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## Whodunnit?

#### Day One:

#### Introduction (10-15 minutes):

Name, Age, and a simple question like what is your favorite color, or what their favorite animal is. Run through expectations for the kids throughout the week, such as listening skills, being a good friend, sharing, etc.

#### **Learning Morse Code (30 minutes):**

Morse code was a way to communicate messages with only electrical pulses and the silence between them. The telegraph operator would encode a message and use a machine to tap out the signals to send the message. Morse code was used from the 1840s to the late 20th century. The invention of morse code completely changed long-distance communication. Use the attached Morse Code Chart to go through morse code and what the patterns are for each letter. Have each kid write out a message that they want their partner to figure out. Turn off the lights in the room. Using a flash light, flash the message for the partner. Dots should be 1 second and dashes should be 3 seconds.

#### Making Invisible Ink (25 minutes):

To make invisible ink combine 1/2 a cup of water with 1 tbsp of baking soda. Using a Q-Tip dip one side into the water baking soda mixture, on a piece of paper write out your message or drawing. Let the paper dry for 15 minutes, depending on the amount of ink used it will take longer. While you wait, create the second solution that will reveal the message. Take 1/2 a cup of rubbing alcohol, mix in 1 tsp of turmeric. Make sure to mix the turmeric completely. After the paper is dry, take a paint brush and dip it into the revealing solution. Paint over the



paper and wait for the reaction. The turmeric will turn the paper yellow and where there was the baking soda solution should turn red.

#### What are the types of fingerprints (5 minutes):

Each individual has a unique set of fingerprints, there are no others like them. There are three types of fingerprints, the loop, the whorl, and the arch. Loop prints recurve back on themselves to form the loop shape. The loop is approximately 60% of fingerprint patterns. Whorls for a circular, or spiral pattern like a tiny whirlpool. Whorls make up about 35% of pattern types. The last fingerprint pattern is the Arch. Arches create a wave like pattern and include plain arches and tented arches. Tented arches rise to a sharper point than plain arches. Arches make up about 5% of all pattern types.

#### **Lifting Fingerprints (30 minutes):**

Take a blank note card and scribble on it using a pencil. Once you have enough of the graphite on the card, smear your fingers in it, only one hand. Take a piece of scotch tape and place it onto your finger. Rub the tape on so it collects the graphite from your finger. Lift the tape and place it on a not card. Continue doing this till you have all five fingers on the card. Now using the patterns you learned, go through and label which are which. If you need to you can use a magnifying glass to see it better.

#### NATO Phonetic Alphabet (10-15 minutes):

The NATO phonetic alphabet is a spelling alphabet, a set of words used instead of letters for oral communication. Each code word stands for its initial letter.

- A Alfa/Alpha
- B Bravo
- C Charlie
- D Delta
- E Echo
- F Foxtrot
- G Golf
- H Hotel



- I India
- J Juliett
- K Kilo
- L Lima
- M Mike
- N November
- O Oscar
- P Papa
- Q Quebec
- R Romeo
- S Sierra
- T Tango
- U Uniform
- V Victor
- W Whiskey
- X X-ray
- Y Yankee
- Z Zulu

Phonetic Alphabet Activity (25 minutes): Everyone should get into pairs. The person leading the activity should give each pair an item to hide, a 'Phonetic alphabet' sheet, a piece of paper, and a pencil. Each pair should hide their item somewhere in or around the meeting space. They should write down the hiding place, so they don't forget it. The pairs should sit together and write clues or directions to find the location of their item using the NATO Phonetic Alphabet. Helpers can support with correct spellings or words. The first pair should say their clue out loud to the other pair. As soon as the pair thinks they've decoded the clue, they should go and find the item. Once the first pair have found the item, they should say their clue to the second pair. They should decode the clue and find the item.

**Spy Movie (30 minutes):** Have the kids watch part of a spy movie, we suggest watching Spy Kids first. Spend this time cleaning up and preparing for day two.

Active Game (10-20 minutes): Use the remaining time to play some yard games outside.



#### **Day Two:**

Why do spies wear disguises? (5 minutes): In disguise, spies can move around freely. Especially when engaged in counter-surveillance. Intelligent agents and spies need to use disguises to hide themself, or in some cases stand out and bring attention to themself.

**Pipe Cleaner Disguises (25 minutes):** Shape different colored pipe cleaners to make different identities. You can make glasses, mustaches and many other things. To make a pair of glasses take pipe cleaners and wrap them around something circular. Take a third pipe cleaner to attach the two circles together to make the nose piece. Using two more pipe cleaners make the earpieces that keep the glasses on.

