Long-Term Assets

Chapter 10

Wild, Kwok, Venkatesh and Shaw

Fundamental Accounting Principles

3rd Edition

Copyright ©2022 McGraw Hill. All rights reserved. No reproduction or distribution without the prior written consent of McGraw Hill.

Chapter 10 Learning Objectives

CONCEPTUAL

C1 Compute the cost of property, plant and equipment.
C2 Explain depreciation for partial years and changes in estimates.
C3 Distinguish between revenue and capital expenditures, and account for them.
C4 Explain the revaluation model to account for property, plant and equipment.

ANALYTICAL

A1 Compute total asset turnover and apply it to analyze a company's use of assets.

PROCEDURAL

P1 Compute and record depreciation using the straight-line, units-of-production, and declining-balance methods.
P2 Account for asset disposal through discarding or selling an asset.
P3 Account for natural resource assets and their depletion.
P4 Account for intangible assets.
P5 *Appendix 10A*—Account for asset exchanges.

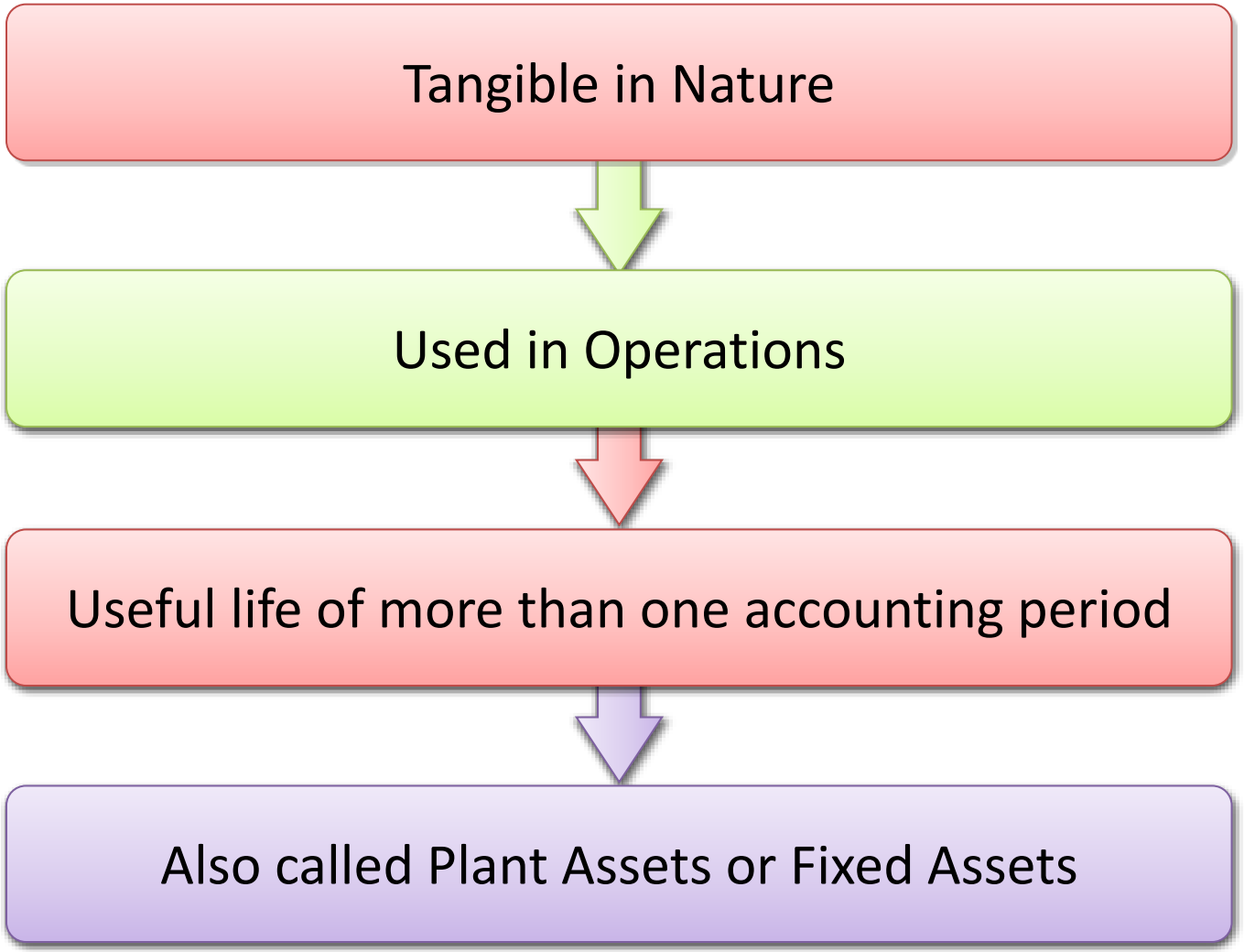
© McGraw Hill

Learning Objective C1

Compute the cost of property, plant and equipment.

© McGraw Hill

Property, Plant and Equipment: Definition

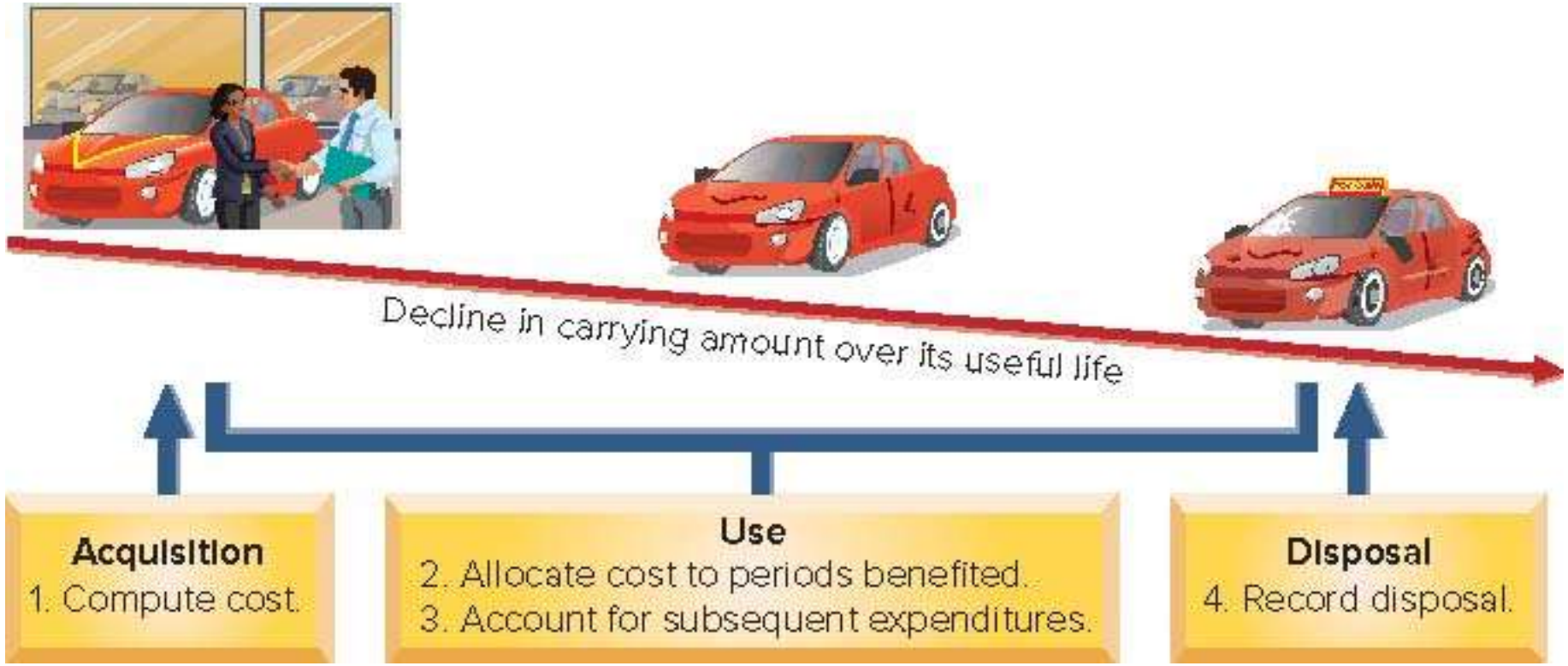


© McGraw Hill

Learning Objective C1: Compute the cost of property, plant and equipment.

