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# CASH & CASH EQUIVALENTS

A company can own many different kinds of assets such as Cash, Land, Buildings and Equipment. When purchasing a piece of equipment for \$5,000 a company makes the bookkeeping entry to decrease Cash in Bank and increase the value of the Equipment account. Although the company still has a \$5,000 asset it no longer has an asset that can be used to purchase other assets, spend on expenses or pay off liabilities. This is the difference between a Liquid and a Non-Liquid asset.

There are many forms of liquid assets. Petty Cash, Cash in Chequing Accounts and Cash in Savings Accounts are cash. Temporary Investments such as Term Deposits and T Bills are called cash equivalents. For a temporary investment to qualify as a cash equivalent, two criteria must be met:

- 1. The Investment must be convertible to a known amount of cash.
- 2. The Investment must be close enough to its maturity date that it will not be affected by interest rate changes.

For proper internal control of cash a company should ensure that all cash receipts are deposited in the bank each day and that all cash payments are made by cheque. All cheques arriving in the mail should be immediately stamped "Deposit only to (company name and account number)" on the back.

Internal Control

Because of the fact that assets (especially cash) are very important to a company, there is a special need to carefully track and control them. A proper internal control system promotes efficiency and protects the business assets from waste, fraud and theft.

A proper internal control system will include the following:

Clearly defined responsibilities Adequate record keeping Insurance on assets and bonding of key employees Different individuals for record keeping and custody Different individuals for related transactions Use of mechanical devices Regular reviews

Let's take a look at each control.

**Clearly Defined Responsibilities** 

Responsibility and accountability go hand in hand. Responsibility for a task must be clearly defined and one individual should be accountable for its performance.

To give an example, imagine a Petty Cash fund that is accessible by two or more individuals. If the fund is short \$10 who is held accountable. All parties will deny taking the cash.

A good internal control system would assign the responsibility of maintaining the Petty Cash fund to one individual and hold that individual accountable for any shortages.

#### Adequate Record Keeping

A good record keeping system will insure that information is available to management and that procedures are being followed. Some examples of good record keeping involve:

A comprehensive chart of accounts to monitor expenses. An accounts receivable subledger to monitor customers. A perpetual inventory system to monitor merchandise. A fixed asset subledger to track fixed assets. An accounts payable subledger to monitor suppliers. Prenumbered sales invoices to monitor revenue. Prenumbered cheques to monitor disbursements.

#### Insurance on Assets and Bonding of Key Employees

Assets should be covered by casualty insurance to protect the company from losses arising from circumstances beyond their control. The same is true for employees that have access to and are responsible for cash. Bonding is when a company purchases an insurance policy to protect itself from losses due to theft by a particular employee. This, in itself, may be enough to discourage the employee from committing a theft.

#### Different Individuals for Record-Keeping and Custody

An individual that is held responsible for an asset should not maintain the accounting record for that asset. In this way an individual responsible for an asset is not likely to misplace, steal or waste the asset knowing that someone else is keeping a record of that asset. The record keeper, having no access to the asset, will have no reason to falsify the record maintained for that asset. With this type of internal control two individuals would have to agree to commit a fraud (collusion).

#### **Different Individuals for Related Transactions**

If one individual is responsible for all functions of a transaction, errors and possible fraud are more likely. For example, an individual that orders an item, receives the item and signs the cheque for the item has too much control and the possibility of fraud is great. By dividing the duties, with different individuals performing each of the tasks, collusion must occur before a fraud can be committed.

#### **Use of Mechanical Devices**

Cash registers, cheque protectors and time clocks are examples of mechanical devices. A locked cash register will record all sales. A cheque protector will engrave the amount on the cheque to eliminate the possibility of changes. A time clock will register the exact

time the employee arrived and left. The use of these devices will increase internal control and protect a company's assets.

# **Regular Reviews**

All internal control systems tend to deteriorate after time due to changes in personnel, shortcuts and omissions. It is therefore imperative that the internal control systems of the company be reviewed on a regular basis.

# **Operations of a Petty Cash Fund**

Although all payments should be made by cheque, it is not always practical. For this reason most companies maintain a Petty Cash fund. This is a small amount of cash, \$100 to \$500 that is kept in a Petty Cash box to be used for immediate cash requirements.

The first step in establishing a petty cash fund is to determine the required amount of the fund. Let's assume the amount is \$100. A cheque, made out to Petty Cash should be cashed and the amount place in the petty cash box along with a pad of blank Petty Cash receipts. The journal entry to record this transaction would be as follows:

DATE	ACCOUNT NAME	PUZZLE	DEBIT	CREDIT
Jan 1/95	Cash in Bank	Asset		100
	Petty Cash	Asset	100	

As the money is used a Petty Cash receipt should be issued to record the disbursement of the cash. The receipt should contain the following information:

Date of the disbursement Amount of the disbursement Who received the money The reason for the disbursement

At the end of the month (or when the fund becomes too low) the receipts should be sorted by expenditure, totaled and a cheque written to replenish the fund as follows:

Jan 10/95	Purolator Courier	Office supplies	10.45
Jan 15/95	Wayne's Windows	Window washing	23.00
Jan 20/95	ABC Computers	Computer repairs	45.00
Jan 22/95	Purolator Courier	Office supplies	5.50
Jan 25/95	Canada Post	Stamps	10.00

The first step in replenishing the petty cash fund is to sort and total the receipts:

Jan 10/95	Office supplies	10.45	
Jan 22/95	Office supplies	5.50	15.95
Jan 15/95	Repairs and Maintenance	23.00	
Jan 20/95	Repairs and Maintenance	45.00	68.00
Jan 25/95	Postage	10.00	10.00

Total

93.95

The next step is to count the cash left in the petty cash fund. Let's assume that there is \$5.20 left in the petty cash box. The total of the receipts and cash is \$99.15, which means that we are short \$0.85.

