

Financial Management Module



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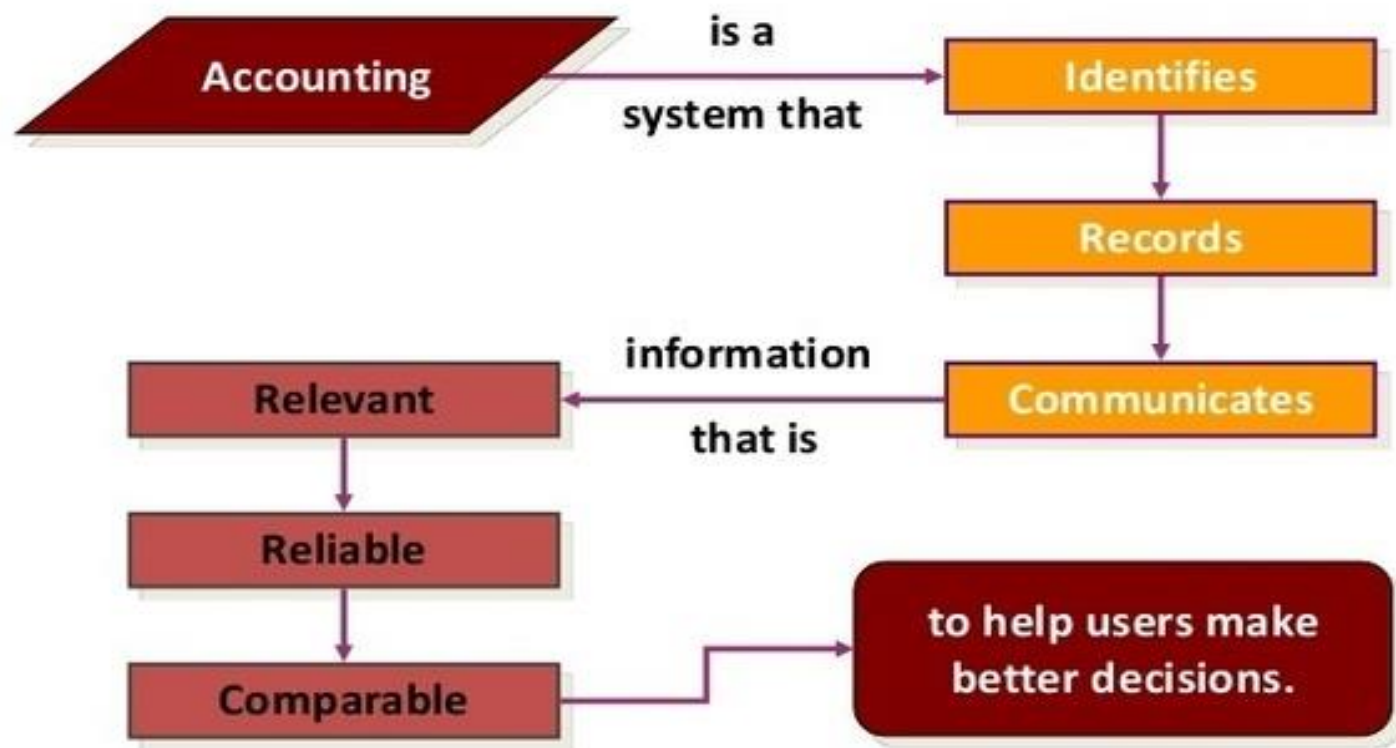
Recap from last time

1) What's is Accounting / Finance ?



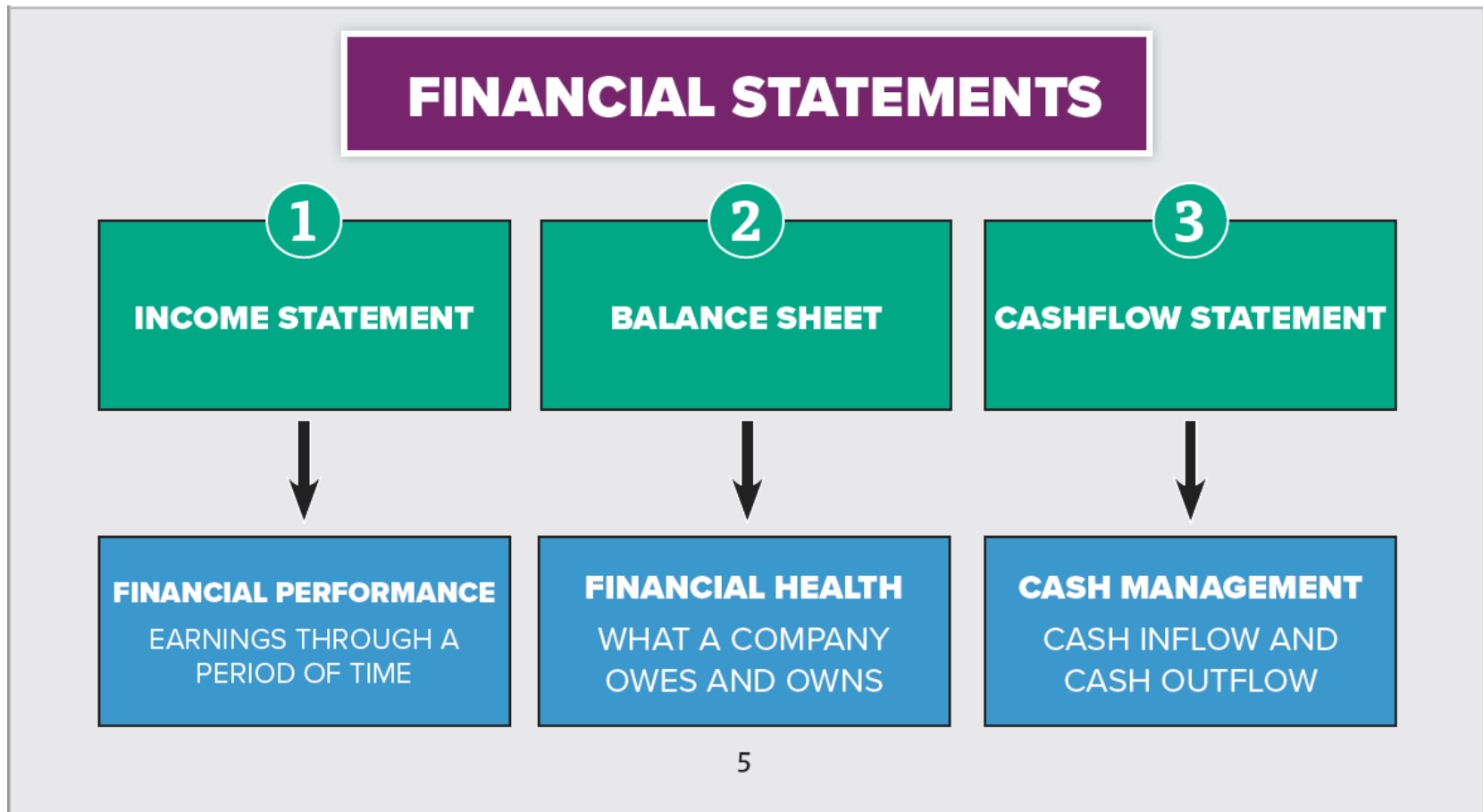
- What is Accounting?

