

“Unlocking Learning Opportunities... with the help of the W.R.I.T.E. Grant Program”

If I had six “Master Lock Steel Lockout Safety Hasps”, six “Master Lock TSA-accepted Cable Locks”, six “Master Lock Long-shackle Padlocks”, six “Master Lock ProSeries Stlss Steel Combo Locks”, six “Master Lock Alphanumeric Combination Locks”, six “Master Bluetooth Padlocks”, six “Master Lock Set-Your-Own Combination Lock Boxes”, and six “Vaultz Locking Storage Chests” **from FriendsOffice, I could** create the ultimate inquiry science escape room challenge class set **to benefit the learning of my students.**

My name is Robert Duncan, and I am a third grade teacher at Parkway Elementary School in Alliance, Ohio. I first became interested in implementing escape room challenges in my third grade classroom this past summer. I had the opportunity to take an online course on creating and utilizing this highly motivating technique. Our District Technology Team recently offered a hands-on training session during which I received further training and I am convinced this is a revolutionary instructional technique.

These materials would be used to explore various components of my third grade mathematics, science, and social studies curriculum. Unlike instructional materials that are used once in isolation during the school year, these materials can be adapted and changed to use throughout the entire year. Similar to popular escape rooms offered in many cities, students will use cooperative learning skills as they work in six teams to complete tasks and unlock each of six locks in a given amount of time. Each task requires the team to engage with the learning objectives in some way.

An example of an earth science activity that could be developed using these escape room tools could be an exploration of rocks and minerals. Teams might be challenged to discover the following:

- Students discover salt, copper wire, aluminum foil on a desk, along with a copy of the periodic table of elements. Students would need to find the corresponding periodic table numbers: sodium=11, copper=29, and aluminum=13, to use the combination 11-29-13 as the combination to unlock the first lock.
- Students discover a combination of coins and washers each with numbers attached, students also receive a piece of magnetite. By passing the magnetite over the coins and

washers only the three that contain iron or steel will attract to the magnetite, and those three are needed to unlock the second lock.

•Given a combination of igneous, metamorphic, and sedimentary rocks, each with numbers attached, students also receive a picture of a Hawaiian volcano. Students need to draw the conclusion that they need the numbers on the three igneous rocks-basalt, obsidian, and pumice only, as they form from molten rock.

These are just a few examples of the problem solving and integration of curriculum with escape room learning. Students are rewarded by discovering some sort of “treasure” inside of the box after the final lock is removed, but the real treasure is the knowledge they have gained from this exciting learning experience.

I know my students will be highly engaged in these inquiry based active learning lessons. You can imagine the excitement when these locks and materials come out as a break from more traditional textbook/paper/pencil lessons. These materials will also be utilized in our after school “Navigators Program” for additional STEM (Science Technology Engineering and Mathematics) learning opportunities for second and third grade students. The team approach will help students develop socially, as well as academically, developing crucial cooperative learning skills.

As an educator in a small, urban, high poverty public school, I really appreciate FriendsOffice for the opportunity to gain funding for new innovational programs. Thank you.

Robert J. Duncan
Third Grade Classroom Teacher
Parkway Elementary School
Alliance, Ohio