The final step is to prepare the cheque to replenish the fund and record the entry. The amount of the cheque would be \$94.80 to repay the fund for the receipts and cover the cash shortage as follows:

DATE	ACCOUNT NAME	PUZZLE	DEBIT	CREDIT
Jan 31/95	Office supplies	Expense	15.95	
	Repairs and Maintenance	Expense	68.00	
	Postage	Expense	10.00	
	Cash short/over	Expense	.85	
	Cash in Bank	Asset		94.80

At some point in time the company may find that the petty cash fund is too small or too large and the size of the fund needs to be altered. To illustrate let's assume that at Jan 31/95 it was determined that the petty cash fund should be \$150 instead of \$100. The cheque would instead be made out for \$144.80 and recorded as follows:

DATE	ACCOUNT NAME	PUZZLE	DEBIT	CREDIT
Jan 31/95	Office supplies	Expense	15.95	
	Repairs and Maintenance	Expense	68.00	
	Postage	Expense	10.00	
	Cash short/over	Expense	.85	
	Petty Cash	Asset	50.00	
	Cash in Bank	Asset		144.80

# **Bank Reconciliations**

Before an accounting period can be considered complete, a reconciliation of the balance of the bank account according to the books and according to the bank must be performed.

This reconciliation will indicate two things:

- 1. Deposits and cheques that have been entered into the books but have not yet cleared the bank.
- 2. Transactions affecting the bank account that have not yet been recorded in the books.

To illustrate, let's take a look at the following:

	Sample Company Ltd.					
	Bank Reconciliation					
		January	31, 1995			
Balan	ce per Bank	5,000.00	Balance per Books	5,325.00		
Add	Outstanding Deposits: January 31, 1995	400.00	Add Unrecorded Deposits: Interest Income	100.00		
Less	Outstanding Cheques:Cheque 9750.00Cheque 9825.00Cheque 9910.00	85.00	Less: Unrecorded Charges: Bank Charge 5.00 A/R-Customer 80.00 Bank Charge 25.00	110.00		
Adjus	ted Bank Balance	5,315.00	Adjusted Book Balance	5,315.00		

# Sampla Company I td

After completing the bank reconciliation general journal entries must be made to record, in the books, items not previously recorded. In the above example the following entries must be made:

DATE	ACCOUNT NAME	PUZZLE	DEBIT	CREDIT
Jan 31/95	Cash in Bank	Asset	100.00	
	Interest Income	Revenue		100.00
Jan 31/95	Bank Charge (5.00 + 25.00)	Expense	30.00	
	A/R – Customer (NSF)	Asset	80.00	
	Cash in Bank	Asset		110.00

After completing the adjusting entries we have confidence that the balance for the bank that we present on the Statement of Financial Position is justified.

#### **Bank Reconciliation Procedures:**

To complete a monthly bank reconciliation you must first have on hand the previous month's bank reconciliation. This is necessary because some of the outstanding items from the previous month may still not have cleared the bank.

#### Adjustments to the Bank Balance:

If any item on the previous month's reconciliation has not cleared the bank they must be added to the current month's reconciliation as still outstanding.

When this has been completed, the cancelled cheques returned by the bank are put in numerical order and compared to the Cash Disbursements journal. This will indicate any cheques that have been written but have not cleared the bank. These outstanding cheques are then listed on the reconciliation.

Next, any deposits made on or near the last day of the month must be reviewed to indicate if they are on the bank statement. Any deposits not on the bank statement are to be listed as outstanding deposits.

Adjustments to the Book Balance:

Finally, a review of the bank statement should reveal any transactions made by the bank but not recorded in the books such as bank service charges. These transactions should be recorded on the bank reconciliation.

When complete, the Adjusted Bank Balance and Adjusted Book Balance should be the same number. If they are not, an investigation must be made to determine why.

#### **Temporary Investments**

Some companies find that they have excess cash, which, in a chequing account, is not earning any income. For this reason the excess cash should be invested for a short period of time.

There are two types of securities in which to invest:

Debt Securities:	Lending money in return for interest income. Examples
	include lending to a bank (savings account, G.I.C., etc.),
	lending to the government (Canada Savings Bond,
	Treasury Bills, etc.) and lending to another company
	(commercial paper, bonds, etc.).
	Debt Securities:

2. Equity Securities: Investing money in a company in return for dividends and capital gains. An example would be to buy shares of a corporation.

Accounting for securities involves the knowledge of how to record the purchase and sale of these two types of securities as well as the receipt of interest, dividends and capital gains.

# **Debt Securities**

Transaction 1:

Purchase a 30-day \$10,000 Treasury Bill that yields an 8% per year return.

Entry 1:

DATE	ACCOUNT NAME	PUZZLE	DEBIT	CREDIT
Jan 1/95	Cash in Bank	Asset		10,000.00
	Temporary Investments	Asset	10,000.00	

Transaction 2:

Sold the Treasury Bill 30 days later.

## Entry 2:

DATE	ACCOUNT NAME	PUZZLE	DEBIT	CREDIT
Jan 31/95	Temporary Investment	Asset		10,000.00
	Interest income	Revenue		65.75
	Cash in Bank	Asset	10,065.75	
	Interest is \$10,000 X 8% / 365 days in the year X 30 days = \$65.75			

**Equity Securities** 

Transaction 1:

Purchase 100 shares in ABC Company for \$100 each plus 3% broker fees.