Importance of Accounting



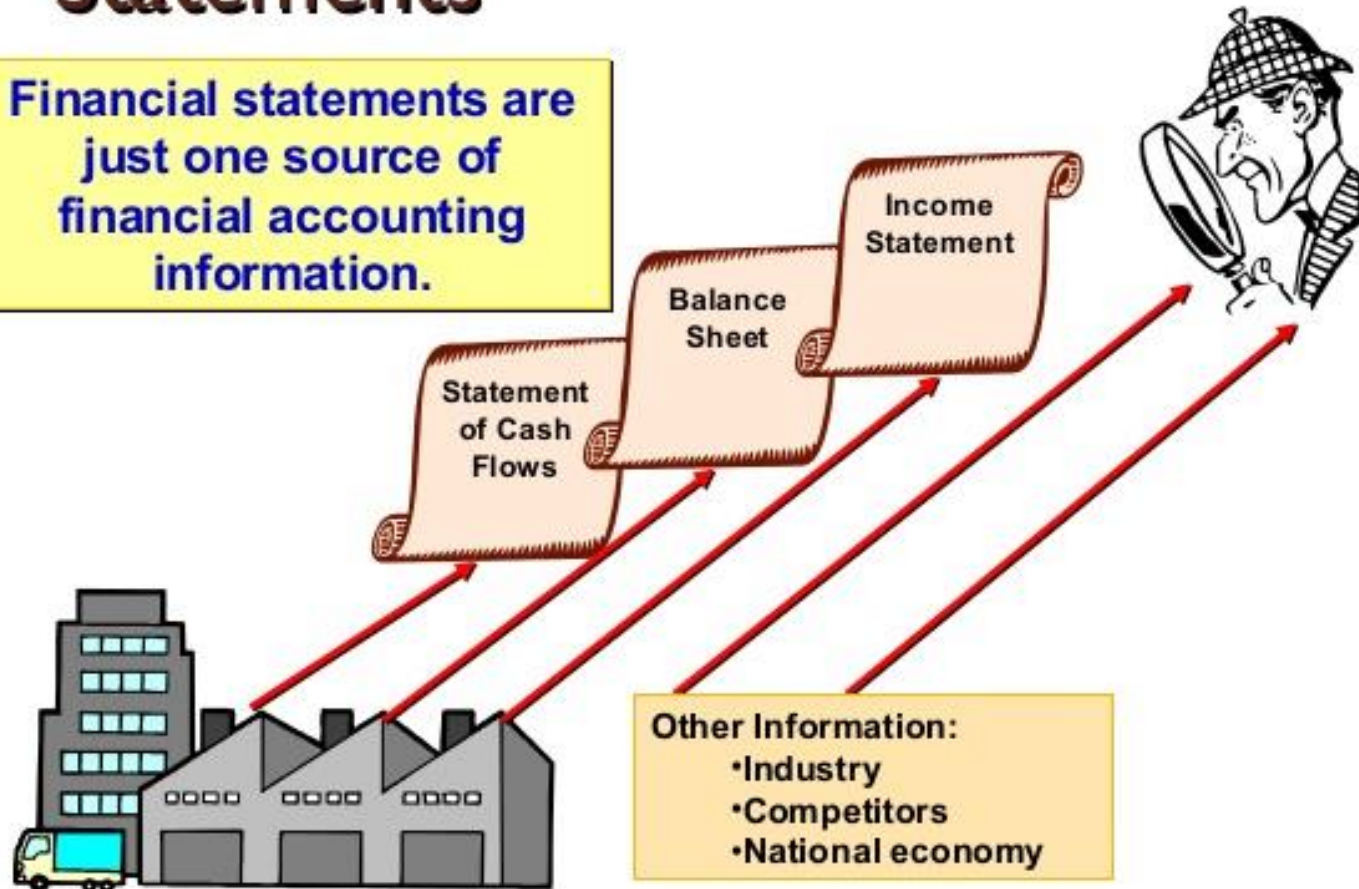
The Financial Statements

Financial statements measure the financial health of the organisation:



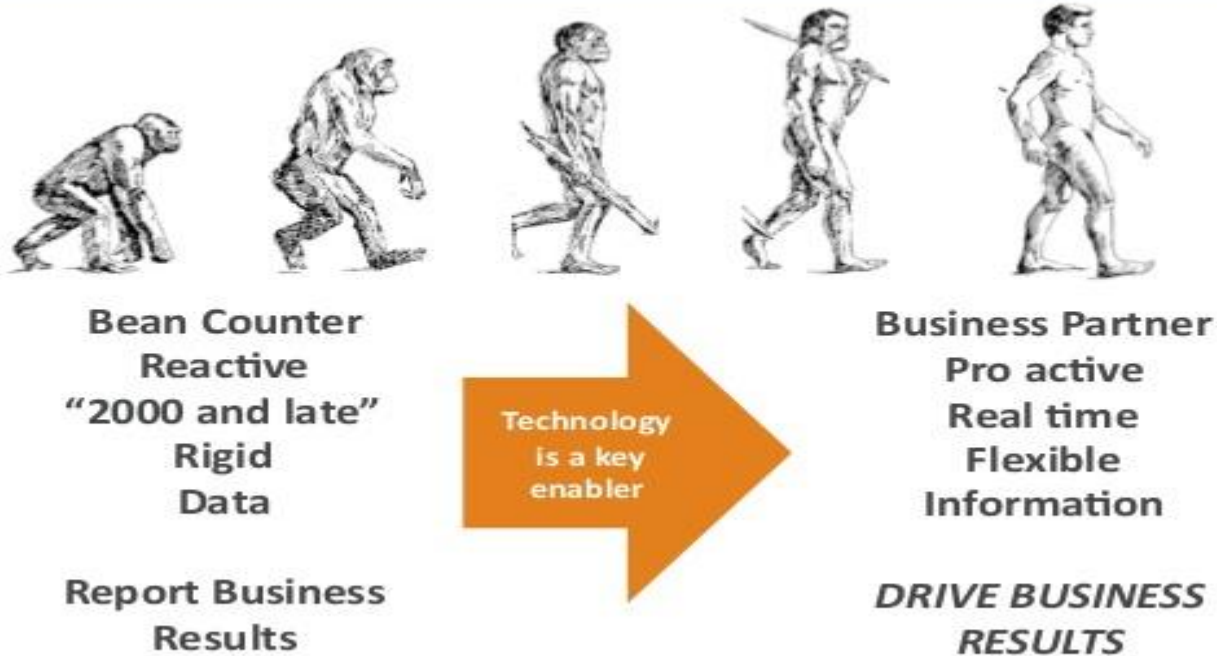
Financial Reporting and Financial Statements

Financial statements are just one source of financial accounting information.



