Princeton Puzzle Hunt 2020
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puzzles@princeton.edu
Transformations
Sam Cryan

The trick is to realize that each of these clues lead to words of the phrase ___ to ___ or _2_. Knowing that, you can get...

End of the Road = BOYZ II MEN
1999 -> 2000 = Y2K
Sunday Bloody Sunday = U2
Money Forms = W2S
C3PO and ____2 = R2D
The Full Dictionary = A2Z
Water = H2O

Using these “transformations,” you can turn the below nonsense words into English words.

HBOYZW = OMENS
WNHHAE = SNOOZE
WHUCY = SOCK
CHMBOYZT = COMMENT
HAHNE = OZONE
URHAEN = DOZEN

Finally, complete the phrases these words are a part of, and read the letters vertically pointed to by the arrow.

Final Answer: BUTTER
An alternative name for Clifford, or a childhood game. = RED ROVER

An alternative name for The Wiggles and They Might be Giants, or a colorful fad you could wear on your wrists. = SILLY BANDZ

What Sokka might say to Yue before going to sleep, or a book by Margaret Wise Brown. = GOODNIGHT MOON

An alternative name for the place in your jeans where you might stash Jafar’s pet, or a tiny toy line sold by Bluebird Toys and later by Mattel. = POLLY POCKET

Where to slip a shrimp in the favored country of Viorst’s Alexander, or a famous Mattel product. = BARBIE

An alternative name for Scabbers and Templeton on the carpet, or an animated 2000s show. = RUGRATS

What sent Dorothy to Oz, or a semi-acrobatic board game. = TWISTER

After solving the riddles, use the Lite Brite template that has very obviously been Photoshopped into the picture to index each of the solutions.

RED ROVER = V
SILLY BANDZ = A
GOODNIGHT MOON = M
POLLY POCKET = P
BARBIE = I
RUGRATS = R
TWISTER = E

Final Answer: VAMPIRE
Bold Beginnings
Natalia Zorrilla

A closer look at the “poem” here shows that it isn’t a single poem at all, but lines from 11 different poems mashed together. Googling should reveal the identities of each of the subpoems:

“Luckies” by Reginald Gibbons
“It was not Death, for I stood up” by Emily Dickinson
“Hidden” by John Spaulding
“I’m on the boating lake with Sean” by Jack Underwood

“Love, I’m Done with You” by Ross Gay
“Might Have Been July, Might Have Been December” by Robert Wrigley
“The Astronomical Hen” by Cynthia Zarin
“I’m Just a Bill” by Schoolhouse Rock

“A Musical Instrument” by Elizabeth Barrett Browning
“I Am!” by John Clare
“Infant Joy” by William Blake

Now, the epigraph, while definitely not real, indicates that solvers should be looking at the first lines of the poems to find some sort of riddle. Where? The puzzle title, Bold Beginnings, points to the bolding in the composite poem as a clue. Indeed, the positioning of the bolded words in the composite poem matches with the positioning of the riddle words in the subpoems’ first lines.

2: Loop(s)  https://www.poetryfoundation.org/poems/46902/luckies
5: For:  https://www.poetryfoundation.org/poems/44085/it-was-not-death-for-i-stood-up-355
3: The:  https://www.poetryfoundation.org/poetrymagazine/poems/151142/hidden-5d8d0d00a339a

5: With:  https://www.poetryfoundation.org/poems/92014/love-i39m-done-with-you
3: The:  https://www.poetryfoundation.org/poetrymagazine/poems/151498/might-have-been-july-might-have-been-december
8: Colored:  https://www.poetryfoundation.org/poems/49172/the-astronomical-hen
4: Bill:  http://www.schoolhouserock.tv/Bill.html

1: What:  https://www.poetryfoundation.org/poems/43729/a-musical-instrument
2: Am:  https://www.poetryfoundation.org/poems/43948/i-am
1: I  https://www.poetryfoundation.org/poems/43665/infant-joy

The “bird with the colored bill” referred to here is Toucan Sam-- the loops, then, must be Fruit Loops.

Final Answer: **FRUIT**
Maze Paths
Henry Herrington

Imagining each strip is a rope with a green and purple end, teams must run each rope through the maze so that the ends match their corresponding colors.

Overlaying the red, yellow, and blue tiles that result from these solutions, teams can form letters:

Final Answer: RAT
Strange Symbols
Tan Vu

Teams should recognize that the following symbol contains dashes and dots, indicating the use of Morse code.

