

Right Club Curriculum
TOP SECRET!



Top Secret! Overview

Focus: Myths and Mysteries

Unit Description: Your mission, if you choose to accept it, is to step into the shoes of an international spy in this exciting unit. Students will uncover the process of decoding secret messages, performing surveillance, and how to make the cool equipment spies use on their adventures to uncover the truth.

Essential Questions: What is life as a spy like? What skills do spies need to be successful? What techniques can be used to send secret messages?

Enduring Understanding: The world of international espionage is full of secrets and danger. The brave people who face these challenges use a unique variety of skills and tools to help them in their missions. We will discover what it takes to be successful, from decoding secrets to planning a successful surveillance mission.

Standards Addressed:

- **MATH** Students will make sense of and persevere in solving problems using reason.
- **MATH** Students will recognize, generate, and analyze geometric patterns.
- **MATH** Students will construct arguments and critique the reasoning of others.
- **LANGUAGE ARTS** Students participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
- **LANGUAGE ARTS** Students will produce clear and coherent writing using appropriate organization and style.
- **SCIENCE** Students will develop abilities to do scientific inquiry.
- **PHYSICAL EDUCATION** Students will participate in regular physical activity.
- **PHYSICAL EDUCATION** Students will display appropriate sportsmanship while participating in physical competition.
- **SOCIAL STUDIES** Students will develop an understanding of the many ways nations interact with one another.
- **SOCIAL STUDIES** Students will understand the role of the citizens in American democracy.
- **VISUAL ARTS** Students will use a variety of techniques and processes to convey meaning.
- **SOCIAL-EMOTIONAL LEARNING** Students will apply decision making skills to deal responsibly with daily academic and social situations.



Daily Activities

- 1) **Sleeper Spy Tag** – It’s hard to know who to trust when you are a spy. It’s also hard to know who to trust in a game of Sleeper Spy Tag! Are you surrounded by friends or foes?
- 2) **Deep Undercover** – In order to survive, secret agents often take on a completely new identity. We will develop our own new personas, including IDs, backstories, and even costumes.
- 3) **The Interrogation Room** – We put our new identities as secret agents to the test in an exciting game that requires a good memory and fast thinking. Don’t blow your cover!
- 4) **Code Crackers** – We will take our secret agents on a cryptographic adventure of code writing and code breaking. The coding device we’ll use is both simple and brilliant.
- 5) **Spy vs. Spy** – In this game of secret motives and hidden agendas, it’s everyone for themselves! We’ll have to move fast and think faster to stay safe.
- 6) **Cypher Disk**– This cool coding tool is great for a spy on the move. All we need is a disk and a cypher key to send and decipher secret messages just like they did in the Civil War.
- 7) **Seeing Red** – Sometimes, we can’t see what’s right in front of our face...until we have the right tools. This eye-popping coding trick uses the way we interpret color to hide messages in plain sight.
- 8) **Buggin’ Out** – Do you ever get the feeling someone is listening in on your conversations? We will discover how to find out for sure in this game of sound surveillance.
- 9) **Key Punch** – It’s a race against the clock in this team challenge. It will take teamwork, communication, and creative thinking to be the first to input the secret code and save the day!
- 10) **Spy Games** – It all comes down to this. Can our team of secret agents, spies, and covert operatives step up to the ultimate challenge of code breaking, mystery solving, and general espionage craziness?
- 11) **Top Secret Mission (Optional)** – Now that we know what it takes to be an international spy, it’s time to put those skills to the test. This top-secret mission will not only be fun to attempt, but will also end with a hilarious payoff.



S&S Supplies Needed

Activity	Item #	Description	Amount
Sleeper Spy Tag	OC1009	Index Cards	1 per program
Cypher Disk	SC312	Paper Fasteners	1 per program
Seeing Red	W10020	Plastic Bingo Chips	1 per program
	EC1197	Red Pen	1 per 12 students
	EC1211	Highlighter	1 per program
Buggin' Out	EC1355	Aluminum Foil	1 per program
	CC687X	Chenille Stems	1 per program

Items From Home

Activity	Description	Amount
Deep Undercover	any clothing or accessories students can use to create a disguise (hats, wigs, scarves, glasses, props, etc.)	As many as possible
Buggin' Out	***various electronic components from old/broken equipment (e.g. old calculator, remote control, radio parts)	As many as possible

***optional

Right Club Supplies Needed

- Tape
- Markers
- Cones
- Crayons
- Paper



1) Sleeper Spy Tag

Supplies: index cards, marker, large open space

Preparation: Set aside one index card for each student. Mark 2 cards with a small dot. Leave the rest blank. Mix up cards. **NOTE:** Tomorrow's activity involves students creating disguises. Please have all of your staff bring in clothing, accessories, and costume pieces from home. See Activity 2 for details.

Learning Objective: Students will engage in gross motor activity and practice quick decision making in a competitive game.

Warm-Up:

- *What do you know about spies? Who are they? What do they do? What skills do they need?*
- *Spies are people who secretly collect information. They collect information for a country, organization, or company about an enemy or competitor. Spies operate in secrecy, communicate in codes, and face constant danger.*
- *During our new unit, Top Secret, we are going to learn more what life as a spy is all about! Read Daily Activities page with students to preview the unit and build excitement!*
- *Spies often conceal their identity. Some, known as sleeper spies, hide their identities until they are activated, or called upon to perform a task.*
- *Today, we are going to play a game that shows you what that's like. We are going to play a game in which some of you will be sleeper spies!*

Unit-Long Project Note:

Remind students that they have the option of developing and participating in a unit-long, student-driven project that ties to the theme. This is what makes every day a Daily Double! (Add free art, and you've got a Triple Play!) Ideas for this project can include, but are not limited to, the following:

- Create a secret coded message to send to another Right Club program. Have them decode it.
- Invent a spy gadget.
- Create a graphic novel about a spy.

These are just a few ideas to get you started. Ideally, this project is developed by the students, reflecting their interests.

Activity **(Take It Outdoors!)**:

1. *We are going to play a tag game called Sleeper Spy Tag. Our game will have taggers, called Spies, and players trying not to get tagged, called Citizens. This tag game will have an added twist, players that are secret taggers, called Sleeper Spies. We won't know who they are until I activate them. That means we'll need to keep an eye out, because they could be anyone! Let's find out what your role will be.*
2. *Everyone, drop your head and cover your eyes with your hands. No peeking! I'll come around and tap some of you on your shoulder once, a few twice. Pay attention to how many times I tap you. If you were tapped once, you are a Spy. That means you are a tagger. Don't let anyone know you are a Spy until the game starts. But once it starts, you can immediately begin trying to tag Citizens.*
3. *If you were tapped twice, you are a Sleeper Spy. That means your job is to act like a Citizen until you are activated and become a tagger. No one should know you are a Sleeper Spy.*
4. *Go around and secretly tap two students once. These are your Spies. Now go around and secretly tap three students twice. These are your Sleeper Spies. (Feel free to adjust numbers based on group size.)*
5. *Ok, you can open your eyes. Everyone who was not tagged is a Citizen. Your goal is to **NOT** get tagged. If you get tagged, you must freeze in place until the secret spies are revealed.*
6. *When I say, "Sleeper Spies, activate!" all of the people I tapped twice can now tag Citizens as well. That means everyone should stay on their toes. You never know if that person next to you will become a tagger!*
7. *Have students spread out. Signal beginning of the game. After a few people have been tagged, activate your Sleeper Spies.*



8. Play multiple rounds, switching roles and adjusting number of students in each role. You can also give a few students the role of **ally**. **Allies** are friendly to Citizens and can unfreeze frozen players.