Property, Plant and Equipment: Four Issues

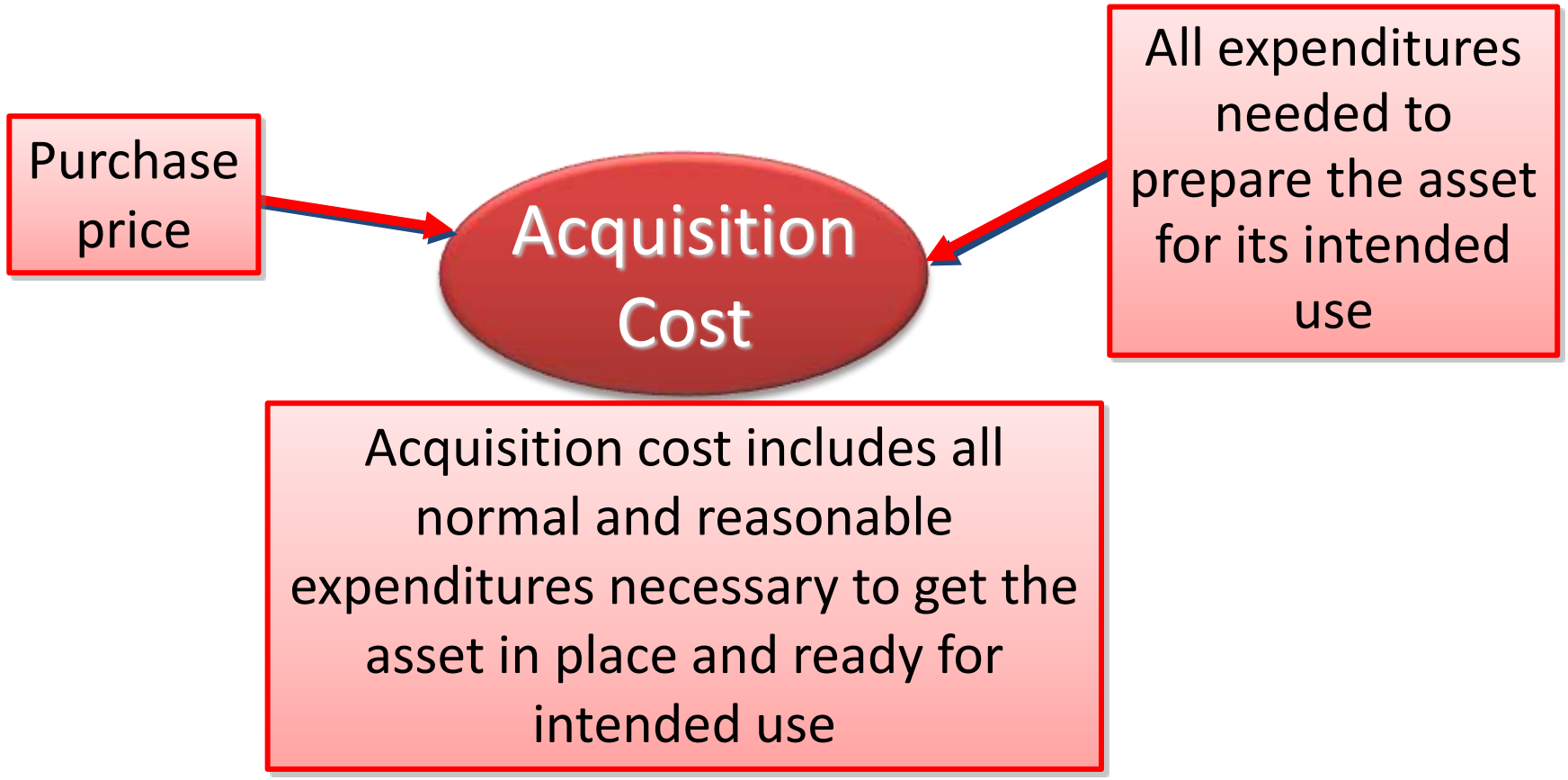
Exhibit 10.2



© McGraw Hill

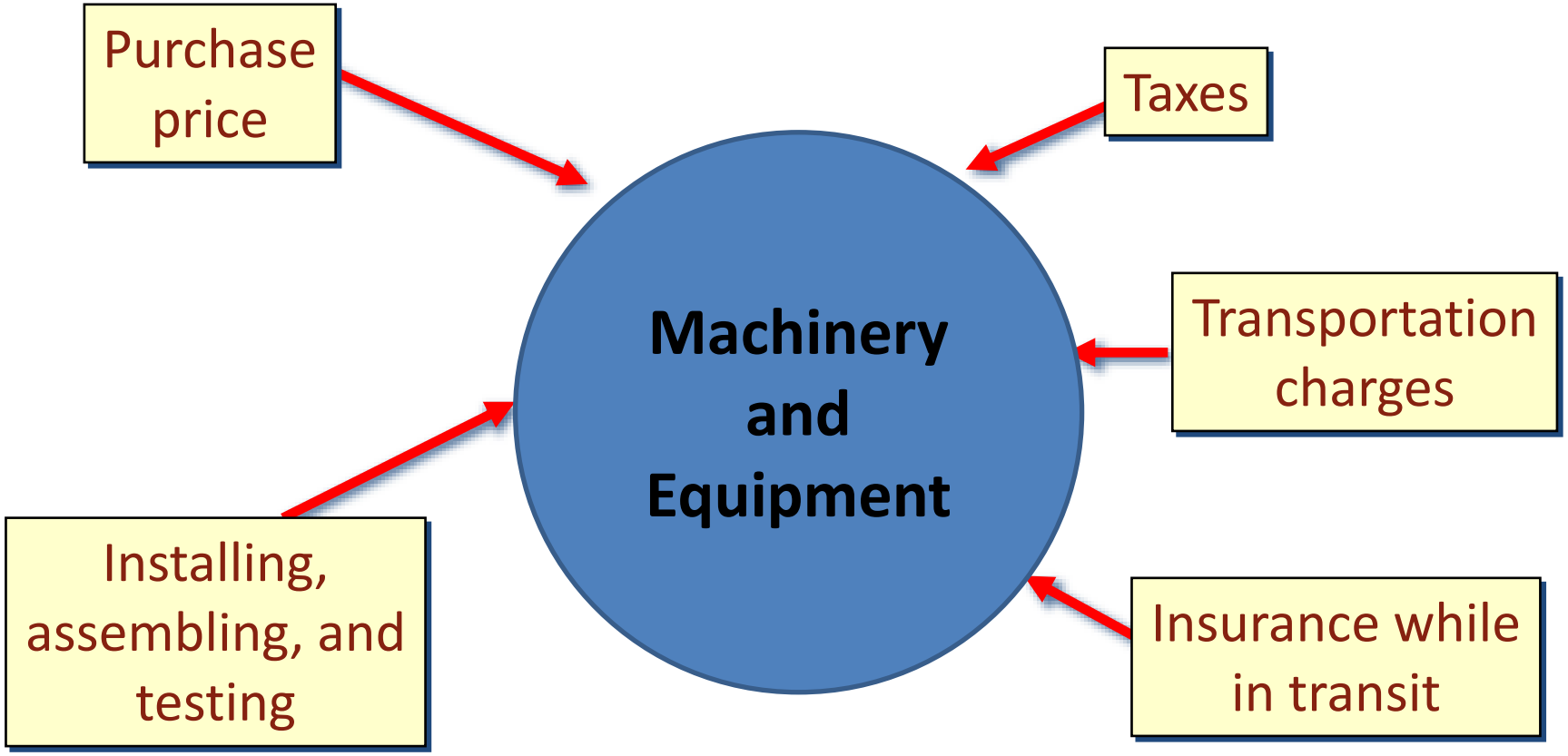
Learning Objective C1: Compute the cost of property, plant and equipment.

