## Hints

## Location puzzle: Stockholm

1. Each text bubble is the clue to a country name. For example, the first one is bang-lad-dish or Bangladesh.
2. You may have noticed that the countries are in alphabetical order which should help you get any you're missing.
3. Use the arrivals board to determine the order everyone arrives.
4. Once you've got everyone listed in order of arrival all that's left to be done is extract the answer which is 6 letters long. If only there was some clue as to which letter you needed from each person's name. Maybe the order is more important than you first thought.

## Solution: ALFRED

## The Nobel Peace Prize

1. You're looking for examples of the listed things in the word search. There will be two of each.
2. Have you noticed that the pairs of words are always the same length and always lined up with each other?
3. What could the bolded flavour text indicate?
4. Take the middle letter of each word of the pair and highlight the letter that is equidistant between them. What do the highlighted letters spell out?

## Solution: ARMISTICE DAY

## The Nobel Prize in Chemistry

1. Start by marking all the elements in the "one-off" list on the Periodic Table. There are 15 correct elements to discover and 15 one-off elements to guide you. Each correct element has a one-off partner which it is exactly one space (horizontally or vertically) away from. However, they can be adjacent to other one-off elements too.
2. Next try shading every row and column with o elements in them. Once you do this you'll spot that there is only one option remaining for certain elements.
3. Once you've got the 15 correct elements try writing them next to their partner in the one-off list. That should spell out the solution.

## Solution: INFINITE LIFE GENESIS SECRETS

## The Nobel Prize in Medicine

1. Did you notice that the number of base pairs in each section of DNA exactly matches the number of letters in the answer?
2. Try reviewing your primary school colour wheel: red + blue $=$ purple, blue + yellow $=$ green, yellow + red $=$ orange .
3. There are two other important parameters: whether the base has a dot, plus or minus next to it, and which side it is on. What might those mean?
4. Dot means take the end letter as is, plus means shift it up by one and minus means shift it down by one. The side it appears on tells you which end you need to take from. Don't forget that the DNA twists swapping which side is which!

## Solution: KOMODO DRAGON

## Hints

## The Nobel Prize in Literature

1. To get started, note the title of the novel: Not Anticlockwise To Omaha. Your code sheet will be needed for this puzzle.
2. Read all of the words from the NATO phonetic alphabet, which spell out an instruction. Follow each instruction until you reach the answer.
3. The first instruction is CONVERT LINES TO MORSE. So read the full stops (dots) and dashes/hyphens (dashes) to treat each line of text as a letter of Morse Code.
4. The second instruction is SECOND WORD IN EVERY QUOTE.
5. The third instruction is READ EVERY TENTH WORD. So circle the 10th, 20th, 30th, 40th etc. words in the text and read the result.
6. The fourth instruction is SHIFT LAST LETTERS UP TWO. This means a Caesar shift of the last letters of each line. So the R becomes T , the F becomes H etc.
7. The final instruction is THIRD LETTER OF THIRD WORD. The third letters of the third words on each line spell out ANSWER IS DOUBLE NEGATIVE.

## Solution: DOUBLE NEGATIVE

## Meta: The Nobel Prize in Physics

1. First task is to name each of the 10 planets with one of the 10 words from the previous answers. The only info that you need for this are the length and number of M-O-Ns. (oops, did I just misspell moon?)
2. Next, which sector is each planet in on ceremony day? Remember to go counter-clockwise!
3. Start by working out how many days it takes each planet to travel one sector (i.e. $1 / 8$ th of an orbit), then work out how many sectors it will travel in 360 days. Calculators permitted.
4. Now all that's left it is to extract the answer. One letter per planet.

## Solution: GOLD MEDALS

## Bonus: Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel

1. Each clue corresponds to an answer below, although something is a little off. Feel free to use Google for any you don't know!
2. All the answers have been inflated. Can you do something similar to the letters on the right hand side?
3. "Make a new plan, Stan" refers to the Paul Simon song 50 Ways to Leave Your Lover. This has been inflated by 22 to get 72 Ways to Leave Your Lover. If you similarly "inflate" the letter W by 22 then you get (wrapping around the alphabet) an $S$.
4. Remember the Trickle Up Economics?

## Solution: ANTI-INFLAMMATORIES

## Location - Stockholm

Each emoji message corresponds to a country which tells you where that laureate is travelling from. Match the country with their city in the arrivals grid to work out the order in which they will arrive.


