GRADE 10 BUILDING CONSTRUCTION SCHEMES OF WORK FOR TERM 1

NAME OF THE TEACHER:……

SCHOOL:…….. YEAR:……

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
1	1	**1.0 Foundation of Building Construction**	**1.1 Introduction to Building Construction**	By the end of the lesson, the learner should be able to outline the functions of a building in day-to-day life.	1. How are buildings classified? 2. Why are buildings important? [6]	The learner is guided to brainstorm on the meaning of the term 'building' and discuss the functions of a building. [7]	Visual aids, photographs, models of assorted buildings. [8]	Oral questions, Observation schedule. [9]	
	2			By the end of the lesson, the learner should be able to explain the historical development of buildings through ages.		The learner is guided to use print or digital media to search for information on the historical development of buildings (from	Digital devices, charts, photographs. [11]	Written test, Checklist. [12]	

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						caves to modern buildings). [10]			
	3		Components of a building	By the end of the lesson, the learner should be able to illustrate the basic components of a building to detail.		The learner is guided to use visual aids to discuss the components of a building and sketch a building showing its basic components (floor, wall, roof, door and window). [13]	Drawing papers, pencils, visual aids. [14]	Observation schedule. [15]	
	4			By the end of the lesson, the learner should be able to categorise buildings based on their use.		The learner is guided to use visual aids to discuss different types of buildings and use charts to list buildings based on their uses. [16]	Charts, visual aids. [17]	Checklist. [18]	
	5			By the end of the lesson, the learner should be able to observe buildings in the locality.		The learner is guided to take a walk in the locality to observe buildings used for different purposes	Local environment, notebook. [20]	Observation schedule. [21]	

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						(commercial, social and residential). [19]			
	6		Importance of buildings	By the end of the lesson, the learner should be able to appreciate the importance of buildings in the locality.		The learner is guided to prepare a portfolio of different types of buildings. [22]	Portfolio materials. [23]	Portfolio assessment. [24]	
2	1		**1.2 Site Preparation**	By the end of the lesson, the learner should be able to explain factors to consider when selecting a site for a given building.	1. Why are site preliminaries important in building construction? 2. Why is it important to observe safety when preparing	The learner is guided to use the building code to discuss the factors to consider when selecting a building construction site. [26]	Building code, charts. [27]	Oral questions. [28]	

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					a building site?				
	2		Measures to observe in site preparation.	By the end of the lesson, the learner should be able to describe the safety measures to observe in site preparation.		The learner is guided to brainstorm on appropriate safety measures to observe when preparing a site. [29]	Personal protective equipment (PPEs), charts. [30]	Observation schedule. [31]	
	3		Site Preparation	By the end of the lesson, the learner should be able to define terms used in site preparation.		The learner is guided to use print or digital media to search for the meaning of the terms used in site preparation (site selection, site clearing and site levelling). [32]	Digital devices, reference books. [33]	Written test. [34]	
	4		Site Preparation	By the end of the lesson, the learner should be able to clear a site for construction using appropriate hand tools.		The learner is guided to use hand tools and equipment to carry out site clearing (slasher, panga, jembe, rake, spade,	Jembe, panga, slashers, rakes. [36]	Practical work. [37]	

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						axe, wheelbarrow). [35]			
	5		Site Preparation	By the end of the lesson, the learner should be able to strip off the top soil of a building site.		The learner is guided to use appropriate hand tools and equipment to carry out site stripping (jembe, panga, axe, mattock, spade, wheelbarrow). [38]	Mattocks, spades, wheelbarrows. [39]	Practical work, Observation schedule. [40]	
	6		Site Preparation	By the end of the lesson, the learner should be able to strip off the top soil of a building site (Practice).		The learner is guided to continue practicing site stripping using appropriate tools. [41]	Mattocks, spades, wheelbarrows. [42]	Practical work. [43]	
3	1		Site Preparation	By the end of the lesson, the learner should be able to illustrate methods of levelising a site for building construction.		The learner is guided to use visual aids to discuss the methods of levelling a building site (cut, fill, cut and fill). [44]	Visual aids, charts. [45]	Written test. [46]	
	2			By the end of the lesson, the learner should be able to		The learner is guided to sketch	Drawing papers, pencils. [48]	Rubrics. [49]	

