



Electrana Power Play **Classroom Game**

THE STORY

The Energized Guyz need your help! There is big trouble at the headquarters of The Energized Guyz, a league of superheroes who track down and eliminate energy waste. One of these heroes, Electrana (aka Ella Hollingsworth), has gone missing. She has left behind a couple of locked boxes and some mysterious documents, which might be clues to her whereabouts. With Electrana out of his way, The Energized Guyz' nemesis, Professor Ohm, has been wasting energy all over the community. Your students must form a task force to find Electrana and help put a stop to Professor Ohm's energy-wasting ways.

ITEMS YOU'LL NEED TO SET UP THE GAME

Here are the materials you need for your students to play the game. 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 *Electrana Power Play* game. There are also suggested locations for some of the game materials. You know your students best, so feel free to get creative, making the game-play tougher or easier by hiding clues and materials, or placing them out in the open.

KIT ITEMS

- 1 small lock box somewhat hidden in the room
- 1 large lock box on a table in the room
- 1 padlock with keys
- 1 multi-lock with letter combo
- 1 multi-lock with shape combo
- 1 four-digit lock
- 1 three-digit lock
- 1 blue lock hasp
- 1 UV flashlight (place in small lock box)
- 1 UV marker
- 2 hint cards

PRINTED GAME RESOURCES

- Teacher instructions (for classroom setup)
- Game Logic Map (for classroom setup)
- FAQs (for classroom setup)
- 5 Diary Entries by Thomas Edison (placed in notebook)
- Cover Art for Edison Diary (placed on front of notebook)
- 1 City Map (hung on a wall in the play area)
- 5 Professor Ohm Wanted Posters (hung on a wall in the play area)
- 5 Energy Conservation Signs (hung on a wall in the play area)
- By the Numbers Worksheet (at least one copy, placed in the play area)
- 3 Utility Bills (placed in a file folder in the play area)
- Game-specific Reflection Questions (placed in large lock box)
- New Member Certificates (one certificate placed in the large lock box, with individual certificates distributed to all students after the game)

SETUP

The following is a basic logical order for setting up the *Electrana 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 *Electrana Power Play* program.
2. Click PLAY button 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. Use the UV marker to circle letters on the Diary Entries by Thomas Edison to spell the name TESLA. Use the dates on the diary entries to put the pages in chronological order. Circle any letter "T" on the first diary entry, circle any letter "E" on the second diary entry and continue, on the remaining pages in date order, circling the letters S, L and A.
6. Create Thomas Edison's Diary by adding the Cover Art for Edison on the front cover of a notebook or journal and inserting the Diary Entries by Thomas Edison inside in random order. Depending on the difficulty level you want for your students, you can place it on a bookshelf where it must be found or place out in the open with the other clues.
7. Prep the lock boxes:
 - a. Place the UV flashlight in the small lock box and lock with the key padlock.
 - b. Place one New Member Certificate, along with candy or other prizes (if you choose) and the Reflection Questions in the large lock box. You will lock this box using the blue lock hasp after preparing the combination locks.
8. Prepare the three-digit lock, the four-digit lock, the multi-lock with letters, and the multi-lock with shapes with the correct combinations from the lock puzzle solutions.

9. Instructions for setting the combinations can be found here:
www.breakoutedu.com/locks
 - a. Set the locks to these solutions:
 - Multi-lock with letter combo = T – E – S – L – A
 - Multi-lock with shape combo = Square – Circle – Star – Triangle – Diamond
 - Four-digit lock = 1 – 4 – 3 – 8
 - Three-digit lock = 1 – 1 – 7
 - Padlock = Key taped to the back side of Electrana superhero sign
10. Hang the five Wanted Posters featuring Professor Ohm on a wall in the play area
11. Hang up the Energy Conservation Signs and tape the padlock key to the back of the sign with the character Electrana on it.
12. Put the three Utility Bills in a file folder and place on a table in the playing area.
13. Put the By the Numbers Worksheet on a table in the playing area. You can use multiple copies if needed. Make sure to have a ruler available.
14. Hang the City Map on a wall or place on a table in the play area.
15. 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.
16. Show your students the *Electrana Power Play* story video, set your timer for 45 minutes and begin!
17. After they've completed the game, ask your students the Reflection Questions.
18. You will be receiving an email containing a link to fill out a teacher evaluation and feedback form.
19. After your complete evaluation is submitted, you'll receive a code and instructions to register your kit.
20. 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. Each puzzle is tied to one of the main educational points from this program.

Educational point: Ways to conserve energy

Corresponding lock: Four-digit lock

Answer: 1 – 4 – 3 – 8

This solution can be found by connecting the dots from the vocabulary word to the correct definition.

Educational point: The uses of energy

Corresponding lock: Three-digit lock

Answer: 1 – 1 – 7

This solution can be found by solving the math equation on the utility bills.

Educational point: What is energy?

Corresponding lock: Multi-lock with letter combo

Answer: T – E – S – L – A

This solution can be found by using the UV flashlight to discover the name TESLA in the Thomas Edison Diary.

Educational point: How energy is wasted

Corresponding lock: Multi-lock with shape combo

Answer: Square – Circle – Star – Triangle – Diamond

This solution can be found by reading the Wanted Posters and using the City Map to put the location symbols in chronological order from Professor Ohm's last sightings.

Educational point: How you can conserve energy

Corresponding lock: Padlock

Answer: Padlock key can be found taped to the back of the energy conservation sign with the picture of the character Electrana.

THE END

When students solve the puzzles and open the large lock box, they discover a certificate from Electrana certifying them as the newest members of The Energized Guyz, as well as Reflection Questions and any additional prizes or candy chosen by the teacher/facilitator. The Reflection Questions can be used as discussion prompts to solidify the learning from this classroom game experience.