Cost Determination



Example: the cost of a factory machine includes its invoice cost less any cash discount for early payment, plus any necessary freight, unpacking, assembling, installing, and testing costs.

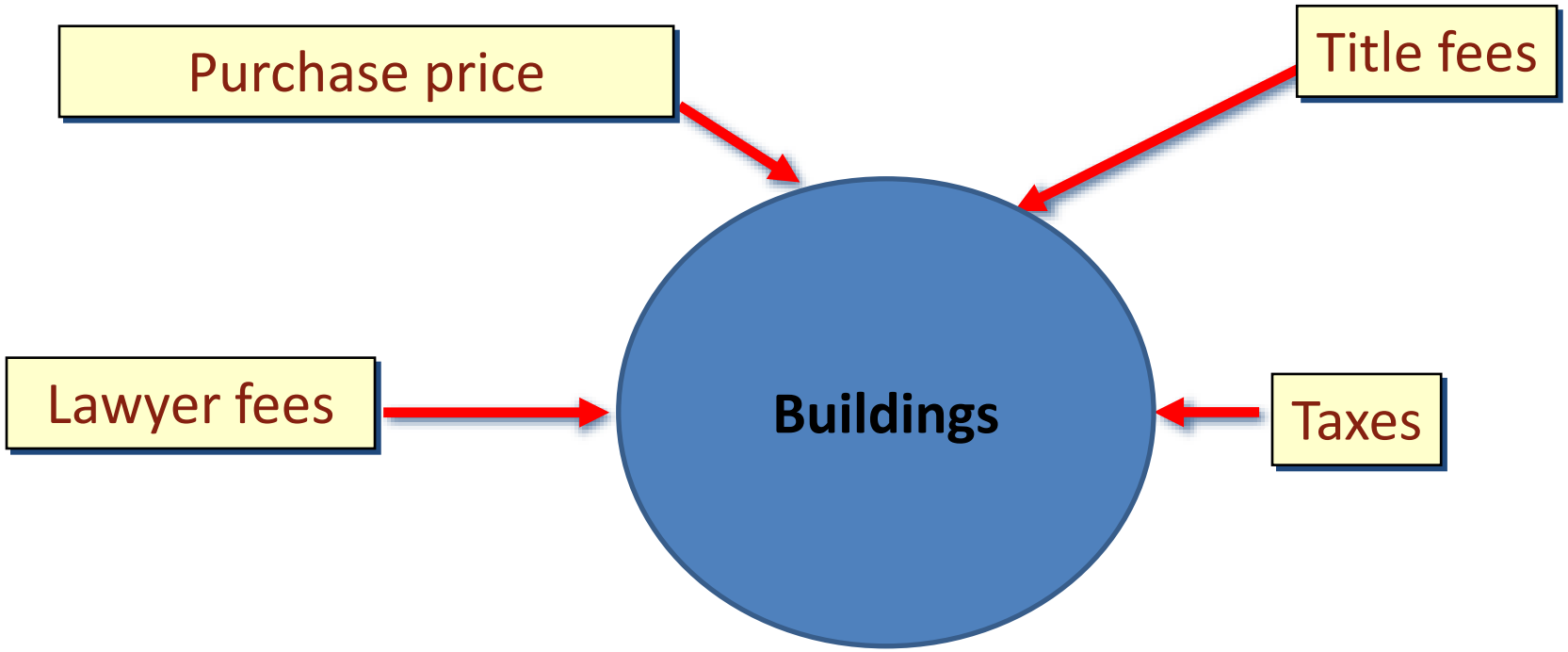
Machinery and Equipment



© McGraw Hill

Learning Objective C1: Compute the cost of property, plant and equipment.

Buildings



When a company constructs a building or any item of property, plant and equipment for its own use, its costs include materials and labor plus indirect overhead cost.

© McGraw Hill

Learning Objective C1: Compute the cost of property, plant and equipment.

Land Improvements

Land improvements are additions to land and have limited useful lives.
Examples:Parking lots, driveways, walkways, fences, and lighting systems.

