Subject Area: Principles of Accounts
Level: CSEC
Curriculum Topic: Accounting Adjustments – Reducing Balance Method of Depreciation
Section 6   Objective 8
Key teaching points:
1. Calculate annual depreciation expense using reducing balance method.
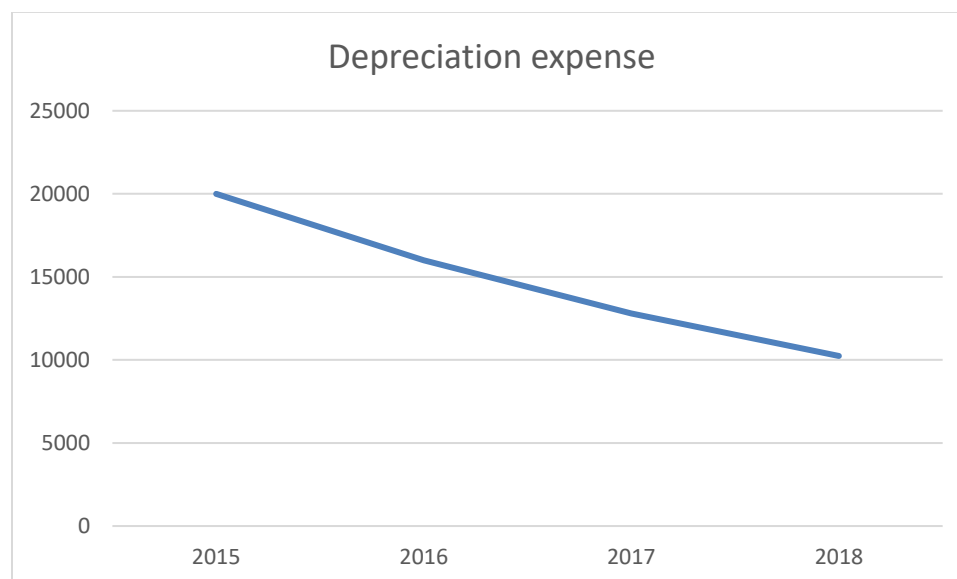

Definition – Reducing Balance Method
Calculation of the value of annual depreciation by reducing the value of the asset in the previous year by the depreciation expense of that year and then finding the percentage attributable to the current year. This means that the depreciation expense will be different and lower in each subsequent year.

Example
PaintWise Company purchased a van in 2015 for $100 000. The company uses the reducing balance method of calculating depreciation at a rate of 20% annually. Calculate the depreciation expense for 2015, 2016, 2017 and 2018.

Year	Depreciation Expense	Net Book Value
2015	$100 000 x 0.2 = $20 000	$100 000 - $20 000 = $80 000
2016	$80 000 x 0.2 = $16 000	$80 000 - $16 000 = $64 000
2017	$64 000 x 0.2 = $12 800	$64 000 - $12 800 = $51 200
2018	$51 200 x 0.2 = $10 240	$51 200 - $10 240 = $40 960

When the depreciation expense annually is plotted, the reducing balance is quite visible as the line moves lower each year.

Activity 1
Calculate the annual depreciation expense and net book value for the period 2015 to 2020 for a Mercedes Benz A class valued at $400 000 using the reducing balance method at a rate of 10% annually.

Activity 2
How would the depreciation expense have been different if it was calculated using the straight line method, with a salvage value of $40 000 after 6 years?

Answer Key
Activity 1 – Reducing Balance Method

Year	Depreciation Expense	Net Book Value
2015	$400 000 x 0.1 = $40 000	$400 000 - $40 000 = $360 000
2016	$360 000 x 0.1 = $36 000	$360 000 - $36 000 = $324 000
2017	$324 000 x 0.1 = $32 400	$324 000 - $32 400 = $291 600
2018	$291 600 x 0.1 = $29 160	$291 600 - $29 160 = $262 440
2019	$262 440 x 0.1 = $26 244	$262 440 - $26 244 = $236 196
2020	$236 196 x 0.1 = $23 619.60	$236 196 - $23 619.60 = $212 576.40

Activity 2 – Straight Line Method
Depreciation = $\dfrac{\text{Initial cost} - \text{Scrap Value}}{\text{Useful life}} = \dfrac{400\ 000 - 40\ 000}{6} = \$60\ 000$ per year

Year	Straight Line Method	Reducing Balance Method
2015	$60 000	$40 000
2016	$60 000	$36 000
2017	$60 000	$32 400
2018	$60 000	$29 160
2019	$60 000	$26 244
2020	$60 000	$23 619.60

The depreciation expense is higher with the straight line method
The depreciation expense is lower with the reducing balance method

The depreciation expense is predictable and constant with the straight line method
The depreciation expense changes and reduces every year with the reducing balance method