Wrap It Up:

- *Sleeper Spies, what did you do to try to convince people you were a Citizen?*
- *If you were a Citizen, how would you determine who you should trust and who you shouldn't?*

Take It Away:

- *What are some ways people gain your trust in real life? What are some reasons they can lose that trust?*

Lead In:

- *Next time, we are going find out how spies keep their secrets by going deep undercover!*



2) Deep Undercover

Supplies: Construction paper, crayons, pencils, various craft supplies, any clothing or accessories students can use to create a disguise (hats, wigs, scarves, glasses, props, etc.) **Note:** Items used for disguises will also be used during Activity 3.

Preparation: Print and cut out descriptions for each station found on Pics for Kids. Set up each station with appropriate materials. Post description next to materials. Print and cut out Mission Cards. Each student will need one Top Secret Mission Card.

Learning Objective: Students will exercise and imagination and resourcefulness to create an **undercover** identity

Warm-Up:

- What does **undercover** mean? When spies are **undercover**, they are pretending to be someone they are not. Why would they do this?
- Right – being **undercover** helps them gain information and the trust of others they would not be able to gain on their own.
- But how do spies maintain a separate identity? It takes careful planning!
- If you were a spy that had to create a brand new identity, what sort of details would you have to think about? Remember, you might be questioned at any time. You need to know the details of your own life, or you might be found out as a spy!
- Today, we are going to create our own **undercover** identities. They better be good, because tomorrow, they will be put to the test during questioning!

Activity:

1. Each of you will receive one of these top secret mission cards – this tells you what you’re trying to accomplish as an undercover spy. Think hard about the best undercover identity to use in your specific situation.
2. Next, you will go through 4 different stations to create your undercover identity. Try to think of every detail of that person’s life, because tomorrow we’ll put your identity to the test! Remember not to tell anyone your mission. It’s top secret!
3. Distribute one Top Secret Mission Card to each student. Younger students may need help reading their card. Explain what students are to do at each station.
4. Split the group up into four smaller groups. Position each at one of the four stations. Allow them to move independently to the other stations when they are ready.
5. If time remains, challenge students to roam the space in character to see if they can find others with the same mission.
6. Collect all materials for use in Activity 3 tomorrow.

HELPING ALL STUDENTS SUCCEED!

- Younger students will need assistance with portions of this activity that require reading station instructions and writing. You may choose to place a staff member or Junior Educator at Stations to assist.

Wrap It Up:

- Why was resourcefulness and creativity important in this activity? Why is it important for a spy to have?
- How would using that identity benefit you as a spy? What kind of information would you have access to by being **undercover**?

Take It Away:

- Some people say the best **undercover** identity is one close to your true identity. That way it is easier to remember the details. What do you have in common with your **undercover** identity? How are you different?



Lead In:

- *Tomorrow, we'll put our new identities to the test in the Interrogation Room!*



Pics for Kids

Station 1 - Alias

Materials - Paper, pencil

Objective - Create your new alias. This is the name of your cover identity.

Challenge! – Create an alias that is an anagram of your own name. An anagram is when you mix up the letters of one word to create a new word. For example, the character of *Hamlet* from William Shakespeare’s play was actually an anagram of or a real Danish prince named *Amleth*.

Station 2 - Backstory

Materials - Paper, pencil

Objective - Create your new identity. Write down all the details of this person’s life - job, family, where they went to school... everything! It’s important to carefully think all these details out and remember them. You will be interrogated tomorrow and don’t want to blow your cover!

Challenge! – Go deep. Where were you born? What was your pet’s name when you were a child? What sports did you play in school? You might be asked anything in interrogation tomorrow. Be ready with the answer or to come up with one fast!

Station 3 - Costume

Materials - Various clothes, accessories, and craft supplies

Objective - Plan a costume for your new identity. Think about what that person might look like. How would they style their hair? What would they wear?

Challenge! – Use craft supplies to create your own disguise. Need a moustache or glasses? Make your own!

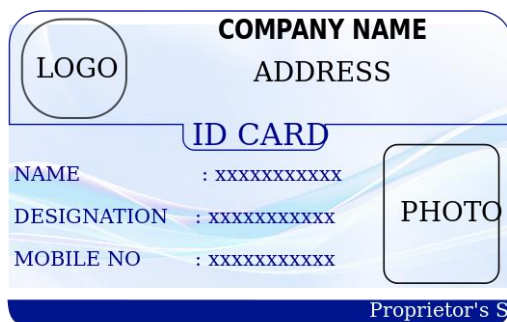


Station 4 – Pretend ID

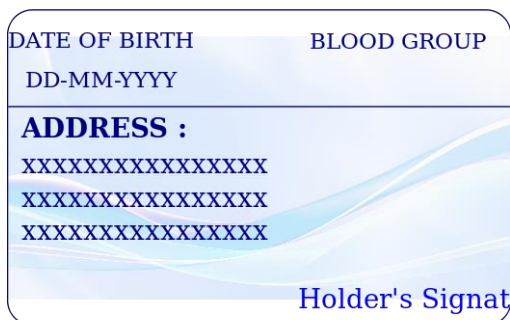
Materials – construction paper, crayons, pencils, scissors, etc.

Objective – Create your own pretend identification, using the examples to inspire you.

Challenge! – Think hard about what kind of identification your cover identity would use. Get creative! Be silly! You can go undercover as a zoo employee, astronaut, or anything else you can think of.



FRONT SIDE



BACK SIDE



Top Secret Mission Cards

<p>The Ambassador of Sweden is having a costume party. Your mission, if you choose to accept it, is to create an identity and costume that will allow you to sneak in and retrieve stolen files in the embassy.</p>	<p>Someone is kidnapping animals from the zoo. Your mission, if you choose to accept it, is to gain access to the whole zoo and uncover the mastermind using an identity of your choosing.</p>
<p>Someone has replaced the gold medals at the Olympics with fakes. Your mission, if you choose to accept it, is to go undercover at the Olympics to find the person responsible.</p>	<p>Hollywood star Daisy Miles has gone missing and word on the street is it was an inside job. Your mission, if you choose to accept it, is to create an identity to help you get on the movie studio lot to investigate Daisy's disappearance.</p>
<p>A counterfeiter is selling fakes at the National Comic Book Convention. Your mission, if you choose to accept it, is to create an identity help you move undetected in the convention.</p>	<p>Andy's Candies has a new product that tastes suspiciously like Rock's Chocolates. Your mission, if you choose to accept it, is to gain access to Andy's Candies and find out if they stole the recipe.</p>
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3) Interrogation Room

Supplies: Any items created during Activity 2, including clothing and accessories used to create costumes.

Preparation: Set out materials.

Learning Objective: Students will practice listening skills and deductive reasoning in their study of interrogation tactics.

