

After Class Notes - Yr 4 OC TT G1 _ 1-3pm 10-14 April 2023

10 April:

Demonstrated ideas in how to maximise efficiency in reading comprehension.

Discussed how key words are instrumental in identifying matching extract.

Showed how key words in the question may not be identical to words used in extract.

Explained why we need to sometimes rephrase key words as synonyms, or rephrase a whole dependent clause, to simplify what we need to search for in passages.

Clarified how certain word choices, e.g. "heavenly bodies", are not religious allegories unless the context reinforces that idea

Emphasised the importance of not letting prior knowledge/preconceptions affect our conclusions of texts, e.g. religious understanding, geological understanding, biological understanding, or various items of semantic memory

11 April:

- Use fractions when converting to an equivalent ratio of 2 items
- Use algebra whenever there's an unknown value; "let x be [unknown value]"
- Write equations that involve x; if 1 equation is insufficient to answer Q, write another equation. Next, equate the 2 equations containing x to solve for x
- For Qs involving rates of flow & duration, remember volume filled = rate of flow of pipe multiplied by duration (**volume = rate x time**)
 - Hence for working out, we use **rate of pipe flow = volume filled/duration**
 - E.g. Q5 of TT Day 1 Maths HW: Total combined rates of flow of pipes A, B & C = 1 (pool of water) per 9 (hours) = $1/9$
 - Total combined rates of flow of pipes A & B = 1 (pool)/(10 hours)
 - We need to find the rate of flow, and thus the duration it'd take for pipe C **only** to fill 1 pool
 - Must realise that pipe C only helps pipes A & B fill pool quicker by **1 hour**
 - Therefore pipe C flow rate = (pipe A+B+C flow rate) - (pipe A+B flow rate)
 - Pipe C flow rate = $1/9 - 1/10 = 10/90 - 9/90$
 - = $1/90$
 - Hence 90 hours required for **pipe C only** to fill 1 pool
- For Qs involving changes in percentages of 1 constituent in a whole, find before & after values of that item in question
- BODMAS
- Switch positions of x (as a denominator) and the answer when e.g. $5 = 10/x$, to find x
- Simplify whenever possible; if 36 doughnuts in 1 hour, this means 6 doughnuts per 10 minutes (**convert hours to minutes**, then divide both numbers by 6)

12 April:

- Beware of wording in stem, "total number of students" is not the "number of classmates"
- **Avoid jumping to conclusions** - e.g. joining an online course doesn't naturally mean the intended outcome will be achieved (Q9)
- Newer fields of studies = fields with less research conducted (due to less people knowing about it, and less people interested in it)

- In regards to rare genetic diseases, achieving a diagnosis is usually the main way to relieve mental challenges of relatives & families, as a diagnosis would allow for a treatment plan to alleviate symptoms and/or minimise the severity of disease on lifestyle
- On Qs like Q21, Adam's statement is **flawed** as his **logic** is **black and white**. There was no consideration of other options of study, e.g. borrowing from friends, studying with friends, seeking online copies
 - Option C is also correct, however the Q asks for the "best" option to describe flaw
- Q22: statement **flawed** due to one-sidedly believing that if the accused has no evidence to defend with, the accusation (which also has no concrete evidence) would be correct
 - Option C is a statement that considers another cause of the outcome, however it doesn't "describe" the flaw in the accusatory statement
- For Qs like Q24: **spend more time thinking** about values and information given instead of jumping straight into calculations
 - Will **realise** that Shop 1 is clearly the cheapest while Shop 3 is priciest (highest base cost per item, no discount)
- Use algebra (pronumerals) for math Qs whenever applicable, e.g. Q7, 11, 12, 15, 17, 18, 25
- For English, when faced with 2 options which seem to be applicable, remember that we need to select the "best" option. Look for the option with the **most sentences** in the passage (evidence) that **support** it
- "Just" is an informal word as it's not used in formal writing
- "Love", "placed me in your heart", "we shared all life could throw" are all compassionate terms/phrases
- Personification = the attachment of a **human characteristic** (or capability), e.g. speech, to a non-human or a non-living item
- Do not assume anything by bringing in personal knowledge & preconceptions of religion, politics, science etc.

13 April:

- "Many" is not associated with any percentage quantity range
- "Some" is associated with less than half
- Although "Christa quickly believed that the doll is the best one out there just because Savoir said so" is a true statement, it doesn't directly relate to the flaw in her argument, which is "dad should buy for her because (all?) her classmates are buying it"
- For Qs like Q15 involving lots of "if, then" scenarios, **consider from D to A** (usually answer is C or D since examiners want you to spend more time)
- For Q17, realise that 10th-14th inclusive is exactly 5 consecutive days, which warrants the 5-day pass for \$50 (**most cost-effective** option)
 - The 8th, 18th & 21st are days that stand alone. So buying single-day tickets is most cost-effective for them
- English Q2: "cheek", "brow", "smile" are all appearance words linked to being "eloquent", "calm" & "innocent"
- English Q3 - **antithesis** = figure of speech wherein 2 opposing concepts are contrasted
 - E.g. "That's one small step for a man, one giant leap for mankind."
 - "Go big or go home"