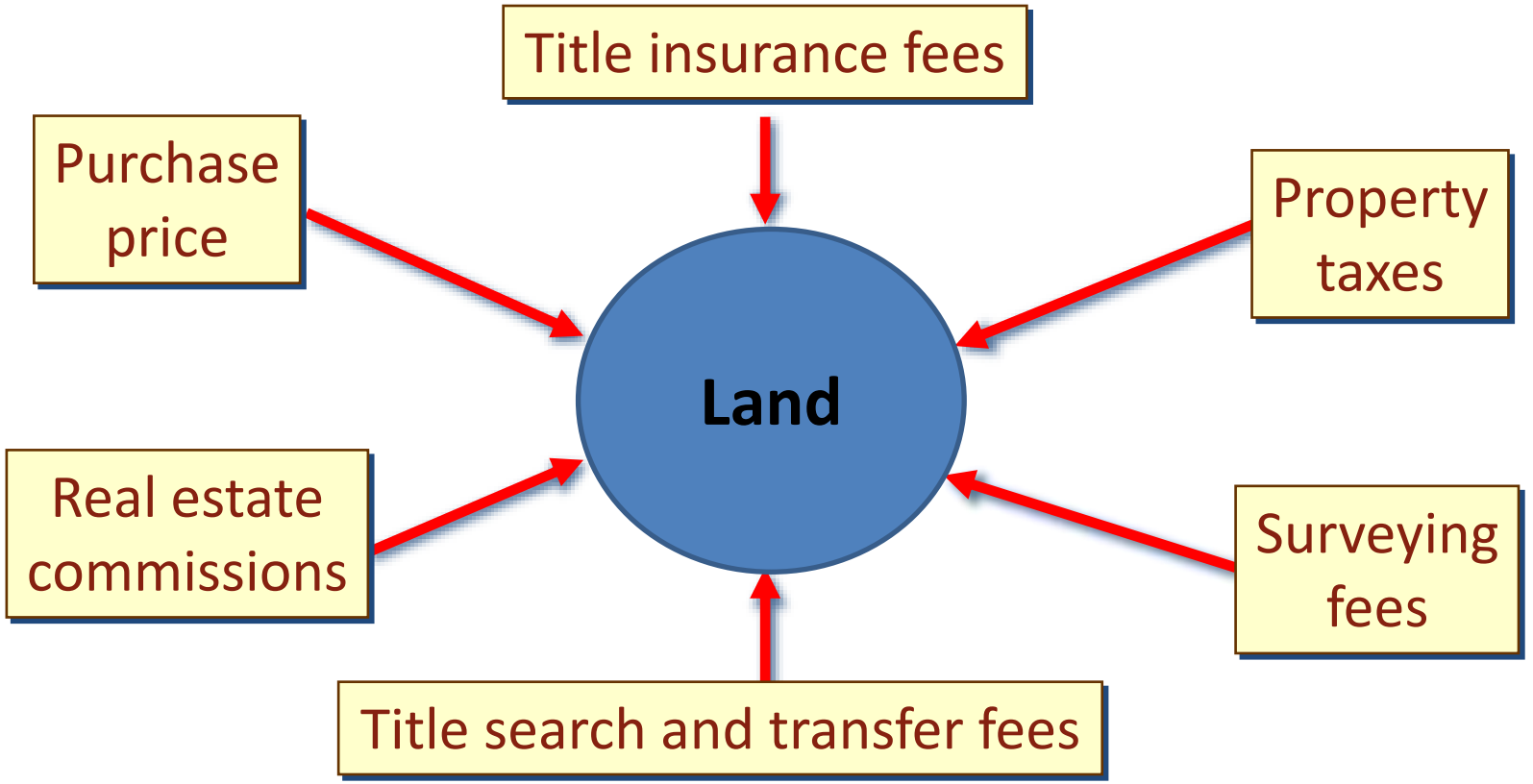
Dr. Land improvements	xx	
Cr. Cash		xx

© McGraw Hill

Learning Objective C1: Compute the cost of property, plant and equipment.

Land

Land has an unlimited life and not subject to depreciation.



© McGraw Hill

Learning Objective C1: Compute the cost of property, plant and equipment.

Lump-Sum Purchase

Property, plant and equipment sometimes are purchased as a group in a single transaction for a lump-sum price. This transaction is called a *lump-sum purchase,* or *group, bulk,* or *basket purchase.*

The total cost of a combined purchase of land and building is allocated based of their relative market values.

CarMax paid $90,000 cash to acquire a group of items consisting of land appraised at $40,000 and a building appraised at $60,000. The $90,000 cost will be allocated on the basis of appraised values as shown:

	Appraised Value	Percent of Total	Apportioned Cost
Building. . .	$ 60,000	60% ($60,000/$100,000)	**$54,000** ($90,000 × 60%)
Land	40,000	40 ($40,000/$100,000)	**36,000** ($90,000 × 40%)
Totals	$100,000	100%	$ 90,000

Entry for lump-sum cash purchase:

Building.	54,000	
Land	36,000	
Cash.		90,000
Record costs of property, plant and equipment.		

Exhibit 10.4

© McGraw Hill

Learning Objective C1: Compute the cost of property, plant and equipment.

Discussion Question

Q: What is the difference between land and land improvements?

© McGraw Hill

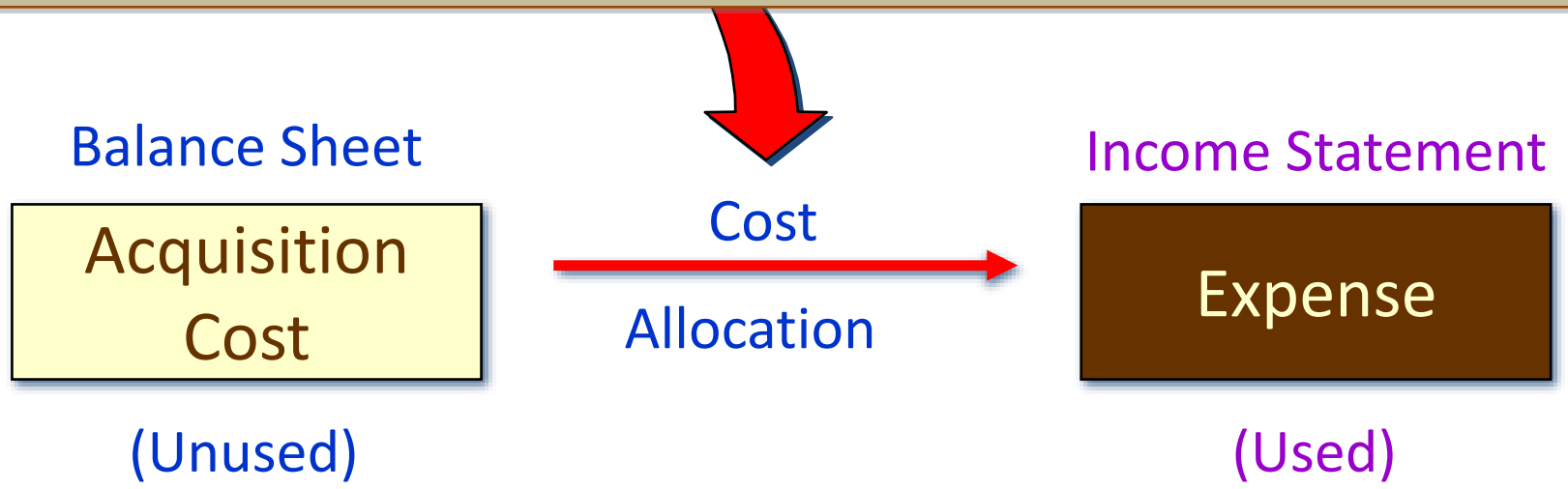
Learning Objective P1

Compute and record depreciation using the straight-line, units-of-production, and declining-balance methods.

© McGraw Hill

Depreciation

Depreciation is the process of allocating the cost of an item of property, plant and equipment to expense while it is in use.



Learning Objective P1: Compute and record depreciation using the straight-line, units-of-production, and declining-balance methods.

© McGraw Hill

Factors in Computing Depreciation

The calculation of depreciation requires three amounts for each asset:

1. **Cost:**

   The **cost** of an item of property, plant and equipment consists of all necessary and reasonable expenditures to acquire it and to prepare it for its intended use.

2. **Residual Value**

   The **residual value** is 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.

3. **Useful Life**

   The **useful life** of an item of property, plant and equipment is the length of time it is used in a company's operations.

Depreciation Methods

1. Straight-line
2. Units-of-production
3. Declining-balance

Exhibit 10.5

Cost	$10,000	Useful life:	
Salvage value	1,000	Accounting periods	5 years
Depreciable cost	$ 9,000	Units inspected	36,000 shoes

Learning Objective P1: Compute and record depreciation using the straight-line, units-of-production, and declining-balance methods.

© McGraw Hill

Straight-Line Method: Example

Cost	$10,000	Useful life:	
Residual value	1,000	Accounting periods	5 years
Depreciable cost	$ 9,000	Units inspected	36,000 shoes

$$\frac{\text{Cost} - \text{Residual value}}{\text{Useful life in periods}} = \frac{\$10{,}000 - \$1{,}000}{5 \text{ years}} = \$1{,}800 \text{ per year}$$

Exhibit 10.6

Dec. 31	Depreciation Expense	1,800	
	Accumulated Depreciation—Machinery		1,800
	Record annual depreciation.		

