(1) Intro to Financial Accounting

Purpose: Financial Accounting helps external decision-makers make better decisions. (Investor, Lenders, Gov agencies, Media) | **Functions**: Analysis, Bookkeeping, Reporting & Evaluation | **Standard**: International Financial Reporting Standards (IFRS) | **Ethics**: Integrity, Objectivity, Professional Competence, Due Care, Confidentiality, Professional Behavior

Concepts & Assumptions:

1. *Separate Entity Concept* -- Activities of a business entity are separated from those of the individual owners
2. *Time Period Assumption* -- The long life of a company can be reported in shorter time-periods. (Annually, Quarterly, etc.) (Financial statements are prepared at regular intervals for comparative analysis)
3. *Arm's Length Transactions* -- Business dealings between entities are conducted in a rational basis for their own interests
4. (Historical) *Cost Principle* -- Transactions are measured at historical costs or original costs ate the transaction date.
5. *Fair Value Principle* -- Assets & Liabilities should be measured at fair value to improve relevance of accounting information
6. *Monetary Measurement Concept* -- Value of items in financial statements must be measurable in dollar value, otherwise not they are recorded.
7. *Going Concern Assumption*: The business entity is assumed to have indefinite economic life and is not under liquidation.

Financial Statements

1. ***Balance Sheet*** -- Reports entity's assets, liabilities & equity at a particular date <u>Assets = Liabilities + Equity</u>
- Assets: Property, Land, Vehicles, Cash, Inventory, Receivables
- Liabilities: Payables, Unearned Revenue
- Equity: Capital Stock, Retained Earnings

2. ***Statement of Comprehensive Income*** -- Reports entity's revenue, expenses, net income & other comprehensive income over an accounting period <u>Revenue - Expenses = Net Income</u>
<u>Net Income + Other Comprehensive Income = Compre. Income</u>

3. ***Statement of Changes in Equity*** -- Reports the changes in the components of equity over a period of time.
<u>Beginning Equity + Increase in Capital Stock + Net Income - Dividends + Other Comprehensive Income = Ending Equity</u>
- Capital Stock / Paid-in capital
- Retained Earnings
- Accumulated other comprehensive income

4. ***Statement of Retained Earnings*** (Not Required (IAS 1)) -- Reports changes in components of retained earnings during a period of time
<u>Beginning Retained Earnings + Net Income - Dividends = Ending Retained Earnings</u>

5. ***Statement of Cash Flows*** -- Reports entity's cash inflows/outflows during a period of time and classified into operating, investing & financing activities
<u>Beginning Cash Balance ± Operating Activities ± Investing Activities ± Financing Activities = Ending Cash Balance</u>

6. ***Notes to Financial Statements*** -- Explanatory Information: summary of Significant Accounting Policies, Additional Info about the Summary Totals, Disclosure of Info not recognised in the financial statements, Supplementary Info required under IFRS

(2) Accounting Cycle

1. **Analyse transactions**
Only record & analyse transactions which:
-- (1) Involve exchange of resources
-- (2) Conducted at arm's length (Arm's Length Concept)
-- (3) Can be reliably measured (Measurement Concept)
Equation: Assets = Liabilities + Equity

2. **Record the effects of transactions**
All business transactions are recorded in chronological order

3. **Summarize the effects of transactions**
Post Journal Entries to T-accounts & prepare Trial Balance, listing all accounts and their respective debit or credit balance. The balance is on the side that increases the amount.

4. **Prepare Reports**
- Prepare adjusting entries & post to T-accounts
- Prepare adjusted trial balance
- Prepare SCI based on adjusted trial balance
- Compute ending retained earnings balance
- Prepare balance sheet from adjusted trial balance and ending retained earnings balance
- Prepare Statement of cash flows & Notes to financial statements
- Close the books for next year (Closing Entries)

(3) Accrual Accounting

Revenues are recognised when earned and Expense are recorded when incurred (matching principle) <u>regardless of when cash is paid or received</u> (Required by IFRS)
- Allows external users to know the financial position of the entity and its relative success or failure on a timely, continuous basis
- Follows the *Time Period Assumption*

Cash

7/1	2,000		
7/1	2,000	7/5	800
7/9	270	7/5	180
7/14	90	7/7	150
7/14	45	7/18	50
7/30	80	7/23	60
		7/31	250
		7/31	178
		7/31	50
Bal.	2,767		

Accounts Receivable

7/9	80	7/30	80
Bal.	0		

Notes Payable

7/31	158	7/1	2,000
		Bal.	1,842

Lawn Care Revenue

		7/9	350

Landscaping Business
Trial Balance
July 31, 2022

	Debit	Credit
Cash	€2,767	
Accounts Receivable	0	
Inventory	75	
Supplies	180	
Machinery Equipment	250	
Transportation Equipment	800	
Accounts Payable		€0
Notes Payable		1,842
Capital Stock		2,000
Lawn Care Revenue		350
Sales Revenue		90
Landscaping Revenue		45
Cost of Goods Sold	75	
Gasoline Expense	50	
Wages Expense	60	
Interest Expense	20	
Dividends	50	
Totals	€4,327	€4,327

Adjusting Entries

1. **Unrecorded Receivables (Asset)** -- Revenues earned have not been recorded yet
`DR Accounts Receivable CR Revenue`
2. Un**recorded Liabilities (Liability**) -- Expenses incurred that are not paid during the period
`DR (Salaries) Expense CR (Salaries) Payable`
3. **Prepaid Expenses (Asset)** -- Expenses paid in advance, but not incurred yet
At transaction : `DR Prepaid Expenses CR Cash`
At Incurring Expense: `DR Expense CR Prepaid Expense`
4. **Unearned Revenues (Liability)** -- Customer paid in advance, but we haven't provided the goods or services
At transaction : `DR Cash CR Unearned Revenue`
At Provision of goods : `DR Unearned Revenue CR Revenue`

