

Property, Plant, and Equipment (PPE)

Key terms:

Property, plant and equipment are **tangible** items that:

- (a) are held for **use** in the production or supply of goods or services, for rental to others, or for administrative purposes; and
- (b) are expected to be used during **more than one periods**.

Examples are building, machine, land, furniture, plant, vehicle, etc.

Cost is the amount of cash or cash equivalents paid or the fair value of the other consideration given to acquire an asset at the time of its acquisition or construction.

Useful life is:

- (a) the period over which an asset is expected to be available for use by an entity; or
- (b) the number of production or similar units expected to be obtained from the asset by an entity.

The residual value of an asset is the estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

Depreciable amount is the cost of an asset, or other amount substituted for cost, less its residual value.

Depreciation is the systematic allocation of the depreciable amount of an asset over its useful life.

Carrying amount is the amount at which an asset is recognized after deducting any accumulated depreciation and accumulated impairment losses.

Example:

Information on Acquisition, Depreciation, Disposal of PPE and Financial Statement Presentation:

Company A acquired the truck for ₱1,250,000 cash on January 1, 20X1.	<--	COST
The estimated useful life is 5 years or 125,000 kilometers driven.	<--	USEFUL LIFE
(Actual units used are 27,000, 29,000, 25,000, 24,000, 20,000 kilometers driven in YR. 1-5)		
The residual value at the end of the useful life is ₱250,000.	<--	RESIDUAL VALUE

I. Acquisition of Property, Plant, and Equipment

Journal entry to record acquisition

Date	General Journal	Debit	Credit
Jan. 1, 20X1	Dr. Truck (A+)	1,250,000	
	Cr. Cash (A-)		1,250,000

II. Depreciation of Property, Plant, and Equipment

COST - RESIDUAL VALUE = DEPRECIABLE AMOUNT	<--	DEPRECIABLE AMOUNT
1,250,000 - 250,000 = 1,000,000		

Journal entry to record depreciation

Date	General Journal	Debit	Credit
Dec. 31, 20XX	Dr. Depreciation expense (EXP+, E-)	???	
	Cr. Accumulated depreciation (ContraA+, A-)		???

[Cost - **Accumulated depreciation** = Book value or Carrying amount]

Depreciation method				
(1) Straight line method				
GRAPH Depreciation expense per year = (Cost - Residual value) / Useful life = Depreciable amount x (1/Useful life) [(1/Useful life) = Straight-line rate]				
Year	Calculations	Depreciation Expense	Accumulated Depreciation	Carrying Amount
YR0:				1,250,000
YR1:	(1,250,000 - 250,000) / 5 or 1,000,000 x 20%	200,000	200,000	1,050,000
YR2:	(1,250,000 - 250,000) / 5 or 1,000,000 x 20%	200,000	400,000	850,000
YR3:	(1,250,000 - 250,000) / 5 or 1,000,000 x 20%	200,000	600,000	650,000
YR4:	(1,250,000 - 250,000) / 5 or 1,000,000 x 20%	200,000	800,000	450,000
YR5:	(1,250,000 - 250,000) / 5 or 1,000,000 x 20%	200,000	1,000,000	250,000
CASE #1: If the Company sold the truck to other party on Dec. 31, 20X5 for \$200,000 cash, prepare the journal entry:				
Date	General Journal		Debit	Credit
Dec. 31, 20X5	Dr. Cash (A+)		200,000	
	Loss on sale of truck (EXP+, E-)		50,000	
	Accumulated depreciation (ContraA-, A+)		1,000,000	
	Cr. Truck (A-)			1,250,000
CASE #2: If the Company sold the truck to other party on Dec. 31, 20X5 for \$300,000 cash, prepare the journal entry:				
Date	General Journal		Debit	Credit
Dec. 31, 20X5	Dr. Cash (A+)		300,000	
	Accumulated depreciation (ContraA-, A+)		1,000,000	
	Cr. Truck (A-)			1,250,000
	Gain on sale of truck (REV+, E+)			50,000
(2) Double-declining method				
Depreciation expense per year = (Cost - Accumulated Depreciation) x Accelerated Rate = Book Value x Accelerated Rate [Accelerated Rate = 2 x Straight-line Rate]				
Year	Calculations	Depreciation Expense	Accumulated Depreciation	Carrying Amount
YR0:				1,250,000
YR1:	(1,250,000 - 0) x 40%	500,000	500,000	750,000
YR2:	(1,250,000 - 500,000) x 40%	300,000	800,000	450,000
YR3:	(1,250,000 - 800,000) x 40%	180,000	980,000	270,000
YR4:	(1,000,000 - 980,000) / 2	10,000	990,000	260,000
YR5:	(1,000,000 - 980,000) / 2	10,000	1,000,000	250,000

