



RPG means “Role Playing Game.” In this escape room, each player is assigned a character that has skills and weaknesses. Groups of players (Guilds) will need to work together using their unique skills to solve this escape room.

The evil wizard, Dekan, has turned your village to stone! Through rumors, you learn of an artifact that will revive the villagers hidden in a forgotten library in the depths of Faron Woods. However, one does not simply walk into Faron Woods. Upon entering, you trigger a booby trap setting a timer to your task. Using each of your unique skills, your guild must obtain the artifact before the time runs out or else...

ITEMS IN THIS ROOM

WHAT YOU WILL NEED

| | | |
|---|---|--|
| (5) Lock Boxes | Dungeon map (original & translucent) | Divining rods (<i>page 7</i>) |
| (1) standard padlock | Cipher wheel- must be able to easily dismantle | Magnetic file (<i>page 5</i>) |
| (2) 4-digit combination locks | Dragon Eggs | Journal |
| (1) 5-letter combination lock | (3) Spell books (at least! The more the better) | Wall runes (<i>page 7</i>) |
| (1) Directional lock | Chess Set | Blacklight |
| 12 piece puzzle | (4) goblets-purchased at local dollar store | Rope |
| (1) large scroll (scenario) | Quart Jars (Ice Fire) (<i>page 8</i>) | (6) burlap/canvas bags |
| (5) medium Scrolls (character skills) | Xylophone (or any instrument with colors/keys) | Tangram Puzzle |
| (4) small scrolls (quest) | Red cabbage juice | “Dragon” amulet (<i>pages 3 & 4</i>) |
| Crevice Box (<i>page 8</i>) | Lemon Juice | “Magical Artifact” (<i>pages 9 & 11</i>) |
| Cage bars (<i>page 5</i>) | Notepads/pencils | Thief’s file (<i>pages 2, 5, 8</i>) |

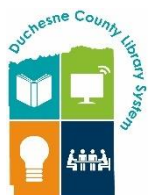
CRAFT SUPPLIES

| | | |
|---------------------------------|---|---|
| Parchment paper | 5/16” dowels | Chopsticks |
| Craft magnets | Earth magnets: Variety & Tiny | Canvas Cloth |
| Tracing paper | Craft paper | Fake cobwebs & bugs |
| Acrylic paints/brushes | Spray paint | Tissue paper |
| Wood burner | Lumber (1”x2” & 1”x8’) | |

OTHER LINKS

| | | |
|---|---|---|
| DIY Book decorating | Dungeon Wall Backdrop <i>optional décor</i> | Ivy <i>optional décor</i> |
| Chains (for Braziers) <i>optional décor</i> | Ogham Alphabet | |

FOR MORE INFORMATION ABOUT THIS ESCAPE ROOM, OR TO SEE SOME OF OUR OTHER DIY ESCAPE ROOMS, YOU CAN VISIT OUR [ESCAPE ROOM](#) SITE.



ASSEMBLE THE BAGS OF HOLDING

Each bag of holding has an assortment of items that players will need to solve the room. Each character is color coded. It doesn't matter which color you choose for a character, but you need to be consistent! Certain puzzles/tasks in the room are color coded to help indicate which player has the ability to complete the task.

Each character has a scroll that lists strengths, weaknesses, and a back story. There are important skills/weaknesses to be aware of, but most of it is just for fun. Players do not need to adapt the personalities of their characters while solving the room (we had some participants who were panicking a little because they thought they would have to become actors).



BARD (PURPLE)

- Dungeon Map *outline* with "X" marking the location of hidden puzzle pieces.
- Pencil
- Notebook
- Character scroll (not pictured)



WIZARD (BLUE)

- Wizard's Tome
- UV light
- Pencil
- Notebook
- Character scroll (not pictured)



ROGUE (ORANGE)

- Thief's file
- Bag of money (optional)
- Pencil
- Notebook
- Character scroll (not pictured)



DRUID (GREEN)

- Dragon Amulet
- Divining rods
- Pencil
- Notebook
- Character scroll (not pictured)

PALADIN (RED)

- Scenario scroll
- 3 cheat cards
- Pencil
- Notebook
- Character scroll (not pictured)



DUNGEON MASTER

The role of Dungeon Master is for whoever is running the escape room. You are the keeper of all knowledge and you have the ability to take lives! (Not literally). You make sure everyone follows the rules and give them a hint when they ask for one.

CLUE CHAIN

The clue chain for this escape room is in a linear structure, but with a twist. The path diverges at a certain point in the chain. Players must choose which of the paths to solve. The paths then converge together at the same end-goal. This means there are more puzzles in the room than players need to solve. Part of the challenge is not getting distracted by the other clue chain!

To start, players will choose their character and receive the corresponding bag of holding. Players need to open their bags and study their contents. The Paladin will have a larger scroll that says: **Read Me Aloud**. This contains the scenario that gives the players their quest and the rules of the game.