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				sketch the methods of levelising a site.		the methods of levelling a site. [47]			
	3		Site levelling	By the end of the lesson, the learner should be able to perform site levelling (Cut).		The learner is guided to perform site levelling using the cut method. [50]	Spades, wheelbarrows, levelling tools. [51]	Practical work. [52]	
	4		Site levelling	By the end of the lesson, the learner should be able to perform site levelling (Fill).		The learner is guided to perform site levelling using the fill method. [53]	Spades, wheelbarrows, levelling tools. [54]	Practical work. [55]	
	5		site levelling	By the end of the lesson, the learner should be able to perform site levelling (Cut and Fill).		The learner is guided to perform site levelling using the cut and fill method. [56]	Spades, wheelbarrows, levelling tools. [57]	Practical work. [58]	
	6		Site Selection	By the end of the lesson, the learner should be able to appreciate the importance of proper site selection and preparation.		The learner is guided to conduct a debate on the importance of proper site selection and preparation. [59]	Debate materials. [60]	Checklist. [61]	

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4	1	**2.0 Related Drawing**	**2.1 Isometric Drawing**	By the end of the lesson, the learner should be able to explain the characteristics of isometric drawings.	Why is isometric drawing important in building construction? [62]	The learner is guided to use visual aids to discuss characteristics of isometric drawings. [63]	Drawing papers, pencils, visual aids. [64]	Observation schedule. [65]	
	2		Isometric projection (Basic	By the end of the lesson, the learner should be able to draw a shaped block in isometric projection (Basic).		The learner is guided to discuss the steps to follow when drawing shaped blocks in isometric projection and use drawing instruments to construct shaped blocks. [66]	Drawing set, T-square, Squares, Drawing papers. [67]	Practical work. [68]	
	3		Isometric projection (Intermediate	By the end of the lesson, the learner should be able to draw a shaped block in isometric projection (Intermediate).		The learner is guided to use drawing instruments to construct shaped blocks in isometric projection. [69]	Drawing set, T-square, Squares, Drawing papers. [70]	Practical work. [71]	
	4			By the end of the lesson, the learner		The learner is guided to use	Drawing set, T-	Practical work. [74]	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
				should be able to draw a shaped block in isometric projection (Complex).		drawing instruments to construct shaped blocks in isometric projection. [72]	square, Squares, Drawing papers. [73]		
	5			By the end of the lesson, the learner should be able to dimension shaped blocks drawn in isometric projection.		The learner is guided to use print or digital media to discuss the procedure for dimensioning isometric drawings. [75]	Digital devices, reference materials. [76]	Written test. [77]	
	6			By the end of the lesson, the learner should be able to apply dimensioning to isometric drawings.		The learner is guided to dimension blocks drawn in isometric projection. [78]	Drawing instruments. [79]	Practical work. [80]	
5	1			By the end of the lesson, the learner should be able to appreciate the importance of isometric		The learner is guided to make a presentation on the importance of isometric projection in construction. [81]	Presentation materials. [82]	Portfolio. [83]	

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				projection in construction.					
	2			By the end of the lesson, the learner should be able to consolidate isometric drawing skills.		The learner is guided to complete a portfolio of isometric drawings. [84]	Portfolio materials. [85]	Portfolio. [86]	
	3		**2.2 Computer Aided Drawing**	By the end of the lesson, the learner should be able to identify types of CAD software used in building drawing.	How important is CAD in building construction? [87]	The learner is guided to engage a resource person on the types of CAD software used in building drawing. [88]	Computers, CAD software. [89]	Oral questions. [90]	
	4			By the end of the lesson, the learner should be able to set up a CAD drawing environment on a digital device.		The learner is guided to engage the resource person on the steps to follow when setting up a CAD drawing environment. [91]	Computers, CAD software. [92]	Observation schedules. [93]	
	5			By the end of the lesson, the learner should be able to practice setting up		The learner is guided to practice how to set up a	Computers, CAD software. [95]	Practical work. [96]	

