

Accounting Fundamentals Lesson 7

7.0 Long-Term Assets

Plant Assets, are long-lived assets that are tangible.

The cost of this asset includes the purchase price, plus any taxes, commissions, and other amounts paid to make the asset ready for use.

Land is not expensed over time, because its usefulness does not decrease.

Land improvements, such as fencing, paving, security systems, and lighting, are subject to depreciation.

Buildings, machinery, equipment, and leasehold improvements are all types of assets that are depreciated.

Asset Account (Balance Sheet)	Related Expense Account (Income Statement)
Plant assets	
Land	None
Buildings, Machinery, & Equipment	Depreciation
Furniture & Fixtures	Depreciation
Land Improvements	Depreciation
Natural Resources	Depletion
Intangibles	Amortization

Natural resources such as oil and gas reserves, coal mines, or stands of timber, are accounted for as long-term assets when they are purchased or developed.

As the natural resource is extracted, its cost is transferred to inventory. Later, as the inventory is sold, its cost is transferred to cost of goods sold.

Intangible assets are useful because of the special rights they carry. They have no physical form.

Patents, copyrights, and trademarks are intangible assets. Accounting for intangibles is similar to accounting for plant assets.

Lump-sum (or basket) purchases of assets - When several assets are purchased as a group.

Since each asset must be given a value, the total cost of the purchase is divided among the assets based on their relative sales (or market) values.

Example of Lump-Sum:

A business may pay one price for land and a building. The company must identify the cost of each asset.

Assume a company purchased land and a building for a combined price of \$450,000.

Asset	Market value	Total market value	% Of total market value	Total cost	Cost of each asset
Land	\$100,000	\$500,000	20%	\$450,000	\$90,000
Building	\$400,000	\$500,000	80%	\$450,000	\$360,000
	\$500,000		100%		\$450,000

The values of the individual assets are shown in the market value column. Then the market value of each asset is divided by the total market to determine a percent. This percent is multiplied by the cost. The end result is that land is allocated \$90,000 (20%) of the cost, and building is allocated \$360,000 (80%) of the cost.

7.1 Methods of Depreciation

When a company spends money on a plant asset, it must determine if the cost is an asset or an expense.

- Expenditures that increase the asset's capacity or extend its useful life are called capital expenditures.
- Costs that simply maintain the asset or restore it to working order are considered expenses.

In order to depreciate an asset, one must know:

- The cost
- Estimated useful life
- Estimated residual value

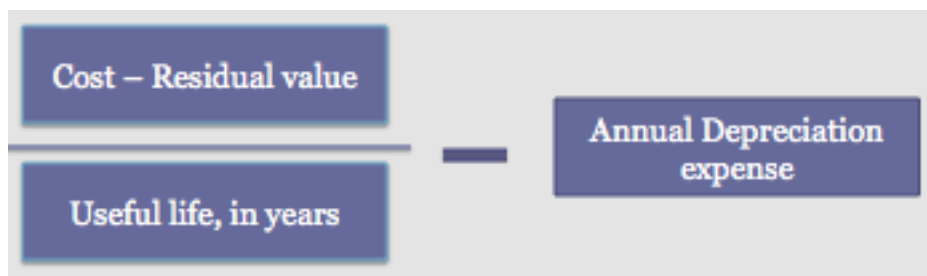
Residual Value - expected cash value of an asset at the end of its useful life.

There are three main methods of depreciation:

1. Straight-line,
2. Units-of-production
3. Double-declining-balance

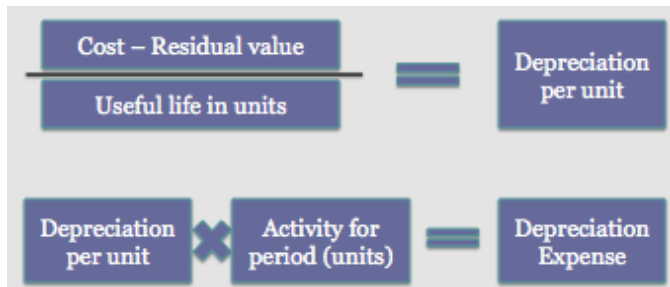
The straight-line method - assigns an equal amount of depreciation to each year that the asset is used. The depreciable cost (cost minus residual value) is divided by the useful life in years to determine the annual depreciation expense.

- Best for assets that generate revenue evenly



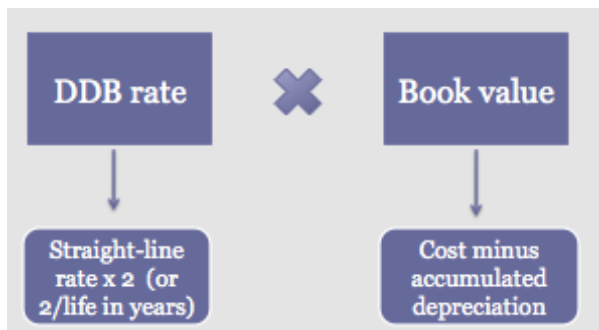
The units-of-production method - calculates a fixed amount that is assigned to each unit of output (or service) produced by the asset. This per-unit amount is then multiplied by the actual number of units produced each period to calculate depreciation.

- Best for assets that wear out because of use



The double-declining-balance - method writes off a larger amount of the asset's cost at the beginning of its useful life than the straight-line method does. It computes annual depreciation by multiplying the asset's declining book value by a constant percentage (two times the straight-line depreciation rate).

- Best for assets that generate revenue early in useful life



Fully depreciated assets that are still owned must still be carried on the balance sheet, even if it has reached the end of its useful life.

A plant asset may be disposed of or sold if it becomes obsolete, wears out, or is no longer useful. If this occurs, depreciation is recorded from the beginning of the period to the date of disposal.

7.2 Depletion and Amortization

The process of tracking the flow of a natural resource such as iron ore, petroleum (oil), and timber from its raw state to cost of goods sold or expense on the income statement is depletion.

Depletion expense represents the portion of the cost of a natural resource that has been extracted during the period. The formula is similar to the units-of-production method of depreciation, and is shown as follows:

$$\text{Depletion Expense} = \frac{\text{Cost} - \text{Residual Value}}{\text{Estimated Units of Resource}} \times \text{Units Extracted}$$

The entry to record depletion is:

Depletion Expense	XX	
Accumulated Depletion		XX

Intangible assets are long-lived assets that have no physical form.

Examples of these include:

- Patents
- Copyrights
- Trademarks
- Franchises

Patents - are a federal government grant that gives the holder the exclusive right for 20 years to produce and sell an invention.

The invention may be a product or a process—for example, Sony compact disc players and the Dolby noise-reduction process. Like any other asset, a patent may be purchased.

Copyrights - Granted by the federal government and gives holder exclusive rights to reproduce and sell a book, musical composition, film, or other work of art. Extends 70 years beyond creator's life, but the useful life is usually very short.

Trademarks and trade names (or brand names) - distinctive identification of a product or service.

Franchises and licenses - privileges granted by a private business or a government to sell a product or service in accordance with specified conditions. The useful lives of many franchises and licenses are indefinite and, therefore, are not amortized.

Amortization of intangible assets is calculated using the straight-line method over the asset's estimated useful life.

This useful life cannot exceed its legal life. The entry to record amortization is as follows:

Amortization Expense	XX	
Intangible Asset		XX