

Games Design Document

Game Name: Gilbert's Revenge

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Contents

High Concept.....	3
Elevator pitch	3
Theme/environment/setting	3
Unique Selling Point/s and Key Mechanics	4
Gameplay Summary	4
World Summary	5
Production Overview.....	5
Player Characteristics Outline	5
Player Persona	5
Story (How, why, What)	6
Gameplay Influences	6
Colours Palette	7
Lighting.....	7
Asset List	7
Level Design documentation	8
Goals of level, key areas and level plans.....	8
Level design maps	9
Critical Path Analysis.....	33
Critical Path and Optional Path Combined Analysis	36
Controls.....	37
Player Controls Map.....	37
Player Camera	38
Design mechanics.....	38
Character design mechanics & abilities	38
Enemy difficulty table	43
Enemy design mechanics.....	44
Rewards and progress.....	49
Save game	49
Goals	49
Abilities	49
Collectables.....	50
Merchant room (main focal point)	51
Secret Rooms.....	51



High Concept

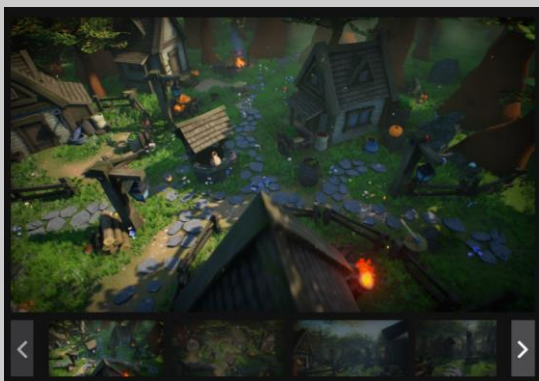
Elevator pitch

The game is a side scrolling 3D metroidvania, taking inspiration from games such as Castlevania and Shantae. The game incorporates combat and RPG elements with fun platforming and a few nasty traps to avoid. Players will need to explore the environments closely, using acquired abilities to overcome obstacles by defeating the games challenging boss battles.

Theme/environment/setting

The game takes place in an old medieval castle, from the bottom dank pits where victims spent their final days to the splendour and majesty of the castle's highest rooms now home to the ruling creature of the night. Player's will be immersed through environmental story telling where each area will have a distinctive style and tone to progress through. The environments will be created using asset packs from the Epic store, these are the infinity Blade packs, advanced village pack and the winter forest pack.

Village pack (left) winter forest Asset pack (right)



The player's weapon will match the medieval setting visually as well as having magical spell effects that match the fantasy settings. Games such as Castlevania demonstrate this

Castlevania



Unique Selling Point/s and Key Mechanics

The game combines the precise combat and RPG elements of Castlevania with the platforming sections of games like Shantae then adds environmental traps into the mix to keep the player on their toes. The player will have to defeat three unique bosses to acquire the three gifts from God, then use them to reach and defeat the Lord of the castle. To help the player do this they will also be able to level up their character by finding hidden chests and collecting enough gold to hand to the castle's merchant. This will encourage exploration and replay ability.

Gameplay Summary

The player explores the environments, fighting enemies and dodging traps along the way until facing an unreachable area. The player must then find their way to a boss enemy, defeat the enemy, and acquire an ability to move on. The player does this three times until gaining access to and defeating the final boss. Below is a chart to show the gameplay loop.

Gameplay Loop**World Summary**

The player will delve into a medieval world filled with magic and monsters making their way into and atop an old castle filled with enemies. The player will defeat these enemies with his trusty whip, exploring the castle's many secrets, and revealing hidden abilities held captive by the three demonic keepers. The player will have to avoid traps and use their cunning to move to the higher rooms now locked off by rubble, overgrown foliage among other things blocking their path and face against the Lord of darkness.

Production Overview

Trello will be used to plan out this project. Priorities will start with the abilities, these will be crucial to the exploration of the environments and progression, without these working the game will fail to live up to the genre in which it is based. Next will be getting the player character to move correctly and coordinated with the enemies in terms of a balanced combat system. The level design will be next, making sure the gameplay flows smoothly and always remains interesting, this will also include the traps and backtracking will be taken into consideration. Chests and enemy placements will then need to be added taking into account any experience points to level up the character and difficulty of combat. Last of all will be the lighting, affordance, and small environmental details just to give the game that extra bit of polish.

Player Characteristics Outline

The protagonist will be a vampire like creature, still dressed in old, ragged but battle-ready clothes it's human form. It has bright blue glowing eyes and teeth like daggers. It uses a magical whip to slay enemies in its path.

Player Persona

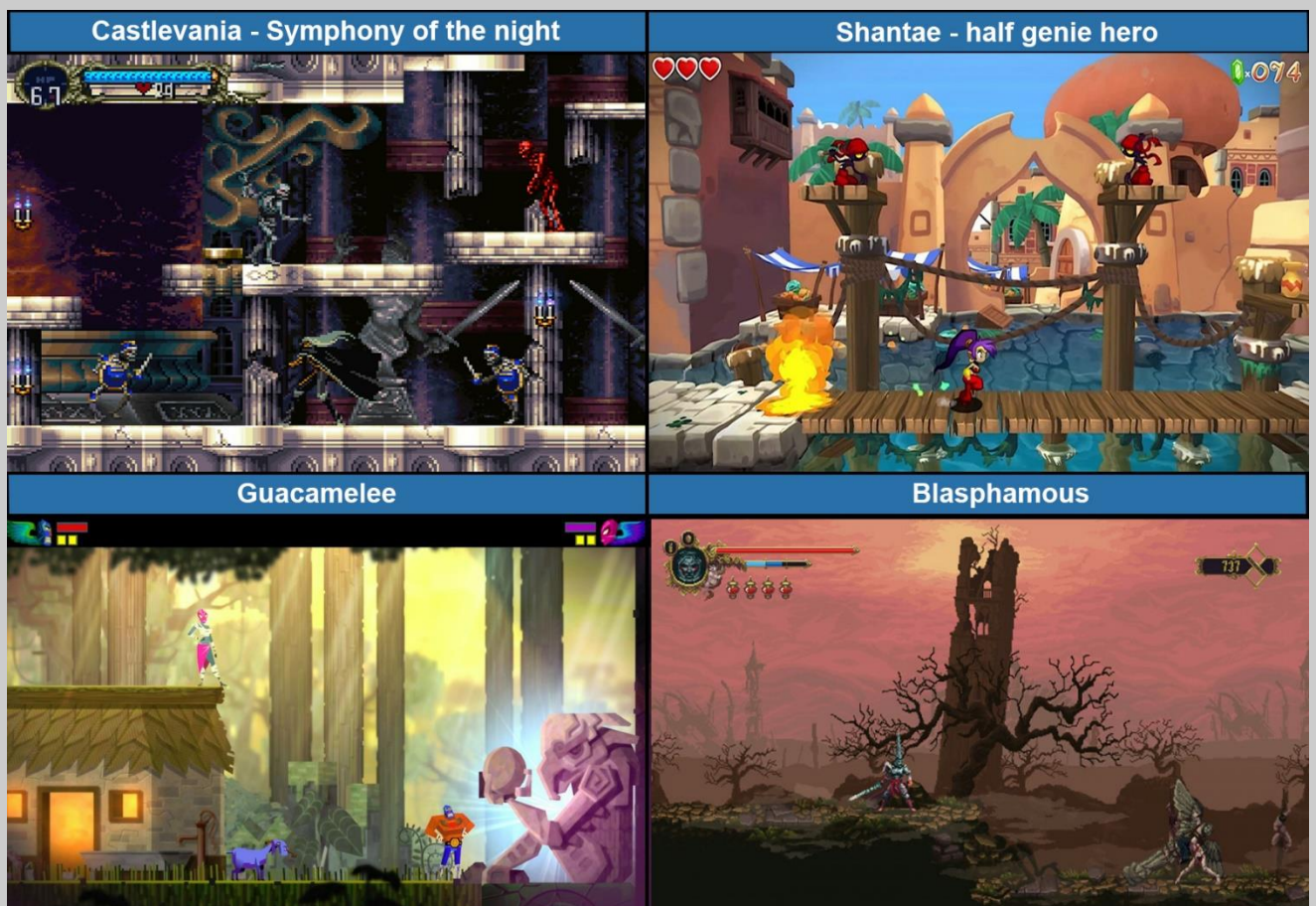
It has a cool demeanor and will stop at nothing to free the villagers from the tyranny that blights them.

Story (How, why, What)

The story takes place in a medieval world filled with magic and monsters where a castle once home to a great king lies atop a hillside covered in shadow. Creatures of the night now spawn from this place to wreak havoc on a nearby village in which the protagonist resides in. This man had trained for many years to put an end to the madness and defeat the source of this evil but alas he was killed by that evil and perished beneath the ground, but his story did not end there. He was awakened the very same night under a full moon, the evil had taken the man's life, but he was also gifted with a new one to serve as a creature of the night. What was unexpected was the man now creature rebelled against this notion and with new powers and strength vowed to return to the castle and liberate his village once and for all and defeat the Lord of darkness.

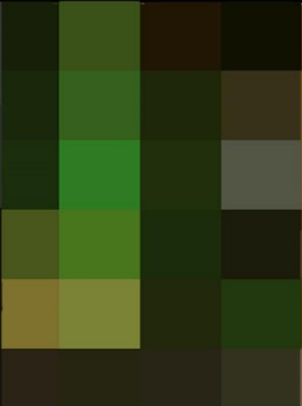
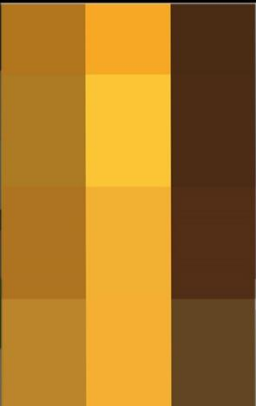
Gameplay Influences

Metroidvania games such as Castlevania, Shantae, Guacamelee and Blasphemous (2D side scroller view, exploration, combat, abilities, hidden areas)



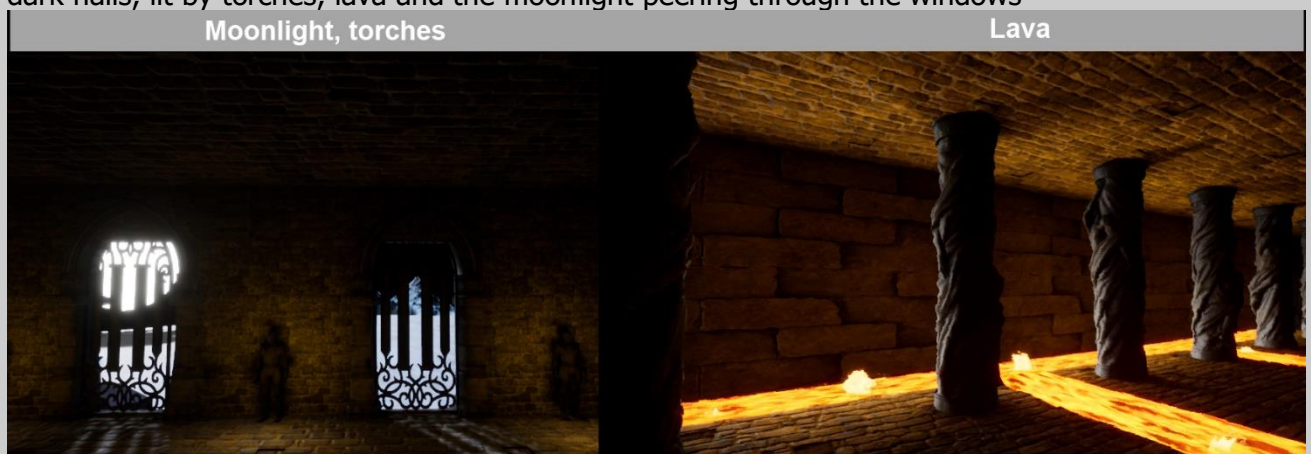
Colours Palette

Environment: The game will feature dark halls built with aging stone in browns, greys and black, overgrown green foliage where the castle has been neglected, yellows, and oranges where torches light the hallways and white coming from the moonlight and the fallen snow outside of the castle.

Stone	Foliage	Torches	Snow,moonlight
			

Lighting

dark halls, lit by torches, lava and the moonlight peering through the windows



The table above demonstrates how the colours used will look in the environment. The pictures are taken from Bladerunner movies (huge cyberpunk influence).

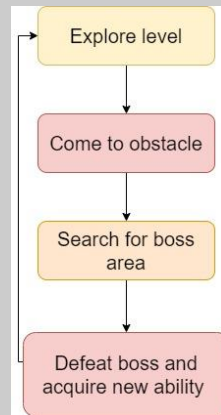
Asset List

Infinity Blade – Castle

Level Design documentation

Goals of level, key areas and level plans

A flowchart to show the player's main goals as they play through the game



The key areas will be the boss rooms and rooms which require an ability to progress through. Other areas will be platforming sections, combat areas and areas containing traps. Some areas will combine all three (hidden chests can also be found in these places). concept for the areas:

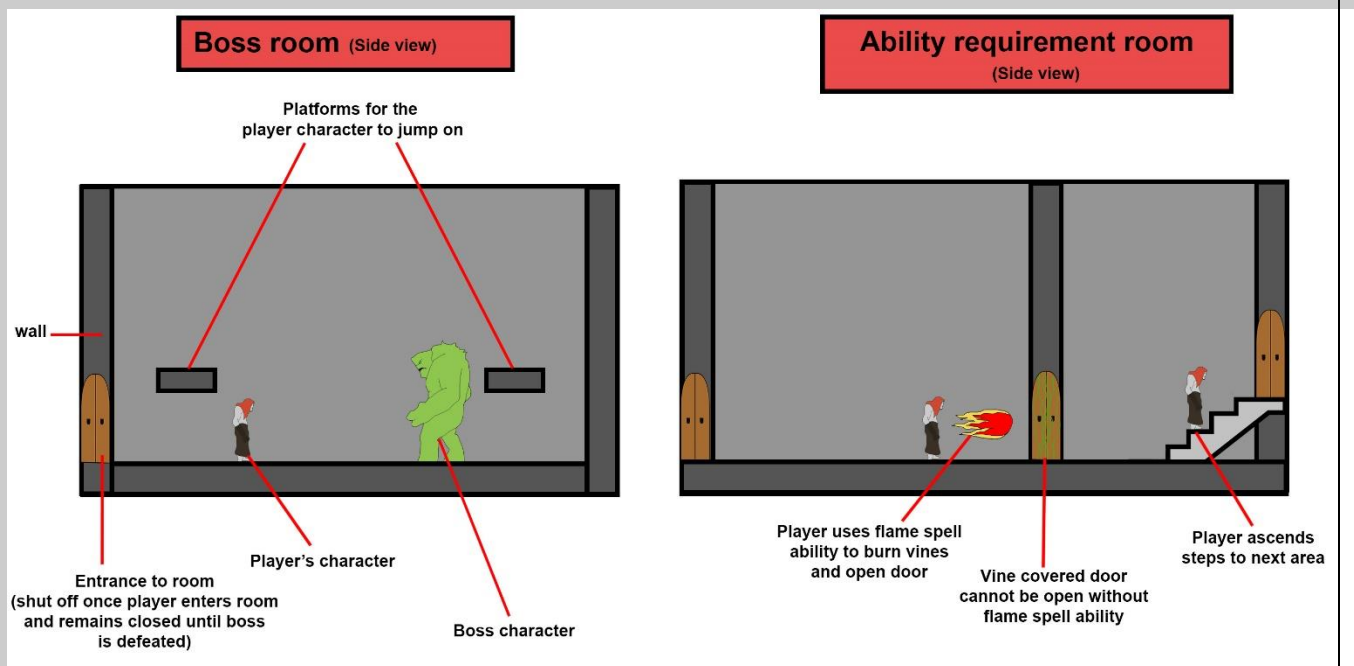
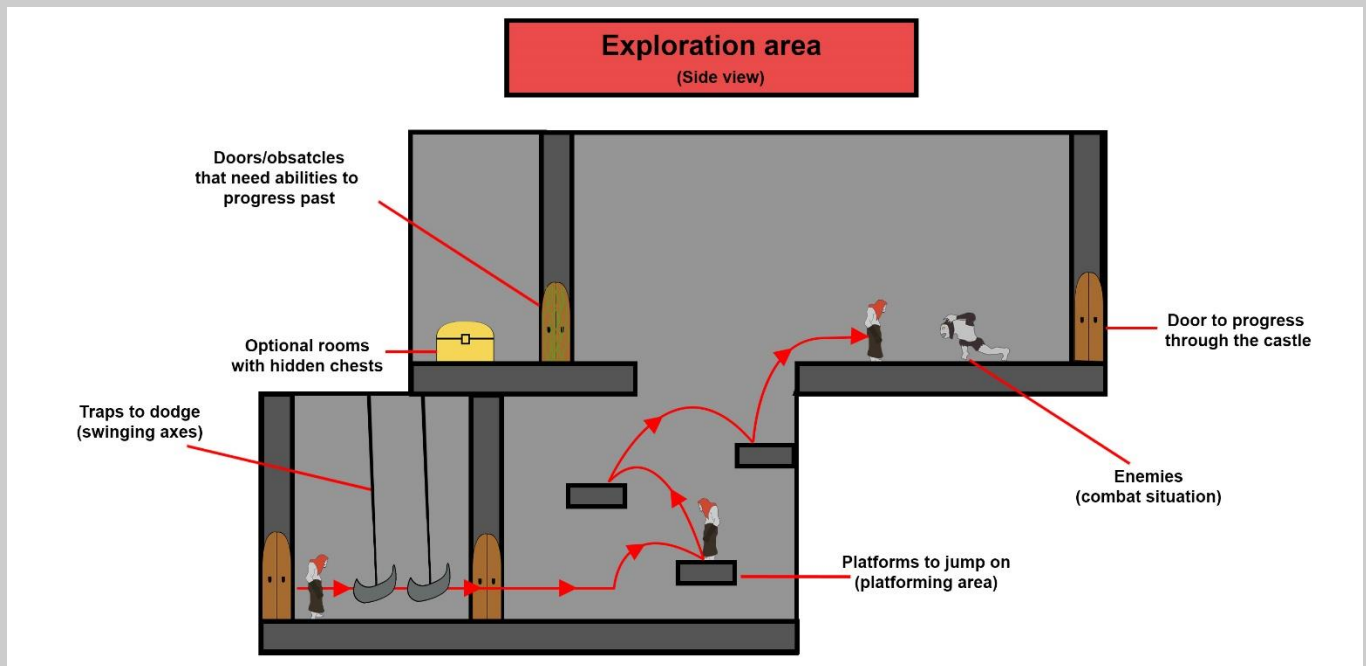


Figure 7: Exploration area concept

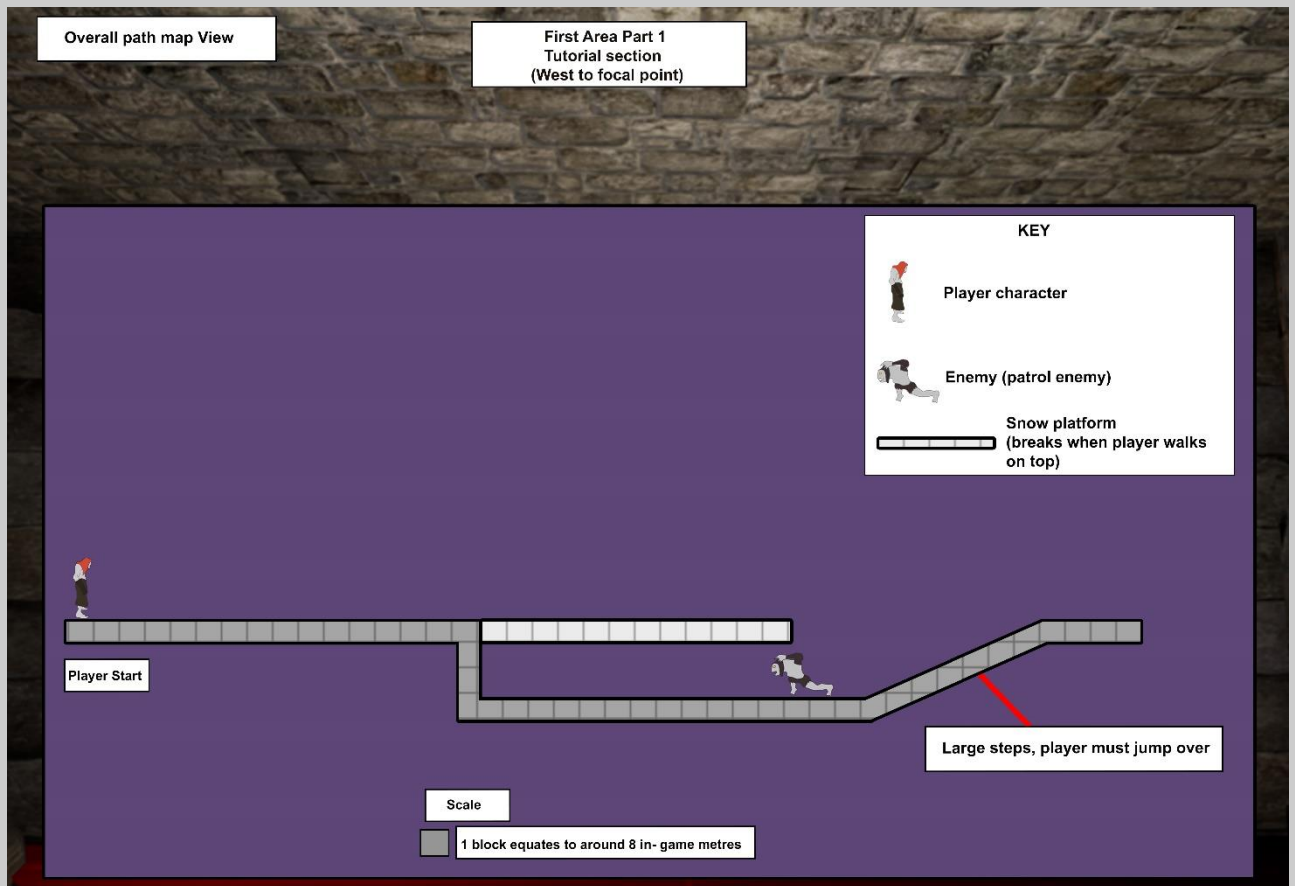


Level design maps

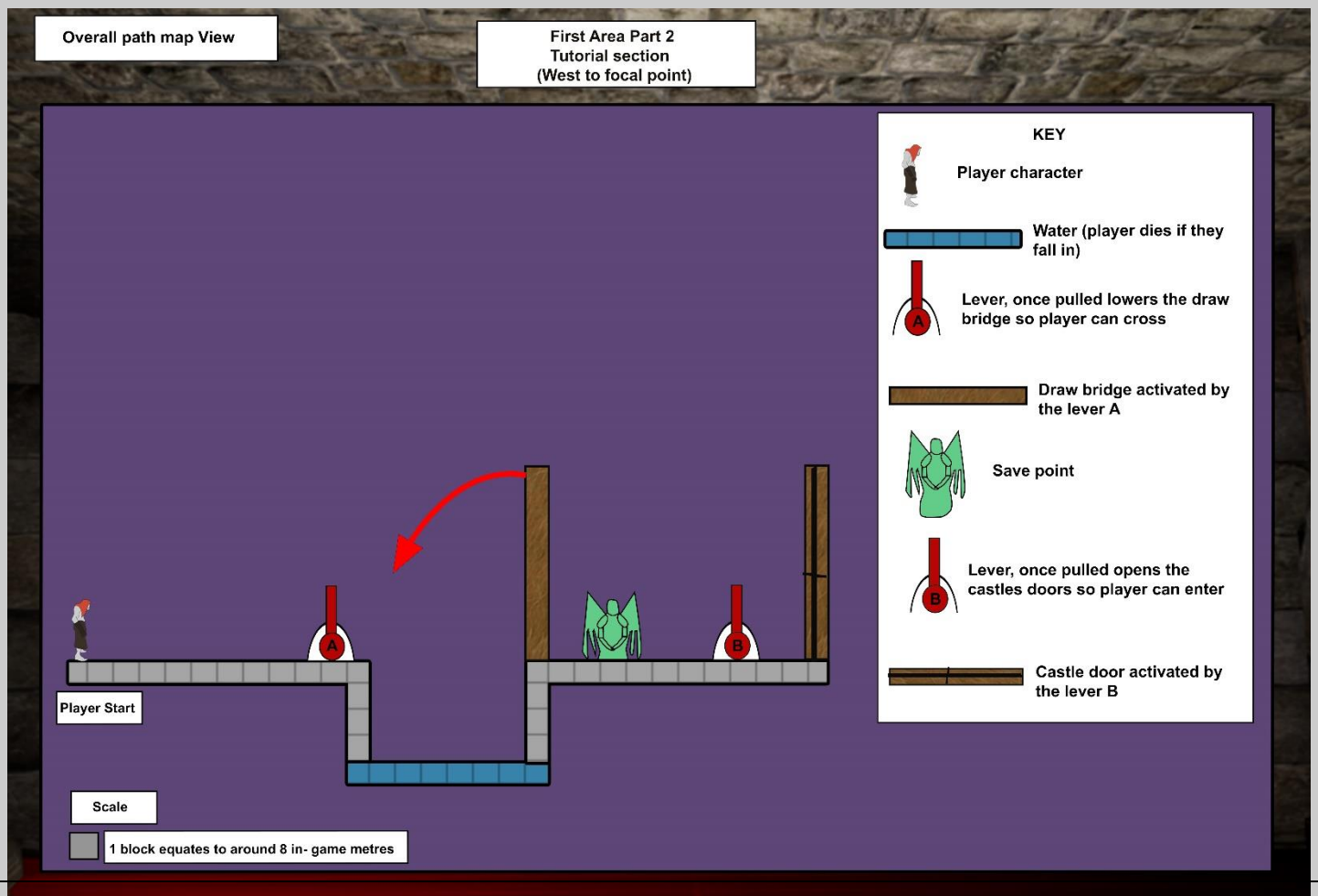
Maps: Overall area

Tutorial Location (Area one part 1)

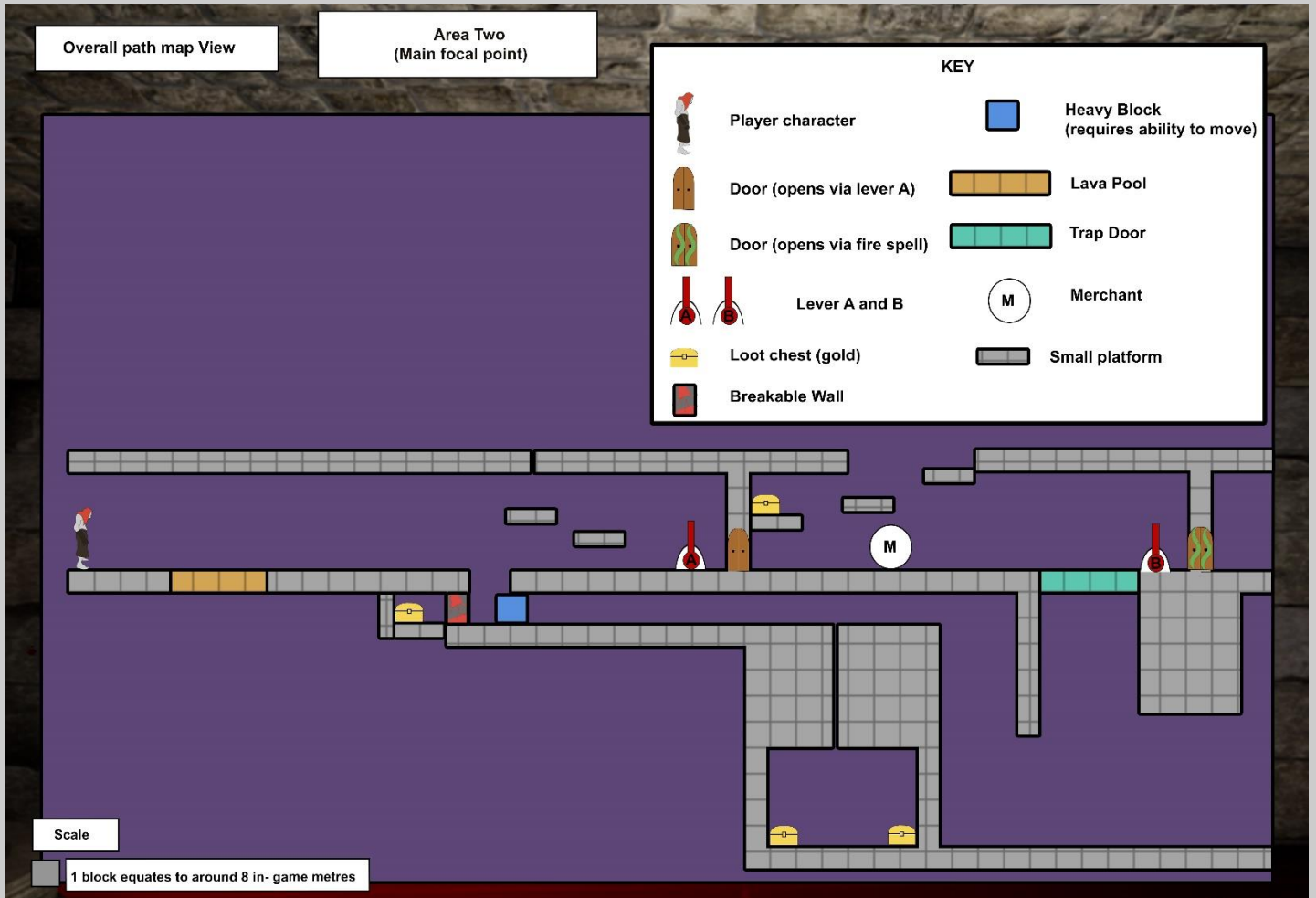
This is where the player starts and learns basic movements such as run and jump and how to attack enemies:



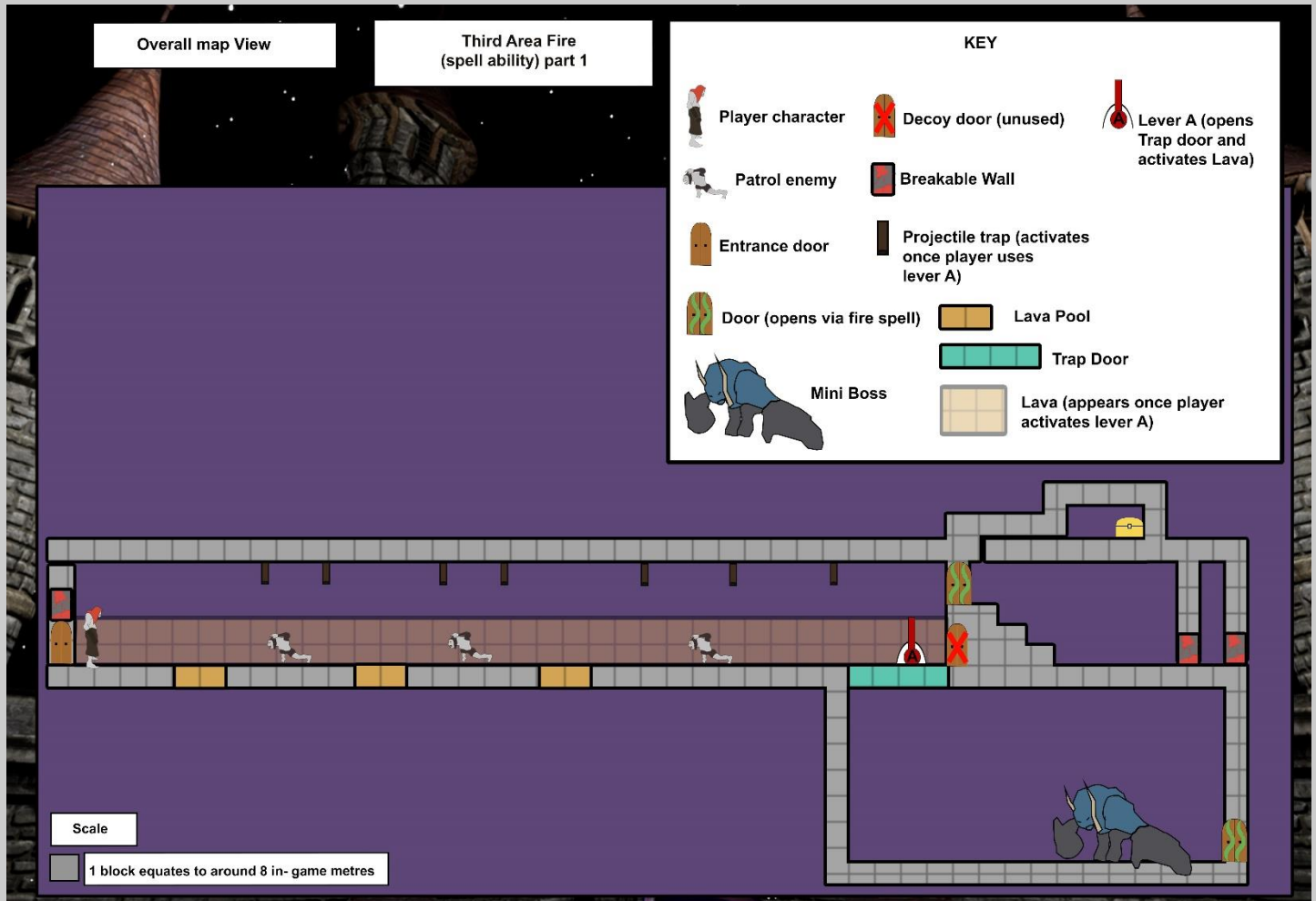
Overall view of the area 1 part 2 map. This area introduces the player to the lever mechanics and save system before entering the castle:



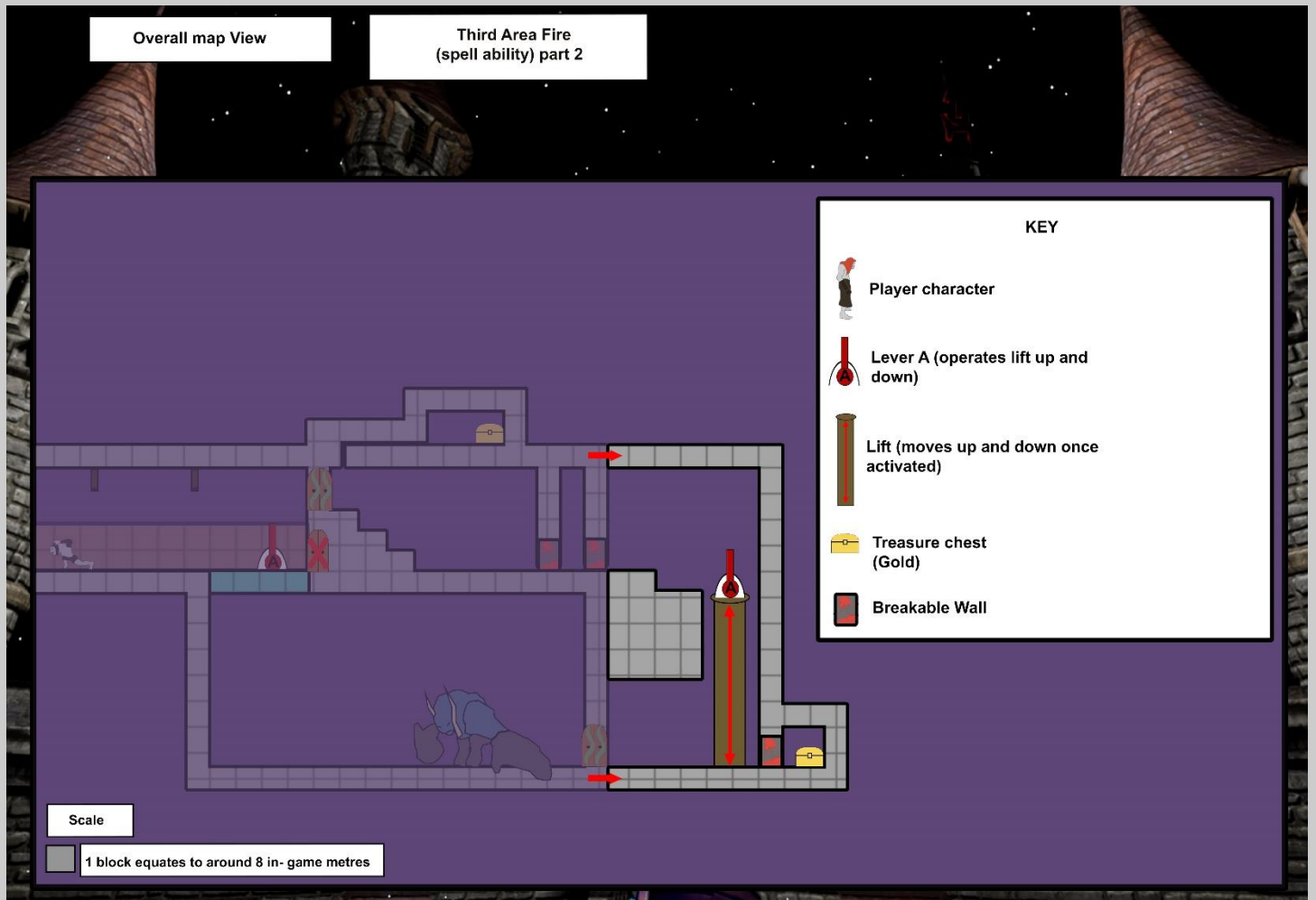
Overall view of the area two map (main focal point). This area introduces the player to lava pits, breakable walls, and the merchant. This is also the area in which the player will keep returning to:



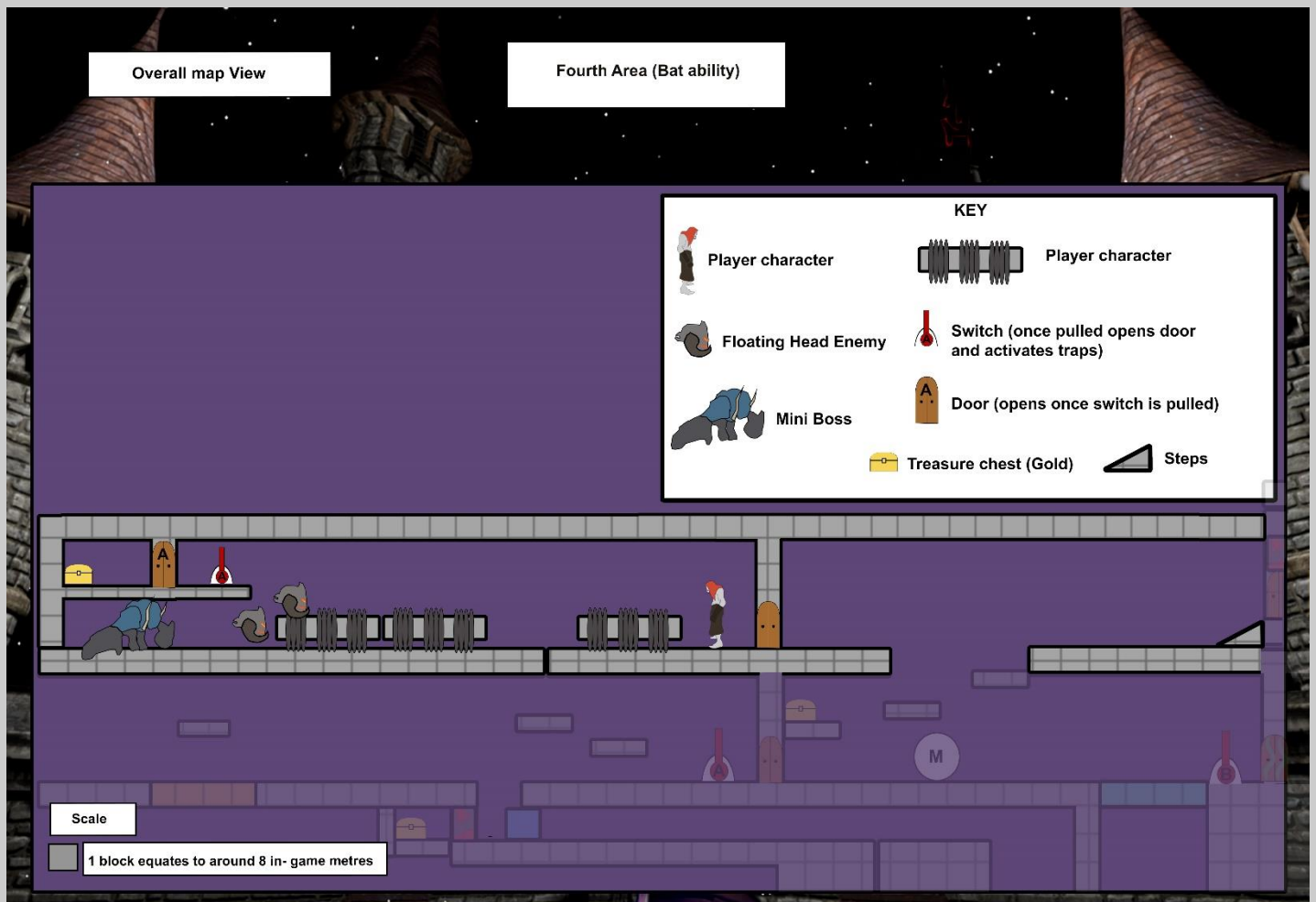
Overall view of the area three (part one) map. This contains platforming sections, moving platforms, traps, breakable walls, a mini boss and two ability pickups (fire spell and lava boots):



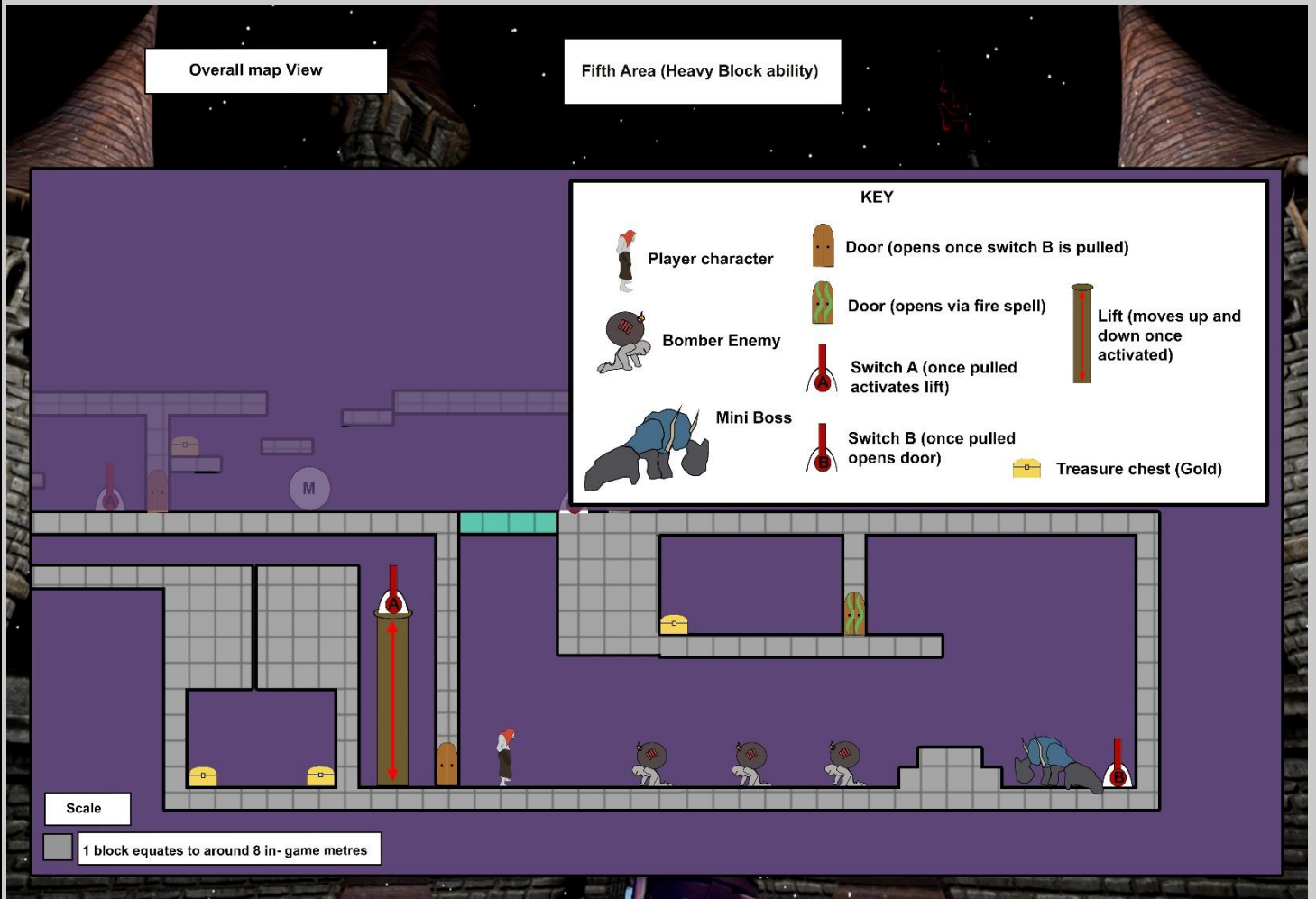
Overall view of the area three (part two) map. This contains platforming sections, moving platforms, traps, breakable walls, a mini boss and two ability pickups (fire spell and lava boots):



