

OVERLOOKING OUTCROP (solution)

by Ong Kah Kien

There are two given sets of clues, and the first step is to solve these and fill the answers (which are in alphabetical order to aid solving) into each of their given polyomino boxes in the numbered order. The tables below summarizes the answers for each set of clues:

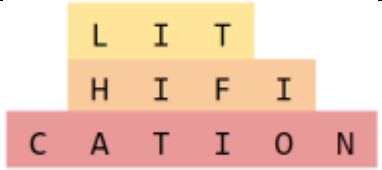
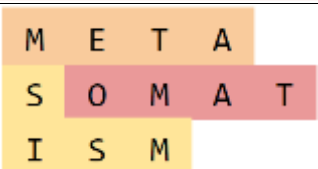
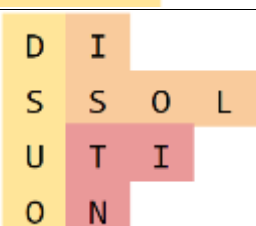
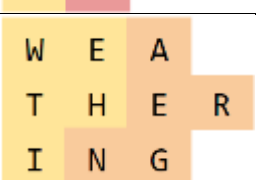
First set of clues	First set of answers
Tiny particle of matter	ATOM
Positively charged ion	CATION
Twosomes on stage	DUOS
Comedian's jokes	GAGS
Vintage stereo system (hyph.)	HIFI
Ignited as a fuse	LIT
Fail to hit	MISS
AM/FM device	RADIO
Collection of mountains	RANGE
Sand, clay or loam	SOIL
Group of football players	TEAM
Main ingredient in pewter	TIN
Slight trace or coloring	TINGE
Caucasian	WHITE

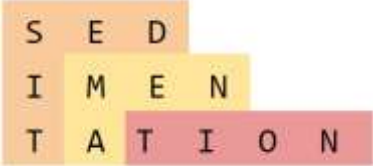
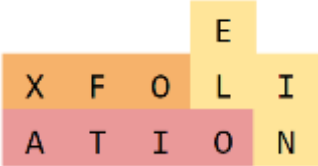
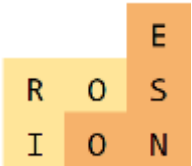
Second set of clues	Second set of answers
Showing concern or kindness	CARING
Agent Orange main ingredient	DIOXIN
Rewrites some words	EDITS
Sly animal	FOX
Totally digging	INTO
Tiny amount or Greek letter	IOTA
Small part of a film script	LINE
Hair on a horse	MANE
Cartographic chart	MAP
Female parent	MOTHER
Time to see stars	NIGHT
Sniffing body part	NOSE
2011 animated film about a blue parrot	RIO
What Daredevil can't do	SEE
Kind of card in phones	SIM
Confucians' path of virtue	TAO
Sod or territory	TURF

The filled in polyominos represent the scattered rock fragments, so the next step is to assemble these to reform into the boulders for each set. Since the boxes now contain letters, it follows that the reassembled boulders should spell some word, to help determine how the fragments should come together (no rotation or flipping is required). An entry point could be noticing that the straight fragments already read as common substrings, and three of them in particular, LIT – HIFI – CATION, could together form the thematic word LITHIFICATION. As confirmed by the other words formed by the reassembled boulders, they all relate to rock formation or deterioration, a pattern which can help with the assembly of the remaining boulders/words.

The third step is to order the reassembled boulders in each set from largest to smallest (as hinted by the flavortext), as the total number of boxes of the boulders in each set (i.e. the lengths of the words) is a running sequence. The number of boulders in each set also matches the number of given numbers at the bottom of each set of clues, so these numbers should be used as extraction indices into the corresponding word in that boulder in order, yielding two words. Combining the two extracted words gives the thematic answer to this puzzle and the Earth Guardian's magic **STONE SHATTER**.

The tables below and on the following page summarize how the reassembled boulders are formed (the different colors only serve to help demarcate each polyomino, and note the straight fragments in the second and third boulders could potentially be shifted around without affecting the words or solution), the thematic words formed, and the extracted letters using the given indices:

Reassembled boulders in first set (from largest to smallest)	Thematic words	Given indices	Extracted letters
	DISAGGREGATION	3	S
	LITHIFICATION	10	T
	METASOMATISM	6	O
	DISSOLUTION	11	N
	WEATHERING	6	E

Reassembled boulders in second set (from largest to smallest)	Thematic words	Given indices	Extracted letters
	SEDIMENTATION	1	S
	METAMORPHISM	9	H
	EXFOLIATION	7	A
	FRACTURING	5	T
	OXIDATION	6	T
	SHEETING	4	E
	EROSION	2	R

Constructor's notes:

Given that the answer to this puzzle is STONE SHATTER, it eventually led me to the idea of using differently shaped and sized polyominos to represent boulder fragments which have broken off and need to be reassembled. Imagery-wise, this is akin to the common formation and weathering process of rocks, which would be very thematic. Hence it followed that the words formed by each boulder could also use these geological terms. Using an extraction based on size is a way to avoid needing a separate number index, and also avoids solvers potentially getting a partial answer from a few boulders and guessing from there.