General Rules for Players (there are more on the Scenario Scroll)

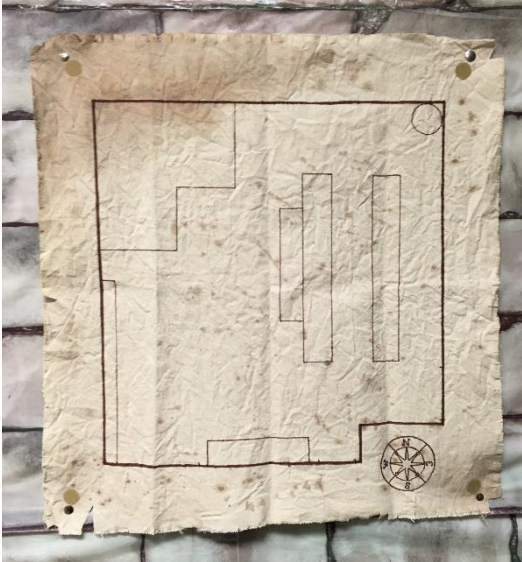
- ❖ You will notice a scroll in each of your **Bags of Holding** with your character and skills. Pay close attention to your abilities and the abilities of your guild members. There are many tasks in the room that require **specific skills** to

complete. Most tasks that require a skill will have a **color-coded** warning or clue near it. The color will indicate which guild member possesses the skill needed to complete the task.

- ❖ If you attempt to complete a task without having the skill needed, your guild will lose a life.
- ❖ Your guild has **3** lives. There is **1** extra life hidden in the room. If you lose all your lives, it is **Game Over!**
- ❖ You have **3** cheats should you need any additional help. You will not be penalized for using these.

1. At the end of the scroll the Paladin reads it says: **For your first puzzle, you will need to locate its 12 pieces. Look to the Bard. "X" marks the spot.**

Dungeon Map

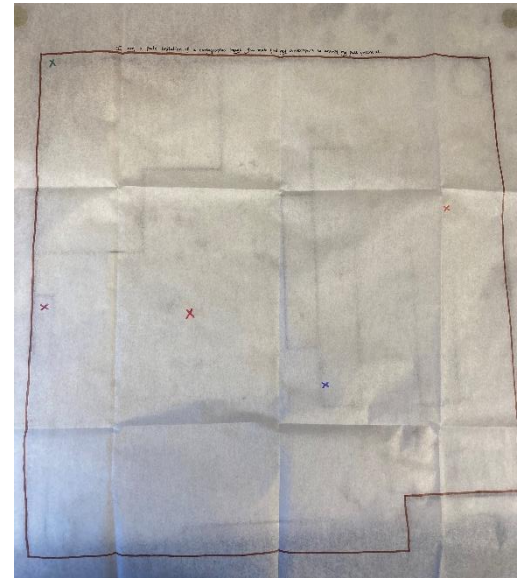


a. Players need to locate 12 puzzle pieces that are hidden in various locations around the room. The **Bard** has a "map," or rather part of a map, that they need to use to see the locations of the pieces. It is tracing paper that has the *outline* of the room and 5 different colored "x" on it.

b. On the **Bard's** map it says:

"I am a pale imitation of a cartographic image. You must find my counterpart to unlock my full potential."

There is a "Dungeon Map" hanging in the room. This map is a map of the room with recognizable "landmarks" (like shelves and tables). The Bard's map needs to be placed on



top of the Dungeon map (right image). Each corner has Velcro to keep the two maps together.

- i. *The Dungeon Map was a piece of canvas cloth. We used a brown marker to draw the map and watered-down acrylic paint to make it look aged. The Bard's map was a sheet of tracing paper and we also used markers to draw the outline and X's.*

- c. The X's now correspond to discernable locations in the room. Each "X" is a different color. The color corresponds to the player that has the ability to retrieve the puzzle pieces hidden in that location.

One does not simply walk into the dragon's nest... You must be adorned with the **Dragon Amulet**.

Who possesses this talisman?



2. Puzzle pieces need to be retrieved. This can be done in any order; however, the right character needs to collect the right pieces.

a. **Druid:** The upper left corner has the green X. The **Druid** goes to that corner of the room. On their way there they notice this sign (*right image*):



- i. There is a hint above it (*left*):

ii. In the **Druid's** Bag of Holding there is an amulet they need to wear before they go into the dragon's nest.

- iii. They enter the dragon's nest to find 4 dragon eggs. Inside one of them are 2 of the puzzle pieces.

1. *The dragon eggs are just jumbo-sized Easter eggs that have been painted and decorated.*

- b. **Rogue:** The X that is farthest right on the map belongs to the **Rogue**. The Rogue will find a space in a bookshelf that has been caged off.

i. They will see the 3 puzzle pieces that they need to get, but they are out of reach.

ii. There is a hint:

In the **Rogue's** Bag of Holding there is a thief's file (the silver stick).