<u>Note: Adjusting Entries do not involve cash. It involves a balance sheet Acct (A/L) and a SCI Acct (Revenue / Expenses)</u>
Unrecorded Receivables : DR Asset CR Revenue | **Unrecorded Liabilities** : DR Expense CR Liability
Prepaid Expenses : DR Expense CR Asset | **Unearned Revenues** : DR Liability CR Revenue

<u>Closing the books</u>
Post the closing journal entries to transfer all <u>revenue, expense & dividend</u> account balances to retained earnings account so that at the start of the next fiscal term, revenue, expense & dividend accounts (temp or nominal accounts) begin with zero balances.

(**Petty Cash** -- For small amt payments to save time & effort
(1) Establish Petty cash fund: <u>`DR Petty Cash CR Cash`</u>
(2) Use Petty Cash (Not Recorded): `DR Expense CR Petty Cash`
(3) Replenish fund (Not Recorded): `DR Petty Cash CR Cash`
Num (2) and (3) are not recorded (save time) so the actual JE for replenishment is : <u>`DR Expense CR Cash`</u>
- Petty cash vouchers (receipts) + money left = established (original) size of fund
- Missing $$ (due to human error or otherwise) : `DR Cash Short and Over, CR Cash`

Post closing JE to transfer all revenue, expense, and dividend account balances to retained earnings:

```
DR Sales Revenue                 100
DR Other Operating Income        100
DR Financial Income              100
          CR Material expenses                   25
          CR Personnel Expenses                  25
          CR Other Operating Expenses            25
          CR Depreciation                        25
          CR Amortization                        25
          CR Financial Expenses                  25
          CR Income Taxes                        25
          CR Dividends                           25
          CR Retained Earnings                   100
```

(4) Revenue & Receivables

Five principles of Revenue Recognition under IFRS 15: (1) Identify the contract with the customer (2) Identify performance obligations in the contract (3) Determine transaction price. (4) Allocate transaction price to separate performance obligations (5) Determine when the performance obligation is satisfied, and revenue can be recognised.

Accounts Receivable -- Current Asset representing money due for goods sold or services <u>provided on credit</u>.
At transaction : `DR Accounts Receivable CR Sales Revenue | DR Cash CR Accounts Receivable`

Sales Discount -- Early payment incentive (not for bulk purchase)
Credit terms <u>2/10, n/30</u> = 2% discount if payment made within 10 days, otherwise full price within maximum of 30 days
- Sales Discounts account is used to accumulate the dollar amt of sales discounts for all customers
At sales : `DR Accounts Receivable CR Sales Revenue | DR Cost of Goods Sold CR Inventory`
Discount :`DR Sales Discount CR Accounts Receivable`

Sales Returns & Allowances -- Customers returning unsatisfactory or damaged goods and receiving a refund
- Accounted for in separate acct: Sales Returns and Allowances
At sales : `DR Accounts Receivable CR Sales Revenue | DR Cost of Goods Sold CR Inventory`
Returns :`DR Sales Returns & Allowances CR Accts Receivable | DR Inventory CR Cost of Goods Sold`

Net Sales -- Sales Discounts & Sales Returns and Allowances are both <u>contra-revenue</u> accounts, deducted from gross sales to derive the net sales for the year (reported on income statement)

```
Sales Revenue                                  XX
   Less: Sales Discounts                      (XX)
   Less: Sales Returns and Allowances         (XX)
Net Sales (First Line on Income Statement)     XX
```

Treatment of Bad Debts
Bad debts are uncollectible accounts receivable, arising in the normal course of business. Direct write-off is <u>not allowed under IFRS</u> as it violates matching principle. Allowance method is used.

```
DR Expected Credit Loss (Expense)          XX
   CR Loss Allowance (Contra-Asset)              XX
  (Estimate how much bad debt (top up EZ link)
DR Loss Allowance                          XX
   CR Accounts Receivable                        XX
  (Write-off uncollectible Amt (Tap EZ link)
```

```
DR Accounts Receivable                     XX
   CR Loss Allowance                             XX
  (Written-off Customer pays back)
DR Cash                                    XX
   Cr Accounts Receivable                        XX
```

- Expected Credit Loss is an <u>estimated operating expense for uncollectible</u> amount of accounts receivable
- Loss Allowance is <u>contra-asset</u> to accounts receivable on the balance sheet. It is the impairment of AR that is estimated to be uncollectible.
<u>Net Realisable Value of AR = Total AR - Loss Allowance</u>

Method 1 -- Percentage of Total Account Receivable
Estimate the amt of uncollectible as percentage of total receivable balance at end of the period
Existing LA credit balance → Reduce LA adjustment to meet target ECL (EZ link in (+) balance, no need add so much $$)
Existing LA debit balance → Add debit balance to LA adjustment to meet target ECL (EZ link is in (-) balance, need add more $$)

Method 2 -- Aging of Accounts Receivable
Each receivable is categorized by the number of days it has been outstanding.

```
BS -- Current Assets:
   Accounts Receivable                 XX
   Less: Loss Allowance               (XX)
   Accounts Receivable (net)           XX
```

```
SCI -- Operating Expenses:
   Expected Credit Loss           YY
```