The dashes lie diagonal to the center, while the dots lie vertical and horizontal to the center. Teams should therefore interpret diagonal lines as dashes and vertical/horizontal lines as dots. Using this key, they can then translate the strange symbols to:

```
.. / .--.
-- / --- / .-- / -. 
.- / .... / .- / - 
. / 
--- / .- / - / .--
- / --- / . / ...
```

Which translates to

UP
DOWN
WHAT
A
BUNNY
DOES

The four-letter final answer is jump.

Final Answer: JUMP
Map to the Stars' Homes
Michael Gintz

Each hint corresponds to famous actor, and teams can use the given tools to locate a star corresponding to each hint location. For each hint, the star and actor surname contain the same amount of letters, exactly one of which is identically placed.

Serra Negra Biological Reserve = Alphard
& Mike Nichols = H
If you’re interested in direction, you might find yourself in a Catch-22 if you don’t check out the Serra Negra Biological Reserve.

Enekulla Zendo = Alioth
& Mel Brooks = O
You can shine no matter what you’re made of! You might find advice like this while meditating at Enekulla Zendo.

Frenchman Branch = Elnath (/Alnath)
& Danny DeVito = T
At the Frenchman Branch you might find an egg for these trying times.

Sunan Yugur Autonomous County = Vega
& Nicolas Cage = G
If you’re going to steal the Declaration of Independence, you should probably flee the States to evade capture. You might want to go to the Sunan Yugur Autonomous County to revel in your success.

Selfridge, ND = Capella
& Kate Winslet = L
Head down to Selfridge, ND for an experience that’ll never let go.

Ozero Kimasozero = Thuban
& Tom Cruise = U
Hopefully hunting down a celebrity isn’t an impossible mission at Ozero Kimasozero.

Ma’anshancun, Linkou County = Deneb
& Halle Berry = E
For your 7th stop, you might not want to jinx it, but if you’re lucky you might spot someone at Ma’anshancun, Linkou County.

Final Answer: HOTGLUE
### Eat Your Heart Out, Hyperloop

Michael Gintz

<table>
<thead>
<tr>
<th>DC Red (Dark Red)</th>
<th>Chicago L (Pink)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: A well-paved state, which despite its name actually has land borders with other states (2) (Rhode Island)</td>
<td>1: Famous philosopher, or a typographic unit (which originates from France, but is distinctly American, measuring .1776 inches) (Cicero)</td>
</tr>
<tr>
<td>2: A city which does not use porcelain, or any (Chinatown)</td>
<td>2: A state that Childish Gambino has sung about in a Billboard Hot 100 song charting at number 6 (California)</td>
</tr>
<tr>
<td>3: Mini- or -guard + “ “ + PK Fire wielder (2) (Van Ness)</td>
<td>3: Spaghetti ____, or a type of omelette, or a type of union, or European (Western)</td>
</tr>
<tr>
<td>4: A kind of ship that never sinks + “ “ + famous musical In the ___ (2) (Friendship Heights)</td>
<td>4: First name of a heroic British county disguised as a civilian (Clark)</td>
</tr>
<tr>
<td>5: Company of Fallout fame (Bethesda)</td>
<td>5: Hustler with 1 percent of the ambition of their peers might say “It’s all about the ___s” (Washington)</td>
</tr>
<tr>
<td>6: -board or Off- + fire starter (White Flint)</td>
<td></td>
</tr>
<tr>
<td>7: Synchronic sibling + a small “stony” stream (Twinbrook)</td>
<td></td>
</tr>
<tr>
<td>8: Suspicious, or dark, or real slim + “ “ + string prefix of a blue Muppet, or a small group of trees (2) (Shady Grove)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NYC E (Indigo)</th>
<th>Boston Red (Red)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Country associated with a type of Mexican tea (Jamaica)</td>
<td>1: A meeting of minds in the form of a connected acyclic graph, perhaps (Braintree)</td>
</tr>
<tr>
<td>2: The horse capital of the world (Lexington)</td>
<td>2: Name for when the letters of wander wander (Andrew)</td>
</tr>
<tr>
<td>3: S- or -al or -rait (Port)</td>
<td>3: Birthname of a musical Berry native to the U.S. (Charles)</td>
</tr>
<tr>
<td>4: …, Panama! (Canal)</td>
<td>4: First name of AJ actress from 2010 police drama reboot (Kendall)</td>
</tr>
<tr>
<td>5: Home of The Oculus (3) (World Trade Center)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PATCO (Red-Orange)</th>
<th>Atlanta N/S (Fuschia)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: pau- or auda- + “ “ + -owed or -mark (City Hall)</td>
<td>1: A famous cartoon squirrel jumps up at the March equinox (2) (Sandy Springs)</td>
</tr>
<tr>
<td>2: Species of a tooth collector, but spelled like the boat (Ferry)</td>
<td>2: Body part of an Odocoileus virginianus, or George Washington (2, but concatenate them) (Buckhead)</td>
</tr>
<tr>
<td>3: Knock on ____ + “ “ + top of a wave, or a brand of toothpaste (2, but concatenate them) (Woodcrest)</td>
<td>3: 36% of a Wilson doctrine (2) (Five Points)</td>
</tr>
<tr>
<td></td>
<td>4: January birthstone (Garnett)</td>
</tr>
</tbody>
</table>
**NYC W (Yellow)**
1: Home of *Transylvania University* *(Lexington)*
2: 2000 pounds worth comprises a well-known university *(Prince)*
3: ¡A man, a plan, a... *(Canal)*
4: Fero- or Dupli- + “-“ + -way or mars- *(2)* *(City Hall)*
5: Dorm building donated by Walter from *Breaking Bad* (2, but concatenate them) *(Whitehall)*