Writing the professors' names in order of their arrival and taking the corresponding letter of their name gives the solution.

## ALFRED

$1^{\text {st }} \quad$ Professor Abhijit Banerjee
$2^{\text {nd }} \quad$ Professor Alain Aspect
$3^{\text {rd }}$ Professor Elfriede Jelinek
$4^{\text {th }}$ Professor Charles M. Rice
$5^{\text {th }}$ Professor Morten Meldali
$6^{\text {th }}$ Professor Jane Addams

## The Nobel Peace Prize

Find pairs of words in the grid which correspond to the clues.

- Dickens novel was the finest? GREAT EXPECTATIONS or THE PICKWICK PAPERS
- European country to go to on holiday? GERMANY or IRELAND
- Form of transport to take there? PLANE or TRAIN
- Genre of music to listen to? BLUES or DISCO
- Hogwarts house you would have joined? RAVENCLAW or SLYTHERIN
- James Bond was the greatest? CRAIG or MOORE
- Large reptile to get as a pet? CROCODILE or ALLIGATOR
- Roman God you should build a shrine to? JUPITER or MERCURY
- Sauce to put on your hot dog? KETCHUP or MUSTARD
- Sign of the Zodiac the coolest people are born under? LIBRA or VIRGO
- Sport you should get into this summer? CRICKET or CYCLING
- Style of popcorn is best? SALTY or SWEET

Then you need to highlight "the middle of the middle" for each pair. In other words, take the midpoint between the middle letters of the two words. e.g.

| G | O | C | R | I |
| :---: | :---: | :---: | :---: | :---: |
| E | U | S | F | R |
| R | E | A | T | E |
| M | J | A | F | L |
| A | L | T | Y | A |
| N | J | E | D | N |
| Y | R | N | D | D |


| D | G | 0 | C | R | 1 | C | K | E | T | E | R | C | D | J | S | G | W | G |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| F | E | U | S | F | R | B | A | X | H | 0 | D | R | A | T | S | U | M | Z |
| G | R | E | A | T | E | X | P | E | C | T | A | T | 1 | 0 | N | S | F | N |
| L | M | J | A | F | L | U | E | Q | P | V | G | B | E | S | G | U | R | G |
| S | A | L | T | Y | A | L | G | L | E | B | P | Y | L | E | F | R | 0 | B |
| R | N | J | E | D | N | R | A | N | 0 | R | T | Y | 1 | U | F | 1 | T | G |
| E | Y | R | N | D | D | N | C | M | 1 | R | T | R | D | A | E | E | A | W |
| T | M | 0 | 0 | R | E | L | W | S | A | H | D | U | 0 | T | 1 | S | G | Q |
| 1 | S | T | K | J | A | C | G | 1 | E | J | E | C | C | 0 | G | R | 1 | V |
| P | Y | D | A | W | A | D | N | R | 1 | H | L | R | 0 | 1 | 1 | B | L | G |
| U | E | L | C | Y | C | L | 1 | N | G | M | C | E | R | B | A | B | L | E |
| J | C | R | A | 1 | G | N | R | S | V | Y | 1 | M | C | P | D | Y | A | K |
| T | H | E | P | 1 | C | K | W | 1 | C | K | P | A | P | E | R | S | 0 | L |
| V | V | B | W | A | E | L | L | 0 | F | 0 | P | U | H | C | T | E | K | A |
| S | W | E | E | T | D | E | W | K | J | P | C | A | Z | A | R | B | 1 | L |

Reading the "middle of the middle" letters in the order they appear in the grid gives the solution:

## The Nobel Prize in Chemistry

This puzzle works very similarly to a "tents and trees" style puzzle. The only difference is that in this case "tents" are allowed to be diagonally next to each other.