Notes Receivable -- A legal contract (promissory note) to settle acct receivable with interest & maturity date (due date)
<u>Interest Revenue = Face Value * Annual Interest Rate * Duration</u>
By due date, if the note is not paid, the amt is transferred to account receivable with full interest

```
DR Accounts Receivable                     XX
   CR Notes Receivable                           XX
   CR Interest Revenue                           XX
  (Transfer Dishonored note receivable to AR)
```

Accounts Receivable Turnover
<u>AR Turnover = Net Sales / Average Accounts Receivable</u>
(Measures how fast entity collects its receivables, higher better)

Average Collection Period
<u>Avg Collection Period = 365 / Accounts Receivable Turnover</u>
(Avg num of days taken to collect receivables, shorter better)
- A company that collects receivables on a timely basis has cash to pay its bills.

Impact of Foreign Currency on value of Accts Receivable
Sale is measure at the exchange rate on date of sale. Any changes between sale and settlement (payment) date is recognised as <u>exchange gains or losses</u>. (Record in SCI)
- Reduce risk by denominating transaction in parent company home currency or enter a forward contract to hedge risk.

```
Apr 23 (Sale)  Receivable Value = $200  Gain/Loss: NA
Jun 30           Receivable Value = $140    Loss: $60
Jul 02 (Payment) Receivable Value = $120  Gain: $20
```

SCI (2nd Quarter)	Balance Sheet (2nd Q)
Sales Revenue $200	Accounts Receivable $140
Foreign Exchange Loss ($60)	
SCI (3rd Quarter)	**Balance Sheet (3rd Q)**
Sales Revenue $0	Accounts Receivable $160
Foreign Exchange Gain ($20)	

^ (Value of Foreign Exchange Gain/Loss & AR varies)

(5) Cash & Bank Reconciliations

Purchase Discounts -- `DR Acct Payable CR Inventory //` to reflect true cost of inventory after discounts.
Purchase Returns -- `DR Accts Payable CR Inventory` (return of goods)
Bank Reconciliations -- Ending cash balance in company records and in monthly bank statement may be different Company only can make changes to book balance side, **Adjusted Bank Balance == Adjusted Book Balance**
Unadjusted Bank Balance + Deposits in Transit - Outstanding Checks ± Bank Errors = **Adjusted Bank Balance**
Unadjusted Book Balance + Interest Paid + Bank Credit (Direct Deposits) - Service Charges - NSF Checks - Bank Debit (Transfers) ± Book Errors = **Adjusted Book Balance**

Sample Company
Bank Reconciliation
July 31, 2022

Balance per bank statement		$14,422	Balance per books		$14,037
Additions to bank balance:			Additions to book balance		
Deposits in Transit		3,100	Direct deposit	$3,200	
Total		$17,522	Interest	60	3,260
			Total		$17,297
Deductions from book balance:			Deductions from book balance:		
Outstanding checks: 625 …	$326		Service charge	$ 7	
631 …	$426		Bank Transfer	425	
634 …	$185	(937)	Error in recording check No. 630	180	
			NSF checks	100	(712)
Adjusted bank balance		**$16,585**	Adjusted book balance		**$16,585**

NSF Checks -- Insufficient funds in payer's bank account -- `DR Accounts Receivable CR Cash`
Bank service charge -- `DR Service Expense CR Cash` | **Interest paid by bank** -- `DR Cash CR Interest Revenue`
Bank debit/Bank Transfers -- Deductions made by bank not yet recorded -- `DR Expenses CR Cash`
Bank credit/Direct Deposits -- Deposits into bank account before recording -- `DR Cash CR Accounts Receivable`

Control Activities -- Procedures to provide <u>reasonable assurance</u> that the company's established objectives will be met and that financial reports are accurate: (1) Adequate Segregation of Duties (2) Proper Procedure for Authorization (3) Physical Control over Assets and Records (4) Adequate Documents and Records (5) Independent Checks
Cash Controls -- (1) Segregating duties in handling of cash and recording for cash (2) Cash receipts are deposited in banks on a daily basis (for working days) to prevent accumulation of large amt of cash on hand (3) Except for small-amt payments, all payments are made with *prenumbered* checks to prevent fraud and irregularities (4) Prepare monthly bank reconciliation

Internal Controls

Control Environment	Control Activities (Procedures)
1. Management philosophy and operating style 2. Organizational structure 3. Audit Committee	1. Segregation of duties (preventive control) 2. Proper procedures for authorization (preventive control) 3. Physical control over assets and records (preventive control) 4. Adequate documents and records (detective control) 5. Independent checks on performance (detective control)

(6) Inventory

Ownership -- Free-On-Board Destination vs FOB Shipping Point
Cost of Inventory includes: All costs of purchase, other costs incurred in bringing inventory to present location & condition (e.g. freight-in).
- Excludes sales and marketing costs (operating expenses).
At period end: No entry for perpetual. DR Inventory, Purchase Returns, Purchase Discounts, COGS; CR Freight-in, Purchases, Inventory for periodic
Periodic Inventory System -- <u>COGS = Beginning Inventory + Net Purchases - Ending Inventory</u>
Perpetual Inventory System -- Physical counts allow companies to determine inventory **Shrinkage**. The difference between the physical count value and the book value will be reported as the physical stock shrinkage. JE: `DR COGS CR Inventory`