Warm-Up:

- *How can you tell if someone is lying? Spies uses a variety of questioning techniques to discover who is telling the truth. This type of deep questioning is called **interrogation**.*
- *One popular **interrogation** technique just takes patience and attention to detail. The philosophy behind this technique is that if someone tells you a lie, then they have to lie more and more to cover up the first lie. The more lies they tell, the harder it is to keep them straight.*
- *All you have to do is ask them a lot of detailed questions, and eventually they will slip up and confuse their own stories by contradicting something they said earlier.*
- *Yesterday, you created fake identities to go undercover. Today, we will find out how convincing you can be in your undercover identity when you face questioning in the **interrogation** room!*

Activity (Take It Outdoors!):

1. *Welcome to the **interrogation** room! I am going to break you up into groups. You will take turns being the spy while everyone else are **interrogators**.*
2. *When it is your turn to be the spy, you will get into character as the undercover spy identity you created yesterday. You are under suspicion of being a spy and have been brought in front of a group of **interrogation** experts.*
3. *The **interrogation** experts may ask to see your ID. They will take turns asking you questions about your life, trying to catch you in a lie. Your goal is to convince them that you are the cover identity you created yesterday. You will have to think fast and be convincing. If you can make it through 20 questions, you will pass the **interrogation**.*
4. ***Interrogators**, your goal is to ask tough, detail-oriented questions to see if you can catch the spy lying or confusing his or her own stories. You only get 20 questions, so keep track of how many you ask and make them good!*
5. Put students into groups of 6-8. Have them take turns being the spy.

Wrap It Up:

- ***Interrogators**, what kinds of questions did you ask? Why did you choose these particular questions?*
- *Spies, what was it like being questioned? How did you do at maintaining your fake identity?*

Take It Away:

- *How can you use what you learned to find out when people are lying to you in real life?*

Lead In:

- *Next time we meet, we will discover how to send and decipher one of the oldest forms of coded messages!*



4) Code Crackers

Supplies: scissors, paper, pencil/pens

Preparation: Cut paper into 11" x 1" strips. Create a scytale (sky-TAL-ee) for every 3 students with the same code word. See Pics for Kids for directions.

Learning Objective: Students will explore cryptology and decoding by creating a scytale.

Objective:

Warm-Up:

- *A big part of a spy's job is sending and receiving secret messages. These messages must be coded, so the information does not fall into enemy hands. I have just such a message here. Work with two other people to see if you can decode the message.*
- Pass out scytales slips of paper without the pen to decode. Allow students enough time to try to figure it out without a pen, but not so much time that they become frustrated.
- *Couldn't get it, right? That's because you are missing a special tool. This message was coded using a scytale.*
- *Scytales have been used since the time of the ancient Greeks. All you need is a strip of paper with the message and two rods of the same size. To decode the message, you wrap it around a rod the same size as the rod the writer used. Then certain letters line up to reveal the message.*
- Demonstrate how to reveal the message for students. Allow them to try decoding their message again using a pen or pencil.
- *What would happen if the two parties had different size rods? (The letters would not line up properly.)*
- *Today, we are going to practice coding and decoding messages using a scytale.*

Activity:

1. Show students how to create their own message using this method.
2. Have them write their names. Encourage them to fill in blank space with random letters.
3. Split the group into two teams.
4. *Now that we have learned how to write our messages, let's practice deciphering them. When I say, "Go," each team is going to unroll their strips and shuffle them all up on the table. Each person will grab one strip at random, decode the name written on it, and give it back to the person who wrote it. First team to get all their messages back to the original authors, wins. Go!*
5. Invite each team to write a longer message composed of multiple strips of paper that must be deciphered and put into the correct order. Have teams exchange strips, decipher words, and order them into a complete sentence.

HELPING ALL STUDENTS SUCCEED!

- Younger students can choose to draw emojis or other visual representations in lieu of letters.

Wrap It Up:

- *What are some advantages and disadvantages of this type of coded message?*
- *Do you feel scytales are a safe way to send messages? Would it be easy for your enemy to decipher it? Why or why not?*

Take It Away:

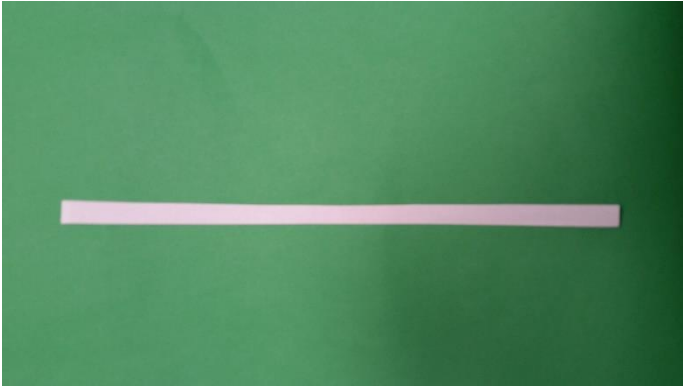
- *What could you do to make the code even tougher to crack?*
- *Spies aren't the only ones with secrets. What can we do to make sure only people we trust know our secrets?*

Lead In:

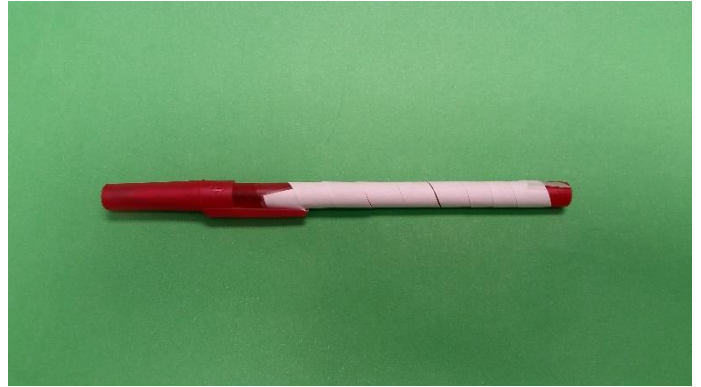
- *Next time, we take our spy games outside for an exciting game that tests our physical limits and ability to react!*



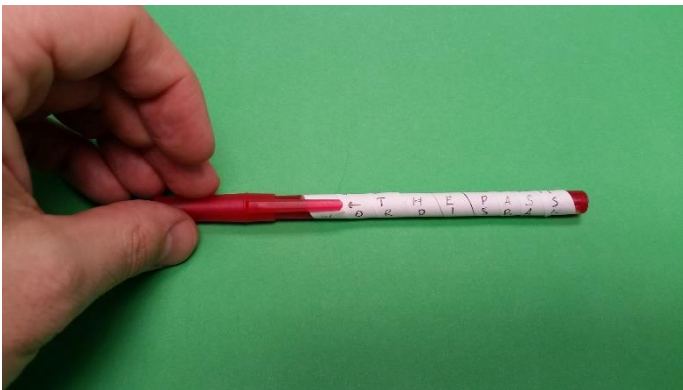
Pics for Kids



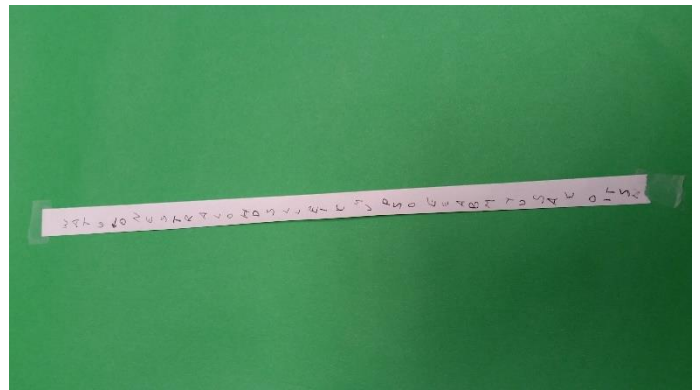
1. Cut a strip of paper long ways.