2-19

The Evolving Role of Finance



Why do you think the role is evolving ?

This week:

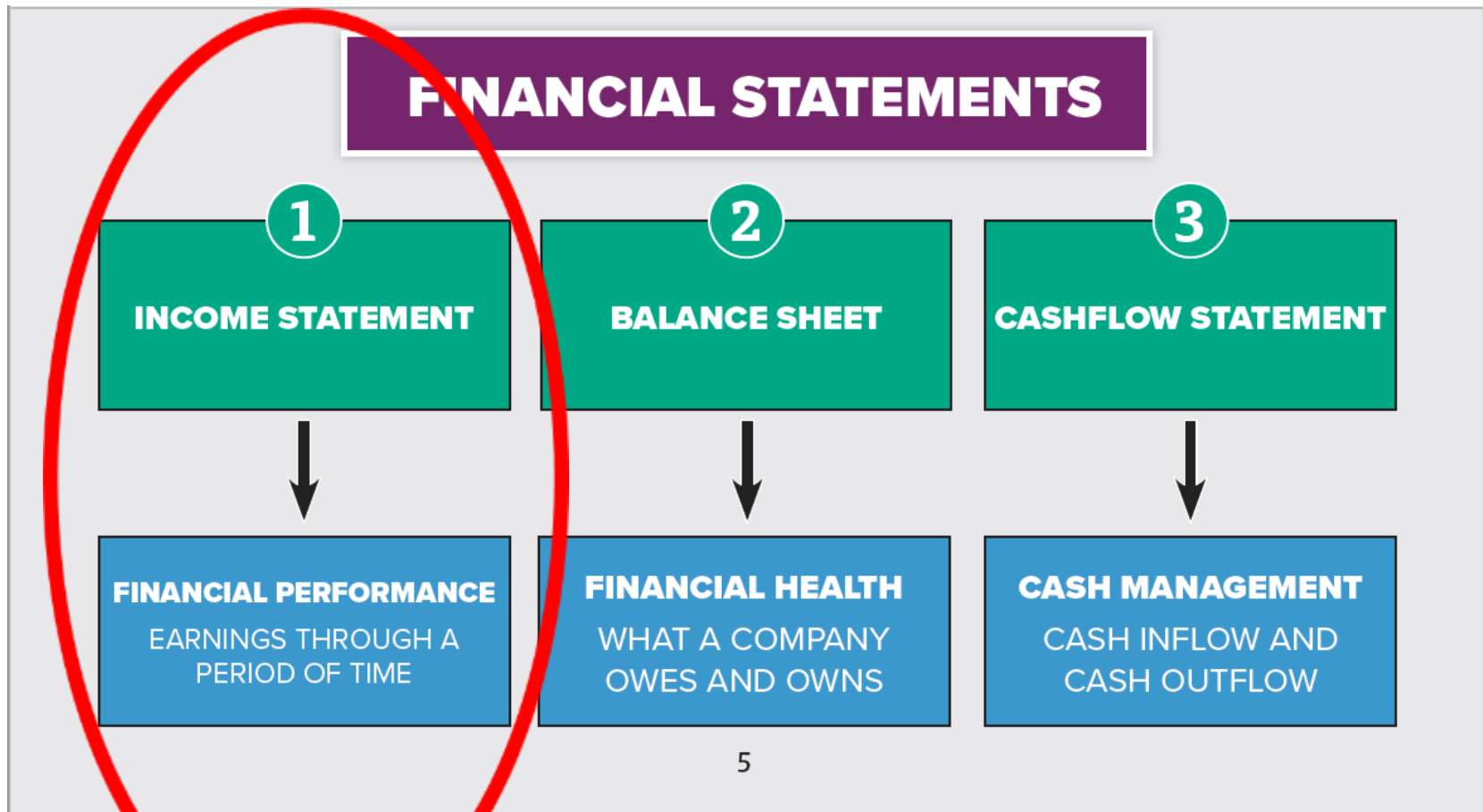
Financial Statements

Income Statement

Balance Sheet

The Financial Statements

Financial statements measure the financial health of the organisation:



Financial Statements

Income Statement (or Profit and Loss Statement)

Definition :

An **income statement** is a **financial statement** that shows you how profitable your business was over a given reporting period. It shows your revenue, minus your expenses and losses

Purpose :

An **income statement** is a **financial statement** that shows you how profitable your business was over a given reporting period. It shows your revenue, minus your expenses and losses

Profit and Loss Terminology

Sales/Turnover	Total Revenue
Cost of Sales	The cost of producing the goods/providing services
Gross Profit	Calculated by taking Cost of Sales (or cost of goods sold) from Sales/Turnover
Operating Expenses	Expenses incurred in generating Revenue
Operating Profit	Gross profit less Profit before Interest and Tax (PBIT)
Non-operating Expenses	Interest payable
Non operating Income	Interest received
Profit before Tax (PBT)	
Tax	Corporate tax paid to Government
Profit after Tax (PAT)	Profit for the period
Retained Profit c/f	Remaining profit after payments of dividends to shareholders

Financial Statements

Profit and loss statement example

Profit and loss of company XYZ

Total revenue	£100,000
Cost of goods sold	£20,000
Gross profit	£80,000

What your
business does

Operating expenses

Salaries	£10,000
Rent	£10,000
Utilities	£5,000
Depreciation	£5,000

The additional
running costs of
your business

Total operating expenses	£30,000
Operating profit	£50,000
Interest expense	£10,000

Servicing
costs of your
business

Income before taxes	£40,000
Taxes	£10,000

Net income **£30,000**

Recognising Expenses

- **Accruals & Prepayments are part of matching the expenses to the period they relate to**
- **All expenses should be matched to the period they relate to**
 - ***Accruals***: expenses which have been incurred in the accounting period, but for which no payment was received; it will be reported for the accounting period in which it was incurred as an accrual
 - ***Prepayments***: where money is paid out in the accounting period before the one to which the expense relates to; it will be reported in the accounting period when it was paid out as a prepayment

Accruals: note Examples 3.4 & 3.5 in Atrill re: Domestic Ltd

Prepayments: note Example 3.6 in Atrill re: Images Ltd

Exercise

Create an income statement for the following costs :-

For the Year	2018
Revenue	97400
Opening Stock	4000
Materials Purchases	68350
Closing Stock	3000
Heat and Light	900
Telephone and Postage	450
Insurance	750
Loan Interest Payable	620
Salaries	10400
Rent and Rates	5000
Vehicle Running Expenses	1200
Depreciation	1500

	2018
Revenue	
Material	
Labour	
Other Costs	
Cost of Goods Sold	
Gross Profit	0
Heat and Light	
Telephone and Postage	
Insurance	
Salaries	
Rent and Rates	
Vehicle Running Expenses	
Depreciation	
Total Operating Expenses	0
Operating Profit	0
Interest Paid	
Tax @ 20%	
Net Income	0