4 Formulas for inventory costing under Periodic System
(1) Specific Identification -- For very high value inventory
(2) FIFO -- First Purchases → First Sold [Used by IFRS]
<u>COGS = Cost of goods available for sale - Cost of Ending Inv</u>
- Reports Inventory with most recent cost
- Measures inventory value better cos it approxs current cost
- May result in higher net income
(3) LIFO -- Last Purchases → First Sold [Not allowed by IFRS]
- May result in lower income tax
- Understates end Inventory when prices are increasing
(4) Weighted Average Cost :
<u>Unit cost = total cost of goods / num of units</u>
- Understates ending inventory when prices are increasing

Differences	Perpetual	Periodic
Purchase of Merchandise	DR Inventory	DR Purchases
Freight in	DR Inventory	DR Freight-in
Purchase Returns	CR Inventory	CR Purchase Returns
Purchase Discounts	CR Inventory	CR Purchase Discounts
Sales of Merchandise	CR Inventory	NO ENTRY for COGS
Sales Returns	DR Inventory	NO ENTRY for COGS
Inventory Shrinkage	CR Inventory	NO ENTRY

Purchase of Merchandise
`DR Inventory CR Accts Payable`
`DR Purchases DR Accts Payable`
Freight-in / Transportation
`DR Inventory CR Cash`
`DR Freight-in DR Cash`
Purchase Discounts
`DR Accounts Payable CR Inventory CR Cash`
`DR Accounts Payable CR Purchase Discounts CR Cash`
Purchases Returns
`DR Accts Payable CR Inventory`
`DR Accts Payable CR Purchase Returns`
Sales of Merchandise
`DR Accts Receivable CR Sales , DR Cost of Goods Sold CR Inventory`
`DR Accts Receivable CR Sales`
Sales Returns
`DR Inventory CR COGS, DR Sales Returns CR Accounts Receivables`
`DR Sales Returns CR Accounts Receivables`
Inventory Shrinkage
`DR Cost of Goods Sold, CR Inventory`
`- No Entry for Periodic System -`

Inventory Management Efficiency Ratios
<u>Inventory Turnover = COGS / Average Inventory</u>
- Average Inventory = (Begin Inventory + End Inventory) / 2
(Measures efficiency of inventory management, higher better)
<u>Number of Days Sales in Inventory = 365 / Inventory Turnover</u>
(Average Num of Days from purchase to sale, shorter better)

Inventory Valuation
If <u>Net Realisable Value < Cost of Goods</u>: (Adjust item by item)
`DR COGS`
`CR Allowance for Inventory Write-down (Contra-Inventory)`
If <u>NRV ≥ Cost of Goods</u>, no adjustment needed.
Write down to NRV (1) item by item or (2) by group of similar/related items. Cannot write down by basis of classification of inv

(7) Liabilities & SCI

-- Current liabilities are reported on the balance sheet.
Payroll Expenses & Liabilities -- <u>Recorded as operating expenses</u>
`DR Salaries Expense, CR Salaries Payable CR Various Payable | DR Salaries Payable CR Cash`
Sales Tax -- Applied to additional value created at each stage of the supply chain. A consumption tax levied only on the final value of goods & services. `DR Inventory/Purchases, CR Sales Input Tax CR Cash (Buy from supplier)`
`DR Cash CR Sales Revenue CR Sales Output Tax  (Sell to customer)`
`DR Sales Output Tax, CR Sales Input Tax CR Sales Tax Payable  | DR Sales Tax Payable CR Cash (pay gov)`
<u>Tax payable = Output Tax (sales) - Input Tax (paid on purchase)</u>
Property Tax -- For land, building and other assets. Company must report prepaid tax expenses or property tax liability (incurred, not yet paid)
Income Tax -- Reported after "Income before Tax" on SCI. It is normally computed based on a percentage multiplied by *Income before Tax*
^ Taxes may be reported as prepaid/unrecorded depending on timing of payment
Provision -- Estimated liability on the Balance Sheet. Recognised when <u>loss is probable,</u> and a <u>reliable estimate</u> can be made of the amt of the obligation.
Contingent Liabilities -- Disclosed in Notes to Financial Statements. Not reported on Balance Sheet.

Probability	Reliability of Estimates	Accounting Treatment
Probable (> 50%)	Yes	Provision
	No	Contingent Liability
Possible (10% - 50%)	Yes	Contingent Liability
	No	
Remote (< 10%)	-	Do Nothing

`DR Estimated Expense CR Provision`
Product Warranty -- Record at time of sales (matching principle)
`DR Product Warranty Expense, CR Product Warranty Provision`
`DR Product Warranty Provision, CR Supplies, CR Wages Payable`
‼ Warranty expense is recognised when a provision is made.
‼ "Accrued Product Warranty" == Product Warranty Provision
Report non-operating income and expenses separately to help investors differentiate between <u>income earned from operating activities</u> and <u>income earned from peripheral activities</u>.
Basic Earnings Per Share = Net Income / Avg Num of Shares Outstanding
Avg Num of Shares Outstanding = (Shares Beg + Shares End) / 2

(8-9) Property, Plant, Equipment -- PPE and Intangible Assets are long-term assets reported on Balance Sheet
Acquisition -- PPE is recorded at cost, including purchase price and other costs necessary in getting it ready for its intended use. The cost of a PPE item is recognised as asset only if (a) It is probable the future economic benefits will flow to the entity, and (b) Cost is measured reliably.
`DR PPE, CR Cash | DR Land, DR Building, CR Cash // Use Fair market values`
‼ When 2 or more assets are acquired at a single price, use relative fair market values of the assets to determine respective costs.
Depreciation -- Systemic allocation of depreciable amount of an asset over its useful life.
Any changes in Useful life and/or Residual Value under Straight-line depreciation method affects amount of depreciation prospectively (in future only). It does not change past depreciation expenses
Depreciation Amt = Cost - Residual Value
DR Depreciation Expense CR Accumulated Depreciation (PPE)
- Depreciation Expense is an operating expense on SCI
Accumulated Depreciation is a Contra Asset on Balance Sheet
Cost Less Accumulated Depreciation / Carrying Amt -- Undepreciated amount of the cost. Becomes Residual Value at end of useful life.