2. Lightly tape end to pen. Wrap paper around pen.



3. Draw arrow pointing towards clip. Write message, from left-to-right across strip, as shown (this message says THE PASS). Add other random letters covering the rest of the paper.



4. Carefully unroll strip to reveal coded message.



5) Spy vs. Spy

Supplies: large, open space

Preparation: None

Learning Objective: Students will explore how to stay calm and focused under pressure while playing a strategic, gross motor game.

Warm-Up:

- *Have you ever played a game where the rules suddenly changed out of nowhere? What happened? How did you react? How did you stay cool under pressure?*
- *A spy's mission can change in the blink of an eye. Their cover can get blown. They can lose contact with their team. Anything can happen! For this reason, they must be able to quickly and effectively react, or adjust, to new conditions. What do you do to stay calm and focused when you're under pressure?*
- *In order to react to a rapidly changing situation, you need to be observant to notice what's changing so you can respond immediately.*
- *Today, we are going to play a game where your situation will constantly change. Can you react in time?*

Activity (Take It Outdoors!):

1. Have students stand in a large circle.
2. *You are all spies. An enemy wants to blow your cover! You're going to have to keep away from that enemy with the help of a friend, known in the spy world as an ally.*
3. *Without saying a word or letting anyone else know, look around and choose your enemy in your head.*
4. *You also have one friend, an ally. Without saying a word or letting anyone else know, look around and choose that ally.*
5. *When I say, "go," you can start to move around. Your goal is to move so that your ally is always between you and your enemy. This is how you stay safe! You'll have to react quickly, because everyone will be on the move, and no one will know if they are your enemy or ally.*
6. *Everyone understand? Go!* Have students play a few rounds, asking students changing who their allies and enemies are each time. Between rounds, ask students who they think picked them as an ally or enemy and what makes them think that.

Wrap It Up:

- *What did you do to react to the constantly changing situation? What are some ways you stayed calm and focused?*
- *What strategy could you do before the game starts to improve your odds of success?*

Take It Away:

- *While we can't control certain situations, we can choose if we react positively, such as staying calm and positive, or negatively, like panicking. What's an example of a time you reacted positively to a challenging situation?*

Lead In:

- *Next time, we will create a tool for writing and deciphering codes that have been around for hundreds of years!*



6) Cypher Disk

Supplies: scissors, paper fasteners, pencil/markers/crayons

Preparation: Print one template (two disks) on Pics for Kids for each student. Create your own **Cypher Disk** by cutting out the template and connecting the two circles in the middle with a paper fastener.

Learning Objective: Students will practice problem solving and patience, as they experiment with **Cypher Disks**.

Warm-Up:

- *The other day, we were secret message code breakers. Many codes today are so complicated they require computers to be decoded. What tools do you think spies used to write and decipher codes before computers?*
- *One tool used was called a **Cypher Disk**. Show Pics for Kids. They have been around since the year 1470.*
- *The two wheels move independently of each other, so the user can change the code if their enemy learns it. Demonstrate with your example **Cypher Disk**. They can even make the code more complex by changing the code in the middle of words!*
- *Let's make our own **Cypher Disks** so we can start cracking codes!*

Activity:

1. Pass out templates, scissors, paper fasteners, and writing utensils.
2. *To make a **Cypher Disk**, you simply cut out the two alphabet disks, one larger than the other, and connect the two circles in the middle with a paper fastener.*
3. Have students cut out circles and fasten together with the smaller one on top of the larger one. Support younger students with cutting as needed.
4. *To use the **Cypher Disk**, find the A with an arrow on your inside disk. Demonstrate with your example **Cypher Disk**.*
5. *Now, turn the A with the arrow to point to the letter G on the outside disk. Demonstrate using the **Cypher Disk** made during Preparation.*
6. Point out which letters on the inside disk correspond to which new letters on the outside disk. (*i.e.*, So right now A=G. What does B equal? (B=H) What does C equal? (C=I))
7. *Let's decode a message together for practice. I'm going to give you the letters SYM. Look at your **Cypher Disk** and tell me what SYM actually spells out. (YES)*
8. *Now you and a partner are going to decode a message yourself. Pass out message on Pics for Kids to pairs of students to decode.*
9. Allow students to decode message. It should read "The code word is banana split!"

EXTEND THE LEARNING!

- If time remains, invite older students to use their **Cypher Disk** to create coded messages for younger students to decipher.
- **Cypher Disks** can be used in a variety of ways. For an additional challenge, invite older students to create their own method for encrypting messages using this tool!

Wrap It Up:

- *What are some of the advantages and disadvantages of **Cypher Disks**?*
- *One clue people look for when trying to crack codes is the length of words or how often certain letters come up. How can we alter our secret messages to minimize these clues?*

Take It Away:

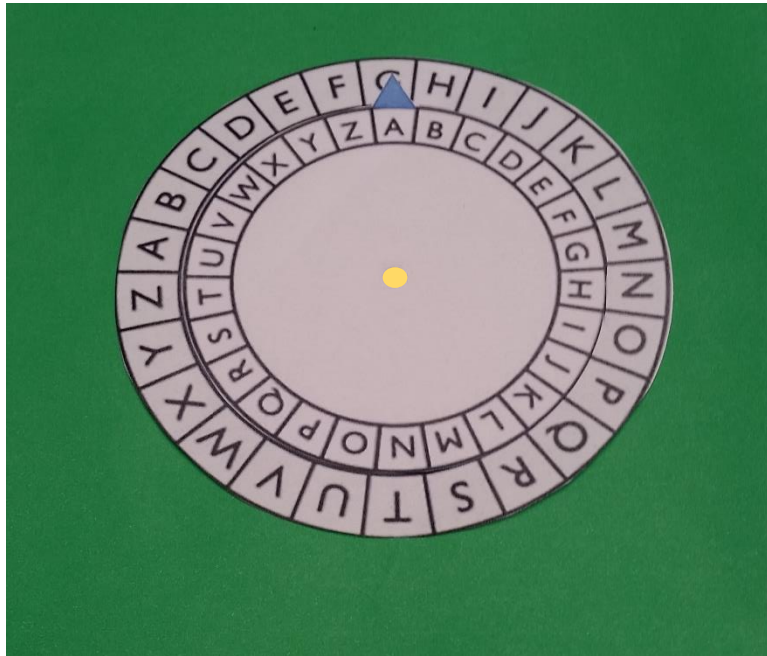
- *Sometimes, the simplest tools are the best. What are some advantages this simple tool has over computers or phones?*
- *Can you think of other examples of simple tools around school or your home that have an advantage over more complex technology?*

Lead In:

- *Next, we will investigate a skill that allows you to see things others can't!*