Entry 1:

DATE	ACCOUNT NAME	PUZZLE	DEBIT	CREDIT	
Jan 1/95	Cash in Bank	Asset		10,300.00	
	Temporary Investments	Asset	10,300.00		
	100 shares X $100 = 10,000 \times 3\% = 300 + 10,000 = 10,300$				

Transaction 2:

ABC Company paid a dividend of \$5 per share on January 20.

Entry 2:

DATE	ACCOUNT NAME	PUZZLE	DEBIT	CREDIT
Jan 20/95	Cash in Bank	Asset	500.00	
	Dividend income	Revenue		500.00
	100 shares X $5.00 = 500$ .			

Transaction 3:

Sold the 100 shares of ABC Company for \$110 less a 3% broker fee.

Entry 3:

DATE	ACCOUNT NAME	PUZZLE	DEBIT	CREDIT
Jan 31/95	Temporary Investment	Asset		10,300.00
	Cash in Bank	Asset	10,670.00	
	Gain on Sale of Investment	Revenue		370.00
	100 share X \$110 = \$11,000 X	X 3% = \$330.	\$11,000 - \$330 =	\$10,670 cash

In the above examples we have the following returns:

Debt Security	Interest Income	\$65.75 ======
Equity Security	Dividend Income Gain on Sale	\$500.00 370.00
	Total Income	870.00

Finally, according to the Lower of Cost or Market rule, at period ends an adjustment must be made to reflect a decline (below cost) of any investments. To illustrate refer to the following:

<b>Temporary Investments</b>	<u>Cost</u>	Market Value	Lower
ABC Company	4,000	4,100	4,000
DEF Company	3,200	2,900	2,900
GHI Company	6,100	5,900	5,900
	13,300		12,800

In the above example the total cost of investments is \$13,300 and the lower of cost or market value is \$12,800. Therefore the following journal entry must be recorded.

DATE	ACCOUNT NAME	PUZZLE	DEBIT	CREDIT
Jan 31/95	Allowance for Reduction	Asset		500.00
	Loss on Market Decline	Expense	500.00	
	13,300 - 12,800 = 500.			

On the Balance Sheet the Temporary Investment line would appear as follows: Temporary investments, (cost \$13,300) \$12,800

# **CUSTOMER CREDIT & BAD DEBTS**

In a perfect world, all customers would pay for things they buy at the time they buy them, but in order to entice a customer to buy now a company may extend credit allowing the customer some time to pay for their purchase. Because of this we need to monitor the customers to whom we have extended credit. This is done through the Accounts Receivable Subsidiary Ledger.

When extending credit we must let the customer know when we expect payment. This would be your Credit Terms. An example of Credit Terms would be as follows:

2/10, N/30 2% Discount if paid within 10 days of the invoice date, net (no discount) invoice amount due in 30 days.

These terms let the customer know that you expect full payment in 30 days but, to entice early payment, the customer may deduct 2% if they pay within 10 days.

This discount for early payment gives rise to a new account (revenue account whose normal balance is a debit) called Sales Discounts. To illustrate, consider the following examples:

Sold on account \$1,000:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Jan 15/95	Accounts Receivable	Asset	1,000	
	Sales	Revenue		1,000

# Example 1: Customer pays in 30 days:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Feb 14/95	Accounts Receivable	Asset		1,000
	Cash in Bank	Asset	1,000	

## Example 2: Customer pays in 10 days:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Jan 25/95	Accounts Receivable	Asset		1,000
	Sales Discount	Revenue	20	
	Cash in Bank	Asset	980	

As you can see we would receive less cash if we gave discounts to customer, but if the competition is doing this we may be forced to consider doing the same.

Purchase Discounts work the same, but they deal with purchases from suppliers. It would be very advantageous to a business to take advantage of a Purchase Discount even if it means borrowing money from the bank to make that early payment.

Unfortunately, not all customers pay for their purchase due to bankruptcy or other circumstances. Since, from past experience, we know this will happen we need to be able to deal with this situation.

There are two methods to deal with bad receivables:

- 1. Direct Method
- 2. Allowance Method

#### **Direct Method**

This method deals with writing off the receivable when it occurs. That is, when we know that we will never collect the money from the customer, we make the appropriate entry to reduce (credit) the Accounts Receivable (asset) and increase (debit) the Bad Debt Expense account. This is logical but does not satisfy the Matching Principle, which states that expenses should be in the same period as the revenue they generated. To satisfy this principle the Bad Debt expense should be in the period that the sale was made. Unfortunately we do not know which sale on account will never be collected so we use the Allowance Method.

#### **Allowance Method**

This method realizes that some of our credit sales will eventually go bad. We know this from past history and an analysis of the age of some of our receivables. Therefore we can estimate an amount that will eventually go uncollected and set up an Allowance for Doubtful Accounts amount (an asset account whose balance is normally a credit). The net effect on the Current Asset portion of the Statement of Financial Position would be as follows:

Accounts Receivable	78,000	
Less Allowance for Doubtful Accounts	<u>7,800</u>	
Net Receivable		70,200

By doing this we are not reporting more receivables that we will actually collect. There is an added benefit as this allowance (and offsetting expense) is acceptable for tax purposes in the calculation of taxable income.