Straight-line	Units-of-Activity	Declining-Balance
(Cost - Residual Value) / Years of Useful Life	(Cost - Residual Value) / Total Units * Units in the year	Cost - Accumulated Depreciation * Declining Balance Rate
Deduct Residual Value		Do Not Deduct Residual Value

Depletion -- Process of cost allocation that assigns the original costs of a natural resource to the periods benefitted.
JE: `DR Coal mine, CR Cash | DR Depletion Expense, CR Accumulated Depreciation, Coal Mine`
BS: `Coal Mine xx, Less: Accumulated Dep (xx), Carrying Amt xx`
‼ A change in the estimate of useful life and/or residual values does not change the depreciation expense retrospectively. Only affects depreciation expense in future years.
Impairment -- decline in value of long term asset. Compare carrying amt against recoverable value.
If Recoverable amt < Carrying Amt, recognise Impairment Loss as non-operating expense.
Recoverable amt -- max(asset's net fair value (fair value less costs of disposal) ,value in use (present value))
IF recoverable amt < carrying amt, recognise **impairment loss** (non-operating expense) on SCI.
Adjusted JE: `DR Impairment Loss, CR Accumulated Impairment Loss`
Carrying Amount = Cost - Accumulated Depreciation - Accumulated Impairment loss
Disposal / Sale of PPE -- (1) Discard → Sale Proceed = $0 | (2) Sell → Sales Proceed = Selling Price
Gain or (loss) on disposal = Sales Proceed - Costs of Disposal - Carrying Amt (Non-operating gain or loss on SCI)
If **Disposal**, pass JE to remove 3 accounts balances:
`DR Accumulated Depreciation, DR Accumulated Impairment Loss, DR Cash (From Sales)`
`CR Property, Plant & Equipment (PPE), CR Gain on Disposal (or Debit Loss if < 0)`
If **Sale**: `DR Cash, DR Accumulated Depreciation`
`CR PPE, CR Gain on Sale of Office Equipment (or Debit Loss if < 0)`
Intangible Assets -- Identifiable non-monetary asset without physical substance; are rights and privileges that are long-lived, not held for resale and provide owner with competitive advantage. **Internally generated IA** are not recognised on balance sheet. **Acquired IA** are valued at amt paid to acquire through arm's length transaction
Goodwill → Recognised only when purchased as part of another company. Exists when value of business > fair market value of net assets
Amortization -- Systemic allocation of depreciable amt of intangible asset over its useful life
- Straight-line method, assume no residual value, Intangibles with infinite life is not amortized
Amortization Expense = Cost / Useful Life
`DR Amortization Expense (Operating Exp) CR Accumulated Amortization (Contra Asset)`
Capitalise vs Expense -- Capitalise if expenditure brings > 1 year of economic benefits
- Revenue / Ordinary repair & Maintenance Expenditure → Operating Expense (report in SCI)
- Capital Expenditure (Increase productivity/useful life) → Capitalise then depreciate over remaining life
- Land Improvements (Build new stuff/change contour) → Capitalise (land account), then depreciate
- R&D → Expense for research before technological capability, Capitalise for development
- Advertising → Expense if future benefits are uncertain.

(10) Financing Activities and Equity
Issuance of Share (no Par / equal Par) -- no paid in capital `DR Cash, Cr Ordinary/Preference Shares`
Issuance of Share (> Par Value) -- When issued above par, it is issued at a premium (paid in capital)
`DR Cash, CR Ordinary/Preference Shares, CR Paid In Capital in Excess of Par`
Issuance on non-cash basis -- If fair value of assets cannot be determined, use fair market value
DR Asset, CR Ordinary/Preference Shares, CR Paid in Capital in Excess of Par
Share Repurchase/Buyback -- A repurchased share is a treasury share (Debit Balance, Contra-equity)
DR Treasury Share, CR Cash.
Reissue Treasury Share above Cost -- The difference between Issue proceeds and Purchase cost is credited to Paid-in Capital, Treasury Shares. `DR Cash, CR Treasury Shares, CR Paid-in Capital, TS`
Reissue Treasury Share below Cost -- Debit Paid-in Capital, Treasury Share until 0 amount, then debit Retained Earnings. `DR Cash, DR Paid-in Capital, TS, DR Ret.Earnings, CR Treasury Shares`
Dividends -- Distribution of profit with shareholder approval. No dividends are payable for Treasury Shares. Dividends are declared first, then Closed at EOY against Retained Earnings, and then paid later (CR Cash)
Preference Shares -- Have first right to dividends. Paid in arrears and current dividends b4 ordinary shares
Share Dividends (20-25% spilt) -- Small → Assigned at market value. Large → Assigned at par value

```
DR Share Dividends CR Share Dividends Distributable (no. of shares * Par Value)
                   CR Paid-in Capital in Excess of Par (if any)  // Declare Share Dividends
DR Retained Earnings, CR Share Dividends                         // Close off to RE
DR Share Dividends Distributable, CR Ordinary Shares             // Issuance (Payment)
```