Exercise

Create an income statement for the following costs :-

For the Year	2018
Revenue	97400
Opening Stock	4000
Materials Purchases	68350
Closing Stock	3000
Direct Labour	5000
Direct Costs	2500
Heat and Light	900
Telephone and Postage	450
Insurance	750
Salaries	7500
Rent and Rates	5000
Vehicle Running Expenses	1200
Depreciation	1500
Loan Interest Payable	620

	2018
Revenue	97400
Material	69350
Labour	5000
Other Costs	2500
Cost of Goods Sold	<u>76850</u>
Gross Profit	<u>20550</u>
Gross Profit %	21.10%
Heat and Light	900
Telephone and Postage	450
Insurance	750
Salaries	7500
Rent and Rates	5000
Vehicle Running Expenses	1200
Depreciation	<u>1500</u>
Total Operating Expense	<u>17300</u>
Operating Profit	<u>3250</u>
Interest Paid	620
Tax @ 20%	526
Net Income	<u><u>2104</u></u>

Exercise

Create an income statement for the following costs :-

For the Year	2018
Sales of Product A	75000
Sales of Product B	25000
Sales of Product C	50000
Sales of Product D	35000
Opening Stock	100000
Materials Purchases	75000
Closing Stock	75000
Direct Labour	35000
Direct Costs	10000
Sales Costs	10000
Admin Costs	2500
General Costs	5000
Interest Paid	0
Depreciation	3000

Materials

Opening Stock + Purchases Less Closing Stock

	2018
Revenue	
Material	
Labour	
Other Costs	
Cost of Goods Sold	
Gross Profit	0
Sales Cost	
Admin Cost	
General Costs	
Depreciation	
Total Operating Expenses	0
Operating Profit	0
Interest Paid	
Tax @ 20%	
Net Income	0

Exercise

Create an income statement for the following costs :-

For the Year	2018
Sales of Product A	75000
Sales of Product B	25000
Sales of Product C	50000
Sales of Product D	35000
Opening Stock	100000
Materials Purchases	75000
Closing Stock	75000
Direct Labour	35000
Direct Costs	10000
Sales Costs	10000
Admin Costs	2500
General Costs	5000
Interest Paid	0
Depreciation	3000

Materials

Opening Stock + Purchases Less Closing Stock

	2018
Revenue	185000
Material	100000
Labour	35000
Other Costs	10000
Cost of Goods Sold	<u>145000</u>
Gross Profit	<u>40000</u>
Gross Profit %	21.62%
Sales Cost	10000
Admin Cost	2500
General Costs	5000
Depreciation	3000
Total Operating Expense	<u>20500</u>
Operating Profit	<u>19500</u>
Interest Paid	0
Tax @ 20%	3900
Net Income	<u>15600</u>

Exercise

Create an income statement for the following costs :-

For the Year	2018	2019	2020
Sales of Product A	75000	100000	150000
Sales of Product B	25000	50000	50000
Sales of Product C	50000	50000	50000
Sales of Product D	35000	50000	50000
Opening Stock	100000	75000	75000
Materials Purchases	75000	100000	150000
Closing Stock	75000	75000	100000
Direct Labour	35000	75000	95000
Direct Costs	10000	20000	25000
Sales Costs	10000	10000	15000
Admin Costs	2500	5000	3500
General Costs	5000	5000	7500
Interest Paid	0	0	1000
Depreciation	3000	5000	5000

Exercise

	2018	2019	2020
Revenue	185000	250000	300000
Material	100000	100000	150000
Labour	35000	75000	95000
Other Costs	10000	20000	25000
Cost of Goods Sold	145000	195000	270000
Gross Profit	40000	55000	30000
Gross Profit %	21.62%	22.00%	10.00%
Sales Cost	10000	10000	15000
Admin Cost	2500	5000	3500
General Costs	5000	5000	7500
Depreciation	3000	5000	5000
Total Operating Expenses	20500	25000	31000
Operating Profit	19500	30000	-1000
Interest Paid	0	0	1000
Tax @ 20%	3900	6000	0
Net Income	15600	24000	-2000

Financial Statements

Income Statement (or Profit and Loss Statement)

Definition :

An **income statement** is a **financial statement** that shows you how profitable your business was over a given reporting period. It shows your revenue, minus your expenses and losses

Purpose :

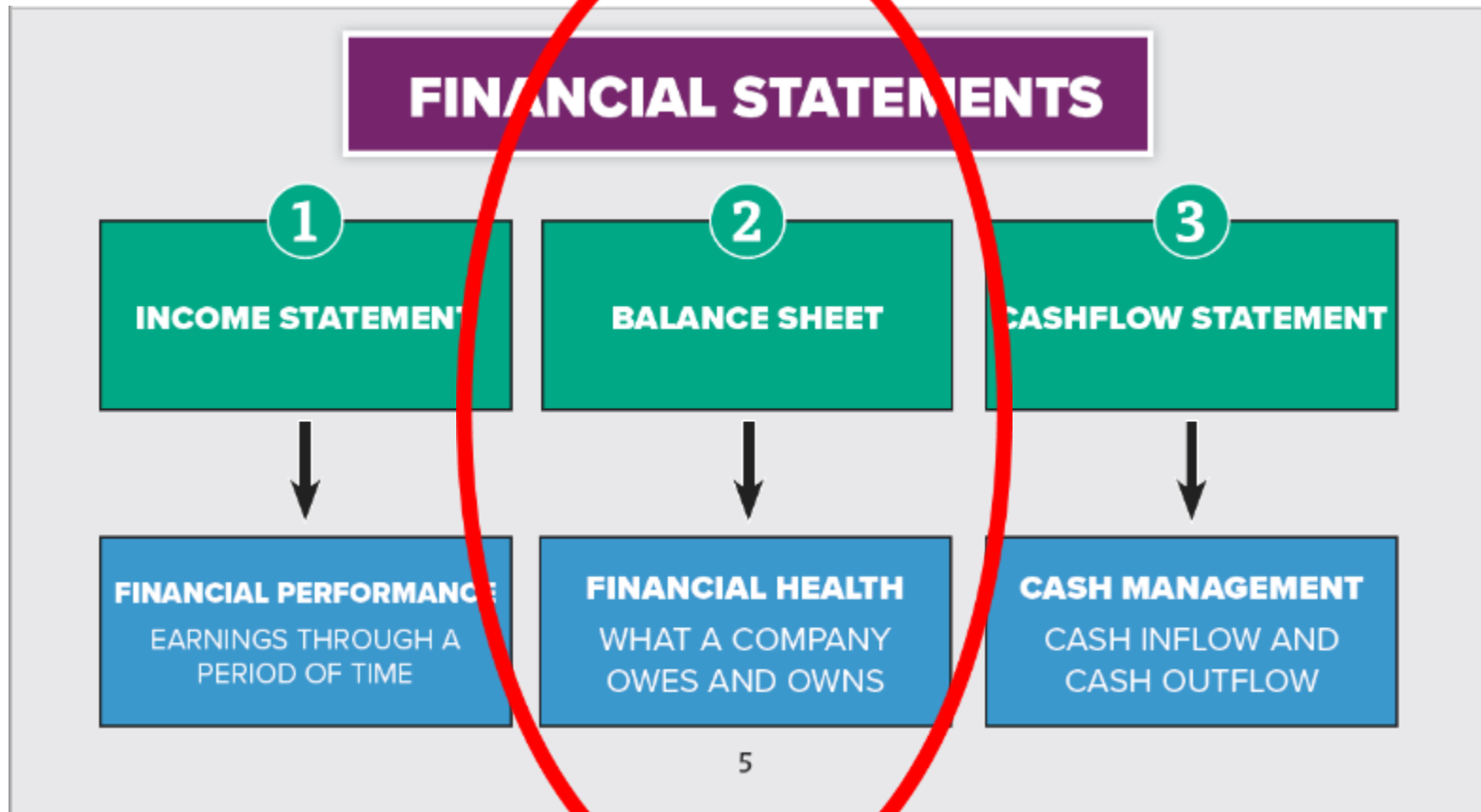
An **income statement** is a **financial statement** that shows you how profitable your business was over a given reporting period. It shows your revenue, minus your expenses and losses