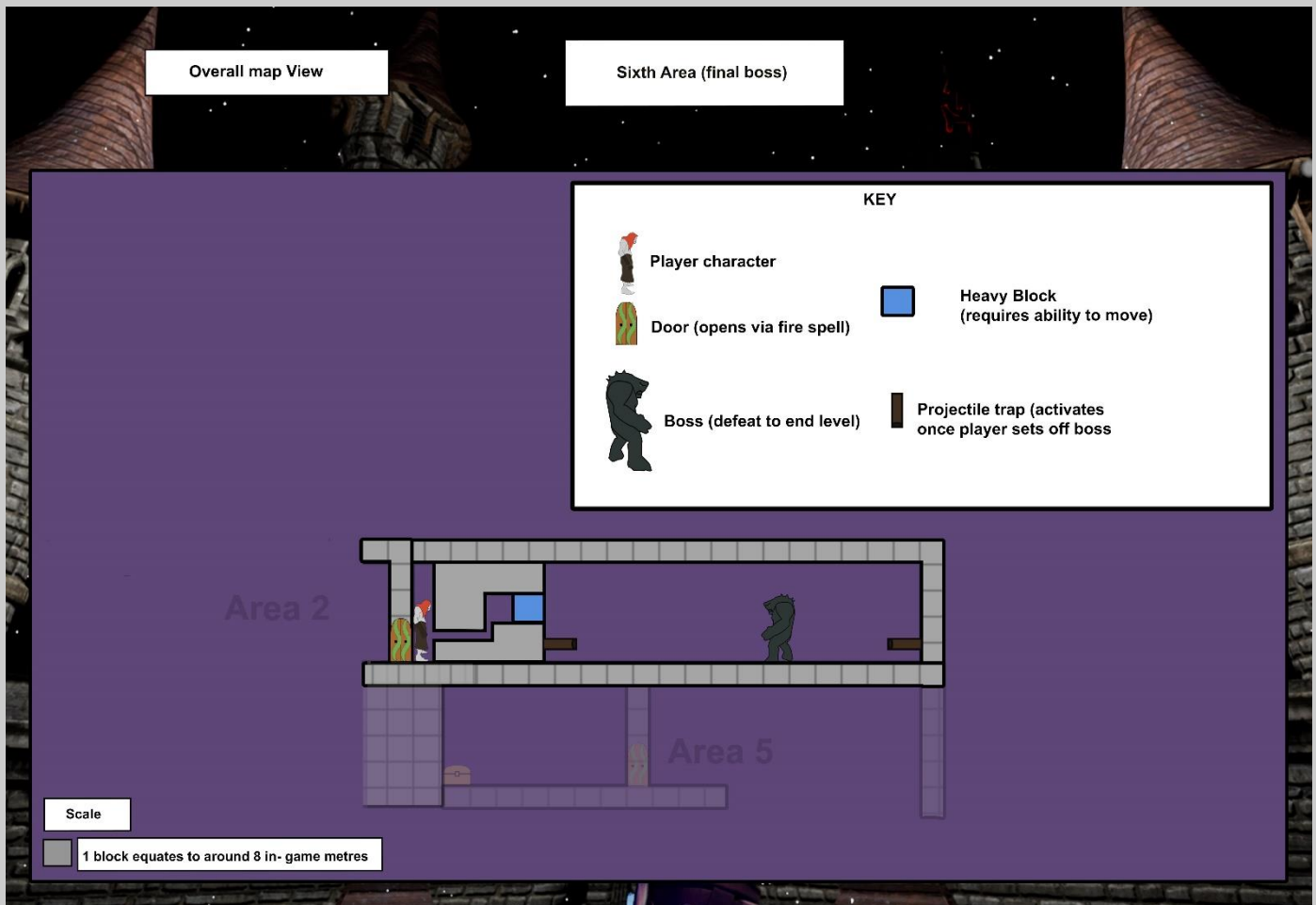
Overall view of the area four map. This contains traps, the floating head enemy, a mini boss and the Bat ability pickup (used to escape the room):



Overall map view of the Fifth area. This is where the player acquires the Heavy block ability. They will encounter the bomb enemy here and a mini boss. They will need to acquire the new ability to leave the area.

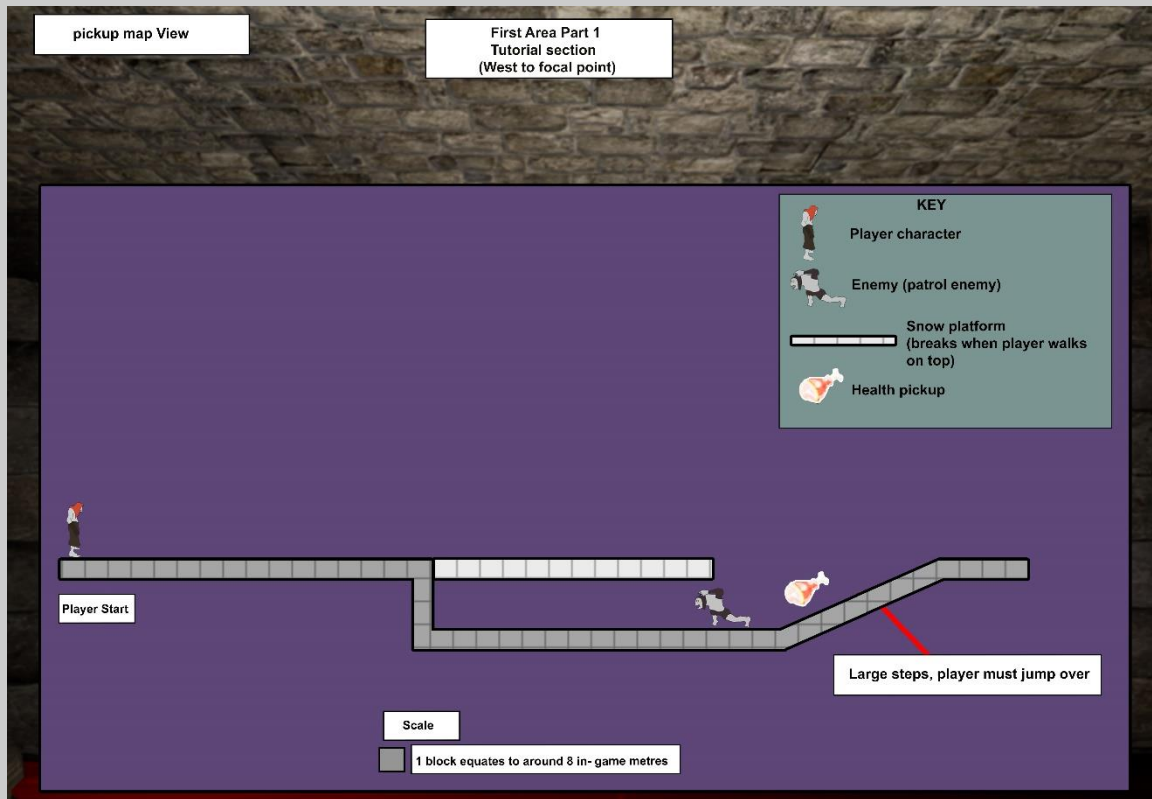


Overall view of the area six map. This contains traps, pickups, heavy block, bat ability tunnel and the final boss fight

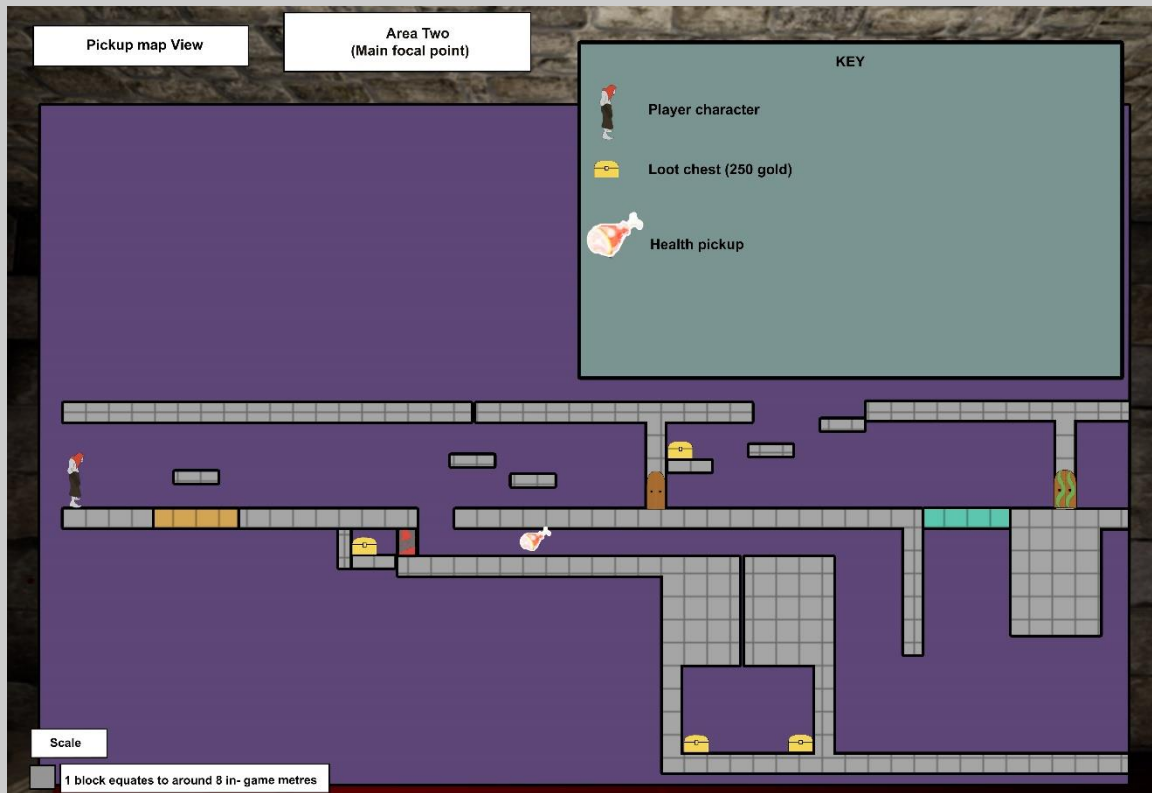


Maps: Area pickup locations

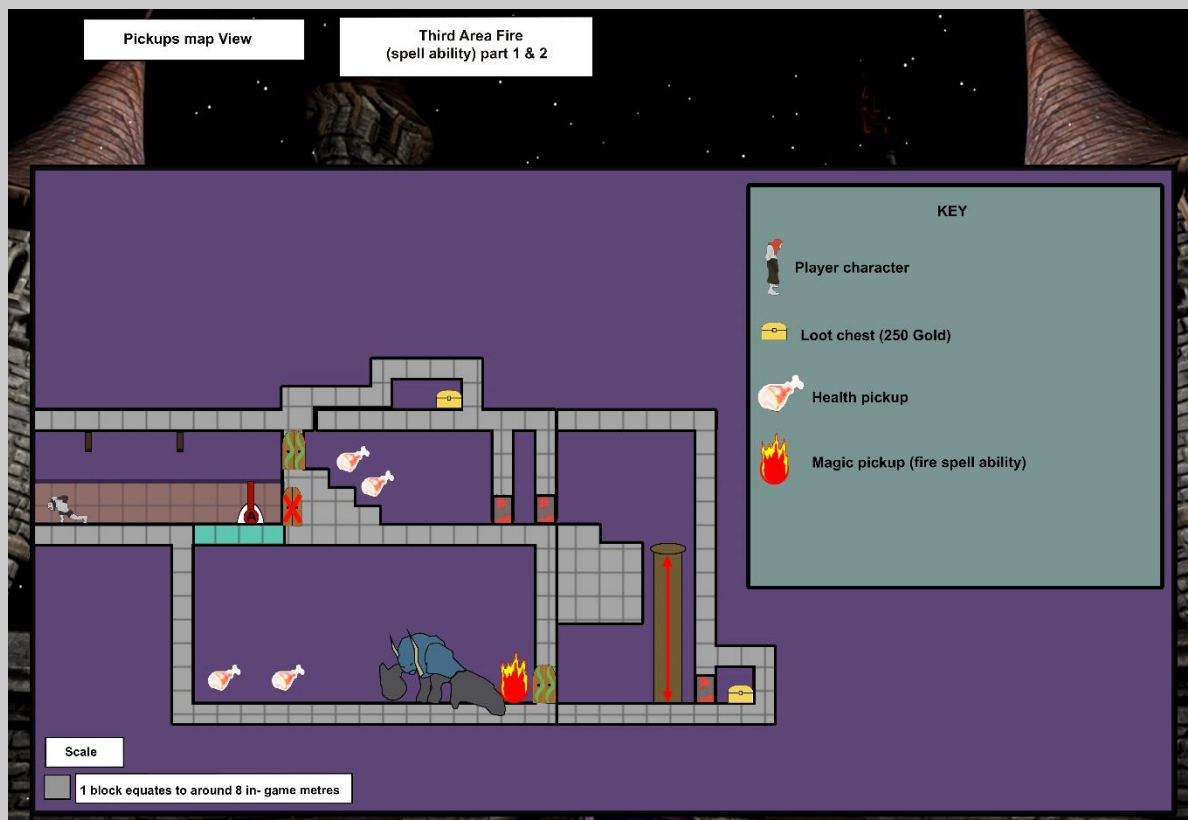
Area one pickup map: contains 1 health pickup



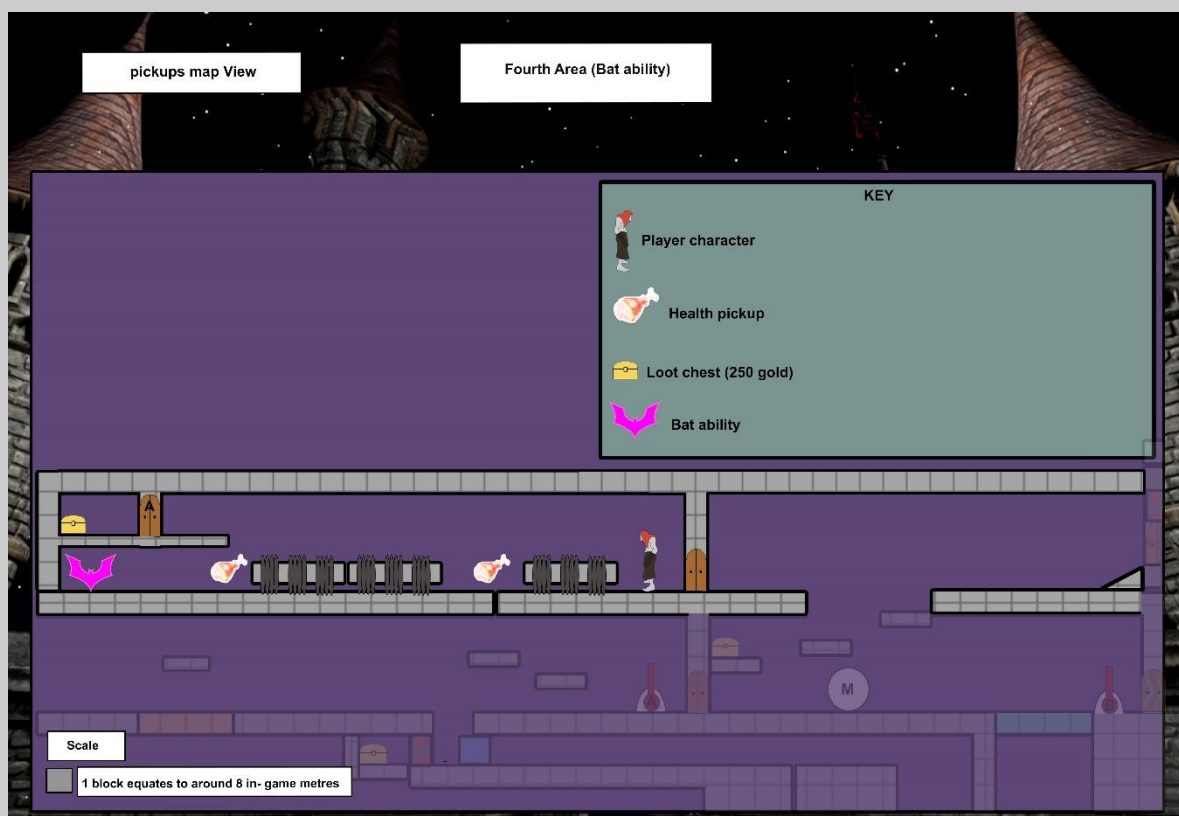
Area two pickup map: contains 3 loot chests and 1 health pickup