Writing the chemical symbols of the correct elements next to their partner spells out the solution:

| Cadmium | $\leftrightarrow$ Indium | In |
| :---: | :---: | :---: |
| Oxygen | $\leftrightarrow$ Fluorine | F |
| Xenon | $\leftrightarrow$ Iodine | I |
| Palladium | $\leftrightarrow$ Nickel | Ni |
| Polonium | $\leftrightarrow$ Telllurium | Te |
| Hydrogen | $\leftrightarrow$ Lithium | Li |
| Cobalt | $\leftrightarrow$ Iron | Fe |
| Tin | $\leftrightarrow$ Germanium | Ge |
| Argon | $\leftrightarrow$ Neon | Ne |
| Aluminium | $\leftrightarrow$ Silicon | Si |
| Phosphorus | $\leftrightarrow$ Sulfur | S |
| Arsenic | $\leftrightarrow$ Selenium | Se |
| Boron | $\leftrightarrow$ Carbon | C |
| Bohrium | $\leftrightarrow$ Rhenium | Re |
| Oganesson | $\leftrightarrow$ Tennessine | Ts |

## The Nobel Prize in Medicine

Each base pair corresponds to a letter
Step 1: Work out the "colour" of the resulting gene by mixing the two halfs. Two identical colours give that colour, red+yellow=orange, yellow+blue=green, blue+red=purple, red+white=pink.
Step 2: Take either the first or the last letter of the colour name depending on whether the symbol next to it is on the left or the right. Every time the helix twists it swaps round which side is the front.
Step 3: $\mathbf{O}=$ take the letter as is, $\mathbf{+}=$ shift up $1, \mathbf{=}$ shift down 1


## The Nobel Prize in Literature

Start by noticing the initial letters of the novel's title - NATO - or just by spotting a strangely large number of NATO Phonetic Alphabet words in the text. Reading these in order gives the first instruction:

CONVERT LINES TO MORSE

Extract the full stops/periods and dashes/hyphens from each line of the text and treat these as Morse Code. For example, the first line contains three dots for the letter S . You should be able to confirm that the dot beneath the question marks and other punctuation are not counted, since some of these yield non-existent letters. This gives the second instruction:

## SECOND WORD IN EVERY QUOTE

There are four pieces of quoted text in the passage, so extract their second words.

## READ EVERY TENTH WORD

Go through the passage and read off every tenth word.
SHIFT LAST LETTERS UP TWO (THAT IS ALL, STOP NOW!)

This refers to the last letters on each line which need to be Caesar-shifted by two positions (so the R on line 1 becomes a T).

THIRD LETTER OF THIRD WORD

This refers to the third word on each line. Extract their third letters to get your solution:
(ANSWER IS) DOUBLE NEGATIVE

## Not Anticlockwise To Omaha

Where was Charlie on Oscar night? On a late shift. Hurt. Forever. ..... THe had conned a dear old friend last November, Victor. And ifIt had always been up to Echo Ling - his big-shot sister - to keepthose two foes, self-destruction and blackjack, at bay. She could stab
he could unscrew those screw-up letters of his. No - too big.Hthat life-sucking barbaric beast. Only she. Gambling at the Taj Lis like doing Romeo as a cockney. Sure-fire train-wreck and all moronic Eintent - why assume contrari-wise? Half-broken pacts he would stop forT
her just added to the problem. He was now doomed - forever lesser."Don't read good books - write them." she'd say, always the comic.
"That's every course I've taken. Might as well Tango in Lima. As deep ..... R
as a subway on Everest - I need useful advice Em."
But she politely declined.
India. November. Chennai to be precise. Echo had semi-abandoned her ..... T
post as sentinel of his soul. At the Sierra Club he saw Vic, an oaf ..... H
and a great pal. He'd half-written Last Tango in Paris. Not winning ..... I
the Oscar nagged at him half-constantly. An odd - and sweet - pup! ..... R
"Your tenth stay - ninth? - this year. Mike Lee-Jones give you a job?"
"My word. Mate, no. I'm actually sort-of here for you!"
He then laid his mega-plan on thick - preying on Oscar-regret and rumdependency - to devise a way to play Romeo to his mark's most deepdesires; the Sierra Club, no Echo to protect it, had become a bomb.ORD

## Meta - The Nobel Prize in Physics

Start by using the length of day and number of moons to pair up the 10 possible names with the ten planets. The length of day corresponds to the number of letters in the word and the number of moons corresponds to the total number of $\mathrm{m}, \mathrm{o}, \mathrm{n}$ 's in each word.