Break and Video

<https://youtu.be/Hq-44PHgAiU>

Back at 10:40

Balance Sheet



Balance Sheet

- The Balance Sheet is a statement of its financial position.
- The Balance sheet is a lists of the assets , liabilities and the capital within its organisation.

It highlights :

- The company's ability to meet its current obligations.
- Financial Health of an organisation.
- Why is it important ?
 - Short term Liquidity
 - Long Term Liquidity

Balance Sheet

Balance sheet example

TEDDY FAB INC. BALANCE SHEET December 31, 2100

ASSETS

Current assets

Cash and cash equivalents	\$ 100,000
Accounts receivable	20,000
Inventory	15,000
Prepaid expense	4,000
Investments	10,000
Total current assets	149,000

Property and equipment

Land	24,300
Buildings and improvements	250,000
Equipment	50,000
Less accumulated depreciation	(5,000)

Other assets

Intangible assets	4,000
Less accumulated amortization	(200)

Total assets **\$ 472,100**

LIABILITIES AND SHAREHOLDERS' EQUITY

Current liabilities

Accounts payable	\$ 30,000
Notes payable	10,000
Accrued expenses	5,000
Deferred revenue	2,000
Total current liabilities	47,000

Long-term debt 200,000

Total liabilities **247,000**

Shareholders' Equity

Common stock	10,000
Additional paid-in capital	20,000
Retained earnings	197,100
Treasury stock	(2,000)

Total liabilities and shareholders' equity **\$ 472,100**

Assets and Liabilities

Assets

- Property
- Plant & equipment
- Fixtures and fittings
- Patents and trademarks
- Debtors (those who owe the business – trade receivables), and
- Investments

Liabilities

- Bank loan or overdraft
- Creditors (trade payables)
- Mortgage
- HP or Lease agreements
- Owners capital

Characteristics of Assets

‘A resource held by a business’

All 4 conditions must apply to be an ‘asset’

- A probable future economic benefit with some monetary value
- The benefit must arise from some past transaction or event
- The business must have the right to control the resource
- The asset must be capable of measurement in monetary terms

Does not have to be physical – can be non physical: - tangible or non-tangible

Balance Sheet

Assets of the Business (What the company owns)

- Fixed Assets split between Tangible and Intangible.
 - Items owned and used within the operation of the organisation.
 - Expected to have a lifespan of longer than 1 year.

Balance Sheet

Assets of the Business (What the company owns)

- Intangible Examples being:

12 Examples of Intangible Assets



Patents



Films



Customer Lists



Goodwill



Copyrights



Use Rights



Internet
Domain Names



Brands and
Trademarks



Proprietary
Software



Order
Backlogs



Franchise
Agreements



Trained
Workforce

Balance Sheet

Assets of the Business (What the company owns)

- Tangible Examples being:
 - Land
 - Plant and Machinery
 - Machinery and Equipment
 - Vehicles
 - Furniture and Fittings

Balance Sheet

Treatment of Non-Current Assets of the Business

Why do we treat certain assets as Non - Current Assets differently?

Depreciation

- To calculate Depreciation we need to understand four factors :-
 - The cost or fair value of the asset
 - The useful life of the asset
 - The residual value of the asset. (expected disposal value)
 - The Depreciation method
 - Straight Line method
 - Reducing Balance method

Balance Sheet

Depreciation – Straight Line methodology

- Company A
 - purchased a new Machine for £100,000 ,
 - expected lifespan of 5 years
 - Expected Residual value at end of 5 years is £10,000

Balance Sheet

- Company A – Straight Line Method

Total Cost	100,000
Residual Value	10,000
Total Depreciation	90,000
Depreciation per Year	18,000

	<u>Income Statement</u>	<u>Balance Sheet</u>
Year 0	0	100,000
Year 1	18,000	82,000
Year 2	18,000	64,000
Year 3	18,000	46,000
Year 4	18,000	28,000
Year 5	18,000	10,000

Balance Sheet

Depreciation

- Purchased a new Machine for £50,000 ,
- expected lifespan of 3 years
- Expected Residual value at end of 3 years is £0
- Straight Line Method

Total Cost	50,000
Residual Value	0
Total Depreciation	50,000

Useful Life	3
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Depreciation per Year	16,667
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Straight Line Method

	Income Statement	Balance Sheet
Year 0	0	50,000
Year 1	16,667	33,333
Year 2	16,667	16,667
Year 3	16,667	0
Year 4		
Year 5		

Balance Sheet

Depreciation

- To calculate Depreciation we need to understand four factors :-#
- Reducing Balance method

$$DB = 1 - \sqrt[n]{\frac{\text{Salvage Value}}{\text{Cost}}}$$

- Company A
 - purchased a new Machine for £100,000 ,
 - expected lifespan of 5 years
 - Expected Residual value at end of 5 years is £10,000
 - Calculated Reducing Balance 36.9%

Balance Sheet

Depreciation

Total Cost	100,000
Residual Value	10,000
Total Depreciation	90,000
Useful Life	5
Reducing Balance %	36.9%

Reducing Balance Method

		Income Statement	Balance Sheet	Expected Residual Value
Year 0		0	100,000	10,000
Year 1	1	36,900	63,100	
Year 2	2	23,284	39,816	
Year 3	3	14,692	25,124	
Year 4	4	9,271	15,853	
Year 5	5	5,850	10,003	

