



Teacher Notes and Answer Page - Caffeine Crackdown

Potential discussion topics

Is a ban on caffeine drinks for under 16's fair? Why?

What should the age limit be, if any at all?

What other foods/drinks should have restrictions on them and what would those restrictions be?

Section 1 - Statistics & Data

1. a) $160\text{mg} / 80\text{mg} = \underline{2 \text{ cups}}$

2. $3 \times £1.50 = £4.50 \text{ per week}$
 $£4.50 \times 4 \text{ weeks} = \underline{£18 \text{ per month}}$

3. $640 / 4 = \underline{160 \text{ students}}$ or $640 \times 0.25 = \underline{160 \text{ students}}$

4. $2 \times 5 \text{ days} = 10 \text{ cans per week.}$
 $10 \times 160\text{mg} = \underline{1600\text{mg}}$

5. $(320\text{mg} / 400\text{mg}) \times 100 = \underline{80\%}$

6. $£8.40 / 6 = \underline{£1.40 \text{ per can}}$

7. $6 \times £1.50 = £9.00$
 $£9.00 - £8.40 = \underline{60\text{p cheaper}}$

Section 2 - Practical Maths

- Survey questions should be clear and unambiguous.
- Clearly defined answers for multiple choice/scale questions with appropriate options and no overlapping e.g 1-3 drinks, 2-4 drinks.
- Presented in a clear manner.
- Questions should be relevant to the debate ie affect on concentration, to what extent do you agree etc.

Section 3 - Problem Solving

1. $120 \times £1.50 = £180 \text{ per day-}$
 $£180 \times 7 \text{ days} = \underline{£1,260}$

2. $120 \times 0.60 = 72 \text{ cans per day.}$
 $£1,260 \times 0.60 = £756$
 $£1,260 - £756 = \underline{£504 \text{ less per week.}}$

3. $£5 / 4 \text{ cans} = \underline{£1.25 \text{ per can.}}$

4. $2 \times £5 = £10 \text{ per month.}$
 $8 \times £1.50 = £12$
 $£12 - £10 = \underline{£2 \text{ saving.}}$

5. $3 \times 160\text{mg} = 480\text{mg}$
 $3 \times 80\text{mg} = 240\text{mg}$
 $480\text{mg} - 240\text{mg} = \underline{240\text{mg less or 50\% less.}}$