The journal entry to set up the Allowance for Doubtful Accounts is a year-end entry and when estimating we use either:

- 1. Sales to date to determine the CHANGE to the Allowance Account, or,
- 2. Account Receivable to determine the BALANCE of the Allowance Account

To illustrate let's use the following example:

ACCOUNT	AMOUNT	<b>DEBIT OR CREDIT</b>
Accounts Receivable	50,000	Debit
Allowance for Doubtful Accounts	50	Credit
Sales	600,000	Credit
Bad Debts expense	0	Debit

Using Sales to determine the change in Allowance for Doubtful Accounts

Assumption: Bad Debts will be ½ of 1% of Sales (\$600,000 X .005 = \$3,000)

ACCOUNT	DEBIT	CREDIT
Bad Debt expense	3,000	
Allowance for Doubtful Accounts		3,000

The result of the journal entry would be as follows:

ACCOUNT	BEFORE	AFTER	DR OR CR
Accounts Receivable	50,000	50,000	Debit
Allowance for Doubtful Accounts	50	3,050	Credit
Sales	600,000	600,000	Credit
Bad Debts expense	0	3,000	Debit

Using Accounts Receivable to determine the balance in Allowance for Doubtful Accounts

Assumption: 5% of Accounts Receivable will never be collected ( $$50,000 \times .05 = $2,500$ )

Before we can make the journal entry we must determine the adjustment needed to end up with a \$2,500 credit balance for the Allowance for Doubtful Accounts.

Current Balance	50	Credit
Desire Balance	2,500	Credit
Required Adjustment	2,450	Credit

ACCOUNT	DEBIT	CREDIT
Allowance for Doubtful Accounts		2,450
Bad Debts expense	2,450	

The result of the journal entry would be as follows:

ACCOUNT	BEFORE	AFTER	DR OR CR
Accounts Receivable	50,000	50,000	Debit
Allowance for Doubtful Accounts	50	2,500	Credit
Sales	600,000	600,000	Credit
Bad Debts expense	0	2,450	Debit

During the following year some of the accounts receivable will not be collected and must therefore be written off. The journal entry to write off a customer's account would be as follows (assume the balance of the customer's account was \$500):

DATE	ACCOUNT NAME	PUZZLE	DEBIT	CREDIT
Jan 24/95	Receivable - ABC Company	Asset		500.00
	Allowance for Doubtful Acct	Asset	500.00	

In this way we have not recorded an expense in the new year because the expected expense was already included in the year of the sale thus satisfying the matching principle.

If at some point in time this customer comes good for the money we would simply reverse the previous entry and record the receipt of the money as follows:

DATE	ACCOUNT NAME	PUZZLE	DEBIT	CREDIT
Jun 24/95	Receivable - ABC Company	Asset	500.00	
	Allowance for Doubtful Acct	Asset		500.00
	Cash in Bank	Asset	500.00	
	Receivable - ABC Company	Asset		500.00

These illustrations are assuming we want to use the allowance method to record bad debts. The other alternative is the direct method that writes off bad debts to the bad debt expense account when they occur. Unfortunately this direct method does not satisfy the matching principle and leads to an increase in taxes payable.

# **Credit Cards**

Some companies do not wish to extend credit to customers because of the cost to maintain the Accounts Receivable subsidiary ledger and the cost of trying to collect the money from the customers. These companies prefer to accept credit cards from customers as payment for the goods or services provided. In this way the company does not have to do a credit check on the customer and is not responsible for collecting the money.

There are basically two types of credit cards, one that reimburses the company on the same day the customer used the card and one that does not reimburse the company for several days (or even weeks) after the customer used the card.

In either case, the credit card company will deduct a fee from the total dollar amount and give the remainder to the company.

#### Same Day Reimbursement

The most common cards that reimburse the company on the day of the sale are Visa and MasterCard. The following journal entry represents the effect of a sale of \$1,000 (ignore sales tax) where the customer used one of these credit cards. We will make an assumption that the credit card company's fee is 2%.

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Feb 1	Cash in Bank	Asset	980	
	Credit Card Expense	Expense	20	
	Sales	Revenue		1000
	Explain: Customer used credit card			

As you can see from the above, the customer believes they paid \$1,000. The seller only received \$980. The \$20 is the cost of having the credit card company track the customer balance and assumes the risk of collecting the cash.

#### Reimbursement after a period of time

The most common card that reimburses the company several days (or weeks) after the sale is American Express. The following journal entry represents the effect of a sale of \$1,000 (ignore sales tax) where the customer used this credit card.

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Feb 1	Accounts Receivable – Amex	Asset	1000	
	Sales	Revenue		1000
	Explain: Customer used credit card			

After a period of time, the seller's bank account will receive a deposit for the "net" amount (after deduction of the fee). The journal entry for this deposit is as follows if we make an assumption that the credit card company's fee is 2%.

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Feb 14	Cash in Bank	Asset	980	
	Credit Card Expense	Expense	20	
	Accounts Receivable – Amex	Asset		1000
	Explain: Received Amex payment			

# **INVENTORY SYSTEMS**

Unlike a service company that receives income from providing a service such as an accountant or lawyer, a merchandising company derives its income from the buying and selling of goods.

Some companies buy and sell small items such as a convenience store whereas others would buy and sell large items such as vehicles and appliances.

A company that deals in small items would use a Periodic inventory system.

A company that deals in large items or uses a Point-of-Sale computer software package would use a Perpetual inventory system.

In either case the company would have a Merchandise Inventory account in the Current Asset section of their Statement of Financial Position. The difference lies in the Cost of Goods Sold section of their Statement of Earnings.

The following is a condensed version of a typical income statement for a merchandising company.