Pics for Kids



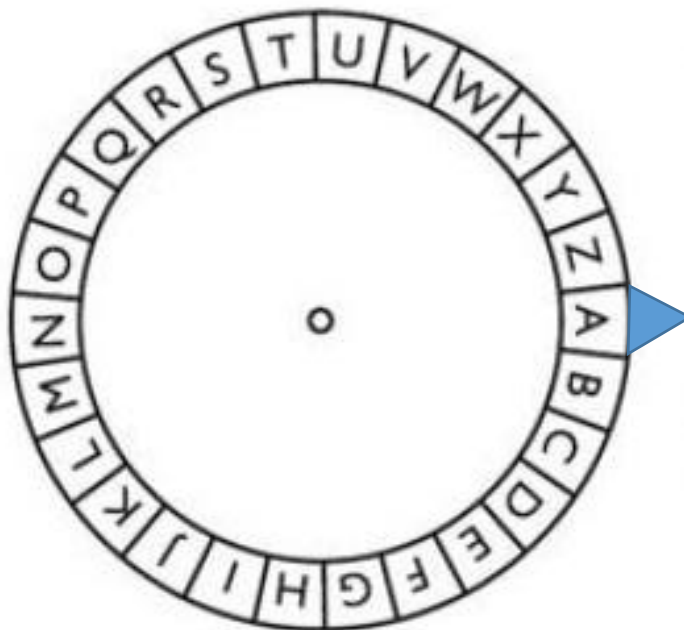
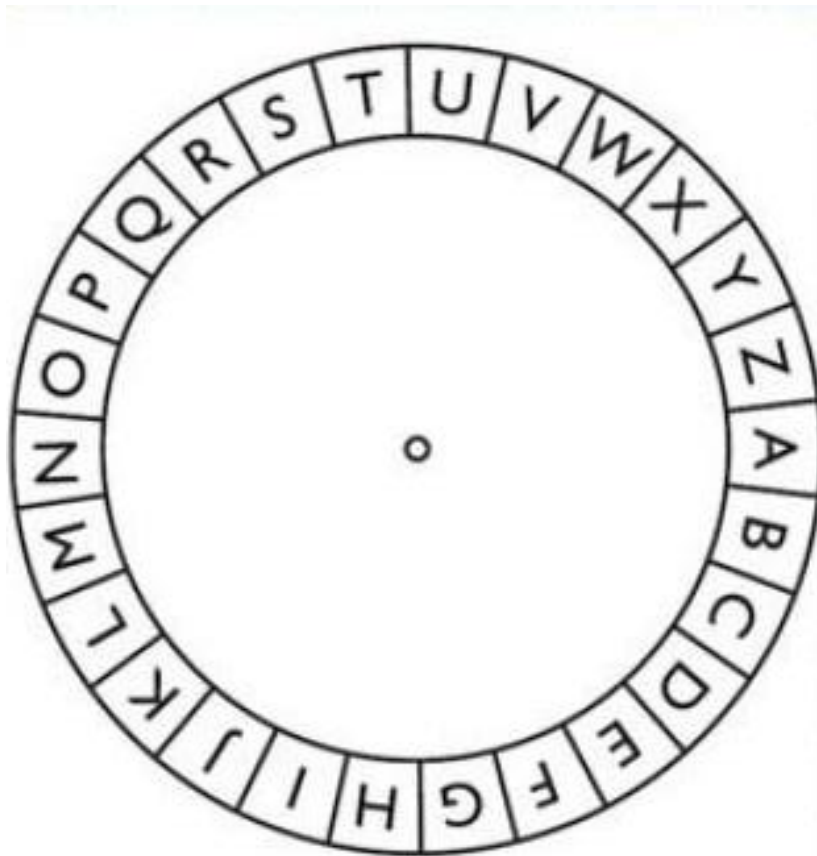
Can you decode the following message? Make sure your Cypher Disk is set to the letter G first! The first letter has been done for you. When you figure out the answer, tell a staff member!

Z N K I U J K C U X J O Y
T _____ _____ _____

H G T G T G Y V R O Z!
 _____ !

Now try to write your own coded message! You don't have to start on G. You can start anywhere you like. Just make sure the person decoding knows which letter to use.





7) Seeing Red

Supplies: 1 red transparent counter coin per 2 students; blue crayon; red pen; yellow highlighter; paper.
Educator's Note: Red counters will be used again in Activity 10.

Preparation: Create your own secret message using the directions found on Pics for Kids. Cut out cards found on second page of Pics for Kids.

Learning Objective: Students will experiment with how our brains perceive color and explore sense of sight to both hide and reveal images.

Warm-Up:

- *A secret message has been left here for all of our spies. What do you think it says?* Show students message created during Preparation. Allow them to discuss.
- *The message is hard to see, because we don't have the right tools. These counter coins might help.* Give students access to counters in a variety of colors. Encourage them to look through different colors. Discuss how each color changes the way the message looks.
- *Did some colors work better than others? Which color worked best? Why do you think that is?*
- *The secret to this type of coding has to do with the way our brains perceive color. The blend of red and yellow ink on white paper is confusing to the eye.*
- *But if we use a red coin over the message, it filters out all the other colors besides white. This lets the blue message pop out, since it does not have any red in it*
- *Let's experiment more with this technique by playing a secret message game!*

Activity:

1. Share Pics for Kids with students and discuss steps. Allow them to try writing their name using this technique to practice.
2. *Time to put your skills to the test. I'm going to put you into teams and give each team something different to draw. Then, you will find a space away from everyone else to do a quick sketch of that thing. It doesn't have to be a work of art, just good enough for someone to guess what the object is. Sort of like Pictionary.* Pass out materials. Allow students to draw.
3. *Now, you will cover it up with the red pen and highlighter. This part is important. You want to make sure it can be seen through the red coin, but not if you were looking at it with the naked eye.* Allow students to cover their drawing.
4. *Now, two teams will stand face-to-face. Everyone will hold their drawing up. If you can correctly guess what the other team's drawing is without using a red coin, your team gets two points. You can also choose to use your coin to help you, but then you only earn one point.*
5. Split students into teams of 2-4. Hand out cards cut during Preparations. Allow them to create their secret images.
6. Have students play game described in steps 4 and 5.
7. If possible, display materials by sign-out sheet so parents can decode messages. **Educator's Note:** Red counters will be used again in Activity 10.

Wrap It Up:

- *Would this be a good method for hiding top secret information? Why or why not?*
- *Would other color combinations might work? Why do you think so?*

Take It Away:

- *Understanding how our brains interpret what our eyes see can lead to some fun technological advancements like 3D movies! What other technology could use this information? (Virtual Reality, CGI, etc.)*

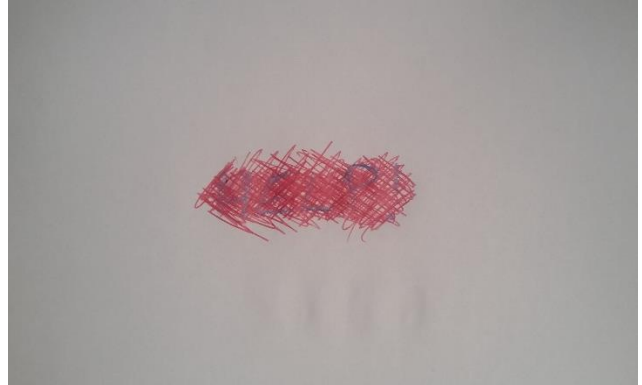
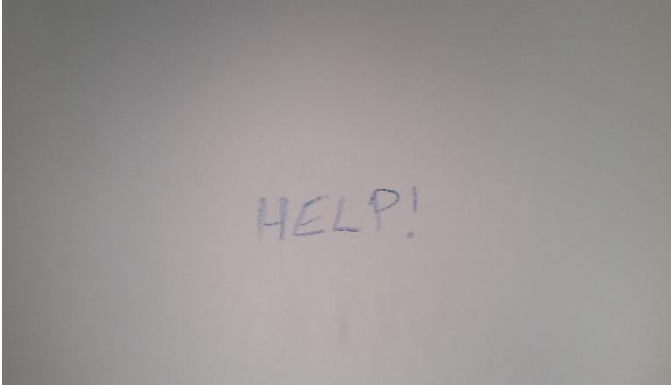
Lead In:



- *Tomorrow, we will play a game that shows you never know who's listening.*

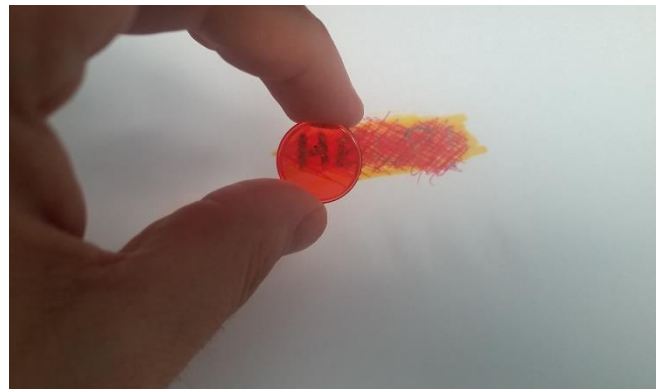


Pics for Kids



1. Write your secret message in blue crayon.

2. Make crosshatches on top of the crayon with red pen.



3. Cover with yellow highlighter.

4. Look through the red counter to reveal the secret message! Experiment with other colors and writing utensils to see what works best for you!



Pics for Kids

<i>CAR</i>	<i>SHOE</i>	<i>FOOTBALL</i>	<i>PIZZA</i>
<i>BANANA</i>	<i>DOG</i>	<i>HORSE</i>	<i>PHONE</i>
<i>BICYCLE</i>	<i>ROLLERSKATE</i>	<i>HAT</i>	<i>BOOK</i>
<i>PAPERCLIP</i>	<i>PENCIL</i>	<i>HOUSE</i>	<i>TREE</i>
<i>DINOSAUR</i>	<i>TV</i>	<i>FLOWER</i>	<i>ROCKET</i>
<i>BUG</i>	<i>SUN</i>	<i>KEY</i>	<i>NOSE</i>
<i>HAND</i>	<i>COMPUTER</i>	<i>SKATEBOARD</i>	<i>SUNGLASSES</i>
<i>SHIRT</i>	<i>ROBOT</i>	<i>HUMAN</i>	<i>CAT</i>



8) Buggin' Out

- Supplies:** tape, aluminum foil/gold foil, cardstock, markers, chenille stems, transparent counters, various craft supplies
- Optional Supplies:** various electronic components from old/broken equipment (e.g. old calculator, remote control, radio parts, etc.) **Note:** Make sure there are no sharp edges on these pieces.
- Preparation:** Cut cardstock into pieces approximately 2" x 2". Set out materials.
- Learning Objective:** Students will explore creativity and their senses to better understand surveillance (ser-VA-lens) and its use in covert operations.

Warm-Up:

- *Do you have a secret hiding spot to keep things you don't want other people to find? How did you decide where to hide those things?*
- *Spies use secret hiding spots all the time. Sometimes, it is to hide information. Sometimes they hide secret recording devices called "bugs." These are small video or audio recorders, but they are both used the same way. They are hidden to aid the spies in surveillance (ser-VA-lens), or close monitoring of suspected enemies or people with valuable information. Show Pics for Kids.*
- *Where would you hide a recording device or bug? They can be hidden under tables, in phones, in hollowed out books, or just about anywhere else you can think of. Being able to hide and find bugs is an essential skill for a spy.*
- *Today, we are going to play a game that tests our ability to hide and find recording devices. Let's go!*

Activity:

1. *The first step in today's activity is to design our own bugging devices. You can use any of these of these materials. Your device should be about this big. Show students pre-cut cardstock. Make sure your bug has a unique look, so you tell it from other people's bugs.*
2. *Allow students time to create their own bugs.*
3. *Choose three students. These three students are going to be our surveillance targets. The rest of us will have to hide our bugs in a place they won't expect. You can use tape, hide it inside another object, or use any other technique you can think of.*
4. *When I say go, our surveillance targets will put their heads down and cover their eyes. The rest of you will hide your bugs in a place where our surveillance targets won't find it. You can put them anywhere except in backpacks or other personal belongings.*
5. *After all the bugs are hidden, our surveillance targets will have 2 minutes to search for bugs. After that, they can ask 2 yes/no questions about any bugs they did not find. Make sure they are good questions! They will then have one more minute to look for remaining bugs.*
6. *If our surveillance targets find them all, they win. If your bug is not found, that means your surveillance was successful and you win!*
7. *Allow students to play a few rounds. Have students switch roles.*

SOLUTIONS FOR ALL SPACES

- Adjust this activity based on number of students and space available. You may need to limit hiding within a certain area, split up large groups, or require the surveillance targets to only clear an area of a certain radius. Use your best judgement to determine what works best for your program.

Wrap It Up:

- *What are some other ways spies may conduct surveillance of someone without using bugs?*
- *What are some warning signs that spies might look for to know they are under surveillance?*

Take It Away:

- *Surveillance experts must have good listening skills, be able to block out distractions, and be detail-oriented. What are some other times these skills come in handy at home? At school?*

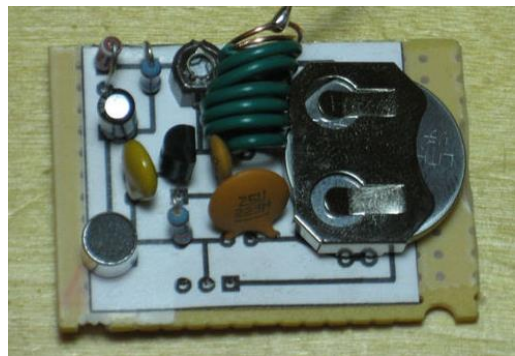
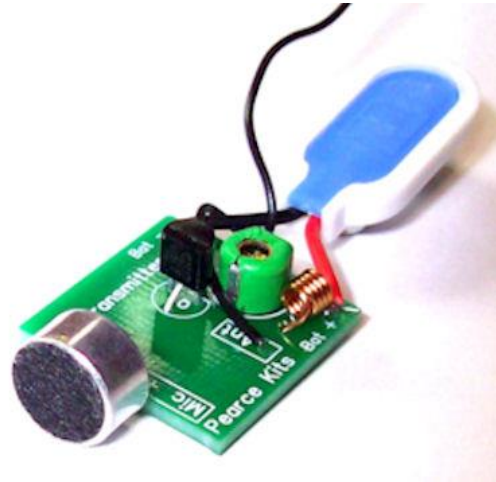
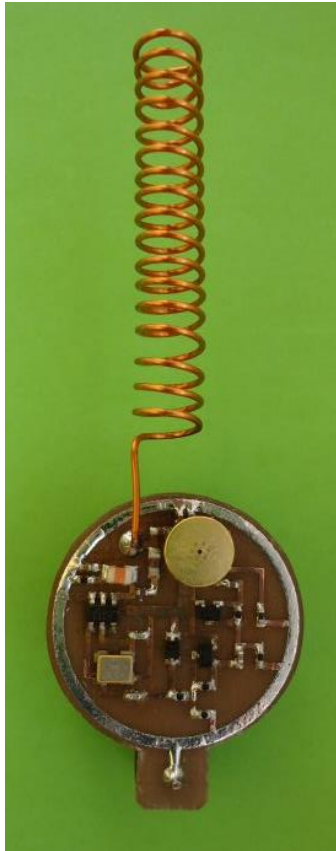
Lead In:



- *Next time, we will face unusual problems that need creative solutions. Are you up for the challenge?*



Pics for Kids



Above are a few examples of bugs designed to secretly record enemy conversations. A student-made example is below.

