## Answer Key - Where in the World are the 6 Bandits? - July 30th, 2020

## A word from our creators:

Some puzzles were tougher than others, but hopefully you were able to enjoy yourselves. Thank you all for playing with us and we hope these Answer Keys will help relieve any questions you had about the puzzles. We'll continue to work on new Online Escape Rooms for you, so stay tuned in to our website at tpl.ca/teens/programs-and-classes.jsp!

## Puzzle 1: Boarding Pass and Flight Code

Answer: MS777

There are three hidden sentences in the seemingly random mixture of airport codes. They are "DON TST OPS YET" (don't stop yet), "PYR AMI DSN EXT" (pyramids next) and "CEE YOU INN CAI ROX" (see you in Cairo). The airport code for Cairo is CAI, so you'll want flight MS777.

## Puzzle 2: Egyptian Cipher Wheel

Answer: Iondon

Use the cipher wheel to decode what the symbols on the papyrus spell out. Each symbol represents a letter. The cipher wheel is not in the correct position to match the correct symbol to letters, so you'll have to figure out which symbol actually matches up to which letter before you can use the wheel. The easiest way to do this is by noticing that there are 3 of the same symbols on the wheel, which means there must be three of the same letters on the wheel as well. So those 3 symbols (green reeds) must match up to the 3 E's on the wheel. Knowing this, you can count the number of spaces between the E's to figure out what the correct position of the wheel should be, which will give you the correct translation tool to convert each symbol to its corresponding letter. With the wheel in its correct position, you match the symbol on the papyrus to spell out "GLOBE THEATRE", and a quick Google search for "globe theatre" tells you it's a famous theatre in London, so that's the city you must head to next!

## Puzzle 3: Globe Theatre Word Play

Answer: machu picchu

First we need to figure out the answer to each line.

The witches foretold his fate: Macbeth
The full name of Romeo's love interest: Juliet Capulet
Forest trickster: Puck
Drowning victim in Hamlet: Ophelia

The letters in the boxes (bolded above) are MCHUCUPCPIA. If you unscramble those letters, you will get the next destination of Machu Picchu.

## Puzzle 4: Sunlight Reflection Geometry

Answer: 45CCW45CCW

You have to turn pillar 2 and then pillar 3 mirrors at certain angles to allow the light to bounce off them and into the golden cylinder at the top right corner. Having paid attention in your math class, you know that the angle that light enters a smooth reflective surface (like these mirror pillars) has the same angle coming out. So the ray of light entering with a 45-degree angle at the first pillar will bounce off towards the second pillar also with a 45-degree angle. Therefore, for pillar 2 to reflect the light towards pillar 3 in the same way, it would need to be positioned so that the light is approaching at a 45-degree angle, so that it could bounce off on the left side at the same 45 -degree angle. For this adjustment, we'd need to turn pillar 2 " 45 CCW " to represent 45-degrees counterclockwise, which makes the mirror a flat horizontal against the bottom of the graphic. Finally, for pillar 3 we face the same issue as pillar 2, where a 45-degree exit angle for the light is needed to direct the light into the golden cylinder, and to get a 45-degree exit angle, you need a 45 degree angle of approach, so by turning pillar 3 " 45 CCW ", it now becomes straight and allows the incoming light to bounce off at that 45-degree angle. So in total, we need to turn pillar 2 at 45 CCW , and pillar 3 also at 45CCW, so the answer for the question is "45CCW45CCW".

## Puzzle 5: Riddle on the Wall

Answer: berlin wall.

Did this one stump you? The Berlin Wall separated East and West Berlin from 1961 to 1989. The Berlin Wall was the site of concerts and diplomatic meetings before it was torn down and Germany was reunified. Pieces of the Wall are now in museums around the world and was a map in Call of Duty: Black Ops.

## Puzzle 6: Graffiti Morse Code

Answer: july 31st forbidden city

The question asks for the date and location. The date is visible on the top right side of the image: "july 31st", but for the location, you'll have to notice that the dots and dashes on the letters are a little out-of-place, and realize that it's actually Morse code, a language made up for dots and dashes! With this knowledge, you can search up a Morse code alphabet to help you decode the message. Each letter of the words holds 1 letter's worth of dots and dashes, and if a letter has no dots and dashes in it, it's a space. After translating, you get the location: "forbidden city" (in Beijing, China)!

## Puzzle 7: Forbidden City Map

Answer: east glorious gate
Let's break down each place you visit in order.

1. Meridian Gate (A)
2. Corner Towers (E)
3. Palace of Heavenly Purity (L)
4. Imperial Garden (M) and Gate of Divine Might (B)
5. Southern Three Places (K) and Palace of Tranquil Longevity (O)
6. Hall of Mental Cultivation (N)
7. West Glorious Gate (C) and Hall of Military Eminence (H)
8. Hall of Literary Glory (J)
9. Gate of Supreme Harmony (F) and Hall of Supreme Harmony (G).
10. East Glorious Gate (D) is the only landmark you haven't visited.

## Puzzle 8: Terracotta Army

Answer: 2456911

From the clues, you know that \#1 is definitely terracotta and \#11 is a bandit. Keeping in mind that three bandits are in the front row (\#1-5) and three are in the back (\#6-12), only two are standing beside each other, and the numbers on them add up to 37 , you must use trial and error to figure out that numbers $2,4,5,6,9$ and 11 are the bandits.