Learning Objective P1: Compute and record depreciation using the straight-line, units-of-production, and declining-balance methods.

© McGraw Hill

Straight-Line Method: Balance Sheet

EXHIBIT 10.7 Financial Statement Effects of Straight-Line Depreciation

Exhibit 10.7

At the end of Year 2 (December 31, 2020):

Machinery	$10,000		OR	
Less accumulated depreciation	3,600	$6,400	Carrying amount	Machinery (net of $3,600 accumulated depreciation) $6,400

Learning Objective P1: Compute and record depreciation using the straight-line, units-of-production, and declining-balance methods.

© McGraw Hill

Straight-Line Depreciation Schedule

Exhibit 10.8

Annual Period	Depreciation for the Period: Depreciable Cost*	Depreciation for the Period: Depreciation Rate	Depreciation for the Period: Depreciation Expense	End of Period: Accumulated Depreciation	End of Period: Carrying Amount†
2018	—	—	—	—	$10,000
2019	$9,000	20%	$1,800	$1,800	8,200
2020	9,000	20	1,800	3,600	6,400
2021	9,000	20	1,800	5,400	4,600
2022	9,000	20	1,800	7,200	2,800
2023	9,000	20	1,800	9,000	**1,000** ← Residual value is not depreciated.
			$9,000 ←		$10,000 cost – $1,000 residual value

*$10,000 – $1,000. †Carrying amount is total cost minus accumulated depreciation.

Learning Objective P1: Compute and record depreciation using the straight-line, units-of-production, and declining-balance methods.

© McGraw Hill

Units-of-Production Method: Two-Step Process and Example

Exhibit 10.9

Step 1 $$\text{Depreciation per unit} = \frac{\text{Cost} - \text{Residual value}}{\text{Total units of production}} = \frac{\$10{,}000 - \$1{,}000}{36{,}000 \text{ shoes}} = \$0.25 \text{ per shoe}$$

Step 2 $$\text{Depreciation expense} = \text{Depreciation per unit} \times \text{Units produced in period}$$

$$\$0.25 \text{ per shoe} \times 7{,}000 \text{ shoes} = \$1{,}750$$

Learning Objective P1: Compute and record depreciation using the straight-line, units-of-production, and declining-balance methods.

© McGraw Hill

Units-of-Production Depreciation Schedule

Exhibit 10.10

Annual Period	Depreciation for the Period: Number of Units	Depreciation for the Period: Depreciation per Unit	Depreciation for the Period: Depreciation Expense	End of Period: Accumulated Depreciation	End of Period: Carrying Amount
2018	—	—	—	—	$10,000
2019	7,000	$0.25	$1,750	$1,750	8,250
2020	8,000	0.25	2,000	3,750	6,250
2021	9,000	0.25	2,250	6,000	4,000
2022	7,000	0.25	1,750	7,750	2,250
2023	5,000	0.25	1,250	9,000	1,000
	36,000 units	$10,000 cost – $1,000 residual value →	$9,000	Residual value is not depreciated. →	

Learning Objective P1: Compute and record depreciation using the straight-line, units-of-production, and declining-balance methods.

© McGraw Hill

Declining-Balance Method: Three Steps

Exhibit 10.11

Step 1 Straight-line rate = 100% ÷ Useful life = 100% ÷ 5 years = 20%

Step 2 Double-declining-balance rate = 2 × Straight-line rate = 2 × 20% = 40%

Step 3 Depreciation expense = Double-declining-balance rate × Beginning-period carrying amount

40% × $10,000 = $4,000 (for 2019)

*In simple form: DDB depreciation = (2 × Beginning-period carrying amount)/Useful life.

Learning Objective P1: Compute and record depreciation using the straight-line, units-of-production, and declining-balance methods.

© McGraw Hill

Double-Declining-Balance Method: Schedule

Exhibit 10.12

Annual Period	Depreciation for the Period: Beginning-of-Period Carrying Amount	Depreciation for the Period: Depreciation Rate	Depreciation for the Period: Depreciation Expense	End of Period: Accumulated Depreciation	End of Period: Carrying Amount
2018	—	—	—	—	$10,000
2019	$10,000	40%	$4,000	$4,000	6,000
2020	6,000	40	2,400	6,400	3,600
2021	3,600	40	1,440	7,840	2,160
2022	2,160	40	864	8,704	1,296
2023	1,296	40	296*	9,000	**1,000** ← Residual value is not depreciated.
			$9,000 ←		$10,000 cost − $1,000 residual value

*Year 2023 depreciation is $1,296 − $1,000 = $296 (never depreciate carrying amount below residual value).

Learning Objective P1: Compute and record depreciation using the straight-line, units-of-production, and declining-balance methods.

© McGraw Hill

Comparing Depreciation Methods

Exhibit 10.13

Period	Straight-Line	Units-of-Production	Double-Declining-Balance
2019	$1,800	$1,750	$4,000
2020	1,800	2,000	2,400
2021	1,800	2,250	1,440
2022	1,800	1,750	864
2023	1,800	1,250	296
Totals	$9,000	$9,000	$9,000

Learning Objective P1: Compute and record depreciation using the straight-line, units-of-production, and declining-balance methods.

© McGraw Hill

Depreciation for Tax Reporting

Depending on the country, the records a company keeps for financial accounting purposes can be separate from the records it keeps for tax accounting purposes.

Learning Objective P1: Compute and record depreciation using the straight-line, units-of-production, and declining-balance methods.

© McGraw Hill

Discussion Question

Q: Does the balance in the Accumulated Depreciation-Machinery account represent funds to replace the machinery when it wears out? If not, what does it represent?

© McGraw Hill

P 10-5A

A machine costing $210,000 with a four-year life and an estimated $20,000 residual value is installed in Calhoon Company's factory on January 1. The factory manager estimates the machine will produce 475,000 units of product during its life. It actually produces the following units: year 1, 121,400; year 2, 122,400; year 3, 119,600; and year 4, 118,200. The total number of units produced by the end of year 4 exceeds the original estimate-this difference was not predicted. (The machine must not be depreciated below its estimated residual value.)

Required:

Prepare a table with the following column heading and compute depreciation for each year (and total depreciation of all years combined) for the machine under each depreciation method.

Year	Straight-Line	Units-of-Production	Double-Declining-Balance

P10-5A : Straight line method

[Cost = $210,000 ; Residual value = $20,000 ; Service life = 4 years or 475,000 units]

Depreciable cost = $210,000 - $20,000 = $190,000

Depreciation rate = 100% / 4 =25%

Ending carrying amount= Cost – accumulated depreciation

Straight-line method

Year	Depreciable cost	x Depreciation Rate	= Depreciation Expense	Accumulated depreciation	Ending Carrying Amount
1					
2					
3					
4					

P10-5A : Units-of-production

[Cost = $210,000 ; Residual value = $20,000 ; Service life = 4 years or 475,000 units]

Depreciable cost = $210,000 - $20,000 = $190,000

Depreciation per unit = $190,000 / 475,000 units= $0.40 / unit

Ending carrying amount= Cost – accumulated depreciation

Activity-based method

Year	Number of units*	x Depreciation per unit	= Depreciation Expense	Accumulated depreciation	Ending Carrying Amount
1	121,400				
2	122,400				
3	119,600				
4	118,200				

* It is given in the question

P10-5A : Double-declining-balance

[Cost = $210,000 ; Residual value = $20,000 ; Service life = 4 years or 475,000 units]

Depreciable cost = $210,000 - $20,000 = $190,000

Depreciation rate = 2 x (100% / 4) =50%

Ending carrying amount= Cost – accumulated depreciation

Double-declining method

Year	**Beginning Carrying Amount**	x Depreciation Rate	= Depreciation Expense	Accumulated depreciation	Ending Carrying Amount
1					
2					
3					
4					

Learning Objective C2

Explain depreciation for partial years and changes in estimates.