Balance Sheet

Straight Line

Vs

Reducing Balance

1. Equal depreciation each year
2. Total of depreciation and repairs may increase as the asset gets older
3. Value of asset could be reduced to Rs zero or scrap value
4. Depreciation rate = $\frac{\text{Depreciation} \times 100}{\text{Cost}}$
5. Suitable for assets which have low repairs and maintenance costs e.g leases, copyrights etc

1. Reducing depreciation each year
2. Total of depreciation and repairs may not vary much from year to year
3. Value of asset cannot be extinguished
4. Depreciation rate = $1 - \sqrt[n]{\frac{\text{Residual Value}}{\text{Cost of Assets}}} \times 100$
5. Suitable for plant and machinery which have high repairs and maintenance costs as the machine gets older

Balance Sheet

Straight Line Method

	Income Statement	Balance Sheet	Expected Residual Value
Year 0	0	100,000	10,000
Year 1	18,000	82,000	
Year 2	18,000	64,000	
Year 3	18,000	46,000	
Year 4	18,000	28,000	
Year 5	18,000	10,000	

Reducing Balance Method

	Income Statement	Balance Sheet	Expected Residual Value
Year 0	0	100,000	10,000
Year 1	36,900	63,100	
Year 2	23,284	39,816	
Year 3	14,692	25,124	
Year 4	9,271	15,853	
Year 5	5,850	10,003	

Balance Sheet

Current Assets made up of

- Stock / Inventory
 - Raw Materials
 - Work in Progress
 - Finished Goods
- Cash and Cash Equivalents
- Market Securities
- Debtors
- Prepayments

Balance Sheet

Stock

- Raw Materials
- Work in Progress
- Finished Goods

Stock Calculation Methods

- LIFO
- FIFO
- AVCO
- Standard

Balance Sheet

Stock Calculation Methods

Stock Transactions

		Units	Cost per Unit
May 1st	Opening Stock	5,000	10
May 2nd	Purchased	10,000	10
May 10th	Purchased	20,000	13
May 20th	Sold	9,000	

FIFO	
Units	Cost per Unit
15,000	10
20,000	13

LIFO	
Units	Cost per Unit
20,000	13
15,000	10

AVCO Calc	
Units	Cost per Unit
15,000	10
20,000	13
35,000	11.71

Closing Stock	26,000	
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Balance Sheet

Stock Calculation Methods

Stock Transactions

		Units	Cost per Unit
May 1st	Opening Stock	5,000	10
May 2nd	Purchased	10,000	10
May 10th	Purchased	20,000	13
May 20th	Sold	9,000	

Closing Stock

26,000

	FIFO
COGS	90,000

	LIFO
COGS	117,000

	AVCO
COGS	105,429

6,000	60,000
20,000	260,000
26,000	320,000

15,000	150,000
11,000	143,000
26,000	293,000

26,000	304,571

AVCO Calc		Ave
15,000	150000	10.00
20,000	260000	13.00
35000	410000	11.71

Balance Sheet

Inventory Costing Method	Description	Benefit
First-in, First-out (FIFO)	Cost of goods sold has older, lower costs; Ending inventory has newer, higher costs	Most closely matches actual flow of goods; Maximizes net income which attracts investors and creditors
Last-in, First-out (LIFO)	Cost of goods sold has newer, higher costs; Ending inventory has older, lower costs	Minimizes net income and income taxes; reduces cash paid for taxes
Average cost	Average costs in Cost of goods sold and ending inventory	A “middle-ground” solution for reporting income and paying taxes

Balance Sheet

What other circumstances do we need to consider when valuing stock ?

- Obsolete Stock being held
- Major change in market value of goods (Fair valuation)
- Bad buying decision being made
- The goods are being used as a loss leader so full value may not be recovered.

Balance Sheet

Gem Merchandise Co.
Aging of Accounts Receivable
As of August 31, 2015

CUSTOMER NAME	TOTAL RECEIVABLE	CURRENT	PAST DUE 1 - 30 DAYS	PAST DUE 31 - 60 DAYS	PAST DUE 61+ DAYS
ABC Co.	\$ 62,456	\$ 59,121	\$ 3,335	\$ -	\$ -
Extreme Co.	\$ 18,210	\$ -	\$ -	\$ -	\$ 18,210
Main Corp.	\$ 48,954	\$ 48,954	\$ -	\$ -	\$ -
Trifact LLC	\$ 1,200	\$ -	\$ -	\$ 1,200	\$ -
Totals	\$ 130,620	\$ 108,075	\$ 3,335	\$ 1,200	\$ 18,210

Provision for Doubtful Debts ?

Liabilities

Two main types:

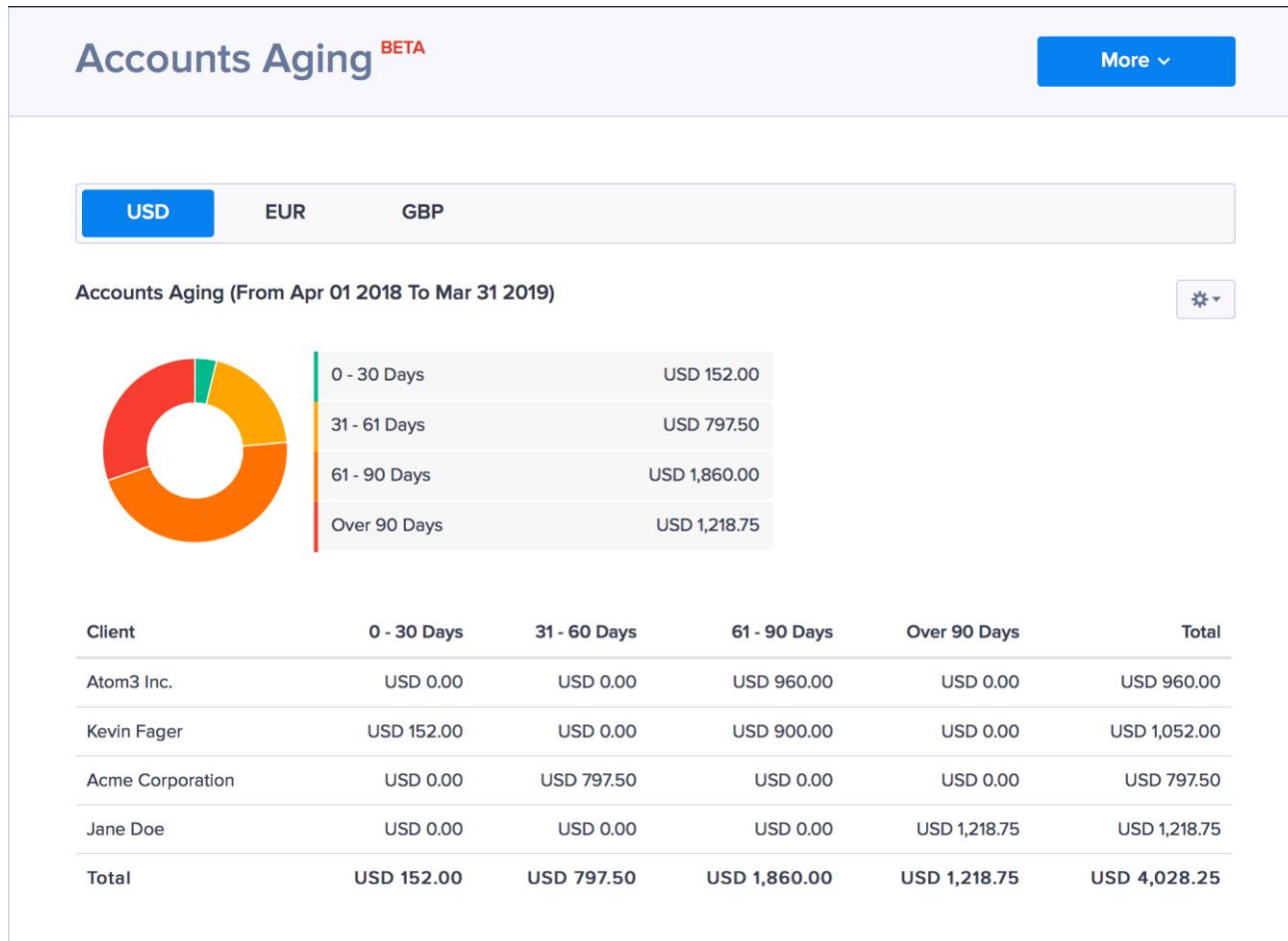
- Liabilities - claims of individuals and organisations on the business e.g. supply of goods or lending money
- Equity – sometimes referred to as owners capital

