NTC® The National Theatre for Children

Agents of Safety Power Play Classroom Game

THE STORY

Attention citizens – the Agents of Safety need your help! The evil, indecisive scientist Dr. Maybe has unleashed his henchmen all over the city to create dangerous electrical situations. Most members of the Agents of Safety are busy trying to stop Dr. Maybe, so it's up to you to learn all you can about electrical safety and clean up Dr. Maybe's electrical messes. You only have 45 minutes to solve these puzzles, so it's time to get to work. Good luck!

ITEMS YOU'LL NEED TO SET UP THE GAME

Listed below are the items and locations for the game materials. There are additional kit items provided to be used with future games, but you'll only need the specific kit items listed below for the *Agents of Safety Power Play* game. The locations are just suggestions – you know your classroom best, so feel free to get creative. You can make the game tougher or easier by hiding clues and materials or placing them out in the open.

KIT ITEMS

- 1 small lock box to be placed in the playing area
- 1 large lock box to be placed on a table in the playing area
- 1 padlock with key
- 1 five-letter combination lock
- 1 five-color combination lock
- 1 four-digit lock
- 1 three-digit lock
- 1 blue lock hasp
- 1 UV flashlight
- 1 UV marker
- 2 hint cards

PRINTED GAME RESOURCES

- Teacher Instructions (for classroom setup)
- Game Logic Map (for classroom setup)
- FAQs (for classroom setup)
- Reflection Questions (placed in large lock box)
- Congratulations Certificate (placed in large lock box)
- Danger High Voltage sign
- Pleasant Park Map
- Telegram
- How Electricity Travels to Your Home
- Teacher Read-Aloud Riddle
- Electrical Algebra worksheets – 2 pages
- Electrical Algebra Answer Key – 2 pages
- What's the Wattage worksheet
- What's the Wattage Answer Key
- Home Safety Check

SETUP

The following is a basic logical order for setting up *Agents of Safety Power Play* game. If you are already familiar with Breakout-type games, this may be a breeze. If not, take it step by step. Setup should take roughly 30 minutes.

1. Go to **www.NTCPowerPlay.com** and select the *Agents of Safety Power Play* program.
2. Click the PLAY to access all the materials needed for the classroom game.
3. Read the game story and watch the teacher tutorial video.
4. Review and print all the game resources. Decide if you'd like to make additional sets of any resources to have multiple groups of students playing during a single game session.
5. Prepare the three-digit lock, the four-digit lock, the five-letter combination lock and the five-color combination lock with the correct combinations from the lock puzzle solutions. Instructions for setting the combinations can be found here: **www.breakoutedu.com/locks**
    a. Set the locks to these solutions:
        - Three-digit lock = 9-5-8
        - Four-digit lock = 4-2-6-5
        - Five-letter combination lock = V-O-L-T-S
        - Five-color combination lock = Red-Blue-Green-Yellow-Orange
        - Padlock = Key given to students by the teacher once they solve the Teacher Read-aloud Riddle