Where would you hide these devices?



9) Key Punch

Supplies: paper plates/construction paper, marker, jump rope/chalk/masking tape/natural border (sidewalk, lines on a basketball court, etc.), timer, large, open space.

Preparation: Number 2 sets of plates 1-10. Larger groups may want to number 1-20 or more. Randomly spread out each set of numbered plates on the ground in separate spaces. Create borders around each space with jump rope, tape, or chalk, if necessary. See below.



Learning Objective: Students will practice aspects of **problem solving**, including communication, teamwork, and strategy.

Warm-Up:

- *Spies often find themselves in unusual situations that require **problem solving** skills. What skills do good problem solvers need? (communication, teamwork, critical thinking, open-mindedness, etc.)*
- *Often spies have to work together to solve problems. How is working with a team to solve a problem different than doing so on your own? (greater variety of ideas and opinions, need to consider different personalities, etc.) What tips would you give to a team trying to solve a problem or complete a task? (share ideas, listen with an open mind, agree on a plan, etc.)*
- *Today, we have a game that involves communication, teamwork, and strategy. Who's ready?*

Unit-Long Project Note:

- Remind students working on the unit-long project that they will be presenting their project to the group tomorrow. Allow them the opportunity to plan how they would like to do that.

Activity (**Take It Outdoors**):

1. Split students into two teams. Have each team circle around one of the game areas.
2. *Imagine this area is a giant key pad. Your team needs to punch in the code I give you to gain access to your enemy's computer system. One person at a time will enter the keypad, touch one number, and step out. Then, a different team member can enter to press the next number and so on.*
3. *You must enter the code before the other team to win. However, if you touch the wrong number, or if two people step on the keypad at the same time, your opponent wins.*
4. *You have one minute to talk before I give you the code. Think about the best strategy to accomplish this task. Go!*



5. After one minute, reveal the code is simply the numbers in numeric order. Have each team attempt to complete the challenge.
6. *How do you feel about your team's strategy? How can you improve it?*
7. *We are going to play again. This time, after I give you the new code, there is no talking! You must do everything in silence.*
8. Allow students to revise their strategy. Play again, changing the code from counting up to counting down (e.g. instead of 1-10, this round would be 10-1).
9. Challenge students with random codes that require them to remember longer sequences of numbers.

Wrap It Up:

- *How did you decide on your strategy?*
- *When problem solving, how did you use communicate your ideas?? How did you communicate without words during the game?*

Take It Away:

- *How are team **problem-solving** activities like this similar to being on a sports team, a member of your class, or part of Right Club?*
- *What skills did you use in this activity that you can use in other parts of your life?*

Lead In:

- *Next time, we have one last mission to complete! It will take all your Secret Agent skills!*



10) Spy Games

Supplies: large open space, cones, two small objects (ball, scarf, beanbag, etc.), paper, red pen, highlighter, blue crayon, red counter coin, deck of cards, cypher disk

Preparation: Set up 3 challenge stations as described on Pics for Kids. Cut out each of the Mission Parameters to display at that station. Organize a deck of cards such that there are an equal number of red and black cards, exactly one card for each student. There should be exactly one red ace and one black ace in the deck. Shuffle deck.

Learning Objective: Students will develop problem-solving and observational skills as they work together to determine the identity of a saboteur.

Warm-Up:

- *We have learned that the life of a spy is full of adventure, secrets, and even deception. Today's activity puts all of those things together in one last mission!*
- *Today, you will all be spies working together to compete in a series of challenging missions, but not everything is as it seems. One member of your team will be a double agent! That means they act like they're on your side, but they're really working for your enemy! That person will be secretly trying to sabotage your team, or keep them from obtaining their goal, without letting you know.*

Unit-Long Project Presentation:

- Invite students who worked on the unit-long project an opportunity to present to the group.

Activity:

1. *In just a moment, you will get a card. Remember the color, but do NOT let anyone else know what you got. It's classified information! Pass out cards.*
2. *If you received a red card, go to this side of the room. You are on the red team. If you received a black card, go to this side. You are on the black team. Point to opposite sides of the room.*
3. *If you received an ace, you are the double agent. DO NOT LET ANYONE KNOW! Your mission is to make it hard for your team to succeed. To make simple mistakes and slow them down, but they can't know you're doing it on purpose. Collect cards. Look for the ace as you collect to find out who the double agent is.*
4. *Each mission is worth one point. If your team can figure out who the double agent is, you get an additional 2 points. Double agents, you get one point for every challenge your team does NOT win. However, if they figure out that you are the double agent, you lose all your points, so be careful not to get caught.*
5. Lead both teams through each mission found on Pics for Kids, keeping track of points awarded after each challenge.
6. After the final mission, have each team confer on who they think the double agent was. Let this discussion go on for a while. Push for a consensus.
7. Announce winners, reveal double agents.

SOLUTIONS FOR ALL GROUPS!

- Programs with 4 students or fewer can play Students vs Adults or have an adult join one of the teams.

Wrap It Up:

- *Double agents, what did you do to sabotage your group? How did you keep your identity and actions a secret?*
- *Teams, what were you looking for to help you determine the identity of the double agent?*



Take It Away:

- *How did it feel to be suspected of being a double agent when you weren't? Why is it important to be sure before you accuse someone of something?*

Lead In:

Now that we have completed our mission of becoming spies, it's time to turn our attention to a fun new theme all about Wonders of the World, starting with our very own Phenomenal Earth!



Pics for Kids

Mission #1: Code Breakers

Materials: paper, red pen, highlighter, blue crayon, red counter coin, cypher disk

Preparation: Write a code word or message for each team to decipher using methods discussed in this unit. The complexity of the code should be based on the age range and ability of your students. Older students may be able to figure out an entire sentence that uses multiple methods (scytale, red reveal, cypher disk, etc.) Younger students may need simpler methods. Create multiple copies of the message, so multiple students can work on breaking the code at once. You might want to enlist the help of an older student in the reproduction of the coded message.