1. *This is a chopstick that has an earth magnet glued to the tip and painted silver.*

iii. All of the puzzle pieces have magnets glued to the backs. The **Rogue** will use their file to retrieve the puzzle pieces behind the bars.

1. *The bars we made out of wooden dowels (5/16") and two 1"x2" cut into 35" lengths. We drilled holes halfway into the 1"x2"s for the dowels and glued them in place. We made them to fit the dimensions inside the bookshelf and so they would be removable. (Make the*

finished height about 1/4 inch shorter and you can build up the difference with cardboard wedges. This will make them fit nice and tight, but they won't damage the shelves).

- c. The **Bard's** puzzle pieces are on top of a shelf on the left wall. They come to a painting with a toy xylophone in front of it.

i. There is a hint in front of the xylophone:

This task requires someone of
Musical ability.

ii. This indicates that the **Bard** needs to play the xylophone. But how do they know what to play?

iii. The painting has colored notes on it. The colors correspond to the colored bars on the xylophone. The **Bard** needs to play the sequence of notes on the painting.

1. *This painting was painted by one of our staff so we could match the colors to the xylophone as closely as we could. Your sequence does not need to be presented this elaborately in order to be effective.*

iv. Once the correct sequence is played, the Dungeon Master presents the **Bard** with their puzzle pieces.

- d. In the middle of the room the **Paladin** will find their X.

i. The **Paladin** will need to *look up* to see where their pieces are.

ii. Suspended from the ceiling we had our skeleton (Bones McCoy) holding a burlap bag.

iii. The **Paladin** needs to find where the rope is tethered. We used command hooks on the side of one of the bookshelves to create a way to wind the rope for easy fastening/unfastening.

iv. They find the hint next to the tethering point:

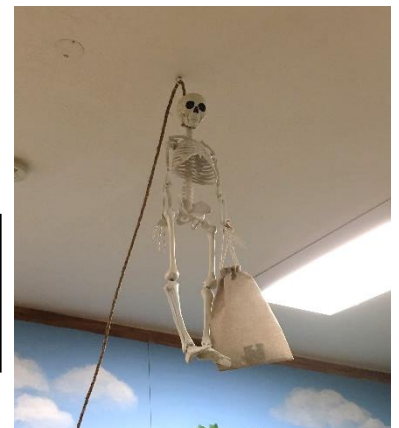
v. The **Paladin** needs to lower the skeleton and open the bag it is holding to retrieve their puzzle pieces.



These bars are obstructing your path. Do you have something to help you **Reach** your goal?



This task requires someone of great
Strength.



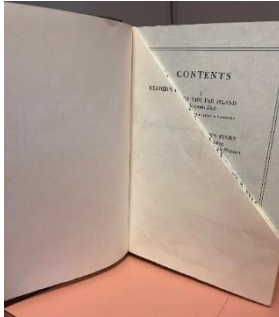
e. The **Wizard's** X will lead them to the end of the first bookshelf.

- i. There has been a shelf dedicated to mostly spell books.
- ii. Next to the spell books they will see this hint:

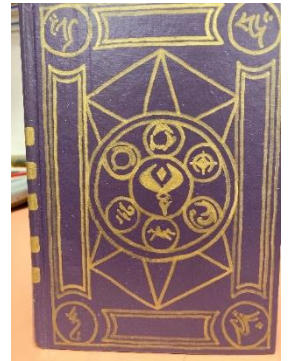
Someone learned in
Sorcery must open
these tomes.



iii. This indicates that the **Wizard** must search the books, one by one.

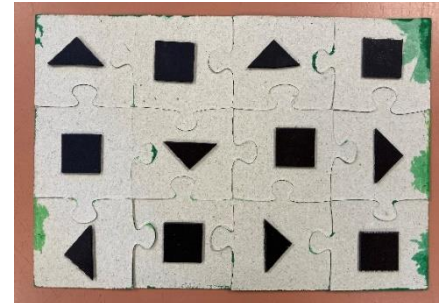


- iv. They will eventually come to this book (*right image*):
 1. All of our "spell books" we custom made ourselves using discarded library books. We cover the covers with a layer of craft paper to give us a blank canvas, then we paint and decorate the covers.
- v. Inside they will find pockets made from the book pages. Inside the pockets they will find their puzzle pieces.
 1. We folded down adjacent pages, then glued the bottom and outer sides of the pages together to form the pockets.



3. Once all 12 puzzle pieces have been found they need to be assembled. Our puzzle looked like this (*left image*)

- a. They need to do as the instructions say and flip the puzzle over. It is important that they maintain the orientation of the image.
- b. We mentioned earlier that each of the pieces had a magnet attached to the back of them. Some of these magnets were cut to form arrows.



- c. These arrows are the combination to the directional lock.
- d. The **Rogue** must be the one to enter the combination into the lock.