**Internations Spy ID's (25 minutes):** Use the attached ID template to make yourself a Spy ID. Take a picture using a phone of each student. Print them the size of the blank box. Once they are printed, cut them out and glue them into the box. The students can then write a random number under the Agent ID #.

**Binoculars (30 minutes):** To make binoculars, take two empty toilet paper tubes. Wrap them in colored paper, and use hot glue to glue them together. Once they are dry. Take a piece of yarn that is the length of their wingspan and glue one end to the inside of one tube and glue the other end to the other tube on the inside.

**Pigpen Cipher Code (25 minutes):** Pigpen cipher is a geometric simple substitution which exchanges letters for symbols which are fragments of a grid. Use the attached Pigpen Cipher code sheet to decode the secret messages. Have the kids write some codes using the Pigpen Cipher, also have the students write their name using the pigpen cipher.

Writing Your Own Code (20 minutes): Have the kids write their own type of code. Remind them that each letter must have a different shape/thing that corresponds to it. Give them paper to write out their cipher and have them write secret messages. Then after the codes are written, have the students give the message to another student to solve.

Making a spy decoder (20 Minutes): Printing off a decoder will make it a lot easier to just cut and put together the pieces so then you can focus more on creating it to make it your own! To assemble your spy decoder wheel, cut out a top, middle, and bottom circle. There are two



choices for the middle circle. Either use the one with the letters filled in, or use the spaces to draw your own letters or symbols. It might be fun to use symbols like a star, heart, smiley face, instead of letters.

Line up your three circles and attach them with a paper fastener. It's important to have the circles lined up, so you might want to stick the fastener through them all at once. Once you have the decoder assembled, set your code. An idea we used was to set the letter "A" on the outside circle to match the first letter of the creator's name. Then set the coder to letter "A" to match the day of the week. And lastly set the coder to letter "A" to match the first letter of your code word. To write a message, find the letter you want on the outside circle and write down the corresponding letter on the middle circle. Now, if you want to read the message; find the letter on the middle circle and write down the corresponding letter from the outside circle. Obviously that was just an example so you can decode your wheel in different ways as well. Clue Game (20 minutes): Use the remaining time to play the game of Clue.

## **Day Three:**

**Mafia Game (30 Minutes):** Play two or three rounds of the mafia game. Assign the roles listed below to the group. The goal of the game for the mafia is to kill/eliminate all the other people. The goal for the sheriff, nurse and townspeople is to figure out who the mafia is before everyone is out.

Mafia - 1 person
Sheriff - 1 person
Nurse/Doctor - 1 person
Towns People- Remaining people

**Clue Game (30 minutes):** Play two or three rounds of the clue board game. A total of 8 people can play at a time. See if the kids can develop different strategies to help them win the game faster.

**Guess Who Game (30 minutes):** Play a tournament style of guess who. This can help the kids develop guessing skills.

**Unsolved Case Files Game (1 hour 30 minutes):** This game will take a lot of teamwork and communication. The best game to play that will be appropriate for the kids is the Honey the Bunny Case file. This game costs \$27 and should be a good filler. If students finish the case quickly then you can go back and play some of the other games.



#### **Day Four:**

**Police Day (1 hour 30 minutes):** If possible have someone from your local police department come talk to the kids. See if they can teach you some things on solving mysteries. Use this time to ask questions. They would know best. If possible, have them bring in their K9 unit to teach them things about the unit and what they do.

Walkie Talkie Craft (30 minutes): Take one empty juice box and cover it in Gray spray paint. Cover a ¼ inch wide dowel that is cut to 5.5" in black spray paint. Using black foam paper, cut out a rectangle that is slightly smaller than the front of the box. Cut the width of the rectangle to be 1.5 inches. Cut out small circles of different colors using foam paper. Cut out an oval from light blue foam paper that is the same length as the black rectangle. To assemble, use hot glue. Glue the black rectangle to the bottom portion of the juice box. In the middle to the juice box glue the colored circles in a square formation. Above the circles glue the light blue oval. For the antenna, use the dowel. Poke the dowel through the straw hole in the top, and secure it with a tiny bit of hot glue. Take one 1" styrofoam ball and poke it on top of the dowel.

**Senses Game (15 minutes):** To challenge the kids, get little containers. Fill them up with different substances that have a distinctive scent, like vinegar, toothpaste, soy sauce. Fill 10 different containers. Have the kids close their eyes, or blindfold them. Hold the container up to their nose. They'll then need to guess what the item is. If they are correct then they get a point, if they are wrong then they won't get a point. Whoever gets the most points wins the game.