Share Split -- Increase num. of shares outstanding in same proportion that value decreases.
Makes shares cheaper & more accessible.
Comprehensive Income = Net Income + Other Comprehensive Income. -- Other common items include
(a) Exchange Differences (b) Unrealised gains/loss from Fair Value thru Other Compre. Income (FVTOCI)

Sample Company
Statement of Cash Flows
For the Year Ended December 31, 2022

Operating Activities:			
Collections from Suppliers		xx	
Payments to Suppliers		xx	
Payments for rent	xx		
Payments to employees		xx	
Interest received	xx		
Interest paid		xx	
Payments for income tax		xx	
Net cash flows from operating activities		xx	
Investing Activities:			
Purchased Land	yy		
Proceeds from Sale of Equipment	yy		
Net cash flows from investing activities		yy	
Financing Activities:			
Repayment of long-term debt		zz	
Borrowing of long-term debt		zz	
Proceeds from the issuance of common stock		zz	
Payment for cash dividends		zz	
Net cash flows from financing activities		zz	
Net increase/decrease in cash			aa
Beginning cash balance			aa
Ending cash balance			aa

(11) Statement of Cash Flows
Cash comprises of cash on hand and demand deposits. **Cash Equivalents** are short-term(< 3 months), highly-liquid investments that are readily convertible to known amounts of cash and have insignificant risk of changes in value.
Operating Activities -- Primarily derived from principal revenue-producing activities and generally result from transactions that determine net income. To be sustainable, the business needs to generate net cash inflow from operating activities.
Investing Activities -- Expenditures made for resources intended to generate future income and cash flows. Only expenditures that result in a recognised asset are eligible for classification as investing activities.
Financing Activities -- Includes equity/debt financing activities which are cash payments and proceeds arising from transactions whereby cash is obtained from, or repaid to owners / lenders / creditors.

Operating Activities	Investing Activities	Financing Activities
Cash receipts from: - Sale of goods or services - Interest / Dividend Revenue - Sale of investments in FVTPL securities **Cash payments to:** - Suppliers for inventory purchases - Employees for services - Government for taxes - Lenders for interest expense - Brokers for purchase of FVTPL securities Other expenses (utilities, rent)	**Cash receipts from:** - Sale of PPE - Sale of business segment - Sale of investments in securities other than FVTPL securities - Collection of principal on loans **Cash payments to:** - Purchase PPE - Purchase debt or equity securities of other entities other than FVTPL securities - Make loans to other entities	**Cash receipts from:** - Issuance of own shares - Borrowing (bonds, notes, mortgages) **Cash payments to:** - Stockholders as dividends - Repay principal amounts borrowed - Repurchase an entity's own shares (treasury shares)

Type of Cash Flow	IFRS
Cash paid for interest (interest expense)	Operating or Financing Activity
Cash paid for income taxes (income tax expense)	Operating Activity
Cash received with interest (interest revenue)	Operating or Investing Activity
Cash received from dividends (dividend revenue)	Operating or Investing Activity
Cash paid for dividends declared by Company	Financing or Operating Activity

Analysis of Statement of Cash Flows help investors, creditors and users make decisions. Examining various categories of cash flows yield insights into the health and current strategy of a business.
Positive cash flow from operations is necessary for long-term success.

Prepare Statement of Cash Flows using Cash Ledger
1. Extract cash receipts and payments transactions
2. Ignore non-cash items (depreciation, amortisation, ECL etc.)
3. Review transactions and classify by activity

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(12) Financial Statement Analysis
Vertical Analysis (Common Size Financial Statements) -- Compare with other companies as percentage of net sales (SCI) or total assets (BS).
Horizontal Analysis -- Compare FS data between companies and/or Compare Trend (Year on year performance)
Percentage of Change = ((Current period Amt - Base period Amt) / Base Period Amt) * 100 %
Trend Percent = (Current period Amt / Base Period Amt) * 100 %
Operating Cycle (OC) (1) Purchase goods and services on credit (2) Sell goods and services to customers (4) Receive cash from customers (4) Pay cash to suppliers.-- refers to the days required for a business on average from the time when inventory is purchases to the time when cash is collected from the customer who purchases the inventory
Operating Cycle Days = Number of Days Sales in Inventory (Step 1 → 2) + Average Collection Period (Step 2→ 3)
Number of Days' Purchases in Accts Payable -- Measure of how well operating cash flow is being managed. It is the average length of time between purchase of inventory on account and cash payment for that inventory.
Number of Days Purchases in Accts Payable = (365/Net Purchases) * Average Accounts Payable
Purchases Turnover = Net Purchases / Average Accounts Payable

Number of Days Sales in Inventory (Purchase to sales of inventory) [71 days]	Average Collection Period (Days it takes to collect receivables) [51days]
Number of Days Purchases in Accounts Payable [43 days]	No. of Days of Operating Cycle which requires financing [79 days] (reduce this number)

Improve Operating Cycle Financing by: (1) Lengthen number of days purchases in accts payable (negotiate for longer credit period with supplier) (2) Shorten collection period from customers (credit check & follow-up) (3) Reduce number of days sales in inventory thru Just-in-time inventory management system and data analytics to reduce inventory level.
DuPont Framework -- A systematic approach to break down the **return on equity (ROE)** into 3 ratios: return on sales, asset turnover and assets to equity ratio. It allows analysts to identify factors that cause ROE to change, and provide insight of the company's areas of strength and weaknesses in terms of profitability, efficiency and leverage.
Profitability -- Ability to generate net income per dollar of sales | **Efficiency** -- Ability to generate sales through the use of assets | **Leverage** -- Degree to which the company uses borrowed funds instead of Invested funds
Return on equity = Profitability (Return on Sales) * Efficiency (Asset Turnover) * Leverage (Asset-to-Equity Ratio)
ROE = (Net income / Net Sales) * (Net Sales / Average Total Assets) * (Average Total Assets / Average Total Equity)