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Letter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boston Red &amp; NYC N/W</td>
<td>Broadway</td>
</tr>
<tr>
<td>NYC E “ST” &amp; DC Red “Silver”</td>
<td>Spring</td>
</tr>
<tr>
<td>DC Red “Glen” &amp; NYC E “Hills”</td>
<td>Forest</td>
</tr>
<tr>
<td>Yay Chicago Pink &amp; Pennsylvania Red (Patco)</td>
<td>Ashland</td>
</tr>
<tr>
<td>Boston Red “Center” &amp; Chicago Pink</td>
<td>Quincy</td>
</tr>
<tr>
<td>NYC E “Heights” &amp; Chicago Pink</td>
<td>Jackson</td>
</tr>
<tr>
<td>DC Red &amp; Atlanta N/S</td>
<td>Medical Center</td>
</tr>
</tbody>
</table>

Green line spells out the final answer.

**Final Answer: MACHINE**
A Cipher in C Major
Natalia Zorrilla

Following the given instructions, teams need to figure out the first letter of the next word in each song before it is cut off.

All You Need is Love (The Beatles) = T
“No one who can save that can't be saved // Nothing you can do // But can learn to be you in time.”
[G Major]

Fake Love (BTS) = S
“이뤄지지 않는 꿈속에서 피울 수 없는 꿈을 키웠어 // I'm so sick of this fake love, fake love, fake love // I'm so sorry”
[D Minor]

Hips Don’t Lie (Shakira) = P
“Come on, let's go, real slow // Don't you see, baby, así es perfecto?”
[Bb Minor]

Royals (Lorde) = O
“I've never seen a diamond in the flesh // I cut my teeth on”
[D Major]

Before He Cheats (Carrie Underwood) = K
“Right now, she's probably up singing some // White-trash version of Shania karaoke”
[F# Minor]

Just the Way You Are (Bruno Mars) = E
“Oh, her eyes, her eyes make the stars look like they're not shinin' // Her hair, her hair falls perfectly without her trying // She's so beautiful and I tell her everyday”
[F Major]

Finally, as clued by the instructions and title, teams should shift each letter back according to the key of the song, where A = shift 1 back, B = shift 2 back, etc.


Final Answer: MONKEY
Windows Line 1: Implying the sound doesn’t really matter. Deepsound is a software to hide files in wav/mp3 files. Download Deepsound, throw the mp3 file in to get a link.

Mac Line 1: Implying the sound doesn’t really matter. Information about information= metadata. Throw the file in any metadata reader and get a base 64 message. Encryption of encryption= decode twice to get a link.

Line 2: Letter and text = a link to the Google Drive [https://drive.google.com/open?id=1gWIUFqNP6d6BRX9JEEwCzWRaBa1Jn_xr]. Darkness = the QR code in low contrast. Use your phone and change exposure/ brightness to see it, scan to next step. The image is honestly pretty dark.

