p>	<p>12.0 INSTALL INTERIOR WALL AND CEILING FINISH (Ceiling)</p>	<p>Week 4,5 and 6</p> <p>12.1 - Identify type and use of drywall 12.2 - Demonstrate the proper techniques for cutting drywall 12.3 - Fasten drywall to ceiling and walls 12.4 - Apply mud, use tape appropriately and install corner bead</p> <p>Math- estimation, area, measuring</p>	<p>Chapter questions Observation Estimation Worksheet</p>	<p>Textbook</p>	<p>Teacher Demonstration Group collaboration</p>
	<p>7.0 APPLY EXTERIOR FINISHES</p>	<p>Week 7 and 8</p> <p>7.5 - Install exterior stucco finish</p> <p>Math- Stucco mixing ratios</p>	<p>Observation</p>	<p>Stucco Sub Contractor</p>	<p>Teacher Demonstration Group collaboration Stucco Sub Contractor Demonstration</p>

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<p>MAR 2011</p>	<p>4.0 DEMONSTRATE WALL AND CEILING FRAMING (Interior Walls)</p>	<p>Week 9</p> <p>4.1 - Lay out wall lines including plates, corner posts, door and window openings, partition Ts, bracing and plan for installation of fire stops 4.2 - Assembly wood stud walls 4.5 - Cut and install ceiling joists on a wood frame building 4.6 - Estimate the materials required to frame walls and ceilings</p> <p>Math- Estimation, measuring, angles</p> <p><u>FOURTH QUARTER</u></p> <p>Week 1</p> <p>Complete interior wall framing</p>	<p>Estimation Worksheets</p> <p>Observation for accuracy and safety</p>	<p>Textbook</p> <p>Straw Bale building books</p>	<p>Teacher Demonstration</p> <p>Group collaboration</p>

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APR 2011	10.0 ASSEMBLE PIPING, WASTE AND VENT DISTRIBUTION SYSTEMS	<p>Week 2</p> <p>10.1 - Assemble a soil, waste and vent system 10.2 - Assemble a water distribution system 10.4 - Demonstrate the ability to properly measure, cut and join plastic and copper piping</p> <p>Math- slopes, ratios, measuring</p>	Observation	Textbook Hogan Plans	Teacher Demonstration Group collaboration
	11.0 INSTALL ELECTRICAL COMPONENTS/SYSTEM (S)	<p>Week 3</p> <p>11.2 - Rough in switch boxes and outlet boxes 11.3 - Rough in feeder and circuit</p>	Observation	Textbook Hogan Plans PUSD Electrical Maintenance Dept	Teacher Demonstration Group collaboration
	12.0 INSTALL INTERIOR WALL AND CEILING FINISH (Interior Walls)	<p>Week 4, 5 and 6</p> <p>12.2 - Demonstrate the proper techniques for cutting drywall 12.3 - Fasten drywall to ceiling and walls 12.4 - Apply mud, use tape appropriately and install corner bead 12.5 - Demonstrate technique for paint application</p>	Chapter questions Observation Estimation Worksheet	Textbook	Teacher Demonstration Group collaboration

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MAY 2011	9.0 INSTALL INTERIOR TRIM AND STAIRS 2.0 PERFORM CONCRETE/MASONRY WORK (Exterior Concrete Stairs and ADA Ramp)	Math- estimation, area, measuring Week 7, 8 9.3 - Determine the number and sizes of risers and treads required for a stairway 2.6 - Construct concrete formwork 2.5 - Demonstrate the process of depositing, spreading, consolidating and striking off concrete in a form Math- rise/ run, measuring, estimation	Observation Estimation Worksheet Form Layouts	Textbook	Teacher Demonstration Group collaboration
	10.0 ASSEMBLE PIPING, WASTE AND VENT DISTRIBUTION SYSTEMS 11.0 INSTALL ELECTRICAL COMPONENTS/SYSTEM (S)	Week 9 10.3 - Install plumbing fixtures or equipment 11.4 - Install low voltage systems 11.5 - Trim out electrical devices and appliances 11.6 - Install lighting fixture(s) and ceiling fans	Observation	Textbook Manufacturer installation directions	Teacher Demonstration Group collaboration

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