Sample Company
Statement of Comprehensive Income
For the Year Ended December 31, 2022

Sales Revenue			xxx
Cost of goods sold			xxx
Gross margin			xxx
Operating expenses:			
Selling Expenses:			
Sales salaries expense	xxx		
Sales commissions expense	xxx		
Advertising expense	xxx		
Delivery expense	xxx		
Total selling expenses		xxx	
General and administrative expenses:			
Administrative salaries expense	xxx		
Rent expense, office equipment	xxx		
Property tax expense	xxx		
Miscellaneous expenses	xxx		
Total general and administrative expenses		xxx	
Total operating expenses			xxx
Operating income			xxx
Other revenues and expenses:			
Dividend revenue	xxx		
Gain on sale of land	xxx		
Interest expense	(xxx)		
Net other revenues and expenses			(xxx)
Income from operations before income taxes			xxx
Income taxes (xx%)			xxx
Net income			xxx
Other comprehensive income			xxx
Total comprehensive income			xxx
Earnings per share (xxx shares outstanding)			xxx

* Note: Operating expenses are separated into Cost of Goods Sold, Selling Expenses and General and administrative expenses

Sample Company
Equity Section

Contributed Capital:
Preference Shares ($40 par value, 1000 shares issued and outstanding)............40,000
Ordinary Shares ($1 par value, 6000 shares issued, 5990 shares outstanding).... 6000
Paid-in capital in Excess of Par, Preference Shares.......................................5000
Paid-in capital in Excess of Par, Ordinary Shares..244,000
Total contributed capital: 295,000
Retained Earnings 100,000
Total contributed capital plus retained earnings.. 395,000
Less: Treasury Shares ....(600)
Add: Paid-in Capital, Treasury Shares 0
Add: Accumulated other Comprehensive Income (if any) 0
Total Equity..394,400
* Treasury shares are described as being issued but not outstanding. Thus 6000 common shares have been issued, but only 5990 are outstanding because 10 are held as treasury shares

Note on Income Statement:
Net Sales Revenue = Sales Revenue - Sales Returns & Sales Discounts
Gross Profit = Net Sales Revenue - Cost of Goods Sold
Operating Income = Gross Profit - Operating Expenses
Income before taxes = Operating Income ± Other revenue & expenses
Net Income = Income before taxes - Income tax expense

Sample Company
Balance Sheet

Current Assets:
Cash and Equivalents
Receivables
Inventories
Prepaid expense and other current assets
Total current assets
Non-current Assets:
Property, Plant and Equipment
Land
Plant and Equipment
Less: Accumulated Depreciation
Total property, plant and equipment, net
Total Assets

Current Liabilities:
Short-term loans
Accounts Payable
Salary Payable
Income Tax payable
Other accrued liabilities
Total current liabilities
Non-current Liabilities:
Bonds payable
Long-term bank loans
Other liabilities
Total non-current liabilities
Total Liabilities

Equity:
Preference Shares ($xx par value, xxx shares issued and outstanding)
Ordinary Shares ($yy par value, yyy shares issued, yyy shares outstanding)
Paid-in capital in Excess of Par, Preference Shares
Paid-in capital in Excess of Par, Ordinary Shares
Total contributed capital:
Retained Earnings
Total contributed capital plus retained earnings
Less: Treasury Shares
Add: Paid-in Capital, Treasury Shares
Add: Accumulated other Comprehensive Income (if any)
Total Equity

