Chapter 10: Plant Assets, Natural Resources, and Intangible Assets

DO IT! 1 Cost of Plant Assets

Assume that Drummond Heating and Cooling Co. purchases a delivery truck for $15,000 cash, plus sales taxes of $900 and delivery costs of $500. The buyer also pays $200 for painting and lettering, $600 for an annual insurance policy, and $80 for a motor vehicle license. Explain how each of these costs would be accounted for.

**Solution**

The first four payments ($15,000, $900, $500, and $200) are expenditures necessary to make the truck ready for its intended use. Thus, the cost of the truck is $16,600. The payments for insurance and the license are operating costs and therefore are expensed.

**Action Plan**

✔ Identify expenditures made in order to get delivery equipment ready for its intended use.
✔ Treat operating costs as expenses.

Related exercise material: BE10-1, BE10-2, BE10-3, E10-1, E10-2, E10-3, and DO IT! 10-1.

DO IT! 2a Straight-Line Depreciation

On January 1, 2017, Iron Mountain Ski Corporation purchased a new snow-grooming machine for $50,000. The machine is estimated to have a 10-year life with a $2,000 salvage value. What journal entry would Iron Mountain Ski Corporation make at December 31, 2017, if it uses the straight-line method of depreciation?

**Solution**

Depreciation expense = \( \frac{\text{Cost} - \text{Salvage value}}{\text{Useful life}} = \frac{\$50,000 - \$2,000}{10} = \$4,800 \)

The entry to record the first year's depreciation would be:

<table>
<thead>
<tr>
<th>Date</th>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec. 31</td>
<td>Depreciation Expense</td>
<td>4,800</td>
</tr>
<tr>
<td></td>
<td>Accumulated Depreciation—Equipment (To record annual depreciation on snow-grooming machine)</td>
<td>4,800</td>
</tr>
</tbody>
</table>

**Action Plan**

✔ Calculate depreciable cost (Cost – Salvage value).
✔ Divide the depreciable cost by the asset's estimated useful life.

Related exercise material: BE10-4, BE10-5, E10-4, and DO IT! 10-2a.
Chambers Corporation purchased a piece of equipment for $36,000. It estimated a 6-year life and $6,000 salvage value. Thus, straight-line depreciation was $5,000 per year \([\frac{($36,000 - $6,000)}{6}]\). At the end of year three (before the depreciation adjustment), it estimated the new total life to be 10 years and the new salvage value to be $2,000. Compute the revised depreciation.

**Solution**

\[
\text{Original depreciation expense} = \left[\frac{($36,000 - $6,000)}{6}\right] = $5,000
\]

\[
\text{Accumulated depreciation after 2 years} = 2 \times $5,000 = $10,000
\]

\[
\text{Book value} = $36,000 - $10,000 = $26,000
\]

\[
\begin{array}{c|c}
\text{Book value after 2 years of depreciation} & $26,000 \\
\text{Less: New salvage value} & 2,000 \\
\text{Depreciable cost} & $24,000 \\
\text{Remaining useful life} & 8 \text{ years} \\
\text{Revised annual depreciation} \left[\frac{$24,000}{8}\right] & $3,000
\end{array}
\]

Related exercise material: BE10-8, E10-8, and DO IT! 10-2b.

Overland Trucking has an old truck that cost $30,000, and it has accumulated depreciation of $16,000 on this truck. Overland has decided to sell the truck. (a) What entry would Overland Trucking make to record the sale of the truck for $17,000 cash? (b) What entry would Overland Trucking make to record the sale of the truck for $10,000 cash?

**Solution**

(a) Sale of truck for cash at a gain:

\[
\begin{array}{c|c|c}
\text{Cash} & 17,000 \\
\text{Accumulated Depreciation—Equipment} & 16,000 \\
\text{Equipment} & 30,000 \\
\text{Gain on Disposal of Plant Assets} & \left[\frac{17,000 - (30,000 - 16,000)}{}}\right] \\
\text{(To record sale of truck at a gain)} & 3,000
\end{array}
\]

(b) Sale of truck for cash at a loss:

\[
\begin{array}{c|c|c}
\text{Cash} & 10,000 \\
\text{Accumulated Depreciation—Equipment} & 16,000 \\
\text{Loss on Disposal of Plant Assets} & \left[\frac{10,000 - (30,000 - 16,000)}{}}\right] \\
\text{Equipment} & 4,000 \\
\text{(To record sale of truck at a loss)} & 30,000
\end{array}
\]

Related exercise material: BE10-9, BE10-10, E10-9, E10-10, and DO IT! 10-3.
DO IT! 4 Classification Concepts

Match the statement with the term most directly associated with it.