© McGraw Hill

Partial-Year Depreciation

When an asset is purchased (or sold) during the year, depreciation is calculated for the fraction of the year the asset is owned.

Cost	$	10,000
Residual value		1,000
Depreciable cost	$	9,000
Useful life		
Accounting periods		5 years
Units inspected		36,000 units

Assume our machinery was purchased on October 1, 2018. Let's calculate depreciation expense for 2018 assuming we use straight-line depreciation.

$$\frac{\$10{,}000 - \$1{,}000}{5 \text{ years}} \times \frac{3}{12} = \$450$$

Learning Objective C2: Explain depreciation for partial years and changes in estimates.

© McGraw Hill

Partial-Year Depreciation

When an asset is purchased (or sold) during the year, depreciation is calculated for the fraction of the year the asset is owned.

Cost	$	10,000
Residual value		1,000
Depreciable cost	$	9,000
Useful life		
Accounting periods		5 years
Units inspected		36,000 units

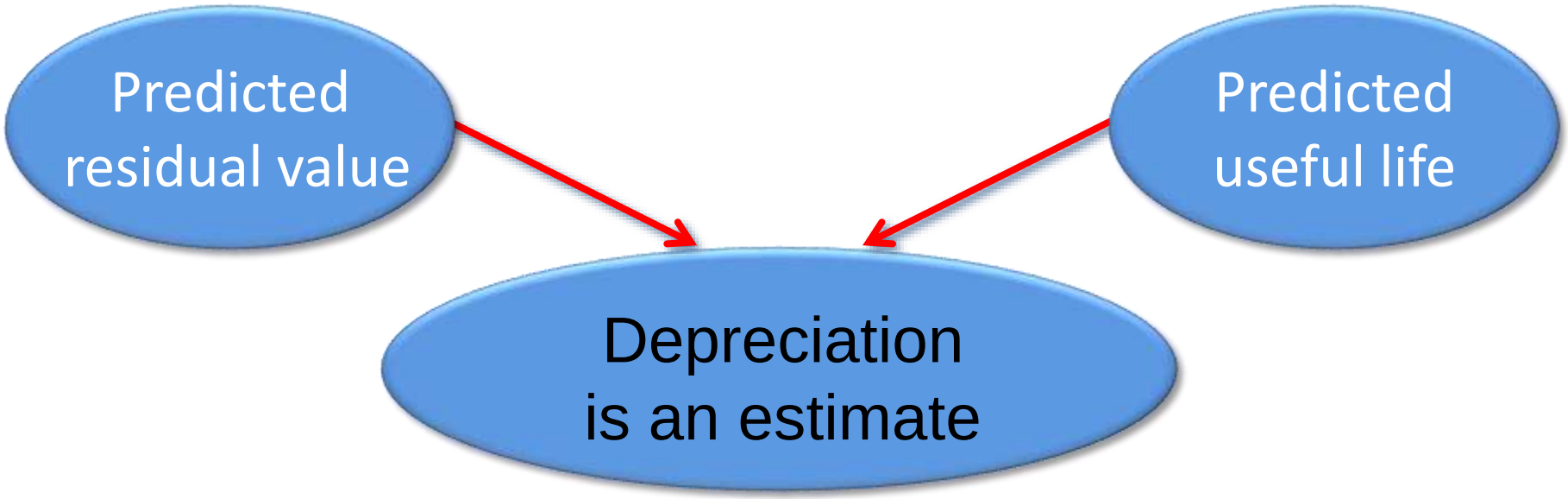
Assume the machinery is sold on June 1, 2023. Depreciation expense for Jan 1, 2023 through Jun 1, 2023 is as follows.

$$\frac{\$10{,}000 - \$1{,}000}{5 \text{ years}} \times \frac{5}{12} = \$750$$

Learning Objective C2: Explain depreciation for partial years and changes in estimates.

© McGraw Hill

Changes in Estimates



Over the life of an asset, new information may come to light that indicates the original estimates were inaccurate.

Change in an accounting estimate only affects current and future financial statements. We do not go back and restate (change) prior years' statements.

Changes in Estimates for Depreciation

Let's return to the machine in Exhibit 10.8 using straight-line depreciation. At the beginning of this asset's third year, its carrying amount is $6,400. Assume that at the beginning of its third year, the estimated number of years remaining in its useful life changes from three to four years and its estimate of residual value changes from $1,000 to $400.

Exhibit 10.13

$$\frac{\text{Carrying amount} - \text{Revised residual value}}{\text{Revised remaining useful life}} = \frac{\$6{,}400 - \$400}{4 \text{ years}} = \$1{,}500 \text{ per year}$$

Learning Objective C2: Explain depreciation for partial years and changes in estimates.

© McGraw Hill

Learning Objective C3

Distinguish between revenue and capital expenditures, and account for them.

© McGraw Hill

Additional Expenditures

Property, plant and equipment require maintenance, repairs, and improvements. We must decide whether to expense or capitalize these expenditures.

- **Revenue expenditures**
  - Do not materially increase the property, plant and equipment's life or capabilities.
  - Recorded as an expense in the current period.
  - Reported on the income statement.
- **Capital expenditures**
  - Provide benefits for longer than the current period.
  - Recorded as an addition to the asset account.
  - Reported on the balance sheet.

Learning Objective C3: Distinguish between revenue and capital expenditures, and account for them.

© McGraw Hill

Revenue and Capital Expenditures

Revenue expenditures

Dec. 31	Repairs Expense	9,500	
	Cash		9,500
	Record ordinary repairs of equipment.		

Capital expenditures

Jan. 2	Machinery	1,800	
	Cash		1,800
	Record installation of automated system.		

Learning Objective C3: Distinguish between revenue and capital expenditures, and account for them.

© McGraw Hill

Learning Objective C4

Explain the revaluation model to account for property, plant and equipment.

© McGraw Hill

Measurement Models

- **Cost Model**
  - Based on cost less any accumulated depreciation and any accumulated impairment losses
- **Revaluation Model**
  - Based on fair value at the date of the revaluation less any subsequent accumulated depreciation and subsequent accumulated impairment losses

Revaluation Model:

If land which was bought for $1 million in 2020 is revalued to $1.5 million on June 30, 2022 (no depreciation for land), the journal entry for the revaluation on that date is as follows.

June 30	Land	500,000	
	Revaluation Surplus-Land		500,000
	Revalue land.		

Learning Objective C4: Explain the revaluation model to account for property, plant and equipment.

© McGraw Hill

Impairment

An **impairment**

is the amount by which the carrying amount of an asset exceeds its recoverable amount.

Equipment bought before 2022 has a carrying amount of $8,000 ($9,000 cost less $1,000 accumulated depreciation) and a recoverable amount of $7,500. The journal entry to record this impairment on December 31, 2022 is as follows.

Dec. 31	Impairment Loss–Equipment	500	
	Accumulated Depreciation and Impairment Loss–Equipment		500
	Record impairment loss on equipment		

Learning Objective C4: Explain the revaluation model to account for property, plant and equipment.

