



Education and Sport Development

Department of Education and Sport Development
Departement van Onderwys en Sport Ontwikkeling
Lefapha la Thuto le Tihabololo ya Metshameko

NORTH WEST PROVINCE

NORTH WEST PROVINCIAL ASSESSMENT

2016

GRADE 8

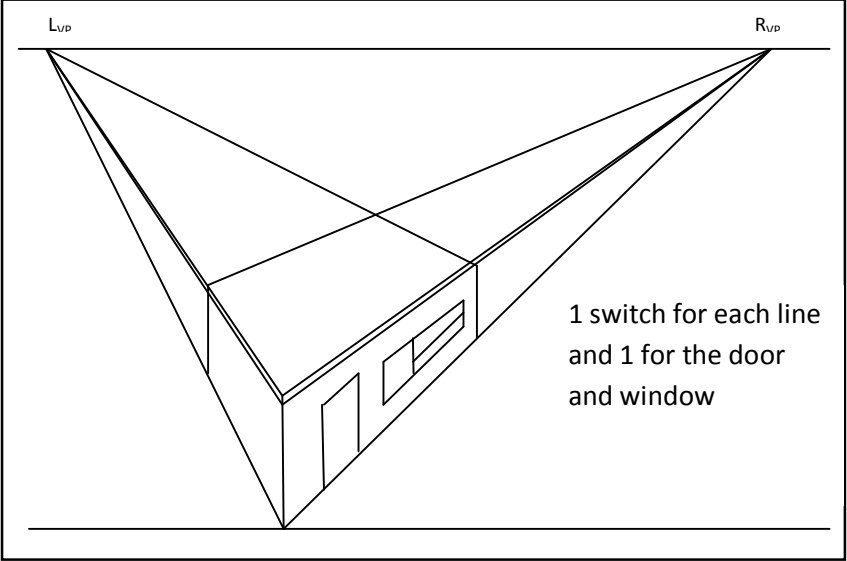
TECHNOLOGY

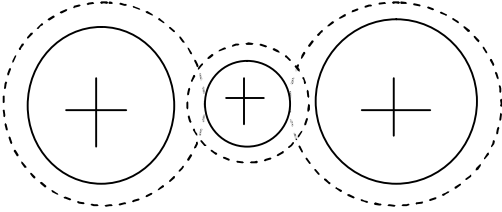
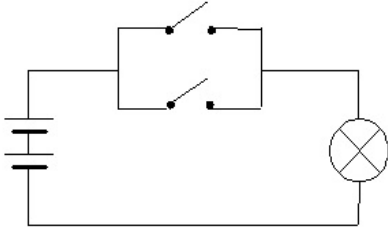
MEMORANDUM

NOVEMBER 2016

All alternative relevant answers should be credited

Question		Answer	Marks
1	1.1	B	1
	1.2	D	1
	1.3	B	1
	1.4	A	1
	1.5	A	1
	1.6	A	1
	1.7	B	1
	1.8	B	1
	1.9	C	1
	1.10	C	1
			10
2	2.1	True	1
	2.2	True	1
	2.3	False	1
	2.4	True	1
	2.5	False	1
			5
3	3.1	D	1
	3.2	F	1
	3.3	E	1
	3.4	A	1
	3.5	B	1
			5
4	4.1.1	I am going to design and make a pitched roof using corrugated iron that will not be easily affected by bush fires.	2
	4.1.2	A Rafter	1
		B King post	1
		C Queen post	1
		D Strut	1
	4.1.3	Cement	1
		Concrete/Crusher	1
	4.2.1	Lack of strength	2
	4.2.2	Lack of stability	2
	4.2.3	Lack of stability	2
4.3	Internal cross bracing	1	
	Triangulation	1	
			16
5	5.1 a)	There should be bins in the school yard for learners to put plastics in.	2
	b)	Plastic recycling project could be started for learners to put used plastics to good use.	2
	c)	Learners could be engaged in used plastic project like plastic door mats to put used plastic to good use.	2
	5.2	Burning plastics causes fumes that pollute the air that will in turn be harmful when breathed in.	2

	5.3.1	If water is pumped from the river through pipes to be cleaned of for irrigation purposes, this dirt may block the pipes.	1
	5.3.2	It could harm the lives of animals that live in the river like fish.	1
	5.3.3	It can lead to the breeding of mosquitoes and other dangerous insects.	1
	5.3.4	River water is mostly used for irrigation and if polluted, it may be harmful to the small plants and destroy such.	1
	5.4	Bio-degradable materials are materials that can be broken down into small pieces that can be decomposed.	2
			14
6	6.1.1 A	Construction line	1
	B	Dimension line	1
	C	Outer line	1
	D	Hidden details line	1
	E	Center line	1
	6.1.2	 <p>1 switch for each line and 1 for the door and window</p>	12
			17
7	7.1.1	Class 1	1
	7.1.2	<u>Effort arm</u> = $\frac{450}{150}$ ✓ Ma = Load arm = 3 ✓	3
	7.1.3	To get a good mechanical advantage or for the man to use less effort to lift the load.	2
	7.1.4	It could break under high stress	2
	7.2.1	Idler gear	1
	7.2.2	It must be made of a very strong material	2

	7.2.3	 <p>1 Tick for each cycle</p>	6															
			17															
8	8.1.1	AND gate	1															
	8.1.2	<table border="1"> <thead> <tr> <th>A</th> <th>B</th> <th>X</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> <td>0✓</td> </tr> <tr> <td>0</td> <td>1</td> <td>0✓</td> </tr> <tr> <td>1</td> <td>0</td> <td>0✓</td> </tr> <tr> <td>1</td> <td>1</td> <td>1✓</td> </tr> </tbody> </table>	A	B	X	0	0	0✓	0	1	0✓	1	0	0✓	1	1	1✓	4
A	B	X																
0	0	0✓																
0	1	0✓																
1	0	0✓																
1	1	1✓																
	8.2.1	 <p>1 tick for each component and 1 for connecting switches in parallel.</p>	6															
	8.2.2	OR Gate	1															
	8.3	They are only active when there is sunlight.	2															
	8.4 a)	The person connecting such might get shocked and could die.	1															
	b)	Illegally connected wires usually lie too low and could shock innocent playing children.	2															
			16															
		TOTAL	[100]															