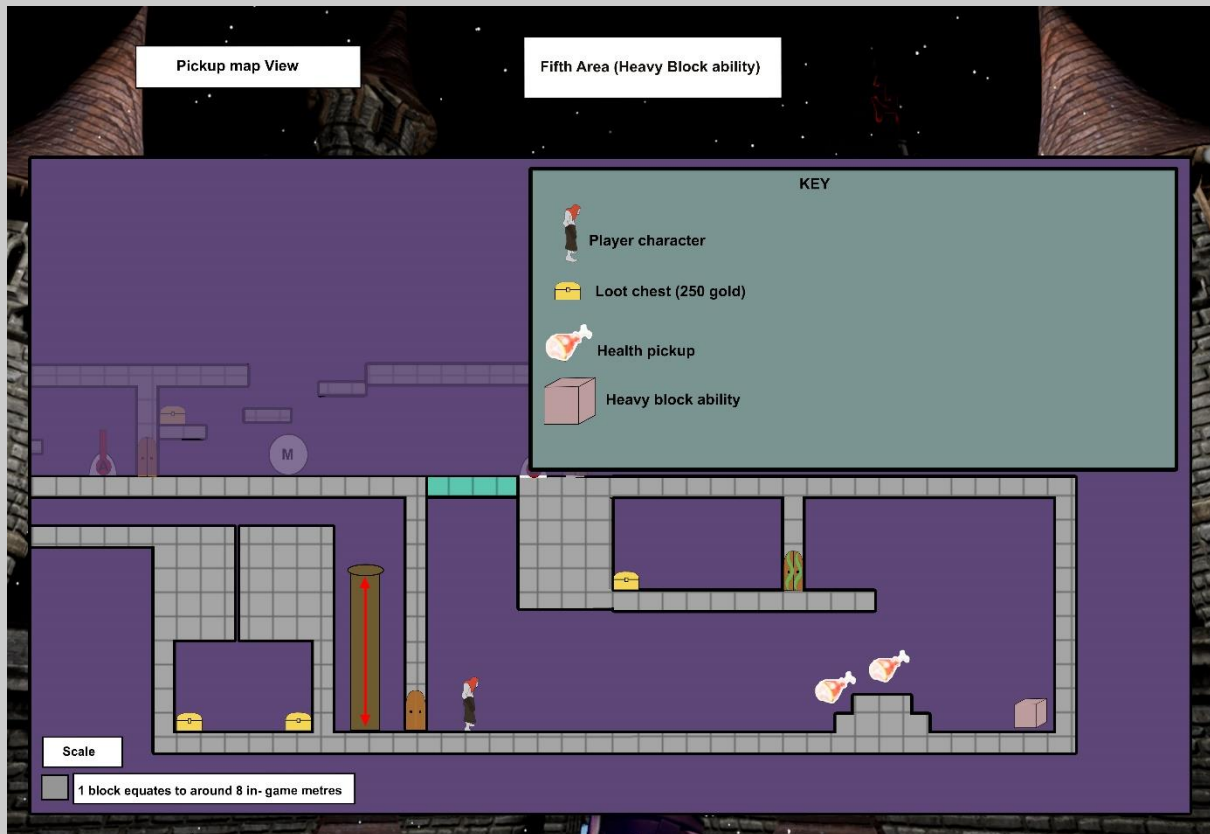
Area four pickup map: contains 1 loot chest, 4 health pickups and the fire spell ability



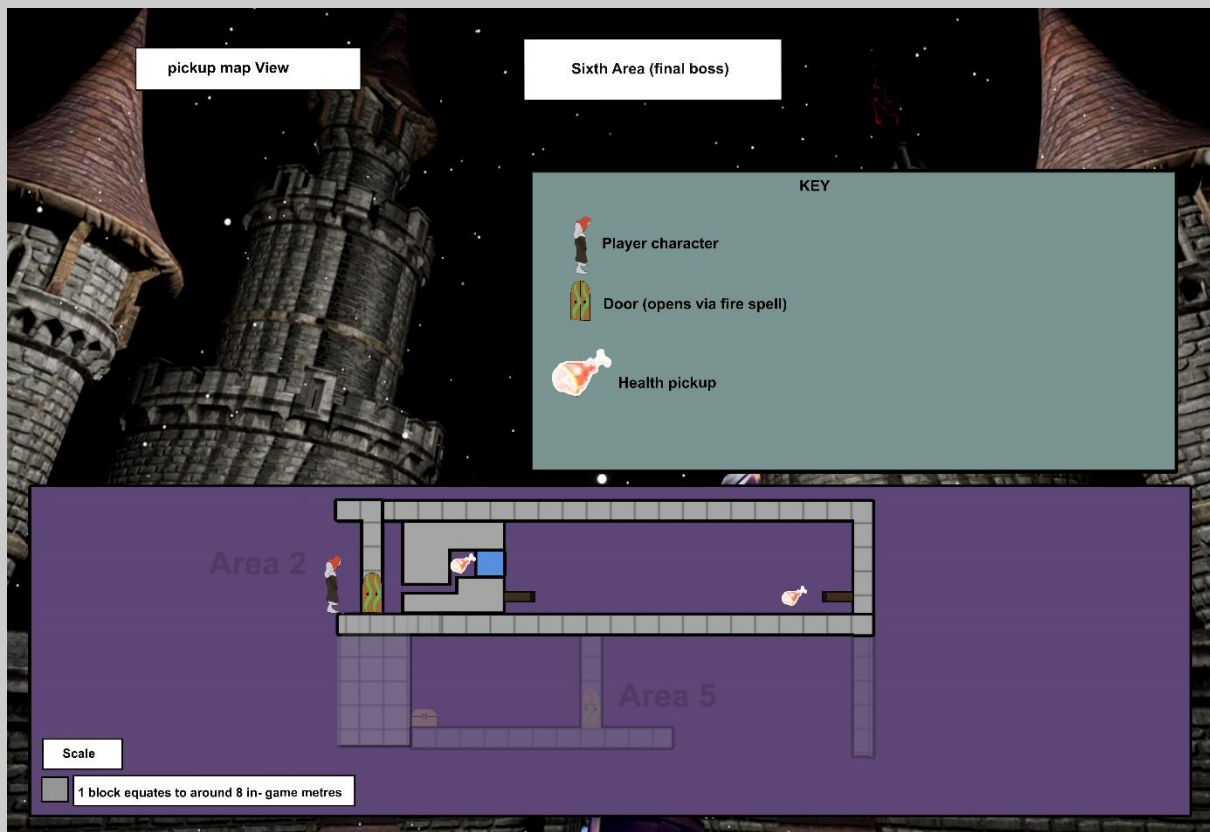
Area four pickup map: contains 2 health pickups, 1 loot chest and the Bat ability



Area five pickup map: contains 1 loot chest, 2 health pickups and the heavy block ability



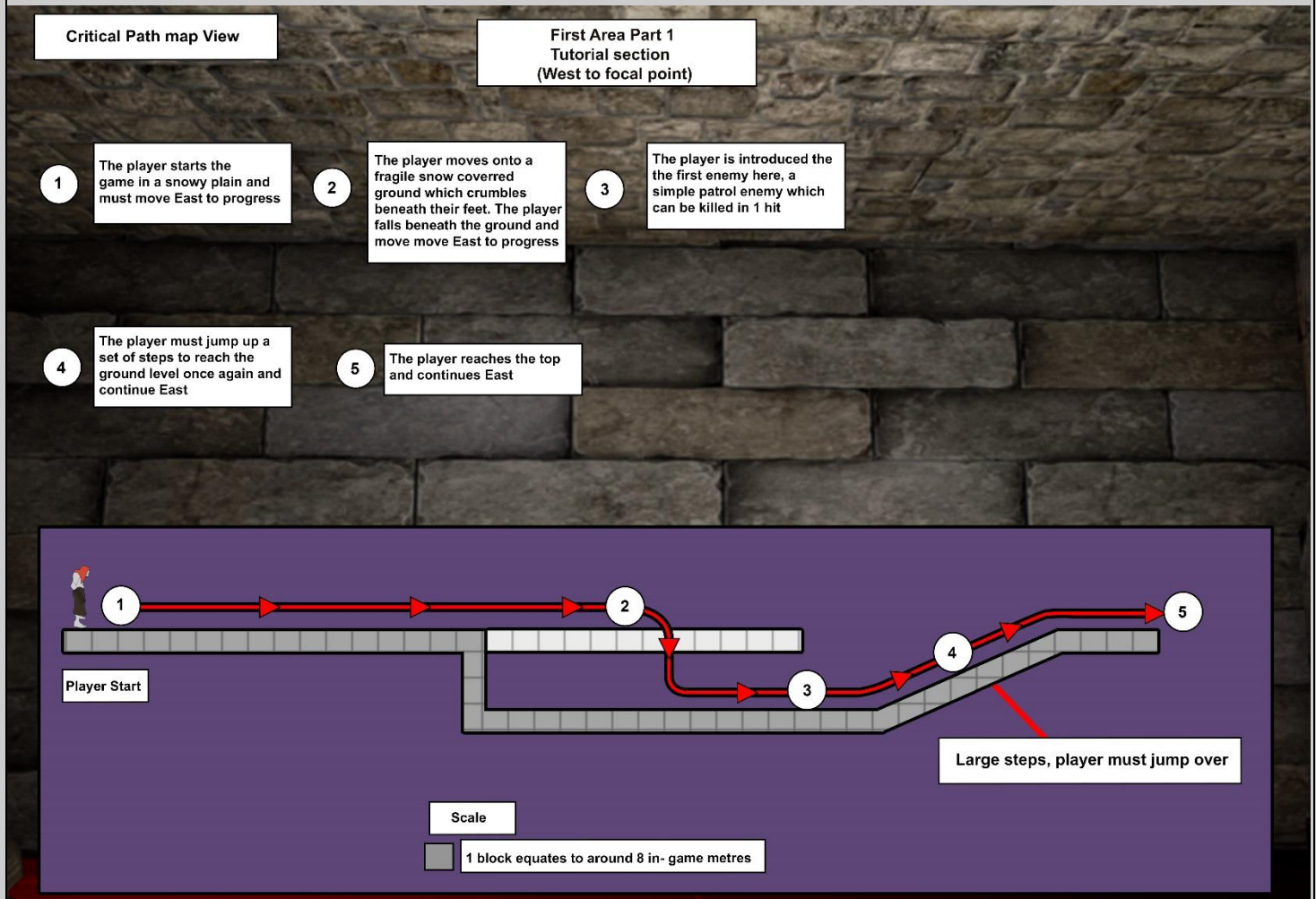
Area six pickup map: contains 2 health pickups



Maps: Critical path

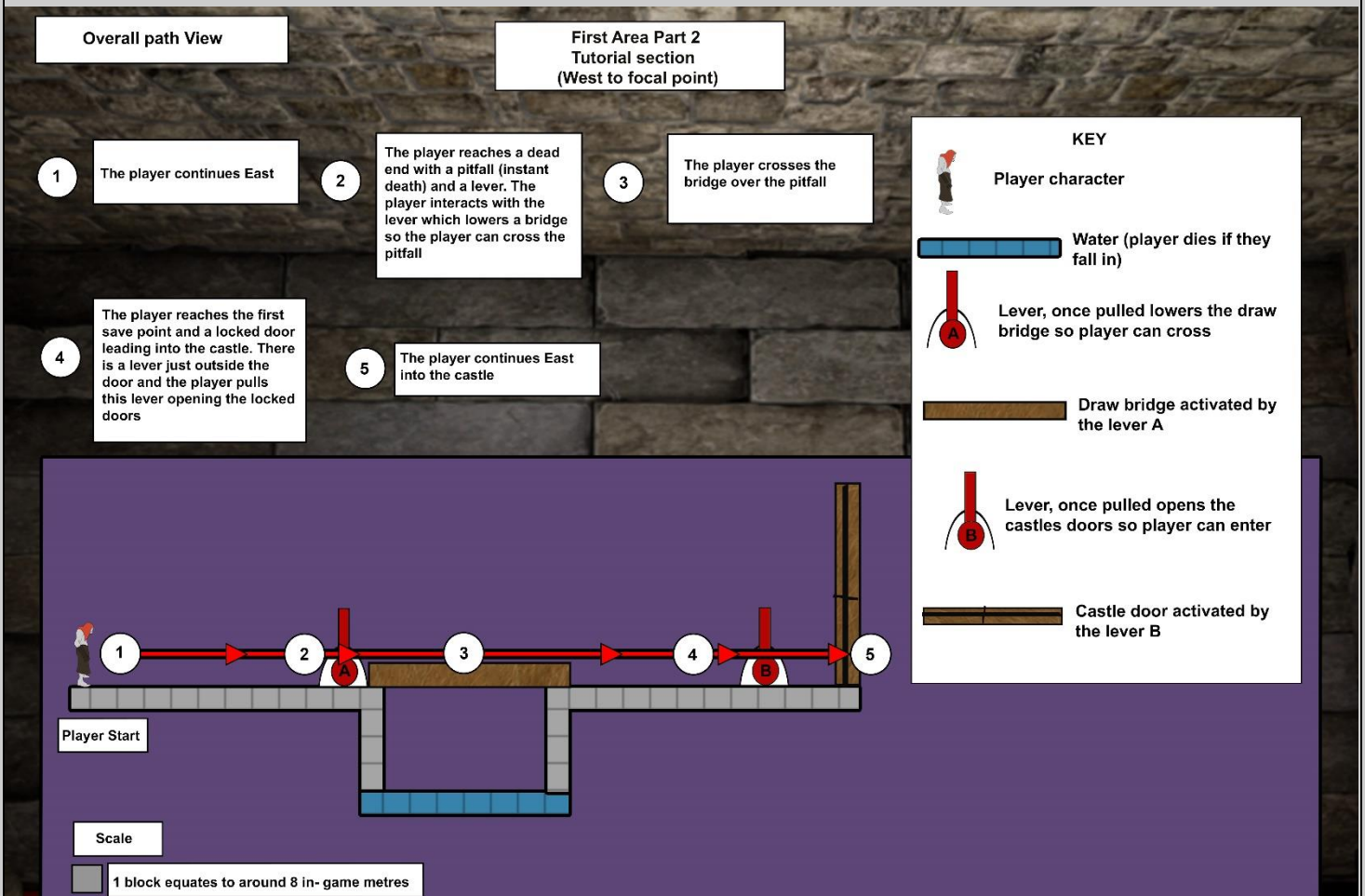
Tutorial Location (Area one part 1)

This is the area one map to show the critical path to progress through the level:



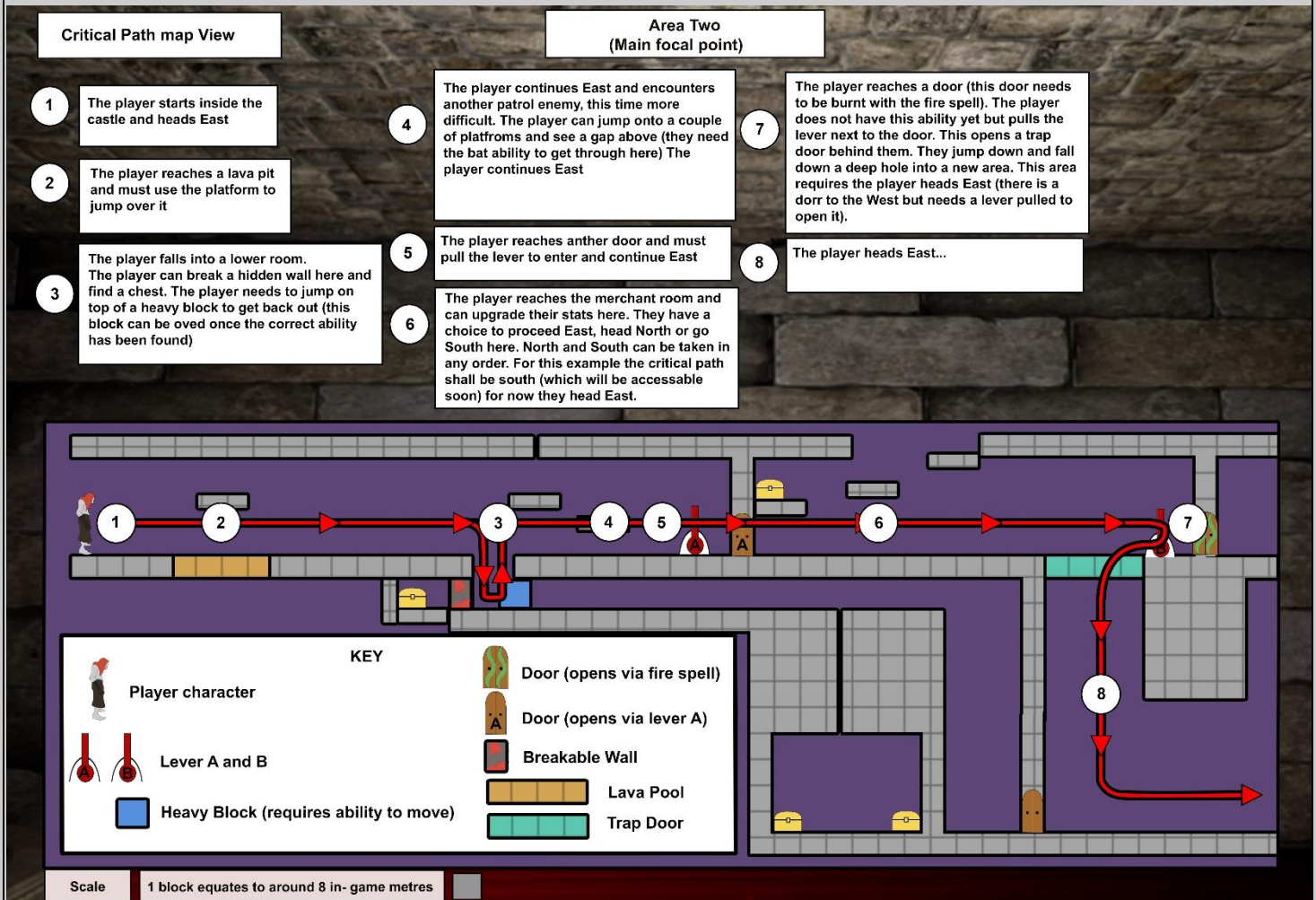
Tutorial Location (Area one part 2)

