Puzzle Hunt Guide

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What is a Puzzle Hunt?

- Fun puzzle game where teams compete to solve a series of "Hunt-style" puzzles, eg.
    - MIT Mystery Hunt
    - Google Games
    - Microsoft Puzzle Hunt
    - MUMS Puzzle Hunt
    - ∑UMS Puzzle Hunt
    - Singapore Puzzle Hunt

MIT Mystery Hunt

- www.mit.edu/~puzzle

- Probably the oldest and largest puzzle hunt in the world
  - Started in 1981 by MIT grad student Brad Schaefer
  - Held annually at MIT over the Martin Luther King Day weekend

- About 1600 participants
  - ~50 teams, size ranging from less than 10, to 100+

- Over 100 puzzles released to teams online
  - Most teams have members collaborating remotely from overseas

Singapore Puzzle Hunt (SGPH)

- www.sgpuzzlehunt.com
- Annual on-site puzzle hunt held in Singapore
  - ○ Organised by Puzzlesmiths
  - ○ Modelled after the MIT Mystery Hunt
  - ○ Held in June/July, 5 hours, about 13-18 puzzles
  - ○ ~100 participants, in 25 teams of 4 members each

Typical Hunt Structure

- Each Hunt typically has an overall theme or plot, which is revealed during/after Kickoff.

  - Eg. 2016 MH – Inception; 2016 SGPH – Harry Potter

- You solve hunt puzzles that have a word or phrase as an answer.

- Puzzles are typically organised into thematic rounds. You use all the answers organised in each round to solve a metapuzzle or meta.

- There is sometimes a similar final meta-meta that uses all the round meta answers.

Typical Hunt Structure

- Teams that solve all the round metas typically get to go on a final runaround endgame to find a hidden object.

- In the MIT Mystery Hunt, the final runaround consists of puzzles that lead teams to a coin hidden on campus.

- The first team to find the coin is declared the winner and writes the following year's Mystery Hunt.

- In the Singapore Puzzle Hunt, the first team that completes the runaround will find/receive a customised thematic codex or book as a souvenir.

What is a Hunt Puzzle?

- Puzzle type found in Puzzle Hunts with certain unique characteristics, eg.
  - Puzzles do not contain instructions
  - Require one or more intuitive leaps in thinking or "ahas" to solve
- Every puzzle has an answer that is (almost always) a word or short phrase.
- How to get an answer is usually not explained. Figuring out what to do is part of the puzzle!
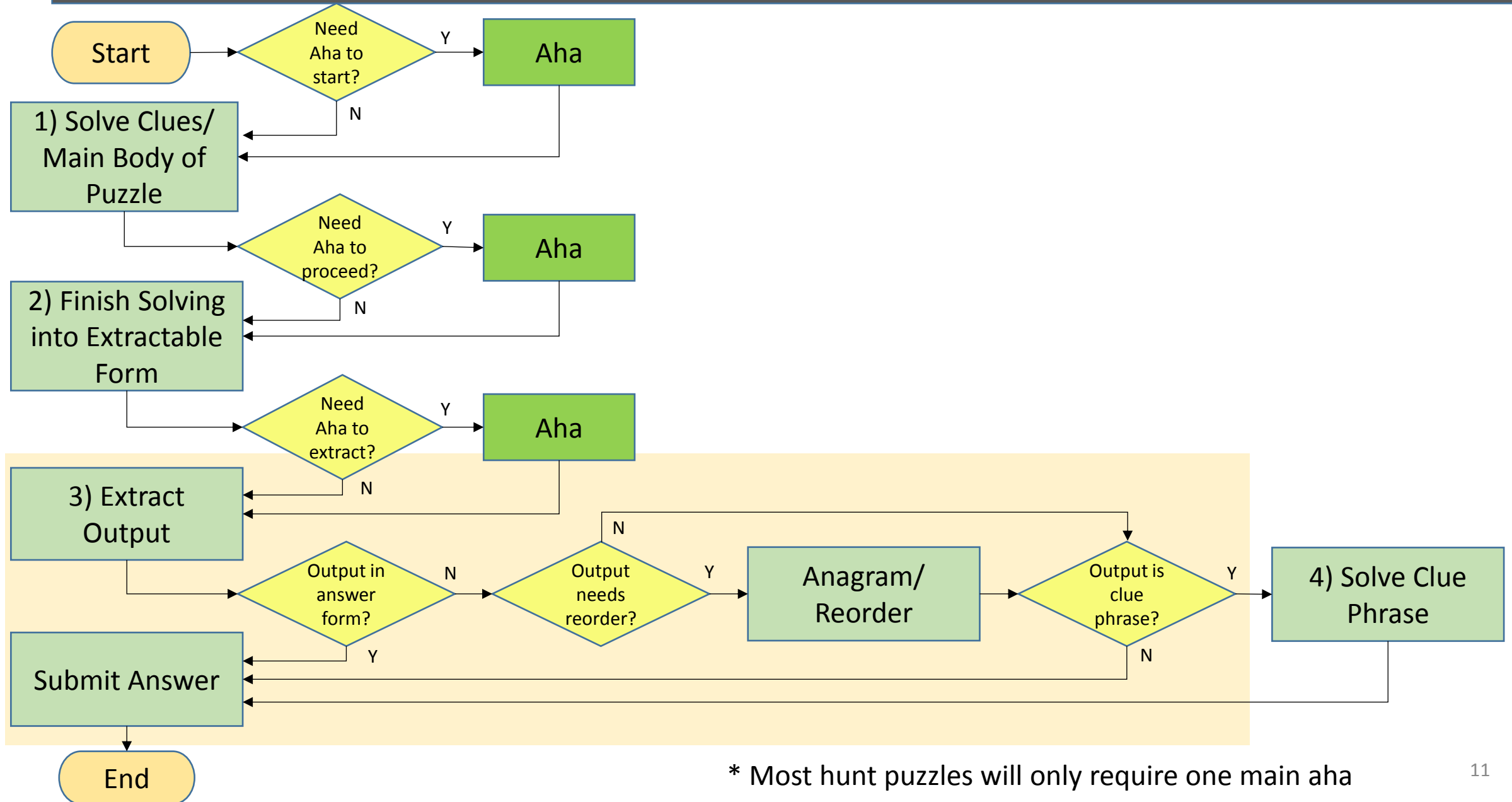
Parts of a Hunt Puzzle