© McGraw Hill

Learning Objective P2

Account for asset disposal through discarding or selling an asset.

© McGraw Hill

Disposals of Property, Plant and Equipment

Exhibit 10.15

1. Record depreciation up to the date of disposal—this also updates Accumulated Depreciation.
2. Record the removal of the disposed asset's account balances—including its Accumulated Depreciation.
3. Record any cash (and/or other assets) received or paid in the disposal.
4. Record any gain or loss—computed by comparing the disposed asset's carrying amount with the market value of any assets received.

Learning Objective P2: Account for asset disposal through discarding or selling an asset.

© McGraw Hill

Discarding Property, Plant and Equipment: Asset Fully Depreciated

- A machine costing $9,000 with accumulated depreciation of $9,000 is discarded.
- The machine is fully depreciated (zero carrying amount).

June 5	Accumulated Depreciation—Machinery	9,000	
	Machinery		9,000
	Discard fully depreciated machinery.		

Learning Objective P2: Account for asset disposal through discarding or selling an asset.

© McGraw Hill

Discarding Property, Plant and Equipment: Asset Not Fully Depreciated

- Equipment costing $8,000, with accumulated depreciation of $6,000 on 12/31 of previous year, was discarded on 7/1.
- The company is using straight-line depreciation over eight years with zero residual value.

July 1	Depreciation Expense	500	
	Accumulated Depreciation—Equipment		500
	Record 6 months' depreciation ($1,000 × 6/12).		

July 1	Accumulated Depreciation—Equipment	6,500	
	Loss on Disposal of Equipment	1,500	
	Equipment		8,000
	Discard equipment with a $1,500 carrying amount.		

Learning Objective P2: Account for asset disposal through discarding or selling an asset.

© McGraw Hill

Selling Property, Plant and Equipment – At Carrying Amount

- 3/31, BTO sells equipment that originally cost $16,000 and has accumulated depreciation of $12,000 at 12/31 of the prior year.
- BTO uses straight-line depreciation at $4,000 per year.
- The equipment is sold for $3,000 cash.

March 31	Depreciation Expense	1,000	
	Accumulated Depreciation—Equipment		1,000
	Record 3 months' depreciation ($4,000 × 3/12).		

March 31	Cash	3,000	
	Accumulated Depreciation—Equipment	13,000	
	Equipment		16,000
	Record sale of equipment for no gain or loss.		

Learning Objective P2: Account for asset disposal through discarding or selling an asset.

© McGraw Hill

Selling Property, Plant and Equipment – Above Carrying Amount

- 3/31, BTO sells equipment that originally cost $16,000 and has accumulated depreciation of $12,000 at 12/31 of the prior year.
- BTO uses straight-line depreciation at $4,000 per year.
- The equipment is sold for $7,000 cash.

March 31	Cash	7,000	
	Accumulated Depreciation—Equipment	13,000	
	Gain on Disposal of Equipment		4,000
	Equipment		16,000
	Record sale of equipment for a $4,000 gain.		

Learning Objective P2: Account for asset disposal through discarding or selling an asset.

© McGraw Hill

Selling Property, Plant and Equipment – Below Carrying Amount

- 3/31, BTO sells equipment that originally cost $16,000 and has accumulated depreciation of $12,000 at 12/31 of the prior year.
- BTO uses straight-line depreciation at $4,000 per year.
- The equipment is sold for $2,500 cash.

March 31	Cash	2,500	
	Loss on Disposal of Equipment	500	
	Accumulated Depreciation—Equipment	13,000	
	Equipment		16,000
	Record sale of equipment for a $500 loss.		

Learning Objective P2: Account for asset disposal through discarding or selling an asset.

© McGraw Hill

Learning Objective P3

Account for natural resource assets and their depletion.

© McGraw Hill

Natural Resources

Examples are standing timber, mineral deposits, and oil and gas fields. These assets are soon-to-be inventories of raw materials after cutting, mining, or pumping. Until that conversion happens, they are reported as noncurrent assets under either plant assets or their own category using titles such as *Timberlands, Mineral deposits,* or *Oil reserves*.

Dr. Mineral Deposits	XX	
Cr. Cash		XX

Total cost is charged to depletion expense over periods benefited.

Extracted from the natural environment and reported at cost less accumulated depletion.

Learning Objective P3: Account for natural resource assets and their depletion.

© McGraw Hill

Cost Determination and Depletion

A mineral deposit with an estimated 250,000 tons of available ore is purchased for $500,000, and we expect zero residual value.
If 85,000 tons are mined and sold in the first year, the depletion charge for that year is $170,000.

Exhibit 10.16

Step 1 $$\text{Depletion per unit} = \frac{\text{Cost} - \text{Residual value}}{\text{Total units of capacity}} = \frac{\$500{,}000 - \$0}{250{,}000 \text{ tons}} = \$2 \text{ per ton}$$

Step 2 $$\text{Depletion expense} = \text{Depletion per unit} \times \text{Units extracted and sold in period}$$
$$= \$2 \times 85{,}000 = \$170{,}000$$

Learning Objective P3: Account for natural resource assets and their depletion.

© McGraw Hill

Depletion of Natural Resources

Depletion expense in the first year would be:

Dec. 31	Depletion Expense—Mineral Deposit.	170,000	
	Accumulated Depletion—Mineral Deposit		170,000
	Record depletion of the mineral deposit.		

Balance Sheet presentation of natural resources:

Exhibit 10.17

Mineral deposit	$500,000	
Less accumulated depletion	**170,000**	$330,000

Learning Objective P3: Account for natural resource assets and their depletion.

© McGraw Hill

Depletion of Natural Resources: Journal Entry

Depletion expense when some ore remains unsold at year-end: assume that of the 85,000 tons mined the first year, only 70,000 tons are sold.

Dec. 31	Depletion Expense—Mineral Deposit	140,000	
	Ore Inventory	30,000	
	Accumulated Depletion—Mineral Deposit		170,000
	Record depletion and inventory of mineral deposit.		

Learning Objective P3: Account for natural resource assets and their depletion.

© McGraw Hill

Property, Plant and Equipment Tied into Extracting

- Specialized property, plant and equipment may be required to extract the natural resource.
- These assets are recorded in a separate account and depreciated.

When the usefulness of these property, plant and equipment is directly related to the depletion of a natural resource, their costs are depreciated using the units-of-production method in proportion to the depletion of the natural resource. For example, if a machine is permanently installed in a mine and 10% of the ore is mined and sold in the period, then 10% of the machine's cost (minus any residual value) is depreciated. The same procedure is used when a machine is abandoned once resources are extracted. If the machine will be used at another site when extraction is complete, it is depreciated over its own useful life.

Learning Objective P3: Account for natural resource assets and their depletion.