Line 3: Binary to text gives you what looks like base64.

Binary:
01010000 01000001 01001111 01110111 01010000 01010010 01000011 01011001 01001110 01010010 01000011 01011001 01000011 01011010 01100001 01110111 01000001 01011001 01100101 01110011 01100101 01110011 01100101 01100001 01110111 01000011 01011010 01100010 01101100 01100101 01110011 01101100 01100101 01100001 01110111 01010010 01000011 01011001 01001110 01001110 00111101 00111101 01101000 01100101 01011010 01011100 01000011 01011001 01000001 01110011 01000011 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01110111 01010010 01011100 01000011 01011001 01100101 01011100 01000011 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01011001 01000001 01110110 00111001 01000101 01010110 01101011 01100001 01100111 01001001 01110101 01010001 01111001 01101001 01010111 01010001 01001010 01000101 01000111 01010100 01010001 01100010 01110101 01010110 01101101 00110100 01100010 01010010 01010010 00110000 01010000 01000010 01000011 01001000 01001010 01100110 00111001 01000101 01010110 01101011 01100001 01100111 01001110 01010010 01000011 01011001 01001110 01001110 00111101 00111101 01000101 01110111 01110101 01100100 01110111 01110101 01100100 01101001 01010010 01010011 01010101 01101101 00110100 01100010 01010010 01010010 00110000 01010000 01000010 01000011 01001000 01001010 01100110 00111001 01000101 01010110 01101011 01100001 01100111 01001110 01010010 01000011 01011001 01001110 01001110 00111101 00111101

To Text:
PAOwPRCYNRCYNRCYIwewy0qQx290aBuVzge3ahuQyiWQJEGTQEmCQwigyhiRSUm4bRR0PBCHJf9EVkagNRCYNN

Line 4: Ceasar shift 23 for the real base64:
SDRzSUFQBQUBQUBLZhzb0tTa290dExYcjh3dkxTblZTMHJWTHpFTzjbklUVXp4eUU0SEFKMi9HYndjQUFBQQ==

Line 5: This time it is base64; decode to the next step:
H4slAAAAAAA/8soKSkottiLXr8wvLSnVS0rVLzEO9cnIUsuE4HAJ2/GbwcAAAA

Line 6: “squeezed and pressed” It’s gzip compressed. Decompress.
The final answer is the name of the song

Final Answer: CRAYON
Princeton Puzzles++
Natalia Zorrilla

All of these texts are confessions from the Tiger Confessions++ Facebook page accessible here:

https://docs.google.com/spreadsheets/d/1TSToBxB1b51GnyJcATHP4bKLsDOBxuIQunKUoxulSSg/edit#gid=0

However, all posts have been changed by just one word. By looking at the original versions of the changed words, you get the following:

Don’t = #143 → changed to never
Drop = #7374 → changed to share
One = #640 → changed to a
Of = #9859 → changed to about
These = #894 → changed to Red
In = #1800 → changed to closely
A = #1000 → changed to that
Conversation = #3077 → changed to words

Just = #9422 → changed to repeatedly
Be = #2446 → changed to feel
Da = #138 → changed to the
This = #3383 → changed to so

Both of these clues (“drop a bomb” and “da bomb”) refer to the final answer.

Final Answer: BOMB
Nonogram Clock
Henry Herrington

The first step of this puzzle is to complete the nonogram and get the following image:

Viewing the nonogram as a clockface, one can decipher roman numerals for the 12, 3, 6, and 9 (which indicate the clock face has been rotated), and either dashes or dots in place of all the other numbers. This allows you to convert 1, 2, 7, and 11 into dots and 4, 5, 8, and 10 into dashes.

Becomes

. / ..-. / .. / -. / -. / -.-
... /..
-. / . / -- / ... / -. / -
./ .... / -

Which translates to:

EFINK SI REWSNA EHT

Which, when read backwards gives you the final answer.

Final Answer: KNIFE
The first step is to find the hometowns of the three pictured men.

William Thompson = Belfast
Wilhelm II = Berlin
Philo = Alexandria

Upon first glance, the places on the fridge have nothing to do with these hometowns. But after some research, teams should discover that three of these places were originally named after one of these hometowns.

Port Fairy = Belfast
Marne = Berlin
Jackson = Alexandria

This allows teams to “point” the men in the correct direction.