- Title

- Flavourtext

- Main Body of Puzzle

Additional Differences with Other Puzzles

- All essential elements of a puzzle are provided together in the puzzle document.

- Even hints and confirmation points are designed into a puzzle.

- Puzzles usually have an additional layer of content theme/topic.

- This may often require use of external supplementary resources (eg. web search), if all the knowledge is not possessed at hand, or to help simplify solving steps.

- Puzzles featured in other games mostly present an extractable form to solvers already, and only require the extraction of the answer/code (marked in pink area on the next slide)

- Extraction may give a clue phrase which requires further solving for the final answer

General Solving Steps for a Hunt Puzzle

* Most hunt puzzles will only require one main aha

General Solving Strategies (Steps 1 and 2)

- Look for clues in the title, flavourtext and main body of the puzzle. Notice any words that are unusual or look out of place – they are either hints to the theme or necessary parts of the puzzle

- You may need to identify the commonality or pattern first, in order to solve some of the clues

- If you run into contradictions with traditional rules of the puzzle form, consider alternate rules possibly clued by the puzzle, such as filling in cells with multiple letters, leaving out certain letters etc

General Extraction Tips (Step 3)

- Read the first letters of clues or clue answers

- Look for parts of the puzzle you have not used yet, or things that don't need to be there

- Look for common methods used to encode letters, eg.

  - Braille (possibly clued by words like blindness or feeling)

  - Morse Code (possibly clued by tapping, dots, or dashes)

  - #1-26, ASCII, semaphore, resistor codes

  - www.mit.edu/~puzzle/resources/haveyoutried.pdf

General Clue Phrase Translation Hints (Step 4)

- Identify the form of the clue phrase, eg.

  - Cryptic clue – Solve the cryptic

  - Non-cryptic clue – Solve directly as crossword clue (eg. synonyms)

  - Follows the form of clues in main body of puzzle – Solve again recursively using the same approach as for clues in the main body of puzzle

  - Instruction – Follow the instruction. This may involve manipulating the physical form of the puzzle, or simply submitting a completed task to Hunt HQ

    - www.mit.edu/~puzzle/resources/haveyoutried.pdf

Types of Hunt Puzzles

- Puzzles come in a few broad genres, and often combine multiple elements:
  - Language/Word puzzles
  - Logic puzzles
  - Identification puzzles (ISIS)
  - Physical puzzles
  - Mini-Runarounds
  - Events
  - Meta puzzle

Language/Word Puzzles

- Examples:
    - (Cryptic) Crossword
    - Letter or Word-play
    - Anagrams, common letters, associations
    - Bigrams, Trigrams
    - Cryptograms/Ciphers
    - Homonyms, Synonyms

- Look for commonalities in the clues or clue answers in the puzzle

- Make use of online anagrammers and other word tools

Logic Puzzles

- Examples:
  - Nikoli Puzzles (eg. Sudoku, Kakuro, Masyu)
  - Paint by Numbers/Nonograms
  - Logic statement constraint problems
  - Recreate game history or states

- Use deduction and inference based on the puzzle rules to solve

Identification Puzzles (ISIS)

- Pictures, audio, video, text

- ISIS:
  - Identify
  - Sort
  - Index
  - Solve

- Start by identifying easier and more tightly constraint clues to figure out the aha first. Some clues may require the aha before the right identification is clear.