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				a CAD environment.		CAD drawing environment. [94]			
	6			By the end of the lesson, the learner should be able to understand drawing plane shapes using CAD.		The learner is guided to engage the resource person on the steps to follow when using CAD to draw plane shapes. [97]	Computers, CAD software. [98]	Observation schedules. [99]	
6	1			By the end of the lesson, the learner should be able to draw plane shapes using CAD software (Basic Shapes).		The learner is guided to develop plane shapes using a CAD software. [100]	Computers, CAD software. [101]	Practical work. [102]	
	2			By the end of the lesson, the learner should be able to draw plane shapes using CAD software (Complex Shapes).		The learner is guided to develop plane shapes using a CAD software. [103]	Computers, CAD software. [104]	Practical work. [105]	
	3			By the end of the lesson, the learner should be able to draw plane shapes		The learner is guided to continue developing plane	Computers, CAD software. [107]	Practical work. [108]	

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				using CAD software (Practice).		shapes using a CAD software. [106]			
	4			By the end of the lesson, the learner should be able to draw plane shapes using CAD software (Practice).		The learner is guided to continue developing plane shapes using a CAD software. [109]	Computers, CAD software. [110]	Practical work. [111]	
	5			By the end of the lesson, the learner should be able to appreciate the importance of CAD in building drawing.		The learner is guided to create an e-portfolio of plane shapes made using CAD software. [112]	Computers, e-portfolio platform. [113]	Portfolios. [114]	
	6			By the end of the lesson, the learner should be able to finalize the CAD e-portfolio.		The learner is guided to finalize and present their e-portfolio of plane shapes. [115]	Computers. [116]	Portfolios. [117]	
7	1	**3.0 Building Construction**	**3.1 Concreting**	By the end of the lesson, the learner should be able to explain the constituent	How is concrete essential in building	The learner is guided to brainstorm the meaning of the term 'concrete' and	Ballast, lime, wheelbarrow. [120]	Observation Schedule. [121]	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
		Processes		materials for concrete.	construction? [118]	use print or digital media to discuss the constituent materials for concrete (cement, sand, coarse aggregates and water). [119]			
	2			By the end of the lesson, the learner should be able to select hand tools and equipment used for concrete production.		The learner is guided to use visual aids to discuss hand tools and equipment used for concrete production. [122]	Spade, tamper boards. [123]	Checklist. [124]	
	3		Process of producing concrete (Batching).	By the end of the lesson, the learner should be able to describe the process of producing concrete (Batching).		The learner is guided to discuss the steps to follow when making concrete (focusing on batching). [125]	Digital devices, reference books. [126]	Written test. [127]	
	4		Process of producing concrete (Mixing).	By the end of the lesson, the learner should be able to describe the		The learner is guided to discuss the steps to follow when making	Digital devices, reference books. [129]	Written test. [130]	

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				process of producing concrete (Mixing).		concrete (focusing on mixing). [128]			
	5		Process of producing concrete (Transporting and Placing).	By the end of the lesson, the learner should be able to describe the process of producing concrete (Transporting and Placing).		The learner is guided to discuss the steps to follow when making concrete (focusing on transporting and placing). [131]	Digital devices, reference books. [132]	Written test. [133]	
	6		Process of producing concrete (Compacting and Curing).	By the end of the lesson, the learner should be able to describe the process of producing concrete (Compacting and Curing).		The learner is guided to discuss the steps to follow when making concrete (focusing on compacting and curing). [134]	Digital devices, reference books. [135]	Written test. [136]	
8	1		Safety precautions when concreting	By the end of the lesson, the learner should be able to explain safety precautions when concreting.		The learner is guided to discuss safety precautions to observe when concreting. [137]	PPEs, Safety charts. [138]	Oral questions. [139]	