Mission Parameters: *Your mission is to decode this top secret message and reveal it to a staff member. The first team to share the message with a staff member gets a point. Double agents, find creative ways to slow your team down. You can give false information, sneak clues to the other team, or switch the message for one of your own.*

Mission #2: Observe and Report

Materials: none

Preparation: none

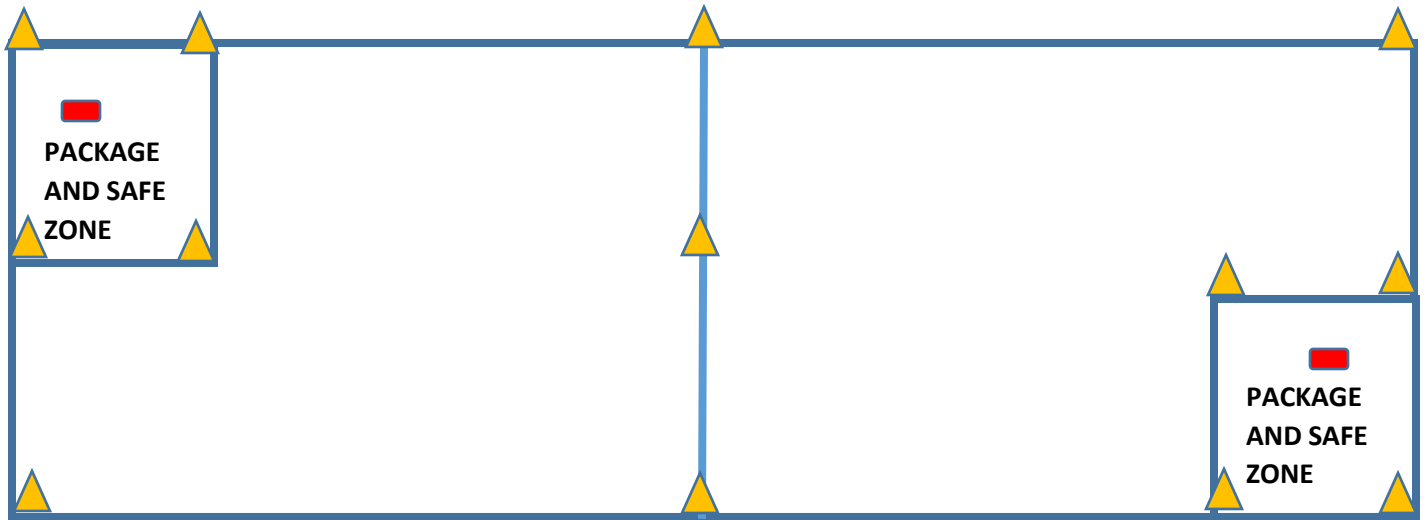
Mission Parameters: *Every secret agent needs to have top notch observation skills. Both teams will line up facing one another. You will have 30 seconds to study the agent across from you. Once time is up, both teams will turn and change one thing about their appearance. It could as simple as untying a shoe, putting your hair down, etc. Then both teams turn back around and guess what has changed. Your mission is to recognize what they changed, but not allow them recognize what you changed. Whichever team correctly recognizes their opponents' changes the most times is awarded one point. Double agents, make sure your change is obvious enough for the other team to notice, but not so obvious that your team knows you are giving it away on purpose.*



Mission #3: Capture the Package

Materials: large, open space; cones; two small objects (ball, scarf, beanbag, etc.)

Preparation: Set up field of play as shown in the diagram below.



Mission Parameters: *You have two missions. First, behind your cones is a valuable package. Your team needs to try to protect it from the other team. Your other mission is to capture your opponent's package and bring it back to your side of the field before they capture your package. Once an opponent is on your team's side, you can tag them to freeze them. They can do the same to you on their side of the field. You cannot tag someone inside the safe zone. Double agents, you have the power to unfreeze people from the other team who are frozen on your side of the field, but don't let your team see you! Remember, you are undercover!*

11) Top Secret Mission (Optional)

Supplies: paper, pencil

Preparation: Print 1 Pics for Kids page for every 6 students. Cut out Mission page for every 4 people. Tear, do not cut, each mission page along the black line. Write the code below in a place everyone can see. Do not write the phrase written below the symbols.

➤ □ J □ V V > □ □ V □ □ ➤
X M A R K S T H E S P O T

Learning Objective: Students will know the Pigpen Cipher is a symbol-based code used by both Washington and Freemasons.

Warm-Up:

- We have learned a lot of different ways to send secret information. Who can remember some of the ways? (Scytale, Cypher Disk, red reveal, etc.)
- We are going to use a brand-new code today. It is called the Pigpen Cipher and similar to one used by both George Washington's army and the Freemasons.
- Hand out pre-cut codes from Pics for Kids. To use it, you draw the lines and dots around the letter you want to write. I wrote a message here as an example. Show students message written during Preparation.
- The first letter has diagonal lines and a dot, so I want to look at the x with dots in it. The lines point in the same direction as letter X, so the first letter is X. Where should I start looking for the second letter?
- Walk students through deciphering the message. Ask additional probing questions if needed.
- Today, we are going to put our coding and decoding skills to the test with a secret mission!

Activity:

1. In just a moment, you and your team will get a slip of paper with 6 blanks. They will say things like "noun" or "place." You will decide on a word that fits in that blank and write it on a separate piece of paper.
2. You will write your six words using the Pigpen Cipher. You will write the coded word on the paper I handed you and await further directions. Do not share this classified information with any other group.
3. Split students into teams of 2. Hand out only the top half sheets to each group.
4. Have them decide on the words they want to use on a separate sheet of paper. Once they work out the code, have them write it on the half sheet they received.
5. Now you need to find your secret contacts. When spies meet with a contact they don't know, they need to have some way to identify them. One way this can be done is by ripping a paper, sometimes a dollar, in half. Every piece of paper rips in a unique way. They should fit together exactly, like puzzle pieces.
6. Each group has a top half of a paper. I'll randomly hand every group a bottom half. Your next mission is to give your bottom half to the group that has the matching top half. When you receive another group's bottom half, decode the words and put them into the blanks to reveal a classified mission!
7. Randomly distribute top halves. Let students find their matches and decode to reveal the mission.

HELPING ALL STUDENTS SUCCEED!

- Group younger students together with an adult to assist them.
- Check students' spelling to avoid confusion.

Wrap It Up:

- Who would like to share the mission they uncovered?
- What are the pros and cons of the Pigpen Cipher?

Take It Away:

- What are some other methods of sharing information you use?



Pics for Kids

A	B	C
D	E	F
G	H	I

J	K	L
M	N	O
P	Q	R

S
T U
V

W
X Y
Z

A	B	C
D	E	F
G	H	I

J	K	L
M	N	O
P	Q	R

S
T U
V

W
X Y
Z

A	B	C
D	E	F
G	H	I

J	K	L
M	N	O
P	Q	R

S
T U
V

W
X Y
Z

A	B	C
D	E	F
G	H	I

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M	N	O
P	Q	R

S
T U
V

W
X Y
Z



Mission # 1

1. Company, group, or organization _____
2. Person _____
3. Noun (person, place, or thing) _____
4. Place _____
5. Famous Person _____
6. Skill _____

(TEAR HERE)

Mission # 1

If you are reading this message, it may already be too late. The evil _____
(1)

Organization, led by your archenemy _____, have plans for total world domination.
(2)

Details on their plan are not yet fully known, but they are said to involve _____,
(3)
_____, and _____.
(4) (5)

Your mission is to use your _____ skills to defeat their evil plan. Good luck...the
(6)
entire world is counting on you!



Mission # 2

1. Person _____
2. Person _____
3. Place _____
4. Job _____
5. Device or invention _____
6. Device or invention _____

(TEAR HERE)

Mission # 2

Headquarters has just received an urgent distress call from _____. His/Her cover
(1)
has been compromised and has likely been captured by _____. Your mission is to
(2)
go to _____ to meet up with a secret operative dressed as a _____.
(3) (4)
Once there you will receive a special device needed for this dangerous mission. While it may
look like a _____, it is actually a very dangerous _____, so be
(5) (6)
careful. Good luck on your mission!