| Planet ID | Length of day <br> (hrs) | Number of <br> MOONs | Planet name |
| :---: | :---: | :---: | :---: |
| PP-1 | 7 | 1 | GENESIS |
| PP-2 | 6 | 4 | KOMODO |
| PP-3 | 4 | 0 | LIFE |
| PP-4 | 3 | 0 | DAY |
| PP-5 | 9 | 1 | ARMISTICE |
| PP-6 | 8 | 2 | INFINITE |
| PP-7 | 6 | 1 | NRAGON |
| PP-8 | 8 | 1 | DOUATIVE |
| PP-9 | 6 | 0 | SECRETS |
| PP-10 | 7 |  |  |

Next use the orbital period and the map to determine which sector each planet is in on the day of the ceremony ( 360 days after the map was drawn). Remember the planets rotate counter-clockwise.

| Planet ID | Planet name | Orbital period <br> (Earth days) | Sectors moved in <br> 360 days | Position on <br> ceremony day |
| :---: | :---: | :---: | :---: | :---: |
| PP-1 | GENESIS | 96 | $8 * 360 / 96=30$ | Sector 1 |
| PP-2 | KOMODO | 240 | $8^{*} 360 / 240=12$ | Sector 2 |
| PP-3 | LIFE | 320 | $8 * 360 / 320=9$ | Sector 1 |
| PP-4 | DAY | 360 | $8 * 360 / 360=8$ | Sector 1 |
| PP-5 | ARMISTICE | 480 | $8 * 360 / 480=6$ | Sector 3 |
| PP-6 | INFINITE | 576 | $8 * 360 / 576=5$ | Sector 8 |
| PP-7 | DRAGON | 288 | $8 * 360 / 288=10$ | Sector 1 |
| PP-8 | NEGATIVE | 360 | $8 * 360 / 360=8$ | Sector 4 |
| PP-9 | DOUBLE | 960 | $8 * 360 / 960=3$ | Sector 5 |
| PP-10 | SECRETS | 720 | $8 * 360 / 720=4$ | Sector 7 |

Finally index by sector number into the planet name to extract the answer:

## Bonus - Economics

Pair up the clues with the answers at the bottom, noticing that they're all slightly wrong. In fact, all the answers have been inflated by a certain number and you need to correspondingly inflate the letter to get a new letter. For example, 50 Ways to Leave Your Lover (a Paul Simon song) has been inflated by 22 . Therefore you must shift the W by 22 places to get an S. Repeat for each letter and read upwards (they are a Trickle Up Economics expert after all) to get the solution:

## ANTI INFLAMMATORIES

| Make a new plan, Stan | 72 (50) Ways to Leave Your Lover | W +22 | S |
| :--- | :--- | :---: | :---: |
| Bloke now on coins | Charles XXVI (III) | $\mathrm{H}+23$ | E |
| We're in San Fransokyo | Big Hero 14 (6) | $\mathrm{A}+8$ | I |
| Ends with cannons! | 1836 (1812) Overture | $\mathrm{T}+24$ | R |
| Came before The Starlight Barking | 119 (101) Dalmatians | $\mathrm{W}+18$ | O |
| $\lim _{n \rightarrow \infty} \frac{4}{n^{2}} \sum_{k=1}^{n} \sqrt{n^{2}-k^{2}}$ | $22(3) .14159265$ | $\mathrm{~A}+19$ | T |
| Came after the calling birds | 13(5) gold rings | $\mathrm{S}+8$ | A |
| Scored from beyond 23 feet 9 inches | 8 8(3)-pointer | $\mathrm{H}+5$ | M |
| Find out you're 4\% Belgian | $27(23$ )andMe | $\mathrm{I}+4$ | M |
| They regretted running after the farmer's wife | Eleven (Three) Blind Mice | $\mathrm{S}+8$ | A |
| It was the best of times, it was the worst of times... | A Tale of Twenty-One (Two) Cities | $\mathrm{S}+19$ | L |
| Curtis James Jackson III | 67 (50) Cent | $\mathrm{O}+17$ | F |
| Steve McQueen film | 14 (12) Years a Slave | $\mathrm{L}+2$ | N |
| Will you still feed me? | When I'm Seventy-Eight (64) | $\mathrm{U}+14$ | I |
| Neil, Michael and Buzz | Apollo 26 (11) | $\mathrm{T}+15$ | I |
| Game about ancient architecture | 18 (7) Wonders | $\mathrm{I}+11$ | T |
| A century in cricket | 125 (100) runs | $\mathrm{O}+25$ | N |
| Liz Lemon and NBC | 43 (30) Rock | $\mathrm{N}+13$ | A |