4. Once the lock box has been opened, players will find this scroll inside (*left image*)

- a. Here is where the clue paths diverge. There is a longer chain where they can use cheats, or there is a shorter chain where they forfeit any remaining cheats.
- b. Once they choose, the Dungeon Master will hand them a scroll that corresponds to whatever path they decide.
 - i. For our scrolls (scenario, character scrolls, and quest scrolls) we printed them out on parchment paper. We cut 2 dowels into lengths 2 inches longer than the width of the paper. We painted the dowels using watered down acrylic paint (this allows the wood grain to show through). We then hot glued a dowel to the top and bottom of the scroll. We rolled them up and secured them with colored ribbon.

Well done, intrepid
adventurers!

Now you all must unanimously
choose your path forward.

Will you choose the longer,
secure path where cheats may be
used?

Or will you dare the shorter,
more difficult path completely
alone?

Choose wisely, for once you
decide, you cannot go back.

LONGER CLUE CHAIN (CHEATS ALLOWED)

1. Dungeon Master presents this scroll to Players (*right image*):
 - a. In the **Druid's** Bag of Holding they will have a bundle of sticks with symbols and letters etched into them. These are the Divining Rods.
 - i. *We made our divining rods out of craft sticks (tongue depressors) and used a wood burner to etch in the lettering.*
 - b. The rods must be placed adjacent to one another in a specific order to reveal the message they hold.
 - c. To "divine" the order they need to go in, they need to look carefully around the room to see if they spy any of the symbols.
 - d. On the wall they will see these banners with the same symbols as the Divining Rods. These reveal the order.



- i. *The banners are canvas cloth. We used acrylic paint for the runes and watery paint was dripped on them to "age" them. The tops were sewn so a dowel could run through and we used twine to hang them.*

- e. Once they place the Divining Rods in the correct order, they will reveal the following message:
ENCHIRIDION
PAGE 150
LINES 5 & 15
- f. They will need to find the book titled *ENCHIRIDION*, turn to page 150, and see what is special about lines 5 & 15.

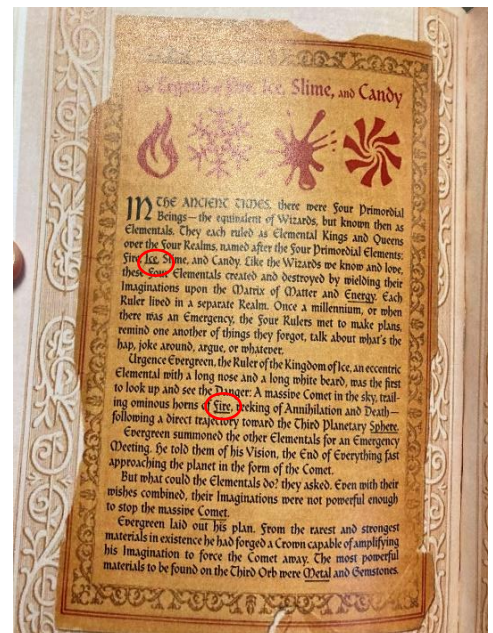
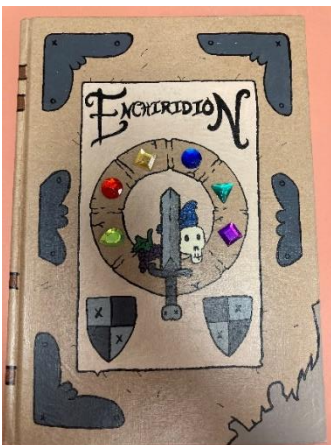
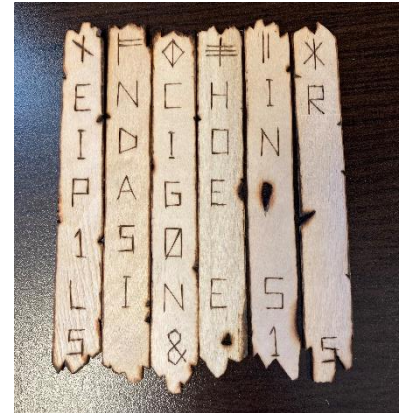
2. Amongst the spell books, the **Wizard** will find the *Enchiridion*.

- a. They find page 150. Several words on the page are underlined.
- b. Line 5 the word **ICE** is underlined
Line 15 the word **FIRE** is underlined

You are wise to choose this path. Though you have a longer road to follow, you may continue to use your remaining cheats.

Good luck, intrepid adventurers!

Look to the **Druid**. The path forward can be found through the **Divining Rods**.



- c. "ICE FIRE" what could that refer to?
 - d. We had several braziers that have nothing in them. We also had four jars with *blue flames* in them...ICE FIRE.
 - i. *We used quart jars and made flames out of blue tissue paper.*
 - e. Inside one of the jars, players will find a black knight chess piece with a note attached to it (*right image*):
3. There is a chess board on one of the tables with a game in progress. They need to take the knight to the board.