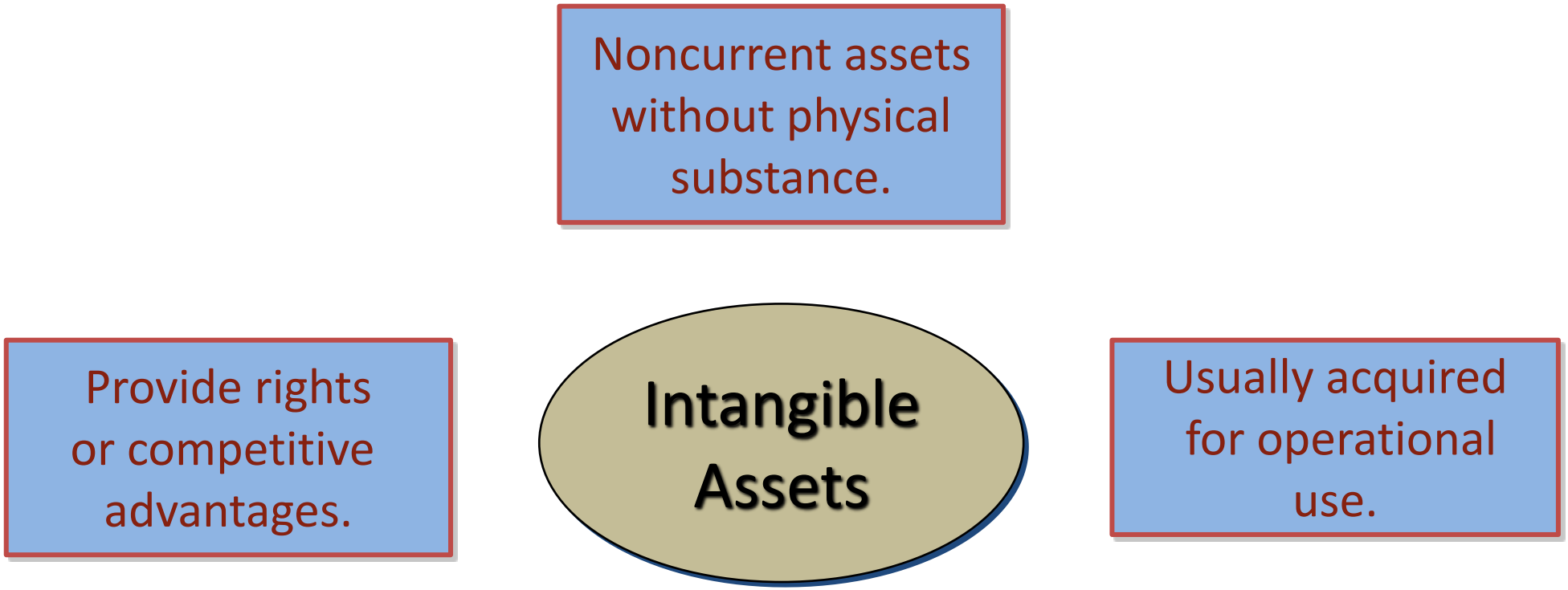
© McGraw Hill

Learning Objective P4

Account for intangible assets.

© McGraw Hill

Intangible Assets



Learning Objective P4: Account for intangible assets.

© McGraw Hill

Cost Determination and Amortization

Record at cost when purchased.

- Patents
- Copyrights
- Franchises and Licenses
- Trademarks and Trade Names
- Goodwill
- Right-of-Use Asset (Lease)
- Leasehold Improvements
- Other Intangibles
- Research and Development

Learning Objective P4: Account for intangible assets.

© McGraw Hill

Discussion Question

Q: What are the characteristics of an intangible assets?

© McGraw Hill

P 10-6A

Saturn Co. purchased a used machine for $167,000 cash on January 2 and readies it for use the next day at an $3,420 cost. On January 3, it is installed on a required operating platform costing $1,080, and it is further readied for operations. The company predicts the machine will be used for six years and have a $14,600 residual value. Depreciation is to be charged on a straight-line basis. On December 31, at the end of its fifth year in operations, it is disposed of.

Required:

1. Prepare journal entries to record the machine's purchase and the costs to ready and install it. Cash is paid for all costs incurred.
2. Prepare journal entries to record depreciation of the machine at December 31 of (a) its first year in operations and (b) the year of its disposal.
3. Prepare journal entries to record the machine's disposal under each of the following separate assumptions: (a) it is sold for $13,500 cash; (b) it is sold for $45,000 cash; and it is destroyed in a fire and the insurance company pays $24,000 cash to settle the loss claims.

Saturn Co. purchased a used machine for $167,000 cash on January 2 and readies it for use the next day at an $3,420 cost. On January 3, it is installed on a required operating platform costing $1,080, and it is further readied for operations. The company predicts the machine will be used for six years and have a $14,600 residual value. Depreciation is to be charged on a straight-line basis. On December 31, at the end of its fifth year in operations, it is disposed of.

1. Prepare journal entries to record the machine's purchase and the costs to ready and install it. Cash is paid for all costs incurred.

Saturn Co. purchased a used machine for $167,000 cash on January 2 and readies it for use the next day at an $3,420 cost. On January 3, it is installed on a required operating platform costing $1,080, and it is further readied for operations. The company predicts the machine will be used for six years and have a $14,600 residual value. Depreciation is to be charged on a straight-line basis. On December 31, at the end of its fifth year in operations, it is disposed of.

2. Prepare journal entries to record depreciation of the machine at December 31 of (a) its first year in operations and (b) the year of its disposal.

Saturn Co. purchased a used machine for $167,000 cash on January 2 and readies it for use the next day at an $3,420 cost. On January 3, it is installed on a required operating platform costing $1,080, and it is further readied for operations. The company predicts the machine will be used for six years and have a $14,600 residual value. Depreciation is to be charged on a straight-line basis. On December 31, at the end of its fifth year in operations, it is disposed of.

3. Prepare journal entries to record the machine's disposal under each of the following separate assumptions: (a) it is sold for $13,500 cash; (b) it is sold for $45,000 cash; (c) and it is destroyed in a fire and the insurance company pays $24,000 cash to settle the loss claims.

Saturn Co. purchased a used machine for $167,000 cash on January 2 and readies it for use the next day at an $3,420 cost. On January 3, it is installed on a required operating platform costing $1,080, and it is further readied for operations. The company predicts the machine will be used for six years and have a $14,600 residual value. Depreciation is to be charged on a straight-line basis. On December 31, at the end of its fifth year in operations, it is disposed of.

3. Prepare journal entries to record the machine's disposal under each of the following separate assumptions: (a) it is sold for $13,500 cash; (b) it is sold for $45,000 cash; and it is destroyed in a fire and the insurance company pays $24,000 cash to settle the loss claims.

Saturn Co. purchased a used machine for $167,000 cash on January 2 and readies it for use the next day at an $3,420 cost. On January 3, it is installed on a required operating platform costing $1,080, and it is further readied for operations. The company predicts the machine will be used for six years and have a $14,600 residual value. Depreciation is to be charged on a straight-line basis. On December 31, at the end of its fifth year in operations, it is disposed of.

3. Prepare journal entries to record the machine's disposal under each of the following separate assumptions: (a) it is sold for $13,500 cash; (b) it is sold for $45,000 cash; and it is destroyed in a fire and the insurance company pays $24,000 cash to settle the loss claims.

Saturn Co. purchased a used machine for $167,000 cash on January 2 and readies it for use the next day at an $3,420 cost. On January 3, it is installed on a required operating platform costing $1,080, and it is further readied for operations. The company predicts the machine will be used for six years and have a $14,600 residual value. Depreciation is to be charged on a straight-line basis. On December 31, at the end of its fifth year in operations, it is disposed of.

3. Prepare journal entries to record the machine's disposal under each of the following separate assumptions: (a) it is sold for $13,500 cash; (b) it is sold for $45,000 cash; and it is destroyed in a fire and the insurance company pays $24,000 cash to settle the loss claims.

End of Chapter 10

© McGraw Hill