Total Equity and Liabilities

All the Equations
1. Asset = Liabilities + Equity
2. Net Income = Revenue - Expenses
3. Comprehensive Income = Net Income + Other Comprehensive Income
4. Gross Profit = Net Sales Revenue - Cost of Goods Sold
5. Ending Equity = Beginning Equity + Increase in Capital Stock + Net Income - Dividends + Other Comprehensive Income
5. Ending Retained Earnings = Beginning Retained Earnings + Net Income - Dividends
6. Ending Cash = Beginning Cash ± Operating ± Investing ± Financing Activities
7. Net Sales = Sales Revenue - Sales Discounts - Sales Returns & Allowances
8. Net Accounts Receivable = Accounts Receivable - Loss Allowance
9. Interest Revenue = Face Value * Annual Interest Rate * Duration
10. AR Turnover = Net Sales / Average Accounts Receivable
11. Avg Collection Period = 365 / Accounts Receivable Turnover
12a. COGS = Beginning Inventory + Net Purchases - Ending Inventory
12b. COGS = Cost of goods available for sale - Cost of Ending Inventory
13. Inventory Turnover = COGS / Average Inventory
14. Number of Days Sales in Inventory = 365 / Inventory Turnover
15. Tax Payable = Output Tax (from Sales) - Input Tax (from "raw" Purchases)
16. Basic Earnings Per share = Net Income / Average num of shares outstanding
17. Depreciation Amt = Cost - Residual Value | Carrying Amt = Cost - Accumulated Depreciation
18. Straight-Line Depreciation = (Cost - Residual Value) / Useful Life
19. Units-of-production Depreciation = ((Cost - Residual Value) / Total Units) * Units produced
20a. Declining Balance Depreciation = Depreciation Rate * Carrying Amount
!!!(Carrying Amt cannot be lower than residual value, At end of useful life, dep exp = prev year carrying amt - residual value)
20b. Declining Balance Depreciation Rate = (1 / Estimated Life) * rate | Double DB = (1/ EL) * 2
21a. Impairment Loss of PPE = Carrying Amount - Recoverable Amount
21b. Recoverable Amt = max((Fair Value - Cost of Disposal), Value in Use)
22. Gain or Loss on Disposal = Sales Proceed - Cost of Disposal - Carrying Amount
23. Goodwill = Purchase price - fair market value of net assets (of acquired company)
24. Amortization Expense = Cost / Useful Life (‼ Only for Intangible Asset with finite life)
25. Comprehensive Income = Net Income ± Exchange Diff ± Unrealized gains/loss from FVTOCI
26. Operating cycle days = Num of Days' sales in Inventory (from purchase to sales) + Average Collection Period (Days to collect Receivables) // Shorter is better for company cash flow
27. Number of Days' purchases in Accts Payable = (365/ Net Purchases) * Average Accounts Payable
28a. No. of Days of Operating Cycle which requires financing = Operating Cycle Days - Number of Days purchases in Accounts Payable -- (Financing can be from borrowings or shareholders equity)
28b. No. of Days Sales in Inventory + Average Collection Period = No. of Days of Operating Cycle which requires financing + Number of days purchases in Accounts Payable
29. Purchases Turnover = Net Purchases / Average Accounts Payable
30a. Return on Equity = Return on Sales * Asset Turnover * Asset-to-Equity Ratio
30b. ROE = (Net income / Net Sales) * (Net Sales / Average Total Assets) * (Average Total Assets / Average Total Equity)

Cash Flow Analysis

Analysis	O	I	F	General Explanation
OK	+	+	+	Company building up pile of cash; very liquid company, possibly looking for acquisition
OK	+	-	-	Company using CF generated from ops to buy fixed assets and pay down debt or pay owners
OK	+	+	-	Company using Cash from ops and sale of fixed assets to pay down debt or pay owners
OK	+	-	+	Company using Cash from ops and borrowing (or owner investment) to expand
Monitor	-	+	+	Company Ops CF problems covered by sale of fixed assets, borrowing or investments
Monitor	-	-	+	Company growing rapidly but has shortfall in Ops CF. Purchase of fixed assets financed by long-term debt or new investments
Risk	-	+	-	Company financing Ops CF shortage and payments to creditors via sale of fixed assets
Risk	-	-	-	Company using cash reserves to finance ops shortfall and pay long-term creditors and investors

Liquidity Ratios - Measure company ability to pay debts in short-run. Included current and quick ratio **Efficiency - Measure company's ability to generate income with assets**		
Current Ratio	$\frac{Current\ Assets}{Current\ Liabilities}$	Short-term debt-paying ability
Acid-test (quick) Ratio	$\frac{Current\ Assets - Inventories - Prepayments}{Current\ Liabilities}$	Immediate short-term liquidity
Accounts Receivable Turnover	$\frac{Net\ Sales}{Average\ Accounts\ Receivable}$	Efficiency of accounts receivable
Inventory Turnover	$\frac{Cost\ of\ Goods\ Sold}{Average\ Inventory}$	Efficiency of Inventory
Fixed Asset (PPE) Turnover	$\frac{Net\ Sales}{Average\ Fixed\ Assets\ (PPE)}$	Efficiency of Fixed Assets
Solvency - Measure company's ability to pay debts when due		
Debt Ratio	$\frac{Total\ Liabilities}{Total\ Assets}$	Creditor financing and leverage
Debt-to-Equity Ratio	$\frac{Total\ Liabilities}{Total\ Equity}$	Debt vs Equity financing
Times Interest Earned Ratio	$\frac{Income\ b4\ interests\ and\ taxes\ (ops\ profit)}{Annual\ Interest\ Expenses}$	Ability to meet interest payments when they're due
Profitability - Measure of company's operating success for a given period of time		
Profit Margin (Return on Sales)	$\frac{Net\ Income}{Net\ Sales}$	Net income in each sales dollar
Return on Assets	$\frac{Net\ Income}{Average\ Total\ Assets}$	Overall profitability of assets
Asset Turnover	$\frac{Net\ Sales}{Average\ Total\ Assets}$	Efficiency of assets in producing sales
Return on Equity	$\frac{Net\ Income - Preference\ Dividends}{Average\ Total\ Equity}$	Profitability of owner investment
Earnings per Share	$\frac{Net\ Income - Preference\ Dividends}{Weighted\ Average\ common\ shares\ outstanding}$	Net income per each ordinary share
Price-Earnings Ratio	$\frac{Market\ value\ of\ shares}{Net\ Income} = \frac{Price\ per\ share}{Earnings\ per\ share}$	Market value relative to earnings
Cash Flow-to-Net Income Ratio - Highlights when there are significant differences between cash flow from operations and net income → Close to 1 means net income is well supported by operating cash flow **Cash Flow Adequacy Ratio - Demonstrates capability to finance capital expansion through cash from ops**		
Cash Flow-to-Net Income Ratio	$\frac{Cash\ flow\ from\ operations}{Net\ Income}$	Relationships of cash flow from operations and net income
Cash flow adequacy Ratio	$\frac{Cash\ flow\ from\ operations}{Cash\ paid\ for\ capital\ expenditures}$	Capability of covering capital expenditures