Balance Sheet

- Liabilities (What the organisation owes)
- Current Liabilities (Obligation to be paid within one year)
 - Creditors
 - Cash and Cash Equivalents
 - Accrued Liabilities
 - Short term Bank loans

Balance Sheet

- Current Liabilities (Obligation to be paid within one year)
- Creditors / Accounts Payable



Balance Sheet

- Working Capital
- Current Assets Less Current Liabilities

Current Assets

Stock

Debtors

Cash + Cash Equivalents

Current Liabilities

Creditors

Cash and Cash Equivalents

- Why is this important to understand ?

Break and Video

- <https://youtu.be/eljCaeNm-Vk>

Working Capital

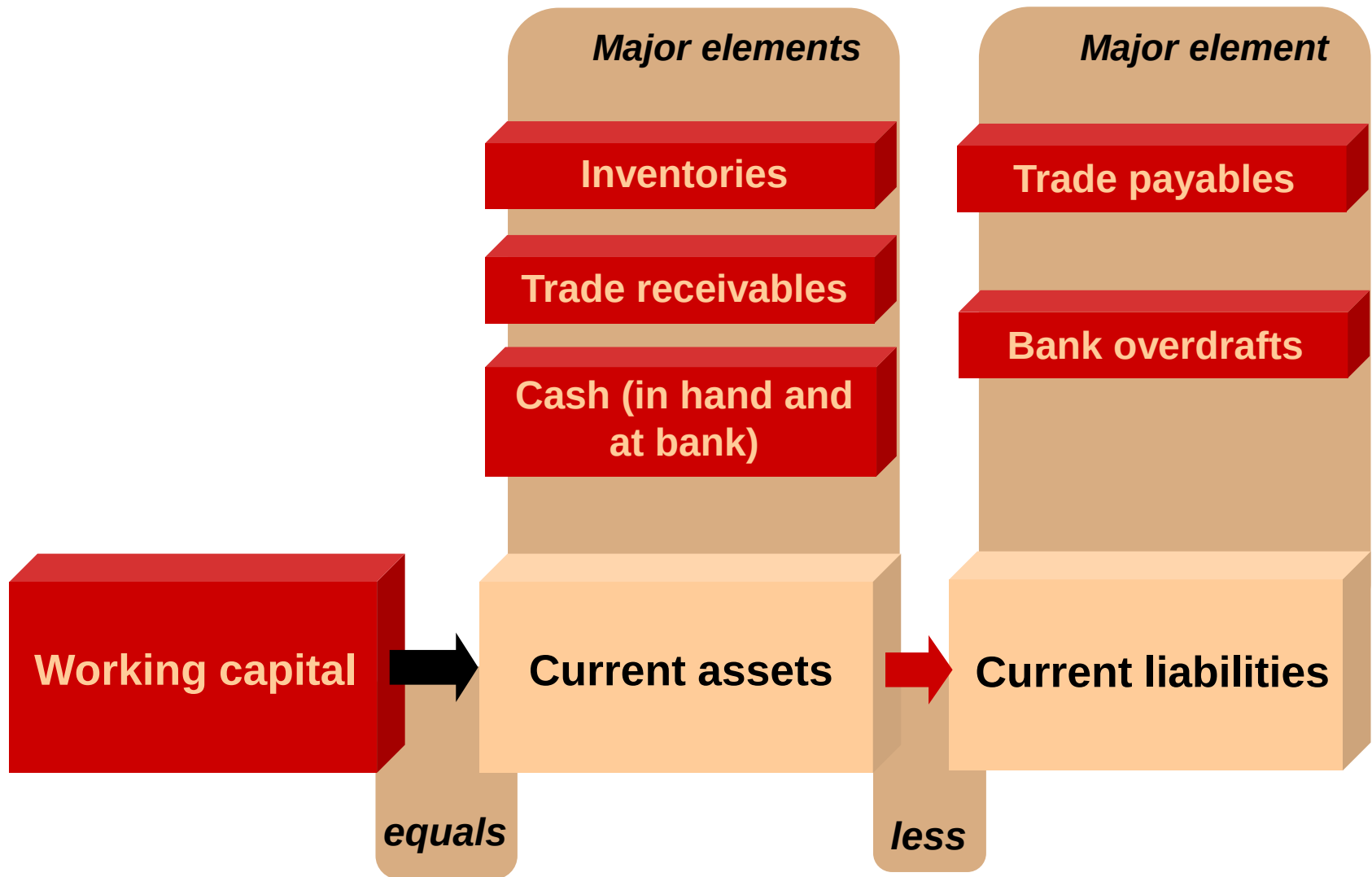
- **Working capital is comprised of current assets and current liabilities:**

Current assets are: stock, debtors (those owing us money) and cash

Current liabilities are creditors (those we owe money to) and short term loans (e.g. overdrafts)

- **It is the control of liquidity (ability for a business to meet its short term debt obligations in the following areas:**
 - Debtor Control
 - Creditor Control
 - Stock Control

The nature of working capital



Financial Statements

XYZ COMPANY Balance Sheet

12/31/2011

ASSETS

Current Assets:

Cash	\$12,000
Accounts Receivable	35,000
Inventory	120,000
Prepaid Rent	8,000
Total Current Assets	\$175,000

Long Term Assets

Land	\$126,000
Buildings & Improvements	300,000
Furniture & Fixtures	50,000
General Equipment	125,000
Total Fixed Assets	\$601,000

TOTAL ASSETS **\$776,000**

LIABILITIES

Current Liabilities:

Accounts Payable	\$60,000
Taxes Payable	25,000
Salaries/Wages Payable	30,000
Interest Payable	25,000
Total Current Liabilities	\$140,000

Long Term Liabilities:

Loan 1	\$322,000
Total Long Term Liabilities	\$322,000

TOTAL LIABILITIES **\$462,000**

OWNER'S EQUITY

Paid in Capital	\$64,000
Retained Earnings	250,000

TOTAL OWNER'S EQUITY **\$314,000**

TOTAL LIABILITIES & OWNER'S EQUITY **\$776,000**

Working Capital

Working Capital Lifecycle



How do we influence this ?

