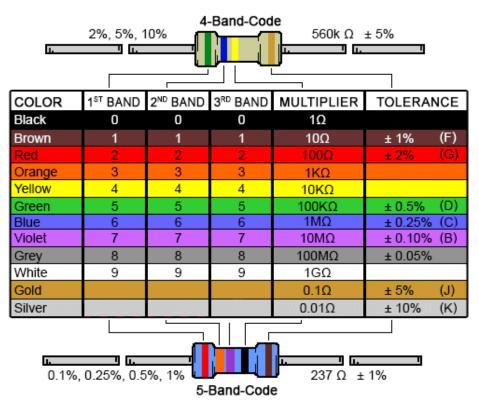In this activity, you will also learn how to calculate the value of resistor using colour code.

COMPONENTS

Resistors of different values.

4-Band-Code

2%, 5%, 10%   560k Ω ± 5%

COLOR	1ST BAND	2ND BAND	3RD BAND	MULTIPLIER	TOLERANCE	
Black	0	0	0	1Ω		
Brown	1	1	1	10Ω	± 1%	(F)
Red	2	2	2	100Ω	± 2%	(G)
Orange	3	3	3	1KΩ		
Yellow	4	4	4	10KΩ		
Green	5	5	5	100KΩ	± 0.5%	(D)
Blue	6	6	6	1MΩ	± 0.25%	(C)
Violet	7	7	7	10MΩ	± 0.10%	(B)
Grey	8	8	8	100MΩ	± 0.05%	
White	9	9	9	1GΩ		
Gold				0.1Ω	± 5%	(J)
Silver				0.01Ω	± 10%	(K)

0.1%, 0.25%, 0.5%, 1%   237 Ω ± 1%

5-Band-Code

STEP-BY-STEP

Take a resistor and identify the four colours. Then calculate the resistance value in the following way:

1. **First Band** – Red, that means 2 (From the table).
2. **Second Band** – Red, that means 2.
3. **Multiplier** – Brown, that means 10. Hence the value of the resistance is (2*10 + 2)*10 = 220 Ω.
4. **Tolerance Band** – Gold, that means ±5% variation in the value.