

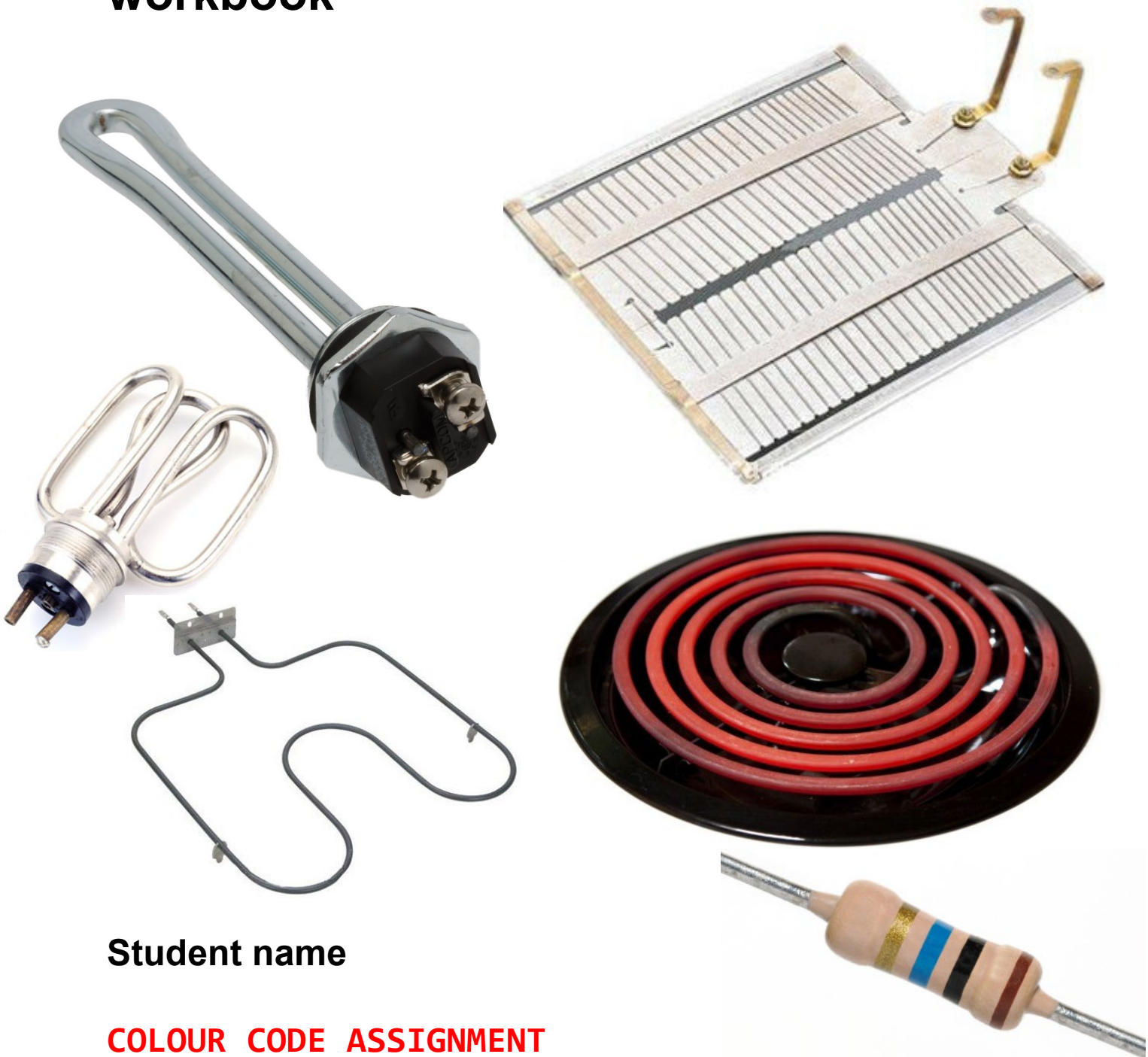


WelTec

Te Whare Wānanga o te Awakairangi

EE3103 3

Resistance, resistivity and resistors workbook



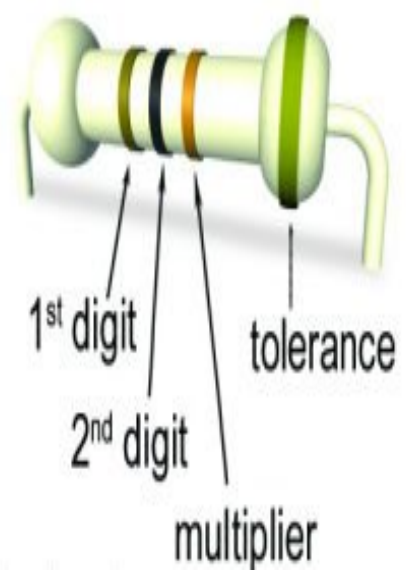
Student name

COLOUR CODE ASSIGNMENT



Color	Color Name	1 st digit 1 st stripe	2 nd digit 2 nd stripe	Multiplier 3 rd stripe	Tolerance 4 th stripe
	Black	0	0	x1	-
	Brown	1	1	x10	1%
	Red	2	2	x100	2%
	Orange	3	3	x1,000	3%
	Yellow	4	4	x10,000	4%
	Green	5	5	x100,000	-
	Blue	6	6	x1,000,000	-
	Violet	7	7	-	-
	Grey	8	8	-	-
	White	9	9	-	-
	Gold	-	-	x0,1	5%
	Silver	-	-	x0,01	10%

10k ohm



EE3103 colour code assignment

Give the colour codes for the following values of resistors (ignore tolerance):

680 Ohm: _____

470k Ohm: _____

4M7 Ohm: _____

470M Ohm: _____

0.22 Ohm: _____

8.2 Ohm: _____

180 Ohm: _____

150k Ohm: _____

8k2 Ohm: _____

3.3 Ohm: _____

State the nominal resistance values of the following colour coded resistors. Answers to be in the appropriate S.I. engineering units. e.g. 15k Ω and not 15,000 Ω or 1.5x10⁴ Ω

Orange orange brown: _____

Brown red yellow: _____

Brown green brown: _____

Orange white blue: _____

Brown black green: _____

Brown grey orange: _____

Green blue gold: _____

Blue grey silver: _____

Red violet green: _____

Yellow violet orange: _____

Give the colour codes for the following values of resistors (ignore tolerance):

680 Ohm: __ **Blue Grey Brown.**

470k Ohm: __ **Yellow Violet Yellow.**

4M7 Ohm: __ **Yellow Violet Green.**

470M Ohm: __

0.22 Ohm: __ **Red Red Silver.**

8.2 Ohm: __

180 Ohm: __ **Brown Grey Brown.**

150k Ohm: __

8k2 Ohm: __ **Grey Red Red.**

3.3 Ohm: __

State the nominal resistance values of the following colour coded resistors. Answers to be in the appropriate S.I. engineering units. e.g. 15k Ω and not 15,000 Ω or $1.5 \times 10^4 \Omega$

Orange orange brown: __ **330 Ω .**

Brown red yellow: _____ **120k Ω .**

Brown green brown: _____ **150 Ω .**

Orange white blue: _____

Brown black green: _____ **1M Ω .**

Brown grey orange: _____

Green blue gold: _____ **5.6 Ω .**

Blue grey silver: _____

Red violet green: _____ 2M7 Ω or 2.7M Ω .

Yellow violet orange: _____