Knight to E-5!
Checkmate and remove
the King from his throne.



- a. There is a warning on the chess board:

Beware!
One wrong move could
prove deadly.

- b. They need to decide where to play the knight they found. The note it carried says to place it on **E-5**. (5 over, 5 up). Placing the knight on this square will checkmate the king.
- c. The second part of the note says to "remove the King from his throne." Players will need to lift the white king from the board.

- d. The king has an earth magnet attached to his base. Once the king is lifted, a magnetized note will fall onto the table from under the board.
 - i. *The chess board was on top of an upside-down milk crate. We had to cut a larger square in the crate to allow the note to fall and then we painted it brown.*
- e. The **Rogue** will use their file to retrieve the note.

Your next task is not for the **Faint of Heart**. Locate the crevice in the low wall. Search deep within for something of vital importance.

4. The note reads (*left*):
- a. Within one of the bookshelves, they will find a crevice with a message for the **Paladin**:

Are you **Brave**
enough to see what
lurks inside?



- b. The **Paladin** needs to search inside for something of vital importance.
 - i. *The "crevice" was a cardboard box cut to fit the dimensions of the bookshelf it would be encased in. The inside of the box contained fake spider webs and bugs (mostly spiders) that had been attached on the inside for maximum creepiness.*
- c. They will find a small bottle with a note attached to it (*right image*).

To the goblets you now must look. I must be added to one, for I show the content's true colors.

But which one?

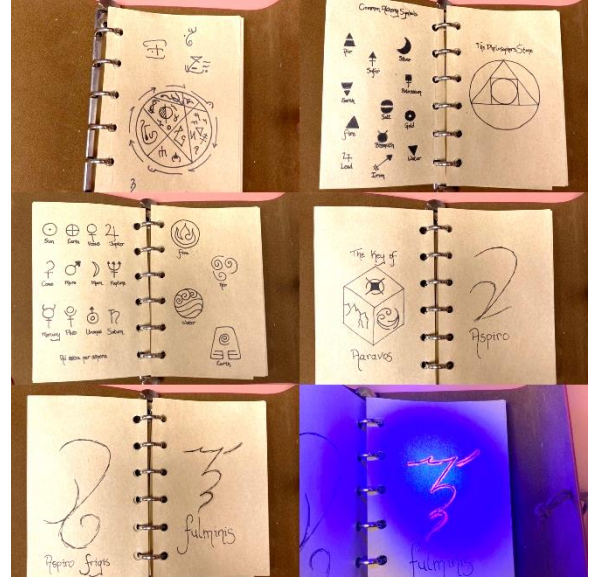
Perhaps the **Wizard's Tome** may shed some light on which one to choose...

5. The bottle's note directs their attention to the corner with 4 goblets on a round table.



- There is a hint in front of the goblets:
- This hint and the note found on the bottle indicate that the **Wizard** needs to be present, with their tome (journal) and black light.
- The **Wizard's** tome is filled with diagrams, symbols, and spells. As the **Wizard** searches, they will come to some pages that have the same symbols that are on the goblets.
- If they shine the black light on the pages, one of the symbols will illuminate and indicate which goblet the bottle's contents need to be poured into.
- In this case, the goblet on the far left (with the *Fulminis* symbol) is the goblet they need to pour into.
- The contents will turn red.

Hmm... these look like **Potions**.



- The color change is the result of a pH change. See the "pH Lab" instructions (page 15) for more information about how we did this.
6. Directly above the goblets, there are pictures depicting four dragons, each a different color.
- Since the goblet's contents turned red, they need to look at the picture of the red dragon.
 - There is a 4-digit number shown in the image: **0934**. This is the combination to one of the number locks.
 - The **Rogue** will need to use this combination to open the lock box.
- They will likely notice that there are two lock boxes with 4-digit combination locks. The **Rogue** may try the combination on both boxes to see which box is correct.
 - Inside the box they will find an old-fashioned key.
 - There is only one lock box in the room with a padlock so the **Rogue** will take the key to that box and open it.



- Inside Players will find a relic and a scroll that reads (right):
- Once the "incantation" is recited (we did not specify that a certain character needed to be the one to recite it) time stops and they have escaped and saved their village!

THE END

Well done, intrepid adventurers!

You have found the artifact needed to lift the curse.

Lift the artifact and recite:

"For the glory of Merlin, daylight is mine to command!"