- “Speech is silver but silence is gold”
- “No pain, no gain”
- “If you fail to plan, then you plan to fail”
- **Compare antithesis with oxymoron**: oxymoron = technique when 2 seemingly contradictory words are placed in succession
 - E.g. “Sweet sorrow”
 - “Cruel kindness”
 - “Living dead”
 - “Alone together”
- English Q15: the rambunctious waves, deadly lightning, deafening thunder, and razor sharp coral are all aspects of nature that are literally sinking the pirates into doom and despair
- Unyielding = relentless, persistent, not giving up
- Maths Q3: Since no additional information is given on the length of the base of the unhighlighted triangle, we need to think outside the box
 - Create a rectangle by outlining a dotted line above the largest triangle
 - Use larger rectangle area - smaller rectangle area to find area of highlight
- Maths Q4: Finding average cost per plum
 - Provided info: \$25 to buy 50c plums, then \$45 to buy 30c plums
 - Concluded info:
 - \$1 = 100c, so \$25 = 2500c, \$45 = 4500c
 - No. 50c plums bought on day 1 = $2500/50 = 50$ plums
 - No. 30c plums bought on day 2 = $4500/30 = 150$ plums
 - Total money spent = \$70
 - Total plums bought = 200 plums
 - Avg cost per plum = $70/200 = \$0.35 = 35c$
- Maths Q10: Ratio of 5:4 means the quantity of second item is 80% as much as the first item
- Use pronumerals to represent Angelo & Michael in Q15
- **Arithmetic trick!** -> To find 100% when we know 35% is 2240, do $2240/0.35$
 - More examples: if 5 is 25%, what is 100%? Do $5/0.25$
 - If 6 is 40%, what is 100%? Do $6/0.4$
 - If 19 is 37% what is 100%? Do $19/0.37$

14 April:

- Maths Q8: **Find volume of 1 cube** -> volume of 8 cubes -> volume of container -> subtraction
- Q11:
 - Find SA of rectangular base (can't be square as **dimensions are integers**) from $\text{volume}/7$
 - Find areas of each face
 - Addition
- Q13: A being **20% heavier** than B means **B is 80% of the mass of A**
- Q15: Read carefully to realise that 150 tickets were sold out on 2nd night
 - $150 = \frac{2}{3}$ capacity

- Either do **150 divided by $\frac{2}{3}$ or $(150/2) \times 3$**
 - $225 = 100\%$ capacity
- Q17: Was ambiguous since it wasn't clear that it was the "first (set of) 80 nuts" $\rightarrow 0.5 \times 80 + 0.3 \times 80 = 0.8 \times 80$
- Q19:
 - Find **rate (gifts/min) of 9 workers**
 - Find rate of 1 worker
 - Find rate of 4 workers
 - Find duration (mins) for 60 gifts by 4 workers with fractions
- Q21:
 - $A = F - 5$
 - $F = A + 5$
 - If A gives F 5 crayons, that means $F + 5 = 4(A - 5)$
 - **Substitute $F = A + 5$ into equation**
 - $(A + 5) + 5 = 4(A - 5)$
 - $A + 10 = 4A - 20$
 - $10 = 3A - 20$
 - $3A = 30$
 - $A = 10$
- Q31:
 - Volume of container = $WLH = 6 \times 5 \times 7 \text{ (m}^3\text{)}$
 - Pipe flow rate = $6 \text{ m}^3 \text{ per min}$
 - **Realise that the $\times 6$ in the volume equation is canceled out by the $/6$ from rate**
 - $6 \times 5 \times 7 / 6 = 5 \times 7 = 35 \text{ mins}$
- Q32:
 - Realise triangle is isosceles from 12cm on 2 sides
 - Thus, $a = 3b$
 - **Realise straight angle**
 - **Thus, $3b + 5a = 180$**
 - **Substitute $a = 3b$ into equation**
 - Hence $3b + 5(3b) = 180$
 - $180b = 180$
 - $b = 10 \text{ degrees}$
- Q33:
 - Find time taken for plan 1:
 - **Time = distance/speed**
 - First half: $10/30 = \frac{1}{3} \text{ hrs}$
 - Second half: $30/15 = 2 \text{ hrs}$
 - Find time taken for plan 2:
 - $40/20 = 2 \text{ hrs}$
 - Difference is **$\frac{1}{3} \text{ hr} = 20 \text{ mins}$**
- Q34:
 - Remaining area = original total - area of corner squares
 - $15 \times 10 - 4(3 \times 3) = 150 - 36 = 114 \text{ cm}^2$

- TS Q3:
 - As there are duplicates in more than 1 list, **consider each possibility**
- Q6:
 - Folding means halving area from an invisible centre line
 - **Unfolding means doubling area**
 - Not A because squares are contacting circle perimeter
- Q8: **No logical link** between traits of movie character and real life actor
- Q9: Athena invalid as there's **no mentioned link** between CashCash and service charges. Mira valid, as failure to pay fees means lack of service provision
- Q10: **C is trap**, since attacking the person involves calling them negative names or adjectives
- Q12: Add up all scores from all 5 rounds for everyone
 - Realise that Mark needs 4 points to secure first place after final round
- Q14: C & D focus on 1 subpoint of passage. A is **comprehensive with "holistic"**
- Q15: C & D are irrelevant to main point
 - **A is trap**
- Q17: Phone key pressing
 - **Tally up all numbers** used for typing "fabrication"
 - Count tallies for answer options
 - Numbers 2 & 3 were pressed 10x (the most)
- English Q1-4:
 - **Betrayal only happens between friends, or people originally in good terms**
 - Alex (bully) & Thomas (victim) were not friends
 - **"Compel" can be positive (urge, encouragement) or negative (forcing, associated with violence & underhanded methods)**
 - Beth & Thomas made decisions with **different goals**
- Q8: "alive and quivering" is the only choice which makes the letter **more significant** to the narrator
- Q11:
 - B & C eliminated as no mention from poem
 - A possible, but the **context** of the poem points to a previous romantic relationship
 - Hence D

EXCELLENT JOB EVERYONE~
It's been a pleasure teaching you all
All the best!