6. Prep the lock boxes:
    a. In the small lock box, place the UV flashlight and the Danger High Voltage sign, but only AFTER writing on it with the UV marker (see #7 below). Lock the small box with the padlock.
    b. In the large lock box, place one certificate along with candy or other prizes (if you choose) and the Reflection Questions. After preparing the combination locks, you will lock this box by first attaching the blue lock hasp and then locking with the three-digit lock, four-digit lock, five-letter combination lock and the five-color combination lock.
7. Using the UV marker, underline the letters **H**, **O**, **T** and **E** on the Danger High Voltage sign. Then place the Danger High Voltage sign in the small lock box. Lock the small lock box with the padlock.
8. Then, using the UV marker once again, write the letter **H** next to step #4 on the How Electricity Travels map; write the letter **O** next to step #2 on the How Electricity Travels map; write the letter **T** next to step #6 on the How Electricity Travels map; and finally, write the letter **E** next to step #5 on the How Electricity Travels map. Hang the How Electricity Travels to Your Home map on the wall.
9. Place the telegram, the Electrical Algebra worksheets, and the What's the Wattage worksheet near the large lock box on a table in the playing area.
10. Hang the Home Safety Check and the Pleasant Park Map up on the wall in the playing area.
11. Cut off the bottom half of the Teacher Read-aloud Riddle and be prepared to read it loudly to your students once the game has begun. Don't forget to hold onto the padlock key and give it to your students once they solve the riddle.
12. As you get ready to start, explain to your students that they'll need to work together and search the room thoroughly (and respectfully) in order to play the game. Explain that in order to use a Hint Card, your students must all agree that they are ready for a hint. Depending on their progress and how much time is left, you can then give the group an appropriate hint to get them moving in the right direction.
13. Show your students the *Agents of Safety Power Play* story video, set your timer for 45 minutes and begin!
14. After they've completed the game, ask your students the Reflection Questions.
15. Feel free to dig in deeper with you students on the ideas and concepts discovered by playing this classroom game. Talk to your students further about the following educational points:
    - Ways we use electricity
    - How we measure electricity
    - Identifying dangerous electrical situations inside your home
    - How electricity travels to your home
16. You will be receiving an email containing a link to fill out a teacher evaluation and feedback form.
17. After your complete evaluation is submitted, you'll receive a code and instructions to register your kit.
18. Explore the additional games at **www.breakoutedu.com** and plan your next adventure. Your subscription is good for one year starting from your registration date.

THE CLUES

The following are the five puzzles and clues used to open the various combination locks.

Corresponding lock: Three-digit lock

Answer: 9-5-8

This solution can be found by solving the Electrical Algebra worksheets. Students must figure out the equations by using the icons as numbers to be able to "solve for X". They'll discover that the three icons with question marks are the three numbers for this lock.

Corresponding lock: Four-digit lock

Answer: 4-2-6-5

This solution can be found once the students use the UV flashlight to reveal that the letters H, O, T and E have been underlined with the UV marker. Then they'll need to use the UV flashlight again on the How Electricity Travels to Your Home sign to reveal that the number 4 has an "H" by it, that the number 2 has the letter "O" by it, that the number 6 has the letter "T" by it and that the number 5 has the letter "E" by it, thus uncovering the four-digit combination code.

Corresponding lock: Five-letter combination lock

Answer: V-O-L-T-S

This solution can be found by looking at the telegram. Each of the five eyewitness accounts holds the key to revealing a letter in the date part of the statement. So, in the "Third of November", students will figure out that the third letter in the word November is the letter "V". In the "Fourth of October", students will figure out that the fourth letter in the word October is the letter "O". In the "Fifth of April", students will figure out that the fifth letter in the word April is the letter "L". In the "Sixth of August", students will figure out that the sixth letter in the word August is the letter "T". And in the "First of September", students will figure out that the first letter in the word September is the letter "S". Put it all together and you spell the word VOLTS.

Corresponding lock: Five-color combination lock

Answer: Red-Blue-Green-Yellow-Orange

This solution can be found by using the Home Safety Check sign and solving the What's the Wattage worksheet. Students must calculate the wattage (W = A x V) for each electrical item in the home. They should also see that each item is a different color. When they figure out the watts used by each electrical item and put them in order from smallest to largest, they will get the correct color combination – red, blue, green, yellow, orange – in order to solve this lock.

Corresponding lock: Padlock

Answer: Key

Once the students have solved the electricity riddle – choosing door number two, which is the safest door to exit since the power is out and therefore the electric lasers would not be working – the game facilitator can give the students the padlock key.

THE END

When students solve the puzzles and open the large lock box, they discover a certificate of completion from Agent Sparks certifying them as new members of the *Agents of Safety*, as well as the Reflection Questions and any additional prizes or candy from the teacher. The Reflection Questions can be used as discussion prompts to solidify the learning from this classroom game experience.