SHORTER CLUE CHAIN (NO CHEATS ALLOWED)

1. Dungeon Master presents this scroll to Players (*right image*):

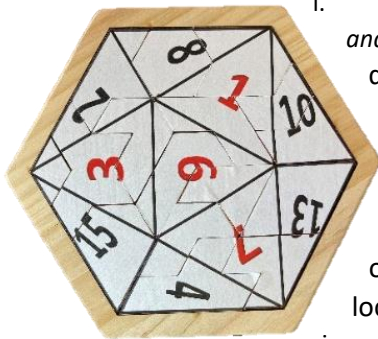
a. On the south wall of the room there is a table with the chessboard, lockbox, and a tangram puzzle. The message is referring to the tangram puzzle.



i. *We put a compass rose on the Dungeon Map in case people did not know what direction "south" was once they were inside the room.*

b. Players need to put together this puzzle (no one has a puzzle strength, so it does not matter which people work on the puzzle).

c. The completed image on the puzzle is a 20-sided die. 4 numbers are red, the rest are black. Players need to deduce that they need to pay attention to the red numbers: **3, 1, 9, & 7**. Since there are 4 numbers, they should realize that they are a combination to one of the number locks.



i. *How do you tell if it is a 9 or a 6? If there is not a line under it, it is a 9. (We gave them a free hint and told them it was a 9 just to avoid some pain and confusion).*

d. Problem solving is particularly important here. There are 4 digits and they don't know what order they go in, or which of the two lockboxes to open. There are 16 permutations of these integers to make the 4-digit combination they need. Someone needs to write out the 16 permutations (each player has a notepad and pencil in their bags of holding) and the **Rogue** can place the two lockboxes side by side and enter each of the permutations into each lock until they enter the right sequence into the correct lock. The correct sequence is **3791**.

i. *An alternate way to handle the deciding which box is correct is to color code the combination with the lock it goes to, so all they have to do is match the colors. We did not think of this until after the fact. Hindsight is 20/20.*

2. Once they open the right lockbox, they will find part of a cypher wheel and a cryptic message (*left images*).

a. The other half of the cypher wheel is on a table. The smaller wheel just sets on top of the larger wheel.

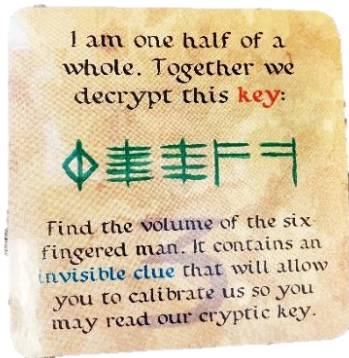
i. *We made our own cipher wheel out of 1"x8'. The larger wheel has a 7" diameter, the smaller wheel has a 5" diameter. We drilled a 5/16" hole in the center of each and glued a dowel into the larger wheel. We used a wood burner to etch the letters and runes into the wheels.*



b. The note that accompanies the smaller wheel tells them how to calibrate the wheel, or rather where to look for the calibration. They are looking for a book of the "six fingered man."

c. The **Wizard** needs to look through the tomes again to find such a book. There are two that fit that part of the description.

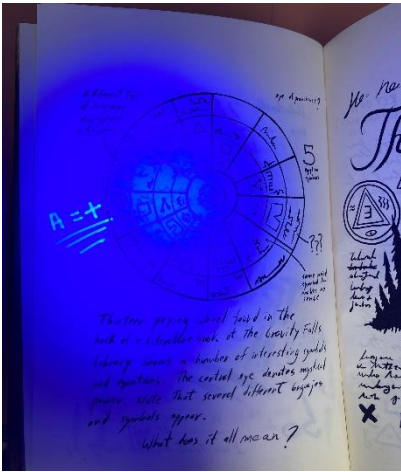
d. Looking carefully at the note, they will notice "3" behind the text, this should indicate to them that they need vol. 3.



You are quite daring to choose this path. It is shorter, but it comes at a heavy price. You must forfeit your remaining cheats and continue alone.

Good luck, intrepid adventurers!

Your journey will take you south. Find the broken image and restore it to its original state.



- e. The **Wizard** needs to shine their black light on the pages in the book.
- i. We inserted pages into the books, so it was easier to tell which pages they needed to search.
- f. They will discover the calibration they need to decode the Rune message. They need to align the letter "A" on the large wheel to the "+" rune on the small wheel.
- g. Since the message is in (**green**) runes, the **Druid** needs to be the one to decrypt the message.
- h. The deciphered message is a 5-letter word: **WIELD**
- i. On the same table as the wheel cipher there is the lock box with a 5-letter word combination. **WIELD** is the combination to open that box.
- 3. Inside the box they will find an old-fashioned key.
 - a. There is only one lock box in the room with a padlock so the **Rogue** will take the key to that box and open it.
 - b. Inside Players will find this relic with a scroll that reads:



Well done, intrepid
adventurers!

You have found the artifact
needed to lift the curse.

Lift the artifact and recite:

"For the glory of Merlin,
daylight is mine to
command!"

- c. Once the "incantation" is recited (we did not specify that a certain character needed to be the one to recite it) time stops and they have escaped and saved their village!



THE END

WHEN TO TAKE A LIFE



1. When a player attempts to complete a task that they do not have the skill required to complete.
2. When a player gets distracted and starts a puzzle/task that is out of order or part of a separate path.
3. When anyone enters the dragon’s nest without the dragon amulet (only the Druid possesses the skill to wear the amulet and enter the nest).