- Copyrights
- Intangible assets
- Research and development costs
- Depletion
- Franchises

1. _______ The allocation of the cost of a natural resource to expense in a rational and systematic manner.
2. _______ Rights, privileges, and competitive advantages that result from the ownership of long-lived assets that do not possess physical substance.
3. _______ An exclusive right granted by the federal government to reproduce and sell an artistic or published work.
4. _______ A right to sell certain products or services or to use certain trademarks or trade names within a designated geographic area.
5. _______ Costs incurred by a company that often lead to patents or new products. These costs must be expensed as incurred.

Solution

1. Depletion
2. Intangible assets
3. Copyrights
4. Franchises
5. Research and development costs

DO IT! 5 Asset Turnover

Paramour Company reported net income of $180,000, net sales of $420,000, and had total assets of $460,000 on January 1, 2017, and total assets on December 31, 2017, of $540,000 billion. Determine Paramour’s asset turnover for 2017.

Solution

The asset turnover for Paramour Company is computed as follows.

\[
\text{Net Sales} \div \frac{\text{Average Total Assets}}{2} = \text{Asset Turnover}
\]

\[
\frac{\$420,000}{\frac{\$460,000 + \$540,000}{2}} = 0.84
\]

Related exercise material: BE10-14, E10-14, and DO IT! 10-5.
Explain accounting for cost of plant assets. (LO 1)

DO IT! 10-1 Lofton Company purchased a delivery truck. The total cash payment was $27,900, including the following items.

- Negotiated purchase price $24,000
- Installation of special shelving 1,100
- Painting and lettering 900
- Motor vehicle license 100
- Annual insurance policy 500
- Sales tax 1,300

Total paid $27,900

Explain how each of these costs would be accounted for.

Calculate depreciation expense and make journal entry. (LO 2)

DO IT! 10-2a On January 1, 2017, Emporia Country Club purchased a new riding mower for $15,000. The mower is expected to have an 8-year life with a $3,000 salvage value. What journal entry would Emporia make at December 31, 2017, if it uses straight-line depreciation?

DO IT! 10-2b Pinewood Corporation purchased a piece of equipment for $70,000. It estimated an 8-year life and $2,000 salvage value. At the end of year four (before the depreciation adjustment), it estimated the new total life to be 10 years and the new salvage value to be $6,000. Compute the revised depreciation.

Calculate revised depreciation (LO 2)

Make journal entries to record plant asset disposal. (LO 3)

DO IT! 10-3 Napoli Manufacturing has old equipment that cost $52,000. The equipment has accumulated depreciation of $28,000. Napoli has decided to sell the equipment.

(a) What entry would Napoli make to record the sale of the equipment for $26,000 cash?
(b) What entry would Napoli make to record the sale of the equipment for $15,000 cash?

Match intangibles classifications concepts. (LO 4, 5)

DO IT! 10-4 Match the statement with the term most directly associated with it.

- Goodwill
- Intangible assets
- Research and development costs
- Amortization
- Franchises

1. _______ Rights, privileges, and competitive advantages that result from the ownership of long-lived assets that do not possess physical substance.
2. _______ The allocation of the cost of an intangible asset to expense in a rational and systematic manner.
3. _______ A right to sell certain products or services, or use certain trademarks or trade names, within a designated geographic area.
4. _______ Costs incurred by a company that often lead to patents or new products. These costs must be expensed as incurred.
5. _______ The excess of the cost of a company over the fair value of the net assets acquired.

Calculate asset turnover. (LO 5)

DO IT! 10-5 For 2017, Sale Company reported beginning total assets of $300,000 and ending total assets of $340,000. Its net income for this period was $50,000, and its net sales were $400,000. Compute the company’s asset turnover for 2017.
CONTINUING PROBLEM

COOKIE CREATIONS: AN ENTREPRENEURIAL JOURNEY
(Note: This is a continuation of the Cookie Creations problem from Chapters 1 through 9.)

**CC10** Natalie is also thinking of buying a van that will be used only for business. Natalie is concerned about the impact of the van's cost on her income statement and balance sheet. She has come to you for advice on calculating the van's depreciation.

*Go to the book's companion website, [www.wiley.com/college/wegandt](http://www.wiley.com/college/wegandt), to see the completion of this problem.*