(3) Sum-of-the-years' digits method

Depreciation expense per year
 = **(Cost - Residual Value) x SYD Fraction**
 = **Depreciable Amount x SYD Fraction**
[SYD Fraction = Remaining Useful Life / SYD]
[SYD = $n(n+1) / 2$]

Yr. 1 + 2 + 3 + 4 + 5 = 15 >>>> SYD
 SYD = $(5 \times 6) / 2 = 15$

Year	Calculations	Depreciation Expense	Accumulated Depreciation	Carrying Amount
YR0:				1,250,000
YR1:	$(1,250,000 - 250,000) \times (5 / 15)$	333,333	333,333	916,667
YR2:	$(1,250,000 - 250,000) \times (4 / 15)$	266,667	600,000	650,000
YR3:	$(1,250,000 - 250,000) \times (3 / 15)$	200,000	800,000	450,000
YR4:	$(1,250,000 - 250,000) \times (2 / 15)$	133,333	933,333	316,667
YR5:	$(1,250,000 - 250,000) \times (1 / 15)$	66,667	1,000,000	250,000

(4) Unit-of-production method

Depreciation expense per year
 = **Actual Usage x Depreciation Rate per Unit**
[Depreciation Rate per Unit
 = **(Cost - Residual Value)/Total Usage]**

Depreciation rate per unit
 = $(1,250,000 - 250,000) / 125,000$
 = \$8 per km driven

Year	Calculations	Depreciation Expense	Accumulated Depreciation	Carrying Amount
YR0:				1,250,000
YR1:	27,000 x 8	216,000	216,000	1,034,000
YR2:	29,000 x 8	232,000	448,000	802,000
YR3:	25,000 x 8	200,000	648,000	602,000
YR4:	24,000 x 8	192,000	840,000	410,000
YR5:	20,000 x 8	160,000	1,000,000	250,000

III. Change in Accounting Estimates of Property, Plant, and Equipment

IF company A decided to revise the useful life from 5 years to **8 years** on January 1, 20X3.
 The company applied the straight-line method for this truck
 and the residual value is revised to **\$100,000**.

Straight line method

Revised depreciation expense per year
 = **(BV at the date of change - Revised residual value) / Remaining revised useful life**

Year	Calculations	Depreciation Expense	Accumulated Depreciation	Carrying Amount
YR0:				1,250,000
YR1:	$(1,250,000 - 250,000) / 5$	200,000	200,000	1,050,000
YR2:	$(1,250,000 - 250,000) / 5$	200,000	400,000	850,000
YR3:	$(850,000 - 100,000) / (8-2)$	125,000	525,000	725,000
YR4:	$(850,000 - 100,000) / (8-2)$	125,000	650,000	600,000
YR5:	$(850,000 - 100,000) / (8-2)$	125,000	775,000	475,000
YR6:	$(850,000 - 100,000) / (8-2)$	125,000	900,000	350,000
YR7:	$(850,000 - 100,000) / (8-2)$	125,000	1,025,000	225,000
YR8:	$(850,000 - 100,000) / (8-2)$	125,000	1,150,000	100,000

IV. Disposal of Property, Plant, and Equipment				
IF company A sold the truck on September 30, 20X3 for ₱750,000 cash. The company applied the straight-line method for this truck.				
Gain or loss calculation				
Figure 1:	Proceed from sale			750,000
Figure 2:	Carrying amount (Book value) at the time of sale			
	Cost		1,250,000	
	Less: Accumulated depreciation		(550,000)	
	Carrying amount (Book value) at the time of sale			700,000
	Gain (Loss) on sale			50,000
Journal entry to record disposal				
Date	General Journal	Debit	Credit	
Sept. 30,	Dr. Cash (A+)	750,000		
20x3	Accumulated depreciation (Contra-, A+)	550,000		
	Cr. Truck (A-)		1,250,000	
	Gain on sale of truck (REV+, E+)		50,000	
V. Financial Statement Presentation				
Statement of Comprehensive Income		20X1	20X2	20X3
	REVENUE			
	EXPENSE			
	Depreciation expense	(200,000)	(200,000)	(150,000)
	GAIN (LOSS)			
	Gain (Loss) on sale of truck	0	0	50,000
Statement of Financial Position		Dec. 31, 20X1	Dec. 31, 20X2	Dec. 31, 20X3
	ASSETS			
	Property, Plant, and Equipment, cost	1,250,000	1,250,000	
	Less: Accumulated Depreciation	(200,000)	(400,000)	
	Property, Plant, and Equipment, net	1,050,000	850,000	
	LIABILITIES			
	SHAREHOLDERS' EQUITY			