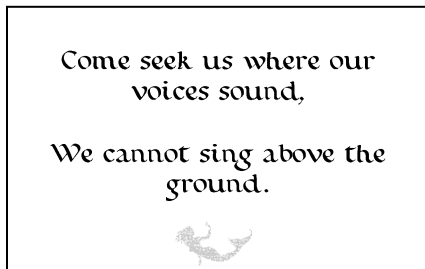
There is an extra life hidden in the room. If a player finds it, they hand it to the Dungeon Master to add a life to their gauge. If a guild hasn’t found the extra life and loses all three of their lives, we let them know that there is a hidden life somewhere in the room (the scroll the Paladin reads at the beginning informs them of this). They were required to stop what they were doing and look for it before being allowed to proceed. If they lose all four lives, then it’s game over!



“RED HERRINGS”

A good escape room should have at least 1 red herring pathway to throw participants off.

One red herring the Druid could come across was while they were searching the dragon eggs. Inside the gold dragon egg, there was a note (*left image*).

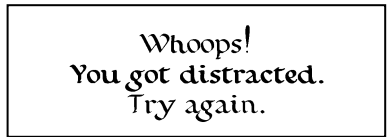


This would make them think that this mermaid (*right image*) held relevance to their quest. If participants had shined a black light on the picture, they would have found a mocking message: *Made you look!*

You wouldn’t take a life if they get distracted by this. They haven’t chosen which chain to follow yet, and this doesn’t belong to either path. They are still collecting puzzle pieces at this point.



Scouring the room for clues is standard procedure in an escape room, although sometimes it may not be beneficial. We hid a hide-a-key rock with a message inside:



There were Rupees (gems) hidden in ceramic pots around the room. They weren’t used for anything, but many players got hung up on why they were there, so they were an excellent distraction.

REFERENCES

Many franchises were referenced throughout the course of this escape room to add some interest/fun for patrons who recognized where the references came from. And some of the references helped build the plot and structure of the room. We need to give credit where credit is due and disclose that Roosevelt Branch Library does not own any of the content.

This escape room experience was done at no charge to the public.

The structure of the room we patterned after Dungeons & Dragons. The avatars (Paladin, Wizard, Bard, Druid, and Rogue) were chosen from a D&D Handbook. The Bags of Holding were also named after a D&D item. We used the symbol of a 20-sided die on our tangram puzzle as well.

The plot/scenario of the escape room was heavily inspired by our favorite *Voltron: Legendary Defender* episode: "Monsters & Mana" (S6:E3), which, in turn, was heavily influenced by Dungeons & Dragons. The Paladin's backstory was patterned after Shiro's in the same episode.

The strengths and weaknesses of the avatars was loosely inspired by the film *Jumanji: Welcome to the Jungle*. We also wrote our quest scrolls in the tone of Nigel Billingsley ("Well done, intrepid adventurers!").

The dragon amulet in the Druid's Bag of Holding is from *Castlevania* (3-D printed from Thingiverse).

There were a lot of references to *The Legend of Zelda* franchise in this room, as it is one of our favorite video game series. The puzzle players must collect and assemble has a painted fairy with the words "Hey! Listen!" This is Navi from *The Ocarina of Time*. The painting of the music staff the Bard must play on the xylophone is of the Deku Tree, again from *The Ocarina of Time*. The song the Bard plays is "Saria's Song" from the same game. There are bottled fairies for decoration around the room, a common occurrence in any *Zelda* game (3-D printed from Thingiverse). There were multiple pots scattered throughout the room containing rupees. The combination to the directional lock is Up, Up, Down, Right, Left, Right, which is the rhythm and direction Link must conduct the Wind Waker to play the "Wind God's Aria" from *The Wind Waker*. Faron Woods, a recurring location in the game series, was referenced in the scenario.

We couldn't resist adding some Harry Potter references as well. Our red herring path included the merpeople's song found in the golden dragon egg from *Harry Potter and the Goblet of Fire*. This led them to a stained-glass image of a mermaid from the movie. This mermaid was framed by a cardboard Mirror of Erised from *Harry Potter and the Sorcerer's Stone*. We made this about three and a half years ago for another event and decided to reuse it. Many of our DIY spell books were titles from the series that we reused from a Harry Potter escape room we did last year. The message found with the knight chess piece stated: "Knight to E-5!" This was taken from the movie of *Harry Potter and the Sorcerer's Stone*. The combination to a number lock is 0934: Platform 9 $\frac{3}{4}$.

The *Enchiridion* and its pages are from the TV series *Adventure Time*.

Volumes 1 and 3 of the six fingered man and their pages are from the TV series *Gravity Falls*.

The Wizard's tome contained many symbols and spells, including some from *The Dragon Prince*: The Key of Aaravos, Aspiro, Aspiro Frigis, Fulminis, Ventus Spiralis, and Historia Viventum. Four of these spells were also included on the goblets for our potions. The purple dark magic book that was hiding some of the puzzle pieces is also from this show.