# ABC Computer Wholesaler Condensed Statement of Earnings For the Month ended January 31, 1995

Revenue from Sales	100,000
Cost of Goods Sold	60,000
Gross Profit from Sales	40,000
Operating Expenses	25,000
Net Income (before taxes)	15,000

To begin, let's look at each item on the above statement.

Revenue from Sales: Revenue generated from the sale of computers.

Cost of Goods Sold: Cost of computers sold to customers.

- Gross Profit: The difference between the Revenue from Sales and Cost of Goods Sold. This amount is available to pay Operating Expenses.
- Operating Expenses: Other Expenses incurred such as Advertising, Rent, Wages, Telephone, Bank Charges, etc.

Net Income: Profit, before income tax, from the operation of the business.

The Cost of Goods Sold amount calculation and presentation is dependent upon several accounts, which will be covered later in this chapter.

First we must define a couple of terms.

Periodic Inventory:	A method of accounting for inventories in which the inventory account is brought up to date once, at the end of, each period. This method requires that the business count, and value, the items on hand at the end of each period be that monthly or yearly.
Perpetual Inventory:	A method of accounting for inventories in which Cost of Goods Sold and inventory reduction are recorded each time a sale is made. This method results in inventory information that is always up to date.
Cost of Goods Sold:	A section of the income statement used to record the expenses incurred in relation to the revenue generated from the activities of a merchandising concern. In a Periodic inventory system these expenses would include the cost of the inventory items and the cost of bringing the inventory items to the company less any credits for purchase discounts or returned items. In a Perpetual inventory system this section involves only one account as the inventory value includes all the related costs.

To better understand each method we will follow an inventory item from start to finish.

# **Periodic Inventory**

Step 1:

You start a new company and purchase 5 computers from IBM for \$600 each.

Entry 1:

DATE	ACCOUNT NAME	PUZZLE	DEBIT	CREDIT
Jan 1/95	Purchases	Expense	3,000	
	G.S.T. Paid	Liability	210	
	Accounts Payable – IBM	Liability		3,210

Step 2:

You sell a computer to AAA Computer Store for \$1,000.

Entry 2:

DATE	ACCOUNT NAME	PUZZLE	DEBIT	CREDIT
Jan 15/95	Sales	Revenue		1,000
	G.S.T. Charged	Liability		70
	Accounts Receivable – AAA	Asset	1,070	

Step 3:

You count the number of computers on hand at the end of the month. There are four computers on hand.

Entry 3:

DATE	ACCOUNT NAME	PUZZLE	DEBIT	CREDIT
Jan 31/95	Computer Inventory	Asset	2,400	
	Ending Inventory	Expense		2,400

The income statement for the month of January would appear as follows:

ABC Computer Wholesaler	
Statement of Earnings	
For the Month ended January 31,	1995

Sale of Computers	1,000
Cost of Goods Sold:	
Beginning Inventory	0
Plus: Purchases	3,000
Less: Ending Inventory	<u>2,400</u> 600
Gross Profit from Sales	400
Operating Expenses	0
Net Income	400

Notice that the Cost of Goods Sold section is made up of three items.

Beginning Inventory:	An expense account that represents the value of the inventory at the beginning of the period.
Purchases:	An expense account that represents the purchases of inventory items during the month.
Ending Inventory:	A "contra" expense account that represents the value of the inventory at the end of the period.

# **Perpetual Inventory**

Step 1:

You purchase 5 computers from IBM for \$600 each.

Entry 1:

DATE	ACCOUNT NAME	PUZZLE	DEBIT	CREDIT
Jan 1/95	Computer Inventory	Asset	3,000	
	G.S.T. Paid	Liability	210	
	Accounts Payable – IBM	Liability		3,210

Step 2:

You sell a computer to AAA Computer Store for \$1,000.

Entry 2:

DATE	ACCOUNT NAME	PUZZLE	DEBIT	CREDIT
Jan 15/95	Sales	Revenue		1,000
	G.S.T. Charged	Liability		70
	Accounts Receivable - AAA	Asset	1,070	
	Computer Inventory	Asset		600
	Cost of Goods Sold	Expense	600	

Counting of the inventory and the adjustment of inventory are not necessary at the end of the period because the inventory is adjusted every the time a sale is made. However, there should be periodic checks to verify that the quantity on record agrees with the quantity on hand.

The income statement for the month of January would appear as follows:

# ABC Computer Wholesaler Statement of Earnings For the Month ended January 31, 1995

Revenue from Sales Cost of Goods Sold	1,000 600
Gross Profit from Sales	400
Operating Expenses	0
Net Income	400

Notice that the Cost of Goods Sold is the balance of one account.

# PERIODIC INVENTORY IN DETAIL

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As mentioned above, a periodic inventory system creates the need to count, and value, the inventory on hand at a specific point in time. In this way a calculation can be made to determine the "Cost of Goods Sold" for a specific period. There are several accounts used in this calculation as follows:

Beginning Inventory	The value of the inventory at the first of the period
Purchases	The cost of the merchandise purchased
Purchase Returns	The cost of merchandise returned
Purchase Discounts	Discounts received for early payment to suppliers
Transportation-In	The cost of freight for merchandise received
Ending Inventory	The value of the inventory at the end of the period

The above accounts are arranged so that the resulting calculation is the Cost of Goods Sold value as follows:

Cost of Goods Sold:				
Beginning Inventory			1,000	
Purchases		8,000		
Less: Returns	500			
Discounts	+ 100	<u>- 600</u>		
Net Purchases		7,400		
Add: Transportation-In		+ 200		
Cost of Goods Purchased			+ 7,600	
Goods Available for Sale			8,600	
Less: Ending Inventory			<u>- 2,000</u>	
Cost of Goods Sold				<u>6,600</u>

# PERPETUAL INVENTORY IN DETAIL

A perpetual inventory system requires that we keep track of changes in the quantity and cost of inventory on hand. In most companies a computerized inventory control system (Point-of-Sale) would track the receipt and sale of inventory items. A manual system, though cumbersome if the number of products is great, would accomplish the same thing.

