

LESSON GUIDE AND ESCAPE ROOM SCRIPT

Directions

Teacher’s Note: Below is the script for the escape room, and the headings break the story into segments to help you navigate this activity. To begin, read aloud the italicized paragraphs to students. As you continue through the script, look out for any Teacher’s Notes in bold text like this one—they include directions and actions for you to take throughout the lesson. The correct responses for each segment are at the end of this document.

Introduction

You are about to begin an escape room game. Be sure to listen carefully, read the story, and read and follow the directions to escape. You will need a pencil to be successful.

You will navigate through the escape room by answering questions and trading correct answers with your teacher for more clues.

Go With the Flow

*****Starlog 0019438: Quiet, no change*****

For three months, your daily report has been the same every day. The quiet of space leaves you and your crewmates wishing for the excitement of other quadrants. Instead, your captain has you cruising along in the most boring corner of the galaxy, shuttling parts to far-off sectors.

Just as you are logging off, something hits the ship and knocks you to your knees. You jump to your feet and exchange a panicked glance with your crewmates. What was it? Where did it come from?

You check the scanners, but they are dark. Everything is dark, except for the flashing of the emergency lights, and a wailing siren warns you that the cabin is losing air pressure and oxygen. You’re already starting to feel the effects of the cabin’s gravity well steadily losing power.

You and your team scramble to the control room, where you find the captain unconscious on the floor. Beside him is a small battery pack—it appears he was using it to restart the system’s control panel. The panel is flashing red, waiting for the captain’s 3-letter passcode.

You and your crewmates look around for some clues as to what his passcode might be. His birthdate? A favorite food? That’s when you notice a small journal clutched in his hand. It is opened to a page with a series of symbols and letters, along with a note: “Go with the flow.”

Teacher’s Note (optional): Pass out the *Go With the Flow* handout; use the Lesson Slides.

User Manual

The control panel comes to life. With the alarm continuing to warn of oxygen loss, your team knows the first thing that needs to happen is to run a diagnostic on the extent of the damage and its cause. You open the program and see it is asking for current power levels. You want to just yell at the computer, “None! We have no power!”

You know that isn’t true, though. The alarm and emergency lights are pulling power from the reserves, and many systems may have battery power stored as well.

Then, one of your crewmates remembers there is a user manual housed in the control room. It should be able to help you determine the current power reserves for each system. You retrieve the manual and open it...

Teacher’s Note: Pass out the *User Manual—Definitions* handout; use the Lesson Slides.

Teacher’s Note: Pass out the *User Manual—Calculations* handout; use the Lesson Slides.

Power Control Hub

The results show you the worst-case scenario—it was an asteroid that hit the ship from out of nowhere. The ship is beyond repair, but the escape pods remain unharmed. You can take the pods to the nearest outpost if you successfully divert the ship’s remaining power reserves to the pod batteries.

With your crew’s help, you pick up the captain and head toward the escape pods. To send the ship’s remaining power to the pods, you have to make your way down the hall and find the Power Control Hub. You need to use the hub’s calibration dial to get the 3-letter code you will input to confirm the transfer of power.

Teacher’s Note: Pass out the *Power Control Hub* handout. At this point, students need to use electronic devices with internet access.

Teacher’s Note: As each crew uncovers the 3-letter code, check students’ *Power Control Hub* handouts. If they have the correct *Transfer Power Code* (GPH), exchange each crew’s completed *Power Control Hub* handout with the *Cargo Bay* handout.

Cargo Bay

Teacher’s Note: As each crew uncovers the 3-letter code, check students’ *Cargo Bay* handouts. If they have the correct *Release Code* (MTF), take each crew’s completed handout and tell students they have successfully escaped.

Success! You’ve escaped!

The locking mechanism for the pods creaks open. You and your team enter the pods and begin to navigate away from the ship. You’ve made it! According to your calculations, you’re just a few hours away from landing in a friendly port—and you’re starting to reconsider your career choices. It might be time to give up on a life in space and choose something more grounded. Maybe after all the experience you’ve just gained with circuits, you could find a job as an electrical engineer...

Segment	Question	Correct Response
Go With the Flow	<i>Captain’s Passcode</i>	RLC
User Manual—Calculations*	*See the <i>User Manual—Calculations (Sample Responses)</i> document.	
Power Control Hub	1) What is the complex conjugate of $-3 - 7i$?	$-3 + 7i$
	2) Simplify: $\frac{9 - 8i}{-1 + 2i}$	$-5 - 2i$
	3) Simplify: $\sqrt{-4} + \sqrt{16} - \sqrt{-9}$	$4 - i$
	<i>Transfer Power Code</i>	GPH
Cargo Bay	1) Simplify: $(1 - 6i) + (-3 + 5i) + (4 - 2i)$	$2 - 3i$
	2) Simplify: $i + (2 - 3i) - (5 - 2i)$	-3
	3) Simplify: $(i^3 - i)(2i^4 + i)$	$2 - 4i$
	<i>Release Code</i>	MTF