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	2		Perform tasks	By the end of the lesson, the learner should be able to perform tasks for producing concrete (Batching).		The learner is guided to use appropriate tools and equipment to perform batching of concrete materials. [140]	Gauge boxes, shovel, materials. [141]	Practical work. [142]	
	3		Perform tasks	By the end of the lesson, the learner should be able to perform tasks for producing concrete (Mixing).		The learner is guided to use appropriate tools and equipment to perform mixing of concrete. [143]	Shovel, wheelbarrow, mixing platform. [144]	Practical work. [145]	
	4		Perform tasks	By the end of the lesson, the learner should be able to perform tasks for producing concrete (Mixing Practice).		The learner is guided to continue practicing mixing concrete to correct consistency. [146]	Shovel, wheelbarrow, mixing platform. [147]	Practical work. [148]	
	5		Perform tasks	By the end of the lesson, the learner should be able to perform tasks for producing concrete		The learner is guided to use appropriate tools and equipment to transport and place concrete. [149]	Wheelbarrows, pans, shovels. [150]	Practical work. [151]	

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				(Transporting and Placing).					
	6		Perform tasks	By the end of the lesson, the learner should be able to perform tasks for producing concrete (Compacting).		The learner is guided to use appropriate tools and equipment to compact concrete. [152]	Tamper boards, rod. [153]	Practical work. [154]	
9	1		Perform tasks	By the end of the lesson, the learner should be able to perform tasks for producing concrete (Curing).		The learner is guided to use appropriate tools and methods to cure concrete. [155]	Water, hessian cloth/sand. [156]	Practical work. [157]	
	2		Perform tasks	By the end of the lesson, the learner should be able to perform tasks for producing concrete (Integrated Task).		The learner is guided to perform the complete cycle of concrete production in a small project. [158]	All concreting tools. [159]	Project. [160]	
	3		Perform tasks	By the end of the lesson, the learner should be able to perform tasks for producing		The learner is guided to continue the complete cycle of concrete	All concreting tools. [162]	Project. [163]	

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				concrete (Integrated Task).		production in a small project. [161]			
	4		Perform tasks for producing concrete (Integrated Task	By the end of the lesson, the learner should be able to perform tasks for producing concrete (Integrated Task).		The learner is guided to continue the complete cycle of concrete production in a small project. [164]	All concreting tools. [165]	Project. [166]	
	5		Perform tasks for producing concrete (Integrated Task	By the end of the lesson, the learner should be able to perform tasks for producing concrete (Integrated Task).		The learner is guided to continue the complete cycle of concrete production in a small project. [167]	All concreting tools. [168]	Project. [169]	
	6			By the end of the lesson, the learner should be able to perform tasks for producing concrete (Integrated Task).		The learner is guided to complete and review the concrete production project. [170]	All concreting tools. [171]	Project. [172]	
10	1		Importance of concreting	By the end of the lesson, the learner should be able to appreciate the		The learner is guided to make presentations on the importance of	Presentation materials. [174]	Rubrics. [175]	

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				importance of concreting in building construction.		concreting in building construction. [173]			
	2		**3.2 Foundations**	By the end of the lesson, the learner should be able to explain the functions of a foundation in a building.	Why is a foundation important to a building? [176]	The learner is guided to brainstorm on the functions of a foundation in a building. [177]	Working drawings. [178]	Oral questions. [179]	
	3		Foundation in a building.	By the end of the lesson, the learner should be able to discuss the functional requirements of a foundation in a building.		The learner is guided to use the building code to discuss the functional requirements of a foundation in a building. [180]	Building code. [181]	Checklist. [182]	
	4		Foundation in a building.	By the end of the lesson, the learner should be able to describe types of foundations used in building construction.		The learner is guided to use visual aids to discuss types of foundations used in building construction (strip, pad, raft). [183]	Visual aids, charts. [184]	Written test. [185]	

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	5			By the end of the lesson, the learner should be able to sketch different types of shallow foundations.		The learner is guided to use appropriate drawing tools to sketch different types of shallow foundations. [186]	Drawing tools. [187]	Practical work. [188]	
	6		Foundation in a building.	By the end of the lesson, the learner should be able to interpret a strip foundation plan for a building.		The learner is guided to interpret a strip foundation plan for a building. [189]	Working drawings. [190]	Observation schedule. [191]	
11	1		Safety measures when constructing	By the end of the lesson, the learner should be able to discuss safety measures when constructing a strip foundation.		The learner is guided to discuss appropriate safety measures to observe when constructing a strip foundation. [192]	Safety charts. [193]	Oral questions. [194]	
	2		Strip foundation	By the end of the lesson, the learner should be able to set out a strip foundation from working drawings (Methodology).		The learner is guided to use appropriate hand tools and equipment to set out a strip foundation (3-4-5,	Plumb bob, Builders line, Pegs, Builders square. [196]	Practical work. [197]	