Before we demonstrate how to use a perpetual inventory system you must understand the various ways to value each item in inventory.

- 1. First In, First Out (FIFO)
- 2. Last In, First Out (LIFO)
- 3. Weighted Average
- 4. Specific Invoice
- 5. Standard Costing

First In, First Out assumes that the items you are selling are the items that have been on hand the longest period of time.

Last In, First Out assumes that the items you are selling are the items that have been on hand the shortest period of time.

Weighted Average divides the total value of the inventory by the quantity on hand to arrive at the cost per unit.

Specific Invoice assumes that with each sale you can identify the specific purchase invoice that contains the cost of that item (ie: sale of a vehicle has a specific purchase invoice for that vehicle).

Standard Costing creates the necessity to assign a standard cost to each item irregardless of the actual cost. This method allows you to monitor the variance between standard cost and the actual cost and is quite effective in budgeting and performance evaluations.

We will now take a look at perpetual inventory records under two of the above methods, namely First In, First Out and Weighted Average.

	I	Purchase			Sale			Balance	
Date	Quantity	Cost	Balance	Quantity	Cost	Balance	Quantity	Cost	Balance
1	10	\$5	\$50				10	\$5	\$50`
2				2	\$5	\$10	8	\$5	\$40
3	10	\$6	\$60				8	\$5	\$40
							10	\$6	\$60
4				8	\$5	\$40	0	\$5	\$0
				4	\$6	\$24	6	\$6	\$36

# Perpetual Inventory using First In, First Out

As you can see from the above example each time a sale is made the items leaving inventory are the oldest items. Their quantity must be completely gone before the next items are sold. This creates the enormous task of keeping track of every cost of every item purchased.

# Perpetual Inventory using Weighted Average

	I	Purchase			Sale			Balance	
Date	Quantity	Cost	Balance	Quantity	Cost	Balance	Quantity	Cost	Balance
1	10	\$5	\$50				10	\$5	\$50`
2				2	\$5	\$10	8	\$5	\$40
3	10	\$6	\$60				18	\$5.56	\$100
4				12	\$5.56	\$66.72	6	\$5.56	\$33.28

As you can see from the above example when a new quantity is purchased the cost is added to the total cost of the inventory item and then divided by the quantity on hand to arrive at the new cost per unit.

All methods of valuing inventory are acceptable but the Consistency Principle dictates that once we have chosen a method we should continue with that method so that financial statements for different periods can be compared.

# **EMPLOYEE DEDUCTIONS**

# **Statutory Deductions**

When the individual is an employee of a company, Canada Pension Plan (CPP) and Employment Insurance (EI) are taken off the gross pay to calculate Taxable Income. Income tax is then calculated and deducted and the employee receives what's left (net pay). This creates the necessity (in a business) to set up five general ledger accounts, three in the liability section (CPP Payable, EI Payable and Employee Tax Payable) and two in the expense section (CPP Expense and EI Expense). The two expense accounts are necessary because the law states that the employer must match the amount of CPP deducted from the employee and contribute 1.4 times the amount of EI deducted from the employee as follows:

Example:

	<u>Employee</u>	<u>Employer</u>	Total
Gross Pay	400		
EI	10	14	24
CPP	13	13	26
Tax	<u>50</u>		<u>50</u>
Owed Employee	<u>327</u>	Owed Government	<u>100</u>

The above example would be recorded as follows:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Jan 31	Wages	Expense	400	
	EI Expense	Expense	14	
	CPP Expense	Expense	13	
	EI Payable	Liability		24
	CPP Payable	Liability		26
	Employee Tax Payable	Liability		50
	Bank	Asset		327

If your reporting period has been set up monthly, the remittance of the employee deductions is due by the 15th of the following month. When the cheque to the government is recorded, you must reduce the liability accounts and the bank by doing the following:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Feb 15	EI Payable	Liability	24	
	CPP Payable	Liability	26	
	Employee Tax Payable	Liability	50	
	Bank	Asset		100

#### **Non-Statutory Deductions**

When the individual is an employee of a company, other deductions besides EI, CPP and Tax may be deducted from the gross pay before the employee receives their net pay. By law, the employer cannot take these deductions without the written consent of the employee. Some of these deductions might include the following:

Registered Retirement Saving Plan (RRSP) Medical (Group Insurance) Canada Savings Bonds

Some deductions may be deducted before the calculation of taxable income and some deductions are deducted after the calculation of taxable income.

Example 1:

Registered Retirement Savings Plan contributions by an individual will reduce the amount of taxable income. For this reason, the amount is deducted from gross pay before the calculation of income tax.

Gross Pay Less EI Less CPP Less Registered Retirement Savings Plan Equals Taxable Income Less Tax Equals Net Pay

Example 2:

Canada Savings Bond contributions by an individual do not reduce the amount of taxable income. For this reason income tax is calculated on the gross pay (after EI and CPP are deducted).

