

Activity-Based Depreciation:

- Asset (company car) purchase price: \$25,000
- 5 year/100,000 mile service life
- Depreciation rate: \$0.20/mile
- Residual value: \$5,000

Usage (in miles):

- Year 1: 22,000
- Year 2: 23,500
- Year 3: 18,500
- Year 4: 19,000
- Year 5: 17,500



AccountingHelp.Me

Solution:
Video Demonstration
Problem

	Usage in current period	Depreciation Rate	Depreciation Expense	Accumulated Depreciation	Ending Book Value
Year 1	22,000	\$0.20/mile	\$4,400	\$4,400	\$20,600
Year 2	23,500	\$0.20/mile	\$4,700	\$9,100	\$15,900
Year 3	18,500	\$0.20/mile	\$3,700	\$12,800	\$12,200
Year 4	19,000	\$0.20/mile	\$3,800	\$16,600	\$8,400
Year 5	17,500	(plug to reach residual value)	\$3,400	\$20,000	\$5,000

Journal Entries:

Year 1:

Depreciation Expense 4,400
 Accumulated Depreciation 4,400

Year 2:

Depreciation Expense 4,700
 Accumulated Depreciation 4,700

Year 3:

Depreciation Expense 3,700
 Accumulated Depreciation 3,700

Year 4:

Depreciation Expense 3,800
 Accumulated Depreciation 3,800

Year 5:

Depreciation Expense 3,400
 Accumulated Depreciation 3,400

Depreciation Expense:

- Year 1: \$4,400
- Year 2: \$4,700
- Year 3: \$3,700
- Year 4: \$3,800
- Year 5: \$3,400

Accumulated Depreciation	
	4,400
	4,700
	3,700
	3,800
	3,400
	<hr/>
	20,000

Solution:
Video Demonstration Problem

Activity-Based Depreciation:

- Asset (pizza oven) purchase price: \$10,000
- 4 year/8,000 hour service life
- Depreciation rate: \$1 / hour $(\$10,000 - \$2,000) / 8,000$ hours
- Residual value: \$2,000

Usage (in hours):

- Year 1: 1,750
- Year 2: 2,150
- Year 3: 2,200
- Year 4: 2,000



AccountingHelp.Me

Solution:
Extra Practice
Problem 1

	Usage in current period	Depreciation Rate	Depreciation Expense	Accumulated Depreciation	Ending Book Value
Year 1	1,750	\$1	\$1,750	\$1,750	\$8,250
Year 2	2,150	\$1	\$2,150	\$3,900	\$6,100
Year 3	2,200	\$1	\$2,200	\$6,100	\$3,900
Year 4			\$1,900	\$8,000	\$2,000

Journal Entries:

Year 1:

Depreciation Expense \$1,750
 Accumulated Depreciation \$1,750

Year 2:

Depreciation Expense \$2,150
 Accumulated Depreciation \$2,150

Year 3:

Depreciation Expense \$2,200
 Accumulated Depreciation \$2,200

Year 4:

Depreciation Expense \$1,900
 Accumulated Depreciation \$1,900

Depreciation Expense:

- Year 1: \$1,750
- Year 2: \$2,150
- Year 3: \$2,200
- Year 4: \$1,900

Accumulated Depreciation	
	\$1,750
	\$2,150
	\$2,200
	\$1,900
	<hr/>
	\$8,000

Solution:
Extra Practice Problem 1

Activity-Based Depreciation:

- Asset (water treatment equipment) purchase price: \$180,000
- 5 year/30,000,000 gallon service life
- Depreciation rate: \$0.005 / gallon (\$180,000-\$30,000)/30,000,000 gallons
- Residual value: \$30,000

Usage (in gallons):

- Year 1: 4,000,000
- Year 2: 5,750,000
- Year 3: 6,400,000
- Year 4: 7,600,000
- Year 5: 6,500,000



AccountingHelp.Me

Solution:
Extra Practice
Problem 2

	Usage in current period	Depreciation Rate	Depreciation Expense	Accumulated Depreciation	Ending Book Value
Year 1	4,000,000	\$0.005	\$20,000	\$20,000	\$160,000
Year 2	5,750,000	\$0.005	\$28,750	\$48,750	\$131,250
Year 3	6,400,000	\$0.005	\$32,000	\$80,750	\$99,250
Year 4	7,600,000	\$0.005	\$38,000	\$118,750	\$61,250
Year 5			\$31,250	\$150,000	\$30,000

Journal Entries:

Year 1:

Depreciation Expense \$20,000
 Accumulated Depreciation \$20,000

Year 2:

Depreciation Expense \$28,750
 Accumulated Depreciation \$28,750

Year 3:

Depreciation Expense \$32,000
 Accumulated Depreciation \$32,000

Year 4:

Depreciation Expense \$38,000
 Accumulated Depreciation \$38,000

Year 5:

Depreciation Expense \$31,250
 Accumulated Depreciation \$31,250

Depreciation Expense:

- Year 1: \$20,000
- Year 2: \$28,750
- Year 3: \$32,000
- Year 4: \$38,000
- Year 5: \$31,250

Accumulated Depreciation	
	\$20,000
	\$28,750
	\$32,000
	\$38,000
	\$31,250
	<hr/>
	\$150,000

Solution:
Extra Practice Problem 2