Working Capital

How can we reduce the Working Capital Lifecycle

- Reduce the need for stock or stockholding time – Just in Time Methodology ?
- Negotiate quicker payments from our customers – Incentives ?
- Negotiate longer payment times to suppliers – Reputation risk if seen as a slow payer.

Working Capital

Why is it important?

- Business requires sufficient working capital to meet its day to day running costs
- Working capital is 'dead' money because :
 - it earns no interest
 - it is high risk (e.g. debtors not paying, stock becoming obsolete)
- The objective is for the business to operate with as little working capital as possible, and to therefore make what they have work as hard as possible.
- Working Capital Cycle should be as short as possible.....

- Liabilities (What the organisation owes)
- Long Term Liabilities (Obligation not to be paid in the current year)
 - Directors Loan
 - Long Term Bank Loans
 - Bonds

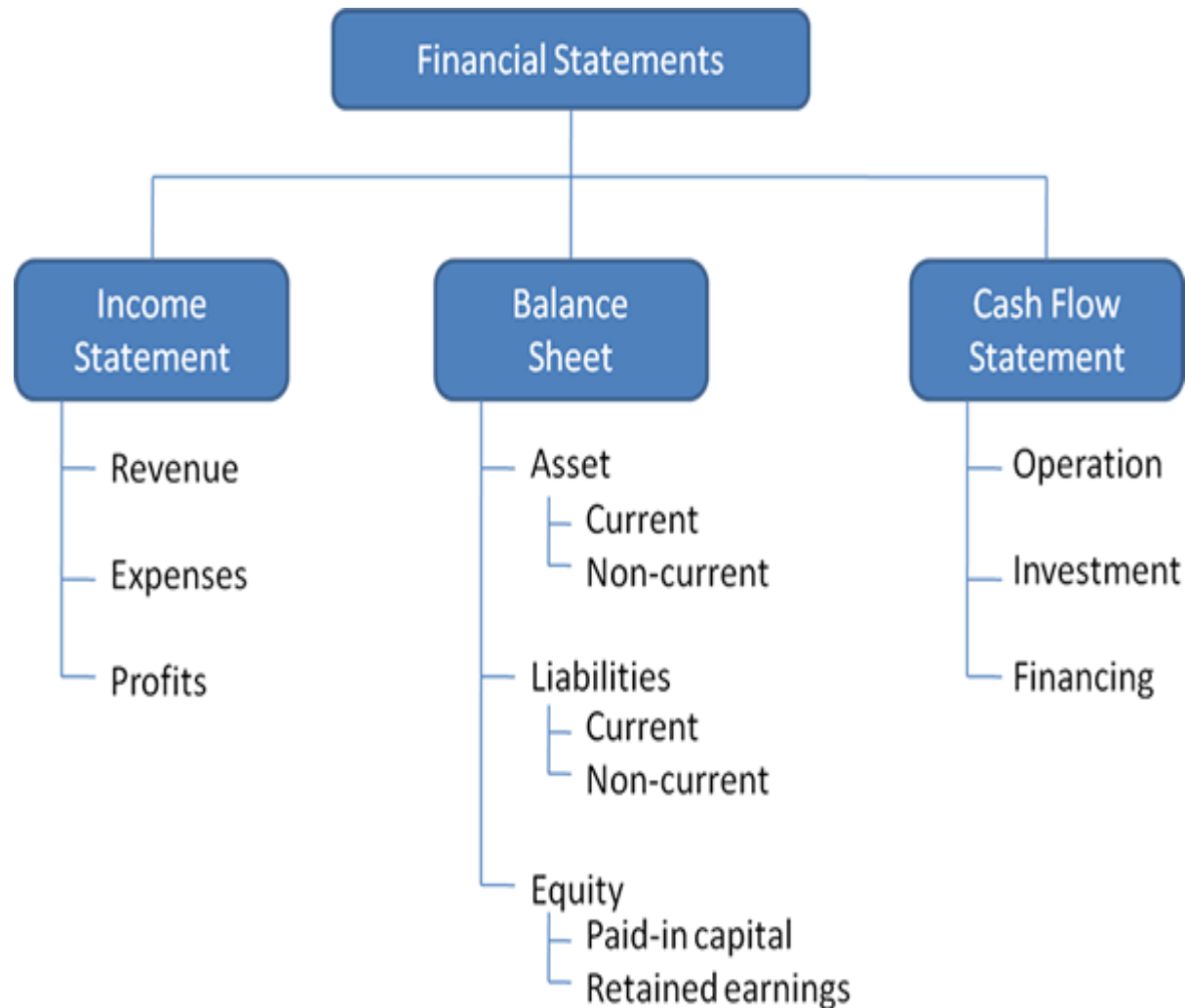
- Stockholders Equity
 - Retained Earnings
 - Shares

Financial Ratios

Balance Sheet	
Year	2017
Fixed Assets	100,000
Stock	20,000
Cash and Cash Equivalents	20,000
Debtors	30,000
Other Current Assets	5,000
Current Assets	75,000
Total Assets	175,000
Creditors	50,000
Accruals	10,000
Current Liabilities	60,000
Long Term Liabilities	50,000
Total Liabilities	110,000
Net Assets	65,000
Ordinary Shares	60,000
Retained Earnings	5,000
Shareholders Equity	65,000

Paul's Guitar Shop, Inc. Balance Sheet December 31, 2015	
Assets	
Current Assets	
Cash	32,800
Accounts Receivable	300
Prepaid Rent	1,000
Inventory	39,800
Total Current Assets	73,900
Long-term Assets	
Leasehold Improvements	100,000
Accumulated Depreciation	(2,000)
Total Long-term Assets	98,000
Total Assets:	171,900
Liabilities	
Current Liabilities	
Accounts Payable	49,000
Accrued Expenses	450
Unearned Revenue	1,000
Total Current Liabilities	50,450
Long-term Liabilities	99,500
Total Liabilities	149,950
Owner's Equity	
Owner's Equity	
Retained Earnings	11,950
Common Stock	10,000
Total Owner's Equity	21,950
Total Liabilities and Owner's Equity	171,900

Summary of Financial Statements



Next Week

- Cashflow
- Financial Ratios