Gross Pay Less EI Less CPP Equals Taxable Income Less Tax Less Canada Savings Bonds Equals Net Pay

## **Employer Contributions**

In some cases the deduction is taken off the employee and there is no cost to the employer whereas, in other cases, the employer may agree to pay part of the cost of the plan. The first situation creates the need for an account in the liability section and the second situation creates the need for an account in the liability and expense sections as the following examples will show:

Example of Deduction without an Employer Portion - Assume the employee wants \$60 a pay taken off and put towards an RRSP. The deduction would need to be credited to a liability account called RRSP Payable as follows:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Jan 31	Wages	Expense	400	
	EI Expense	Expense	14	
	CPP Expense	Expense	13	
	EI Payable	Liability		24
	CPP Payable	Liability		26
	Employee Tax Payable	Liability		50
	RRSP Payable	Liability		60
	Bank	Asset		327

When the cheque to the financial institution is recorded, you must reduce the liability account and the bank by doing the following:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Feb 15	RRSP Payable	Liability	60	
	Bank	Asset		60

Example of Deduction with an Employer Portion - Assume the employer will match the \$60 that the employee is contributing. The payroll entry would be the same as above, but there would have to be another journal entry to record the employer's portion as follows:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Jan 31	Wages	Expense	400	
	EI Expense	Expense	14	
	CPP Expense	Expense	13	
	RRSP Expense	Expense	60	
	EI Payable	Liability		24
	CPP Payable	Liability		26
	Employee Tax Payable	Liability		50
	RRSP Payable	Liability		120
	Bank	Asset		327

The cheque to the financial institution is recorded as follows:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Feb 15	RRSP Payable	Liability	120	
	Bank	Asset		120

# TAXES PAYABLE

In Canada, the government generates revenue by imposing taxes. These taxes can be at the Federal, Provincial or Municipal level of government. Because the tax rules change so often and are controlled by so many different levels of government it is a specialty field and will not be dealt with in detail. Some of these taxes are as follows:

Corporate Income Tax Personal Income Tax Goods and Services Tax Provincial Sales Tax Environmental Tax Property Tax Gasoline Tax

#### **Corporate Income Tax**

This is a tax based on a corporation's annual net income. It is imposed by the federal and provincial governments.

#### **Personal Income Tax**

This is a tax based on an individual's annual income. It is imposed by the federal and provincial governments and is covered more fully in the chapter Employee Deductions.

#### **Goods and Services Tax**

This is a tax charged by a company to customers. It is imposed by the federal government. Its purpose is to tax the individual not a company. Because of this, there are two parts to this tax, the GST Charged to Customers and the GST Paid to Suppliers (ITC). The ITC (Input Tax Credit) is the GST Paid to Suppliers and it must be tracked separately from the GST Charged to Customers. This creates the necessity (in a business) to set up two general ledger accounts in the liability section.

Exam	ble (	for	January)	):
	× (		( and )	•

GST Charged to Customer	3,400	
GST Paid to Suppliers	<u>1,500</u>	
GST Owing (Refundable)		1,900

As you can see, the difference between the GST Charged and the GST Paid is the amount of GST that must be remitted to Revenue Canada. If the amount of GST Charged is less than the GST Paid, the company has money receivable from the government.

If your reporting period has been set up monthly, the remittance of the GST owed is due by the end of the following month. When the cheque to the government is recorded, you must reduce the liability accounts and the bank by doing the following:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Feb 28	GST Collected	Liability	3,400	
	GST Paid	Liability		1,500
	Bank	Asset		1,900

The above example is applicable to any company that is not using the quick method of calculating GST Payable. The quick method does not need to keep track of the GST separately, but simply charges customers at the rate of 7% and records the total invoice amount (before PST) as sales. Then it remits a reduced percentage (ie: 4% of sales) to the government. The difference between the 7% and the reduced rate is suppose to account for the GST Paid to Suppliers.

# **Provincial Sales Tax**

This is a tax charged by companies to customers on behalf of the government. It is imposed by the provincial government and therefore varies from province to province. Its purpose is to tax individuals and companies for products and services purchased for their own use. Because of this, any item purchased for resale (inventory) does not have any PST applied to the invoice. Most provinces reward the company for collecting the tax for them. They do this by giving a commission (or compensation), which is calculated as a percentage of the tax collected. This creates the necessity (in a business) to set up two general ledger accounts, one in the liability section called PST Payable and one in the revenue section called PST Commission.

Example:

PST Payable	3,400
PST Commission (3% of PST Payable)	<u>102</u>
Net amount of cheque to government	<u>3,298</u>

As you can see, even though the company collected \$3,400 from its customers, it only has to send \$3,298 to the provincial government and makes \$102 for its efforts.

If your reporting period has been set up monthly, the remittance of the PST owed is due by the 20th of the following month. When the cheque to the government is recorded, you must reduce the liability account, increase the revenue account and reduce the bank by doing the following:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Feb 20	PST Payable	Liability	3,400	
	PST Commission	Revenue		102
	Bank	Asset		3,298

Provincial Sales Tax, when charged to a customer, is payable to the provincial government, but when paid to a supplier is reflected in the cost of the item purchased. For example let's look at a sale and a purchase assuming 7% GST and 8% PST where the

PST is calculated on the base amount not (as in some provinces) calculated on the base amount plus the GST.

Sale Transaction			Purchase Transaction		
Sale	1,000	Revenue	Supplies	1,000	Expense
GST	70	Liability	GST	70	Liability
PST	80	Liability	PST	80	Expense
Total	1,150	Asset	Total	1,150	Asset

Notice that in the Sale Transaction the sales taxes are both liabilities that are owed to the government. In the Purchase Transaction the GST is a Liability (actually a contra liability) and reduces what we owe the government, but the PST is part of the cost of the supplies.