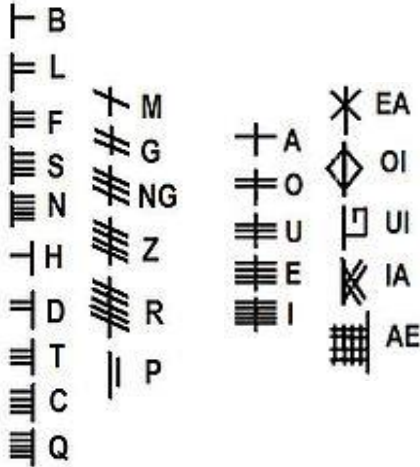
Another page of the Wizard's tome shows the symbols of Earth, Fire, Air, and Water from *Avatar: The Last Airbender*.

The artifact needed to save the villagers is the Amulet of Daylight from the TV series *Trollhunters* (3-D printed from Thingiverse). The incantation they must recite, "For the glory of Merlin, daylight is mine to command!" is from the show as well.

Our Alchemy book has a transmutation circle on the cover that can be found in the manga/anime series *Fullmetal Alchemist*.

To get really specific, the combination to one of our number locks was taken from *The Lord of the Rings*: 3791. “**Three** Rings for the Elven-kings under the sky, / **Seven** for the Dwarf-lords in their halls of stone, / **Nine** for Mortal Men doomed to die, / **One** for the Dark Lord on his dark throne...” We also used a few “One does not simply walk into (insert location)...” just for fun. In the Bard’s biography, it states that they hail from the Blue Mountains, a location in Middle-Earth.

The Druid runes we used on the banners, divining rods, and cipher wheel were actual [ogham runes](#). We had to alter their alphabet a little so it would correspond with English letters and/or the letters we had on our word lock.

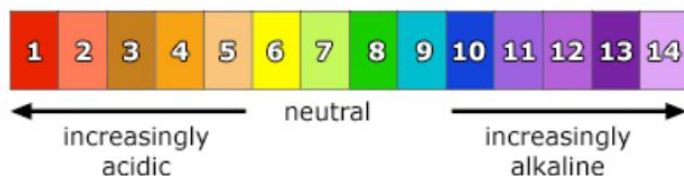


| Letters on Word Lock | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|
| A | B | C | D | E | F | H | I | K | L |
| M | N | O | P | R | S | T | U | W | Y |

We used the following information to help us design our goblet/potions puzzle.

Red Cabbage pH Indicator: Acids and Bases

Liquids all around us have either acidic or basic (alkaline) properties. Both strong acids and strong bases can be dangerous and burn your skin, so it is important to be very careful when using such chemicals. In order to measure how acidic or basic a liquid is, one must use the pH scale as illustrated below:



The strength of the pH scale is determined by the concentration of hydrogen ions (H^+) where a high concentration of H^+ ions indicate a low pH and a low concentration of H^+ ions indicate a high pH. The pH scale ranges from 1 to 14 where 1 to 6 is classified as acidic, 7 neutral, and 8 to 14 is classified as basic.

In this lab, you will use the juice from red cabbage as a pH indicator to test common household liquids and determine their pH levels. You will mix cabbage juice with different household liquids and see a color change produced by a pigment called flavin (an anthocyanin) in red cabbage. Through this color change, you will be able to successfully identify the approximate pH of common household liquids.

Instructions:

Preparing the Cabbage Juice:

1. Put the red cabbage leaves into the blender with 800mL of water.
2. Close the top and let it blend at high power for 30 seconds.
3. Once it is blended, filter out the leaves inside the mixture with the strainer and pour the mixture into a large container.

Testing the Samples:

4. Pour 100 ml of liquid you are testing into a clear vessel (sample)
5. Pour 50 ml of cabbage juice into the sample

The color of the liquid will change according to its pH!

This scale is the color scale for Cabbage pH Indicator.

| Color | Pink | Red | Violet | Blue | Blue-Green | Green-Yellow |
|-----------|------|------|--------------|------|------------|--------------|
| Approx pH | 1-2 | 3-4 | 5-7 | 8 | 9-10 | 11-12 |
| Acid/Base | acid | acid | Acid/neutral | base | base | base |

You may have to experiment with concentrations of either your samples or the indicator to get the color you desire. We used lemon juice to get a red color. This worked well while we were experimenting, but when we were executing the room it kept turning more of a magenta rather than a strong red color. We think we needed a higher concentration of indicator.

References

Acids and Bases:

http://www.chem4kids.com/files/react_acidbase.html

pH image:

<http://www.pullouttheplug.co.uk/.../ph-scale.gif>

Red Cabbage Juice Lab:

http://www.curriki.org/xwiki/bin/view/Coll_MickiHR/AcidsandBases