How to solve a Kriss-Kross: an introduction to logical thinking

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Solving Problems through Logical Thinking

• Logical thinking is just about thinking clearly and being careful.

• Look for **clues that are useful now**.

• Some clues won’t be useful yet. Just be patient! You just need other clues first.

• Check and double check.
Solving Kriss-Kross

- A good clue to look for first ...
- Find a word length that has only one word of that length

3 letters:
- cat
- hat
- sat
- tap

4 letters:
- snap
- trap

5 letters:
- catch

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• Find a word length that has only one word of that length

3 letters:
- cat
- hat
- sat
- tap

4 letters:
- snap
- trap

5 letters:
- **catch**
Then find a word in the grid of that length.

3 letters: cat, hat, sat, tap
4 letters: snap, trap
5 letters: catch
• and fill in the word

3 letters 4 letters 5 letters
cat snap catch
hat trap
sat
tap

cs4fn.org abitofcs4fn.org teachinglondoncomputing.org
• then cross the word off …

• so you know which you have used!
• Now look for more clues.

• Which words in the grid have letters that mean only one word fits?
• Lots end in t so that is no help
• but only one 3-letter word starts with c
• (only one starts with h so that's possible too)
• Fill in that word (cat)
• Then cross it off.
• Now what other clues mean only one word fits?
• Only one three letter word starts with \textit{t} - \textit{tap}
• Fill in the word and cross it off

• Then find the next clue in the grid

• There is still that h we left
• The only three letter word that starts with h is **hat**

• Fill in the word and cross it off
• That pesky 3-letter word ending in t has been a problem.
• Before, lots of words could have gone there.
• But now only one 3-letter word is left.
• At last that clue’s time has come!

• Fill in the word (sat) and cross it off

3 letters: cat, hat, cat, tap
4 letters: snap, trap
5 letters: catch

[Various websites mentioned: cs4fn.org, abitofcs4fn.org, teachinglondoncomputing.org]
• Now we only have 4-letter words left.

• We could do either first.
• Let’s do **snap** first
• Finally we do **trap**
• And we are done!
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