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						builder's square and trammel methods). [195]			
	3			By the end of the lesson, the learner should be able to set out a strip foundation from working drawings (Practice).		The learner is guided to practice setting out using the 3-4-5 method. [198]	Tape measure, Pegs, Lines. [199]	Practical work. [200]	
	4			By the end of the lesson, the learner should be able to set out a strip foundation from working drawings (Practice).		The learner is guided to practice setting out using the builder's square method. [201]	Builders square, Pegs, Lines. [202]	Practical work. [203]	
	5			By the end of the lesson, the learner should be able to set out a strip foundation from working drawings (Practice).		The learner is guided to practice setting out using the trammel method. [204]	Trammel, Pegs, Lines. [205]	Practical work. [206]	
	6		construction of a strip foundation	By the end of the lesson, the learner should be able to		The learner is guided to use appropriate hand	Jembe, spade,	Practical work. [209]	

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				prepare trenches for construction of a strip foundation (Excavation).		tools to prepare a trench for laying a strip foundation (excavate). [207]	mattock. [208]		
12	1		Construction of a strip foundation	By the end of the lesson, the learner should be able to prepare trenches for construction of a strip foundation (Aligning).		The learner is guided to use appropriate hand tools to prepare a trench (align the sides). [210]	Spade, line.	Practical work.	
	2			By the end of the lesson, the learner should be able to prepare trenches for construction of a strip foundation (Levelling).		The learner is guided to use appropriate hand tools to prepare a trench (level and compact the base). [213]	Rammer, level, spade.	Practical work.	
	3			By the end of the lesson, the learner should be able to lay a strip foundation (Setting thickness).		The learner is guided to use appropriate hand tools to lay a strip foundation (set the thickness of the concrete strip). [216]	Pegs, level. [217]	Practical work. [218]	
	4		Preparing concrete	By the end of the lesson, the learner		The learner is guided to use	Concreting tools. [220]	Practical work. [221]	

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				should be able to lay a strip foundation (Preparing concrete).		appropriate hand tools to lay a strip foundation (prepare concrete material). [219]			
	5			By the end of the lesson, the learner should be able to lay a strip foundation (Placing).		The learner is guided to use appropriate hand tools to lay a strip foundation (place concrete). [222]	Wheelbarrow, spade. [223]	Practical work. [224]	
	6			By the end of the lesson, the learner should be able to lay a strip foundation (Compacting and Curing).		The learner is guided to use appropriate hand tools to lay a strip foundation (compact concrete, cure concrete). [225]	Rammer, water. [226]	Practical work. [227]	
13	1			By the end of the lesson, the learner should be able to appreciate the importance of foundations in a building.		The learner is guided to make a presentation on the importance of a foundation in a building. [228]	Presentation materials. [229]	Rubrics. [230]	

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	2			By the end of the lesson, the learner should be able to consolidate foundation skills.		The learner is guided to review practical skills learned in setting out and trench preparation. [231]	Tools. [232]	Practical assessment. [233]	
	3			By the end of the lesson, the learner should be able to demonstrate understanding of Term 1 content.		End of term assessment covering Strand 1, 2 and 3.1-3.2.	Assessment papers.	Written/Practical test.	
	4			By the end of the lesson, the learner should be able to demonstrate understanding of Term 1 content.		End of term assessment covering Strand 1, 2 and 3.1-3.2.	Assessment papers.	Written/Practical test.	
	5			By the end of the lesson, the learner should be able to demonstrate understanding of Term 1 content.		End of term assessment covering Strand 1, 2 and 3.1-3.2.	Assessment papers.	Written/Practical test.	
	6			By the end of the lesson, the learner should be able to		Closing of the term and reflection on performance.			

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				reflect on Term 1 performance.					