The journal entries would be as follows:

#### Sale Transaction:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Feb 20	Cash (or A/R)	Asset	1,150	
	GST Charged	Liability		70
	PST Charged	Liability		80
	Sales	Revenue		1,000

Purchase Transaction:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Feb 20	Supplies	Expense	1,080	
	GST Paid	Liability	70	
	Cash (or A/P)	Liability		1,150

# **Environmental Tax**

This is a tax charged by companies to customers on behalf of the government. It is imposed by the provincial government and therefore varies from province to province. Its purpose is to tax individuals and companies for items that negatively affect the environment (ie: tires). This tax is usually included in the PST remittance.

# **Property Tax**

This is a tax charged by the government to companies (and individuals) that own property. The amount of tax is usually a dollar amount per \$100 of assessed property value.

# **Gasoline Tax**

This is a tax charged by the government to companies (and individuals) that purchase gasoline.

# **OTHER CURRENT LIABILITIES**

# **Estimated Property Tax Payable**

This is a tax charged by the government to companies (and individuals) that own property. It is usually an annual amount and is based on the value of the property according to the government. When preparing monthly financial statements, the annual amount divided by 12 should be included with the expenses. This creates the necessity (in a business) to set up two general ledger accounts, one in the liability section called Estimated Property Tax Payable and one in the expense section called Estimated Property Tax Expense.

Example:

Estimated Property Tax for the Year	2,400
Number of months in a year	<u>12</u>
Estimated Property Tax Expense per month	<u>200</u>

The monthly journal entry to record this expense would be as follows:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Jan 31	Property Tax Expense	Expense	200	
	Property Tax Payable	Liability		200

Any change in the estimate of the annual property tax amount would make it necessary to recalculate the amount of the monthly journal entry. The month of the notification of the change should be higher (or lower) than usual to account for the months where the amounts were lower (or higher) than they should have been.

Example:

Our estimate was \$200 per month and we had been using that amount for January to August (8 months) before we received the bill in September for \$2,640 (\$220 per month). The expense for September would be \$220 plus \$160 (\$20 X 8) to pick up the months that were short. The complete entry would be as follows:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Sep 30	Property Tax Expense	Expense	380	
	Property Tax Payable	Liability	1,600	
	Prepaid Property Tax	Asset	660	
	Cash in Bank	Asset		2,640

380 = 20 X 8 months + 220

1,600 = 200 X 8 months (January to August)

660 = 220 X 3 months (October to December)

\$2,640 = Invoice from Property Tax Department

#### **Product Warranty Liability**

In a perfect world all products would work forever, but that is not true. In order to entice a customer to buy our products we may offer a warranty allowing the customer to return the product if not satisfied. Because of this we need to monitor the products returned by customers. After a time we will have an idea of the percentage of the selling price that we must return to the customer because of the warranty.

Since the Matching Principle states that all expenses related to the generation of revenue should be recorded in the same period as the revenue, we have an obligation to record the expected returns by the customer. This creates the need for a new account called Estimated Warranty Liability in the liability section and a new account called Warranty Expense in the expense section.

At the end of each period we would make a journal entry to record the estimated warranty liability as follows:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Jan 31	Warranty Expense	Expense	400	
	Est. Warranty Payable	Liability		400

#### Assume sales were \$20,000 and expected returns are 2%.

This above journal entry puts the expense in the period that the revenue was generated.

When a product is returned by the customer we would reduce the liability account and offset the entry to the applicable accounts. Below are two examples:

Assume the return was	for S	\$70 and	we reim	bursed th	ne cash	to the	customer.
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DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Feb 10	Est. Warranty Payable	Liability	70	
	Cash	Asset		70

Assume the return was	for \$80	and we wi	ill credit the	customer's	s account.
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DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Feb 12	Est. Warranty Payable	Liability	80	
	Accounts Receivable	Asset		80

Note: Since we know that the estimate will never match the actual, we must keep an eye on the Estimated Warranty Liability account and adjust our percentage to compensate. For example, if the estimate was too high we would lower it for the next period.

#### **Short Term Notes Payable**

At times a company may find that it needs to borrow money for the short term (less than a year). This borrowing usually requires the borrower to sign a promissory note that states the date, the principal (amount borrowed), the annual rate of interest and the term of the loan (for how long). When the money is received the journal entry is as follows:

Assume on March 1 we borrow \$2,000 at 1070 interest fate for 0 months.							
DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT			
Mar 1	Bank	Asset	2,000				
	Note Payable	Liability		2,000			

Assume on March 1 we borrow \$2,000 at 10% interest rate for 6 months.

The lending institution may require us to pay the interest each month in which case the following journal entry would be made:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT			
Mar 31	Interest Expense	Expense	17				
	Bank	Asset		17			
	\$2,000 X 10% X 30days / 365 = \$16.43 (We will use \$17)						

However, the lending institution may allow us to wait till the end of the term before we must pay back the principal and the interest. In this case we must make a journal entry at the end of each month as follows:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Mar 31	Interest Expense	Expense	17	
	Interest Payable	Liability		17

At the end of the term (assuming six months and we have not paid any interest) the following entry must be made:

DATE	ACCOUNT	PUZZLE	DEBIT	CREDIT
Aug 31	Note Payable	Liability	2,000	
	Interest Payable	Liability	102	
	Bank	Asset		2,102

To calculate the amount of interest owed, use the following formula:

Principal	Х	Rate of	Х	Number of	=	Interest
of the		Interest		Days		
Note				365		