Physical Puzzles

- Examples:
  - Origami, Katakami
  - Jigsaw puzzle
  - Forming 3D models
  - Knitting, Crochet
  - Use given object/s

- Instructions are not given, so you have to figure out the rules to follow, eg. match numbered sides

Mini-Runarounds

- You need to physically go around the hunt location to gather clues or answers.

- May or may not be obvious that it is a runaround.

Events

- Your team sends members to a certain location at a certain time.

- Usually involves interaction between teams.
  - Often involves inter-team cooperation!

- Interactivity and puzzle content vary
  - Sometimes "participate, get an answer"
  - Sometimes requires mild solving

- The event schedule is usually announced at the start of Hunt.

What is a Metapuzzle?

- A metapuzzle is a puzzle that uses the answers to other puzzles (in a round)

  - Depending on the Hunt structure, there might be meta-metas that take in metapuzzle answers or puzzles that contribute to more than one meta

- Metapuzzle answers generally contribute to the overall plot/theme of the Hunt

  - Eg. MH 2013 (Bank Heist):

    - Each round's theme is a character

    - Metapuzzle answers tell you how to convince the character to help you with the heist

- You almost never need all puzzle answers to solve the metapuzzle.

  - Frequently, 2/3 to 3/4 of them are enough

Types of Metapuzzles

- Pure metas: All you need is the answer words from the round puzzles (and maybe some auxiliary information, like their ordering or titles)

    - Frequently uses letter- or word-play

- Shell metas: There is additional metapuzzle information provided (eg. grid to fill), which you use along with the puzzle answers

10 Ways to Be a Better Solver

- Puzzle Hunt solving
  - 5 Broad Team Solving Strategies
  - 5 Personal Solving Tactics

10) Solve with/as a Team

- Learn from watching others

- More eyes are better than 2

- More heads are better than 1

9) Choose your Puzzle

- Work to your strengths

- Choose a puzzle where you think you know roughly what to do next

- If you are bad at ahas, help to work on the grunt work of a puzzle that the team has already found the aha

8) Switch Puzzles

- Switch to another puzzle if you run out of theories and are still stuck after 15min

- Give fresh eyes to another puzzle, and get fresh eyes on this puzzle.

7) Use a Shared Spreadsheet

- Set up a main Google spreadsheet to track overall hunt puzzle solve progress by the team, and individual spreadsheets for working on each puzzle

- Replicate the puzzle information on the spreadsheet so that the whole team can work on it together

- Eliminates messy handwriting and alignment, which account for many stuck puzzles

6) Pen Down Observations & Theories

- Write down all observations and theories on the puzzle spreadsheet for others to consider, and to serve as reminder on important things which are unused yet.

- Write down "failed" theories too. It lets others know what has been tried.

5) Know When to Give Up on Theory

- Don't dismiss a theory too hastily just because the first few extractions don't really make sense. It might be due to a working or spreadsheet error.

- Don't cling on to a theory if there are already at least 2 clear contradictions.

4) Read, and Read the Puzzle

- Even if the first step looks straightforward

- Read the title, flavourtext, scan through clues.

- You could save time on solving the clues if you see the common reference/aha early.

3) Make Use of Online Tools

- Anagrammers

- Crossword Fits

- Word Builders

2) Always Google

- Google anything you are unfamiliar with to find its reference, especially titles.

- Google a few clue answers together to find a potential common reference.

- Include "crossword" keyword to search for common clue phrase answers.

- Use image search function to identify pictures.

1) Practise, Practise, Practise

- Honestly, the only way to get better.
- The more puzzles you solve together, the more familiar you become and likely that you can anticipate what to do next time.

- Archive of MH Puzzles by year: www.mit.edu/~puzzle/huntsbyyear.html

- Form a team with other enthusiasts to take part in 5-6 puzzle hunts throughout the year.
- Like our Singapore Puzzlehunt FB Page - www.facebook.com/sgpuzzlehunt
- Join the SG Puzzlers FB Group - goo.gl/JR4hqn