**Finish Spy Movie(45 minutes):** Use the remaining time to finish the spy movie. While they are watching, prepare the different puzzles for the escape room tomorrow.

### **Day Five:**

**Escape Room (3 hours):** Use different types of puzzles to solve the escape room. You'll have to make some of the puzzles. A puzzle that you can do is a letter puzzle. Use a page of random words. Give them a sheet with numbers, each line should have 3 numbers, they correspond to what line on the page, what word in the line, and what letter in the word. Use this type of puzzle to start the escape room. Be creative with different types of puzzles. You'll need to encourage teamwork and communication for this activity.

Here are some different escape room ideas:



https://teachingideas.ca/2020/05/17/escape-room-2/?utm\_medium=social&utm\_source=pinterest&utm\_campaign=tailwind\_tribes&utm\_content =tribes&utm\_term=1064647148\_50439594\_520244

**Movie (Any Remaining Time):** If the kids finish the Escape Room quickly, you can watch a spy movie for the rest of the day.



# **Supplies:**

- Day One
  - Morse Code
    - Paper
    - Pencils
    - Morse Code Chart
    - Flash Lights
  - Invisible Ink
    - 1/2 cup
    - Table Spoon
    - Teaspoon
    - Baking Soda
    - Rubbing Alcohol
    - Turmeric
    - Water
    - Mixing Utensil
    - Q-Tips
    - Paper
- Lifting Fingerprints
- Note Cards
- Pencils
- Scotch Tape
- Magnifying Glass
- NATO Phonetic Activity
  - Phonetic Alphabet Sheet
  - Paper
  - Pencil
  - Items to Hide
- Day Two
  - Pipe Cleaner Disguises
- Pipe Cleaners



- Scissors
- International Spy ID's
- Spy ID template
- Cardstock
- Scissors
- Pictures of each student
- Glue
- Markers
- Binoculars
  - Empty Toilet Paper Rolls (2 per kid)
  - Hot Glue gun and glue sticks
  - Scissors
  - Colored paper
  - Twine or yarn
- Pigpen Cipher Code
  - Paper
  - Writing utensils
  - Code Sheet
- Day Three
  - Clue Game
    - Game of Clue
    - Writing Utensils
    - Guess Who Game
      - Guess Who game
    - Unsolved Case File
      - Honey the Bunny Case File on Amazon (\$27)
- Day Four
  - Walkie Talkie Craft
    - Empty Juice box (1 per kid)
    - Gray spray paint
    - Black spray paint
    - ¼ dowel cut to a 5.5" length (1 per kid)



- Foam paper
  - o Black, light blue, other colors
- Hot glue gun and glue sticks
- Scissors
- 1" styrofoam ball (1 per kid)
- Senses Game
  - Containers
  - Supstances
- o Vinegar, toothpaste, soy sauce, etc.
- Blind fold
- Day Five
- Escape Room
  - Any materials that may be necessary for the escape room
  - Locks
  - Papers
  - Pencils











# SPY CODES FOR KIDS

A	1	Alpha	
-	10000	- Contract	
В	2	Bravo	
С	3	Charlie	
D	4	Delta	
E	5	Echo	*
F	6	Foxtrot	
G	7	Golf	
Н	8	Hotel	* *: * ' *
I	9	India	996
J	10	Juliet	
K	11	Kilo	
L	12	Lima	
М	13	Mike	
N	14	November	-
0	15	Oscar	
Р	16	Papa	
Q	17	Quebec	
R	18	Romeo	
S	19	Sierra	*:*:*
Т	20	Tango	-
U	21	Uniform	
٧	22	Victor	***
W	23	Whiskey	
X	24	X-Ray	
Υ	25	Yankee	
Z	26	Zulu	

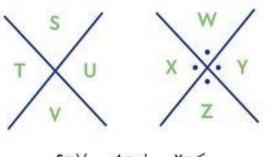
# TAP CODE

	1	2	3	4	5
1	Α	В	C/K	D	E
2	F	G	н	- 1	3
3	L	М	N	0	P
4	Q	R	S	Т	U
5	٧	W	Х	Υ	Z

S=43 A=11 Y=54

# **PIGPEN**

A	В	С	J .	K	L
D	E	F	м.	N	. 0
G	Н	1	Р	Q	R





Use this code (What do you call a bear with no teeth) (Gummy bear)



> JUFUV > PD VTE>

Use this code (X marks the spot)





Walkie Talkie Craft