William Thompson = Down
Wilhelm II = Left
Philo = Right

Finally, teams should recognize each photograph is held by a colored magnet. Combining these colors with their corresponding directions allows teams to select the correct three letters from the bottom of the fridge

Down + Blue = B
Left + Red = A
Right + Yellow = T

Final Answer: BAT
Reading the numbers as atomic numbers, one can translate to elemental symbols:

57 60 74 18 = LaNdWA
14 6 53 3 A 7 = SiCILiAN

Each of these are related to a different CLASSIC BLUNDER, as clued to by the background image from The Princess Bride. This can be spelled using just 8 atomic numbers

CLASSIC BLUNDER =
17 33 14 6 5 71 60 68

The final step is to perform the given arithmetic on the newly found numbers.

(68 + 17 + 5 - 6)
(60 + 14 - 33 + 60 / 5)
(33 - 17)
(68 - 60)
(14 - 6 - 6 + 5)

The resulting numbers will give you your final answer.

84 53 16 8 7 = PoISON

Final Answer: POISON
Mysterious Cinema
Henry Herrington

Each of these scenes stand out because they feature cameos from the film’s director (Jon Favreau, Quentin Tarantino, Martin Scorsese, and M. Night Shyamalan). Therefore, the director of the missing film is famous for making cameos. The director most well-known for cameos, having one in nearly all of his films, is Alfred Hitchcock.

But which Alfred Hitchcock film is missing? This equation provides an answer:

In each cameo scene, there is also a number or arithmetic action spoken aloud. Substituting these numbers in, you get:

\[
\text{Double } (100 \times 9 + 44 + 15) + 30 = 1948
\]

The name of the Alfred Hitchcock film released in 1948 is the final answer.

Final Answer: ROPE
Each grid can be filled with color so that it corresponds to its country’s flag:

```
E E S T L  A T I E  O R F E 4
6 U M Q U   E R T O   C O X O H
R I D 6 C   G E M N   G L D F A
WH I A A  O W S L   3 E A R M
S H Y E O U 3 Z R T I T C S
H A T L D S A N P A N E F I
R L N B A A E M N P T L W E
H T E S E I I P S O R W
9 I H W E A H L N S T A
```

Doing this provides exactly enough black, yellow, red, green, and white letters to fill the spaces given. After unscrambling these anagrams, team will be able to form:

FIND A FLAG
WITH THIS COLOR SCHEME THAT ALSO
DISPLAYS A WEAPON. WHAT IS
THE 3 LETTER WEAPON NAME?

Of the flags with weapons, the one with this color scheme is the flag of Mozambique, which depicts an AK-47.

The name of this weapon, in 3 letters, is the final answer.

Final Answer: **GUN**
Teams are given chess pieces and coordinates but initially do not have a board. They must use the Puzzle Manor blueprints, and superimpose coordinates according to the position of the plants (the plant coordinates are also given).

Then, all paths “visible” by chess pieces, according to how they are able to move, should be crossed out. The only remaining letters on the Puzzle Manor blueprints will then be R, H, W, C, E, and N. This is an anagram of the final answer.

Final Answer: WRENCH
**Puzzle Manor Metapuzzle**

Teams should notice the answers to all of the room puzzles are weapons.

Dining Room = BOMB  
Study = KNIFE  
Kitchen = BAT  
Bedroom = POISON  
Cinema = ROPE  
Art Studio = GUN  
Game Room = WRENCH

Next, they must notice that almost all of the answers to each of the character puzzles are prefixes to these answers.

(Red) Transformations = BUTTER (KNIFE)  
(Red) Just for Kids = VAMPIRE (BAT)  
(Blue) Bold Beginnings = FRUIT (BAT)  
(Purple) Maze Paths = RAT (POISON)  
(Grey) Strange Symbols = JUMP (ROPE)  
(Orange) Map to the Stars’ Homes = HOTGLUE (GUN)  
(Yellow) Eat Your Heart Out, Hyperloop = MACHINE (GUN)  
(Green) A Cipher in C Major = MONKEY (WRENCH)  
(Green) Hello, Darkness = CRAYONS (no link)

Forming these connections allows teams to draw lines between suspects and rooms on the given diagram.
Doing so pinpoints 7 of the letters in the center, providing the location of the body and the final answer.

Final Answer: GARDENS