INTRGROUP SALES OF INVENTORY

- The point of profit realisation for the group is when the inventory is sold outside the group to a third party
- Worksheet adjusting entries for intra-group sales of inventory include:
  - eliminate the effect of intra-group sales and purchases
  - eliminate any outstanding intercompany balances at year end
  - eliminate unrealised profit included in carrying amount of inventory assets (relevant accounts: profit and loss, cl. Inventory; op. retained earnings, op. inventory)
  - consider also all necessary tax effect journals
  - and we also need to be clear about whether we have a periodic or perpetual system

Periodic vs perpetual systems of inventory

PERIODIC	PERPETUAL
We maintain 3 ledger accounts that are combined into COGS in the P&L: Opening Inventory + Purchases – Closing inventory = COGS	- Inventory (asset) account debited as we purchase inventory - As we sell we debit a COGS or COS account and credit Inventory (asset) Purchases of inventory initially recognised as asset before being expensed when the inventory is sold (to COGS) Also annual stocktake to compare what is on hand versus the running balance in the inventory account and recognise any losses
The value of COGS is not known until stock take is conducted	Constantly updated
Consolidation: can involve adjustments any of the 3 main accounts	Consolidation: Only COGS account is adjusted

DOWNSTREAM Sale in CURRENT period- PERPETUAL
Unrealised profit in CLOSING INVENTORY

Example 1:

Parent purchased inventory from external supplier for $500,000 in the current year. Soldto subsidiary for $750,000

- Assume the subsidiary still held all of that inventory at year end
- Assume **perpetual inventory system**
- We can appreciate that there is **unrealised profit** in that inventory balance from the perspective of the group of **$250,000**
  - SO YOU WANT TO SHOW THE VALUE OF INVENTORY AT $500,000 AND REMOVE PROFIT RECORDED BY PARENT OF $250,000
- Alternatively we might tell you that inventory of subsidiary included goods purchased fromparent company for $750,000 at mark-up of 50% on cost- Original cost to parent =$750,000/1.5 = $500,000 (see customised text pp. 216-217)

Parent

~~Dr Cash~~	~~750~~	
Cr Sales		750
Dr COS	500	
Cr Inventory		500

Subsidiary

Dr Inventory	750	
~~Cr cash~~		~~750~~

Consolidation adjustments:

	Dr	Cr
Dr Sales	750	
Cr COS		750
Dr COS	250	
Cr Inventory		250
Dr DTA	75	
Cr ITE		75

	parent	sub	elim	group
sales	(750)	-	750	0
COS	500	-	(750) 250	0
Inventory	-	750	(250)	500

Explanation of consolidation entries

(1) Eliminating the sales of inventory against COGS (reverse initial sales entry by parent)

(2) Now adjust the existing group balance of COGS to zero (because the inventory is yet to be sold to third party) – offset that against Inventory

   a. Remember that in doing this, the cost of inventory needs to be adjusted to the lower of cost/NRV (which in this case is 500)

(3) Because the parent has recorded profit but the group hasn't – you need to reverse the tax expense initially recognised by the parent (hence CR income tax expense against DTA)

Extension of previous example:
Now assume the subsidiary still held 30% of that inventory at year end. The unrealised profit in inventory from the perspective of the group is now $250,000 x 30% = $75,000

Parent

Dr Cash	750	
Cr Sales		750
Dr COS	500	
Cr Inventory		500

Subsidiary

Dr Inventory	750	
Cr cash		750
Dr Cash	xx	
Cr Sales		xx
Dr COS	525	
Cr Inventory		525

(70% of $750 inventory)

Explanation of subsidiary journal entries
(1) Paid 750 to parent to acquire inventory
(2) Made certain amount of revenue from sale of that inventory to 3rd party
(3) Deducting the remaining value of inventory of 75,000 – reduction in inventory is recognised against COGS expense

Consolidation adjustments:

Dr Sales	750	
Cr COS		$\boxed{750}$
Dr COS	$\boxed{75}$	
Cr Inventory		75
Dr DTA	22.5	
Cr ITE		22.5

	parent	sub	elim	group
sales	(750)	(xx)	750	(xx)
COS	500	525	(750) 75	350
Inventory	-	225	(75)	150

Explanation of consolidation entries
(1) Elimination of the sales recognised by the parent for the 750 worth of inventory
(2) Remember that we are trying to adjust to reflect values of the group. From the group's perspective the value of COGS should be 70% of $500 (which was the value of the inventory when purchased by parent –right at the beginning) – hence we need to create a journal entry which will create an ending group COGS balance of 500 x 0.7 = 350 (offset against inventory)
(3) Initially the parent recognised profit and income tax expense however, from the group's perspective- not all of that profit has been realised (still 30% remaining) hence we take that portion of tax expense and put it back into DTA (as above)

UPSTREAM sale of inventory- PERIODIC
Unrealised profit in CLOSING inventory

Example 2:
Upstream credit sale of inventory from subsidiary (S) to parent (P) for $250,000 (purchased for cost $200,000).
- **Inventory is still on hand at year end by P**

Differences to last 2 examples:
- P has not paid S by year end
- **Periodic** system used

› **Parent**

Dr Purchases	250	
Cr acc payable		250
Year end stocktake:		
Dr inventory (balance sheet acct)	250	
Cr closing invent (P/L acct)		250

› **Subsidiary**

Dr Purchases	200	
Cr cash		200
Dr acc rec'able	250	
Cr sales revenue (selling price)		250
Year end stocktake:		
Dr inventory	0	
Cr closing invent		0

Remember that under periodic system, the inventory (balance sheet) is closed to the 'closing inventory' on P/L statement in order to determine the value of COGS at the end of the year

Remember that 'current tax payable' is recorded by individual companies and under the assumption that the group is not a single tax entity- this account must NOT change on consolidation

› Consolidation journals:

	Dr	Cr
i) Eliminate the transaction *of sales and purchases relating to intragroup transaction*		
Sales revenue	250	
Purchases *(or to COGS if perpetual)*		250
ii) Eliminate the balance		
Acct payable	250	
Acct receivable		250
iii) Eliminate unrealised profit		
Closing inv (COGS) *for perpetual*	50	
Inventory (BS)		50
iv) Tax effect		
DTA	15	
ITE		15

Explanation of consolidation entries
(1) Reversing the purchase and sales revenue recorded by parent and subsidiary respectively
(2) Eliminating the acct payable/receivables
(3) Because the inventory has not yet been sold to an external party, the profit 'earned' by the subsidiary (250-200) is unrealised profit and hence needs adjustment. At present, the inventory of the group is valued at 250 but it needs to be valued at 200 (the value at which it was bought by subsidiary at the start) – hence you need to CR inventory by 50 against closing inventory (COGS)
(4) The effect of (iii) creates a temporary difference because the CA of inventory in CFS and the tax base (CA < TB → DTA). Or another way you can look at it is that if closing inventories is too high then COGS is too low and group profit before income tax expense will be overstated