This is the area one map to show the critical path to progress through the level:



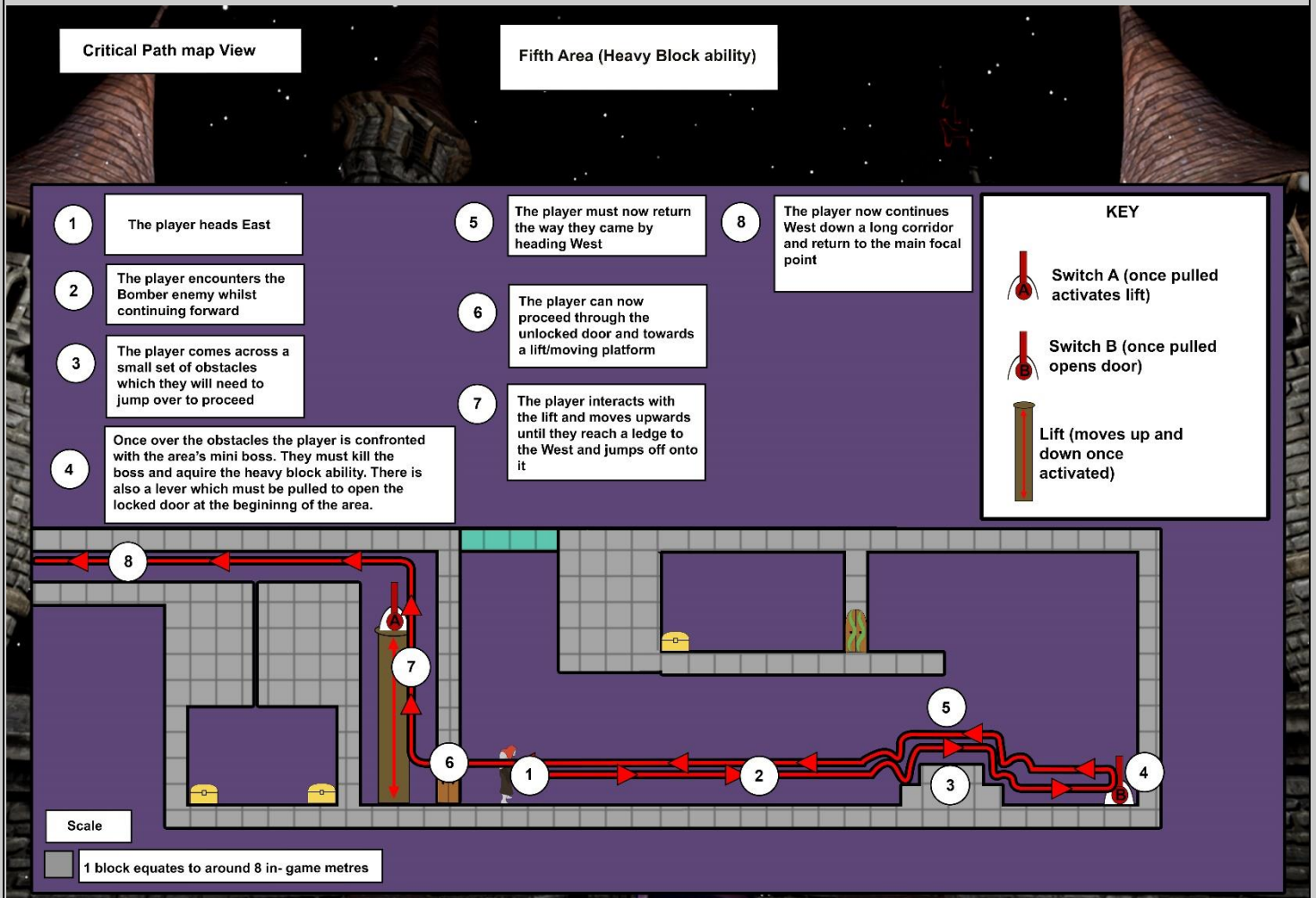
Area two critical path map:

This is the area two map to show the critical path to progress through the level:



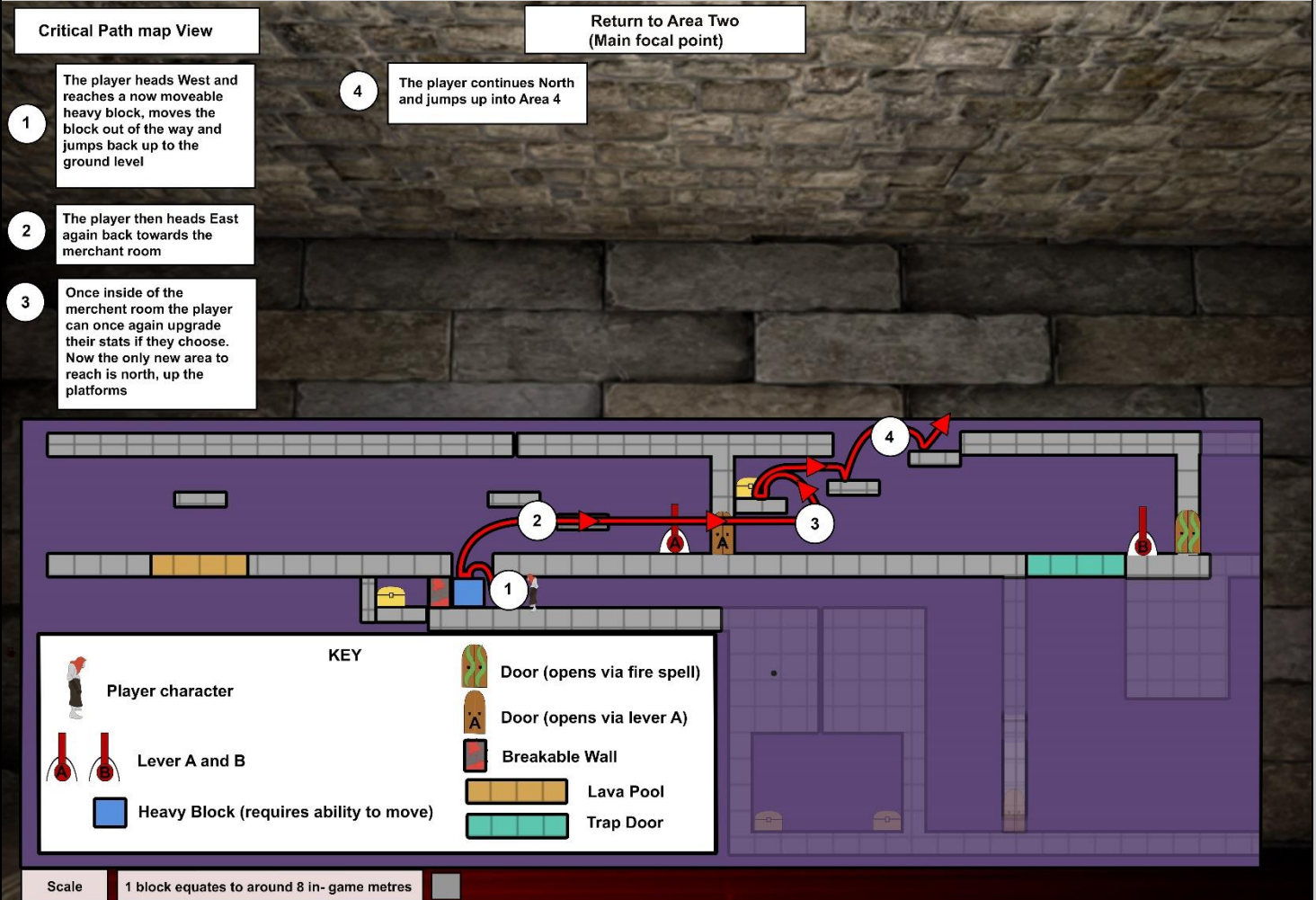
Area Five critical path map:

This is the area five map showing the critical path used to continue through the level:



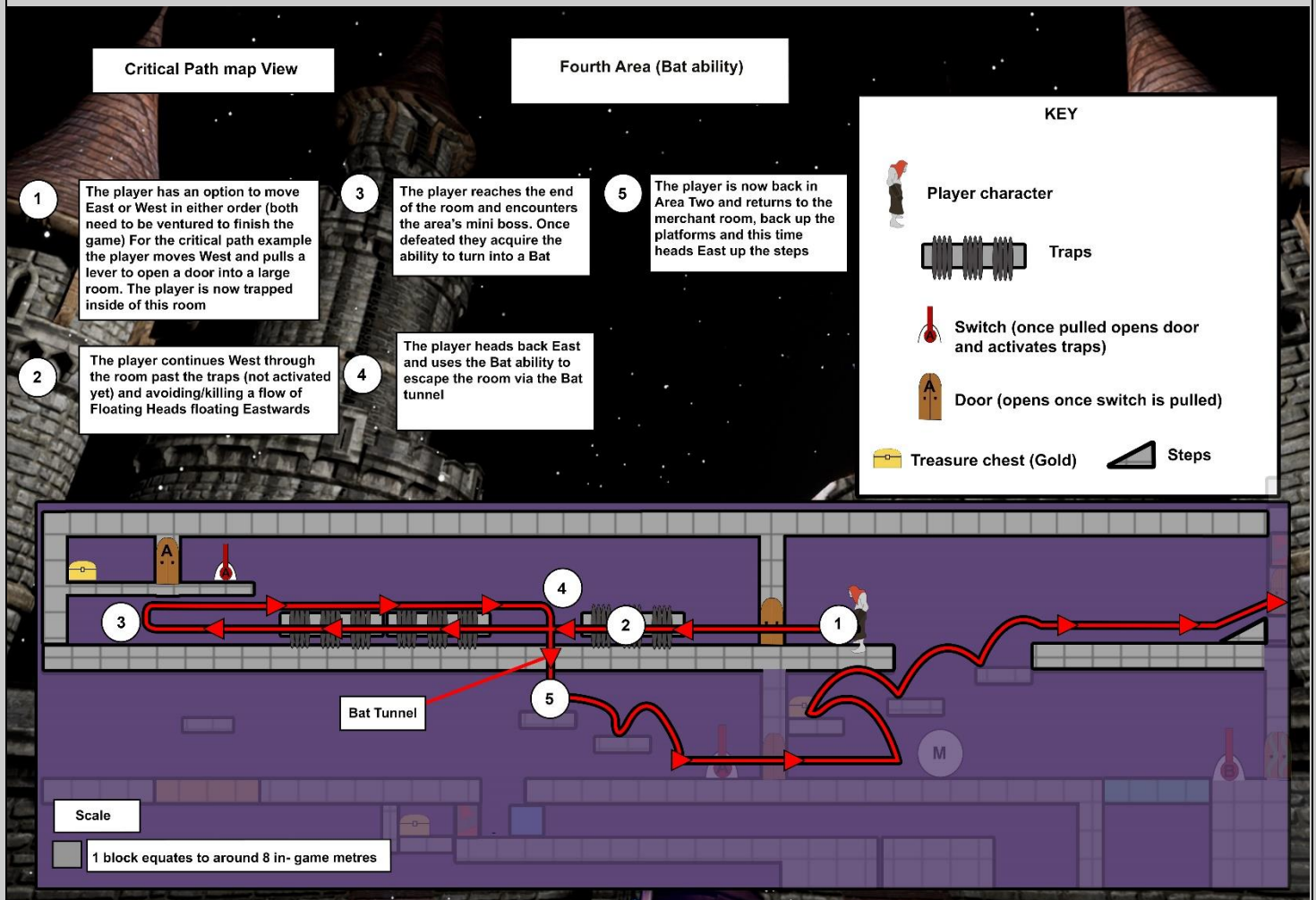
Return to Area Two critical path map:

This is a return to the area two map showing the critical path to progress through the level:



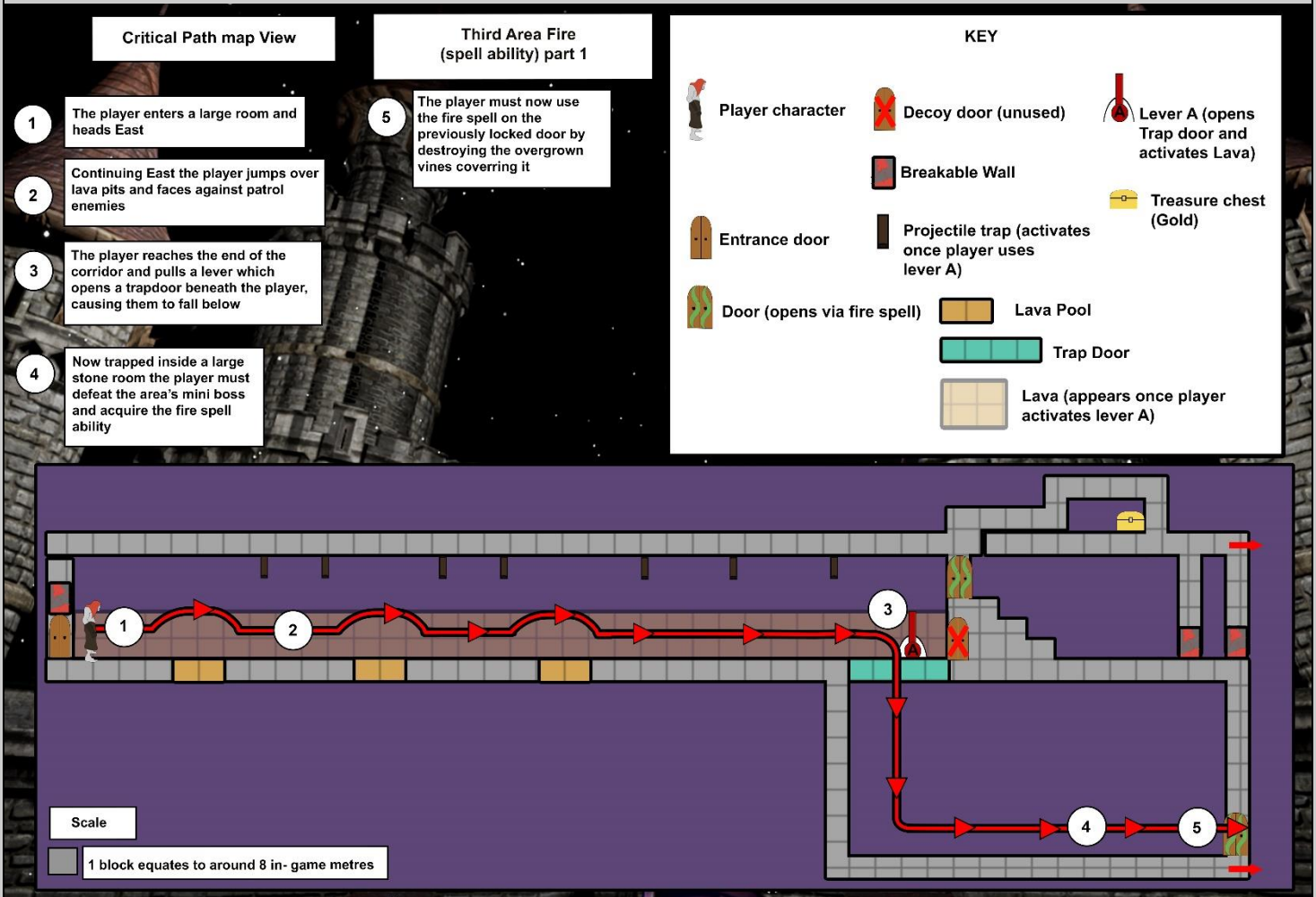
Fourth area critical path:

This is the area four map to show the critical path to progress through the level:



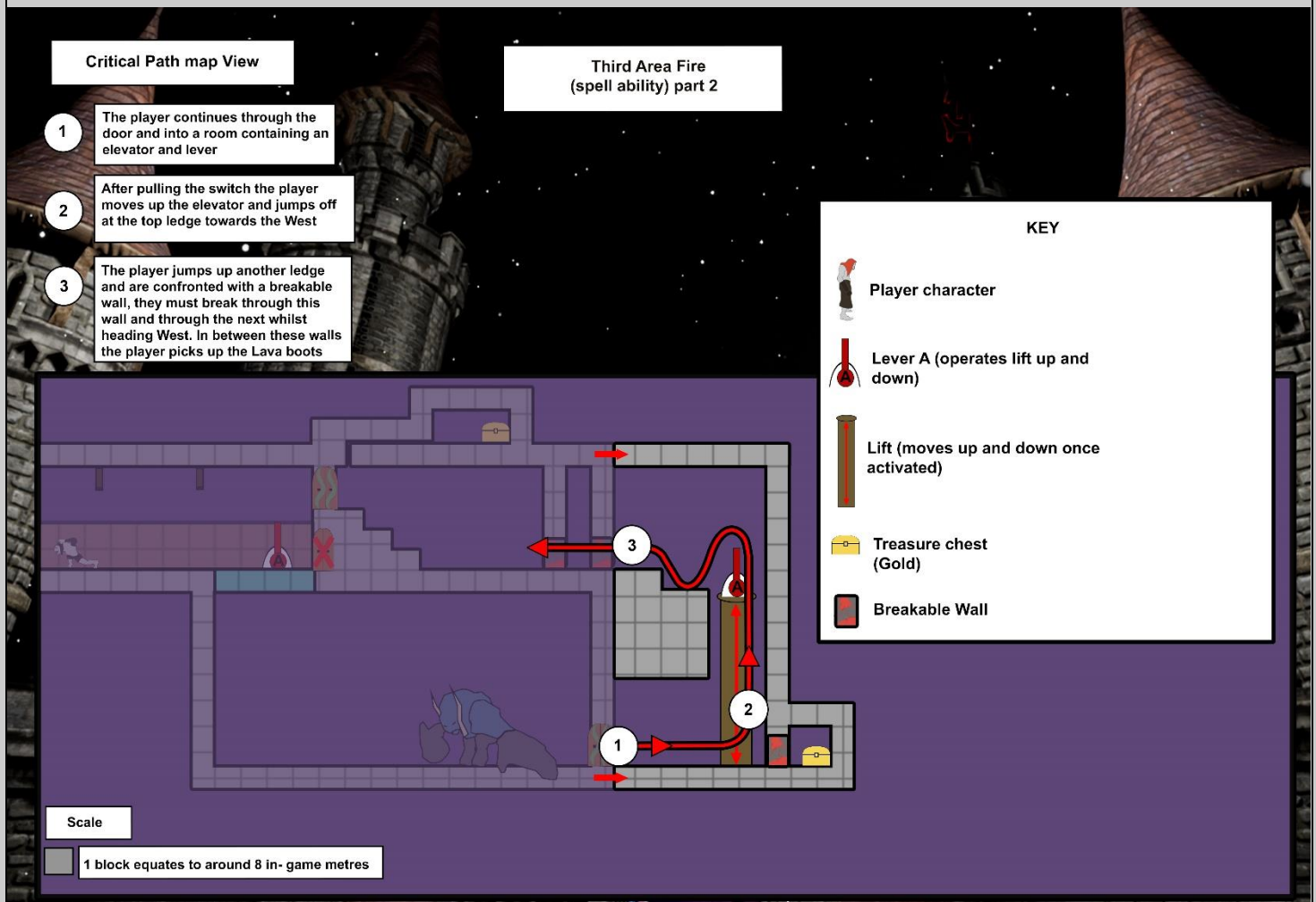
Third area critical path (part one):

This is the area three map to show the critical path to progress through the level:



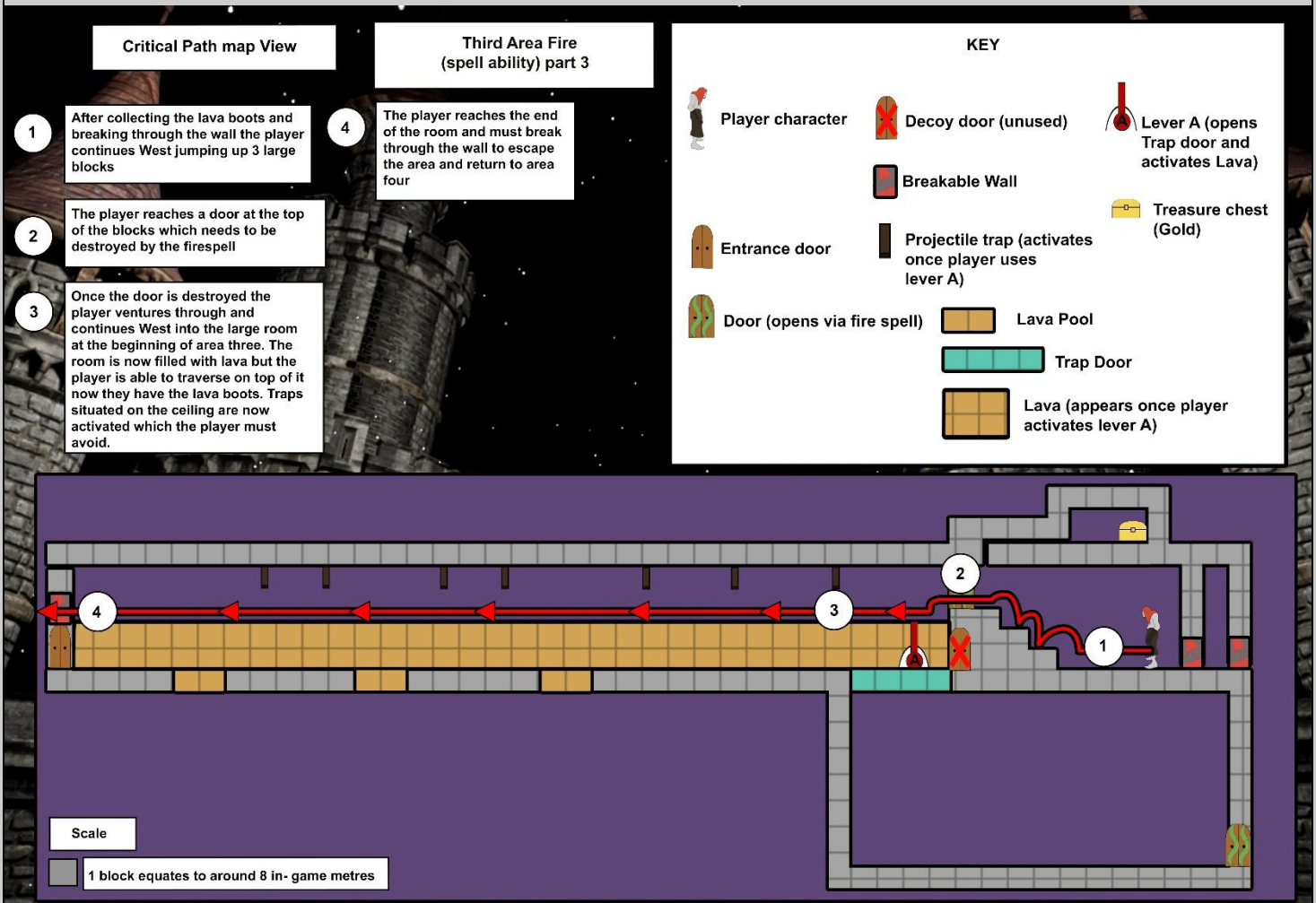
Third area critical path (part two):

This is the area three map to show the critical path to progress through the level:



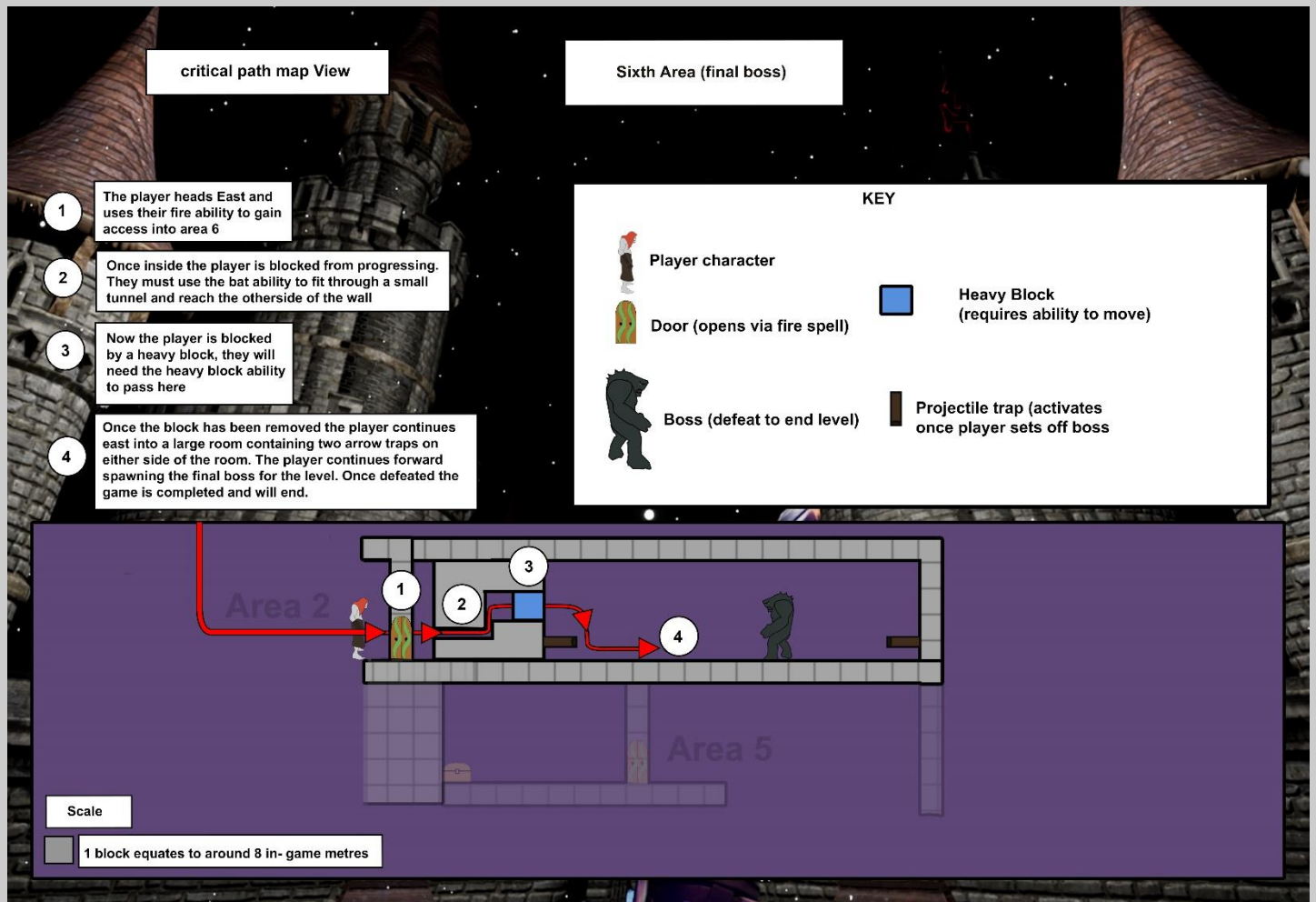
Third area critical path (part three):

This is the area third map to show the critical path to progress through the level:



Sixth area critical path:

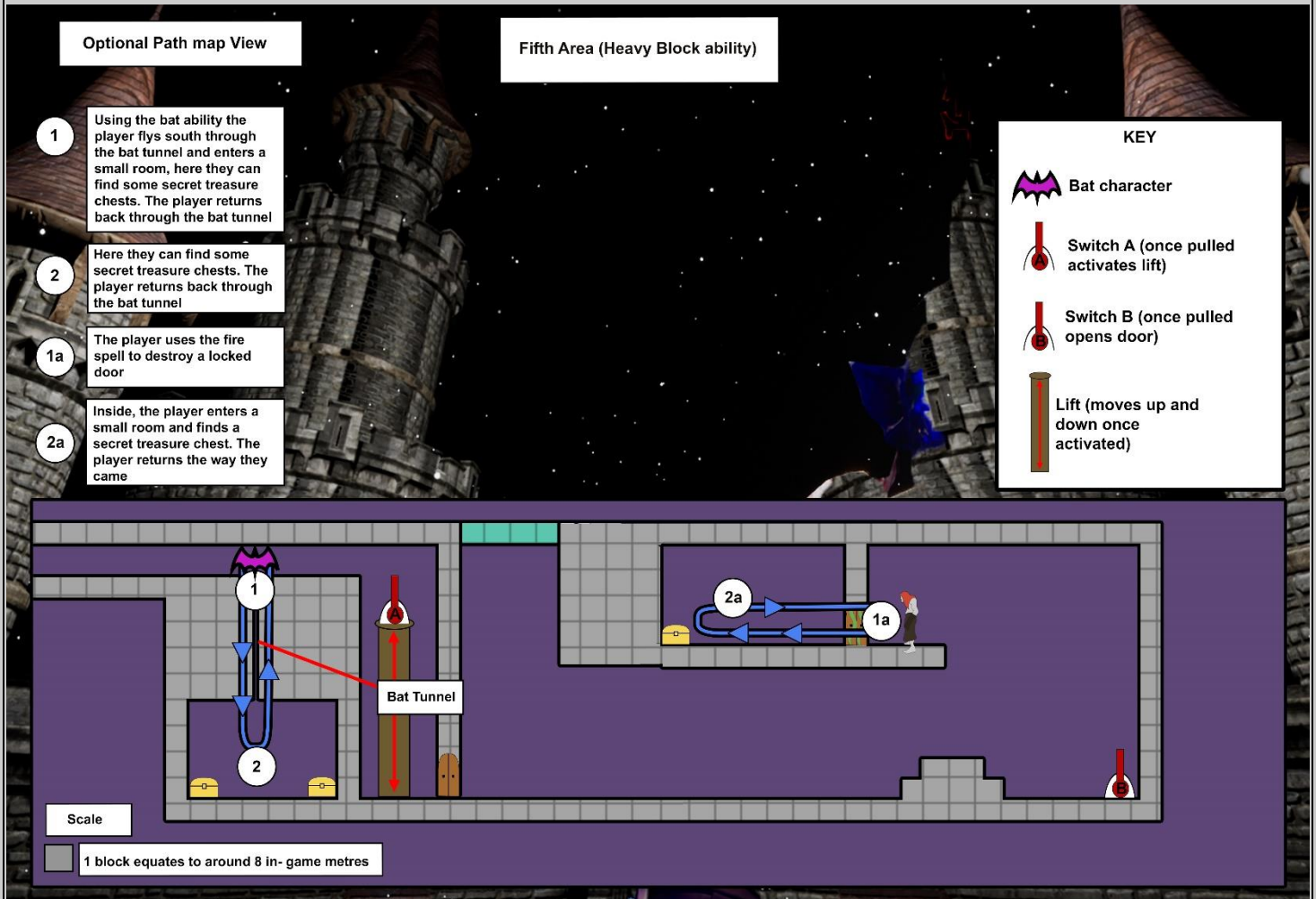
This is the area six map to show the critical path to progress through the level:



Maps: optional path

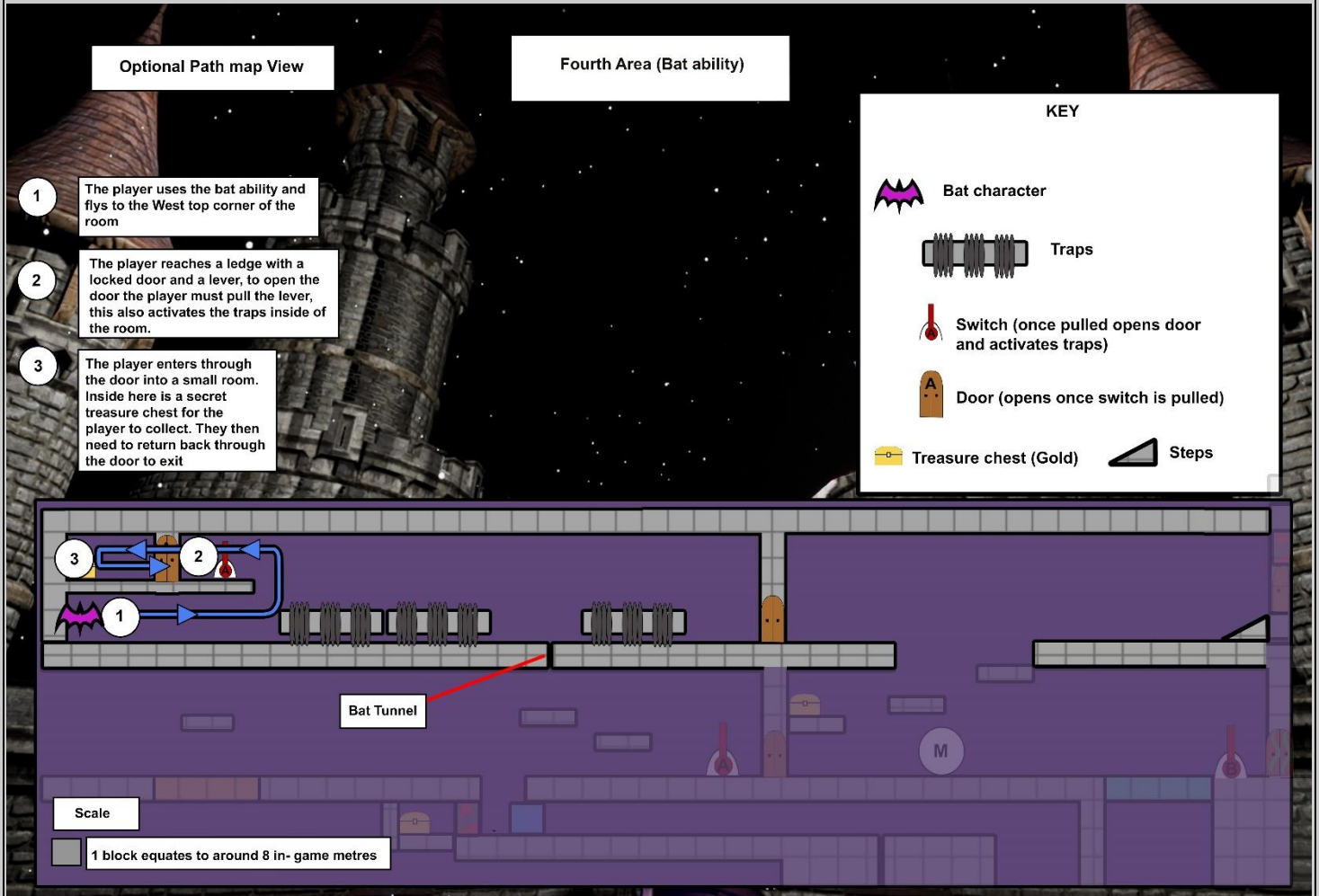
Area Two optional path map:

Here are the optional paths to acquire treasure chests in area five:



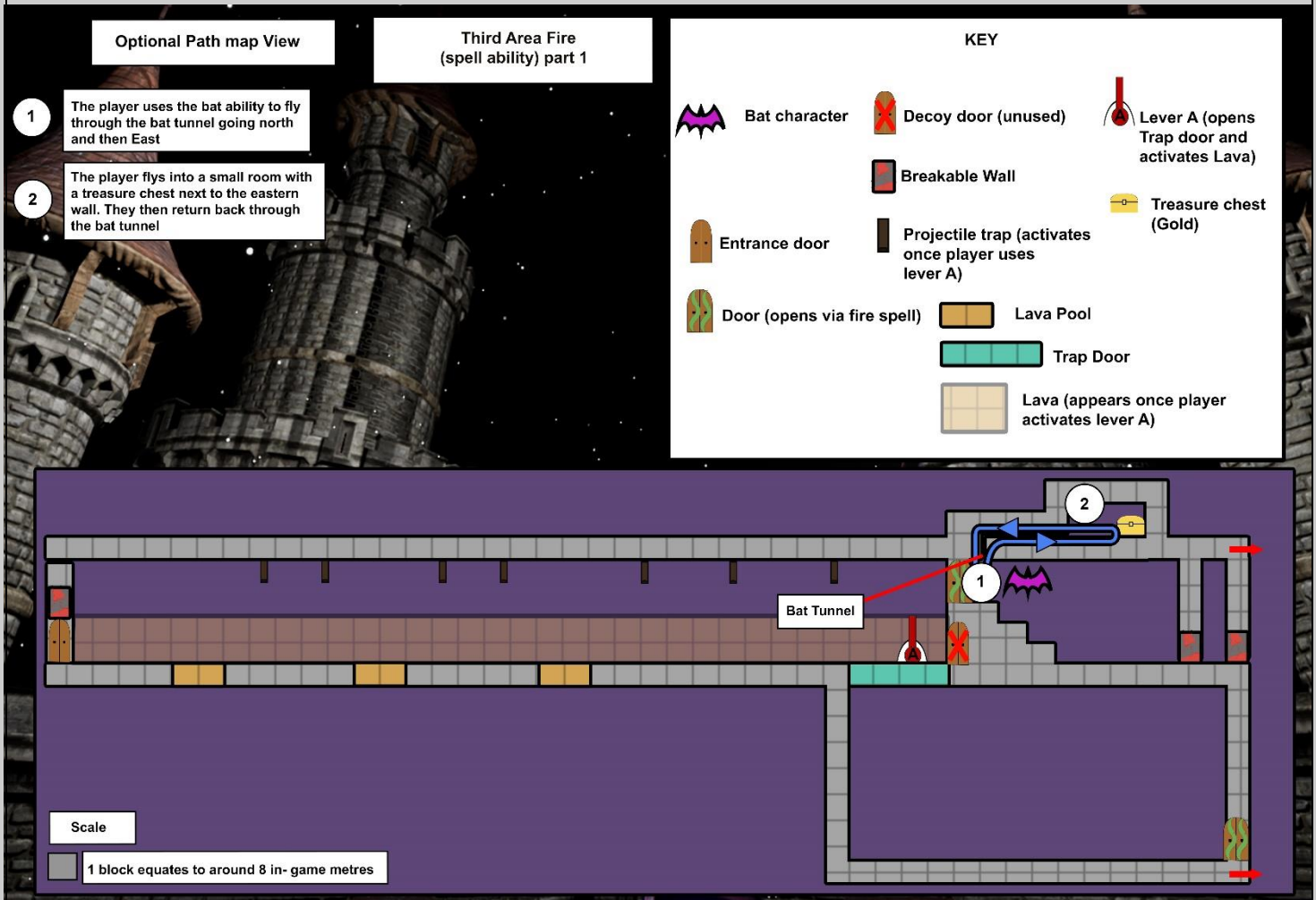
Area Four optional path map:

This is the optional path to acquire a treasure chest in area four



Area Four optional path map:

This is the optional path to acquire the weapon upgrade in area four



Critical Path Analysis

This is the rundown of the critical path and optional paths to match with the Beats & Pacing graph below:

Part One

Beats & Pacing

Rundown of playthrough

Match up to graph seen below
(numbers)

Blue text is optional path

1. The player starts the game outside in the snow, they must head East into the castle. As the player heads East they fall through the snow and land underground.
2. Continuing East the player bumps into and fights the first enemy (easy foe).
3. After killing the first enemy they learn how to jump by jumping out of the underground area via the large steps leading back to the surface.
4. Next they continue East and come to a river with a raised drawbridge and must press the switch to lower the drawbridge and cross to the otherside.
5. Once across the otherside the player encounters the first save point and then the huge castle waiting to be explored, to enter they pull the switch next to the large doors and enter.
6. Now inside the player is met with a lava pit which must be jumped over to progress East.
7. The player continues down the corridor until reaching a pit, this pit leads to Area Two but the heavy block ability is needed to reach there. There is also a breakable wall with a secret loot chest behind it to the West at the bottom of the pit.
8. The player makes their way back up and carries on down the corridor (there is also access to Area four via the bat ability on the ceiling) the player encounters another patrol enemy and defeats them.
9. The player reaches a door at the end of the corridor and pulls the switch to open it, the player enters the main focal point of the game.
10. In here the player has access to the merchant to level up. The player must also gain entry into the room at the end to progress to the last room and defeat the boss, to do this they need all abilities. The player has a choice of two different directions either upwards or downwards (for this example the player takes the path to the south. To do this they pull the switch at the end of the room and drop down into Area five.
11. The player is inside the castle library, there is a locked door to the West so the player must continue East down the corridor. They come across three bomber enemies and must defeat them.
12. they reach a stack of books which they must jump over to the otherside, there are also health pickups here. Above the player is a secret room, the player needs the bat ability and the fire spell to enter here. The player heads East.
13. The player is now face to face with the first mini boss (projectile enemy), once defeated the player continues East to the end of the corridor.
14. The player collects the heavy block ability and pulls the switch.
15. They now head back towards the locked door to the West (now unlocked), pull a switch in the now unlocked room and ascend via the platform.
16. They now jump off into a corridor at the top which goes West, there is a health pickup and also a secret room below the floor only accessible via the bat ability. The player continues West on moves the heavy block out of the way.
17. The player has now reached the bottom of the pit in area 2 first mentioned at point 8 above. They now return back to the main focal point and instead head upwards via the platforms at the West side of the room (there is also a loot chest here).
18. Once at the top the player enters a large room and has a choice to go West or East, once again has the option to go in either direction (for this example the player heads West into area four) they pull a switch and enter the room.
19. The player is now locked inside of the room (only escapable via the Bat ability). The player heads West and encounters a set of deactivated spinning blade traps.
20. The player crouches underneath them collecting the health pickups along the way.
21. Now at the otherside of the room the player is confronted with another mini boss (projectile enemy)
22. Once defeated the player collects the bat ability and can now transform into a bat at will allowing access to unreachable areas.
23. The player can reach a secret room towards the north west corner of the room, to enter they must fly up to the ledge as the bat then pull the switch and open the locked room with a loot chest.
24. The player has now activated the spinning blades and must navigate through them as the bat and head down a small tunnel which leads back into area 2. They head back to the focal point.

Part Two

Beats & Pacing

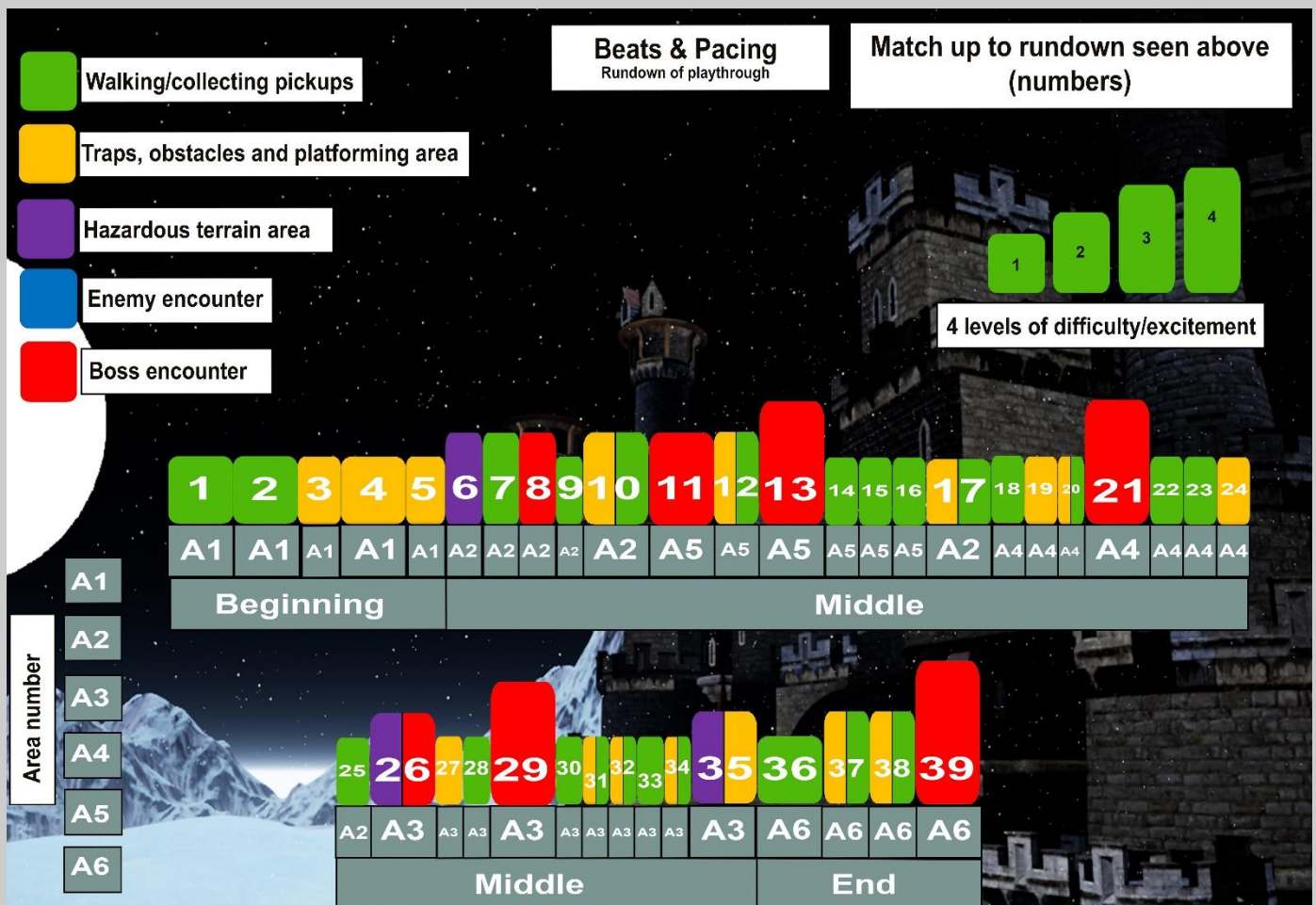
Rundown of playthrough

Match up to graph seen below
(numbers)

Blue text is optional path

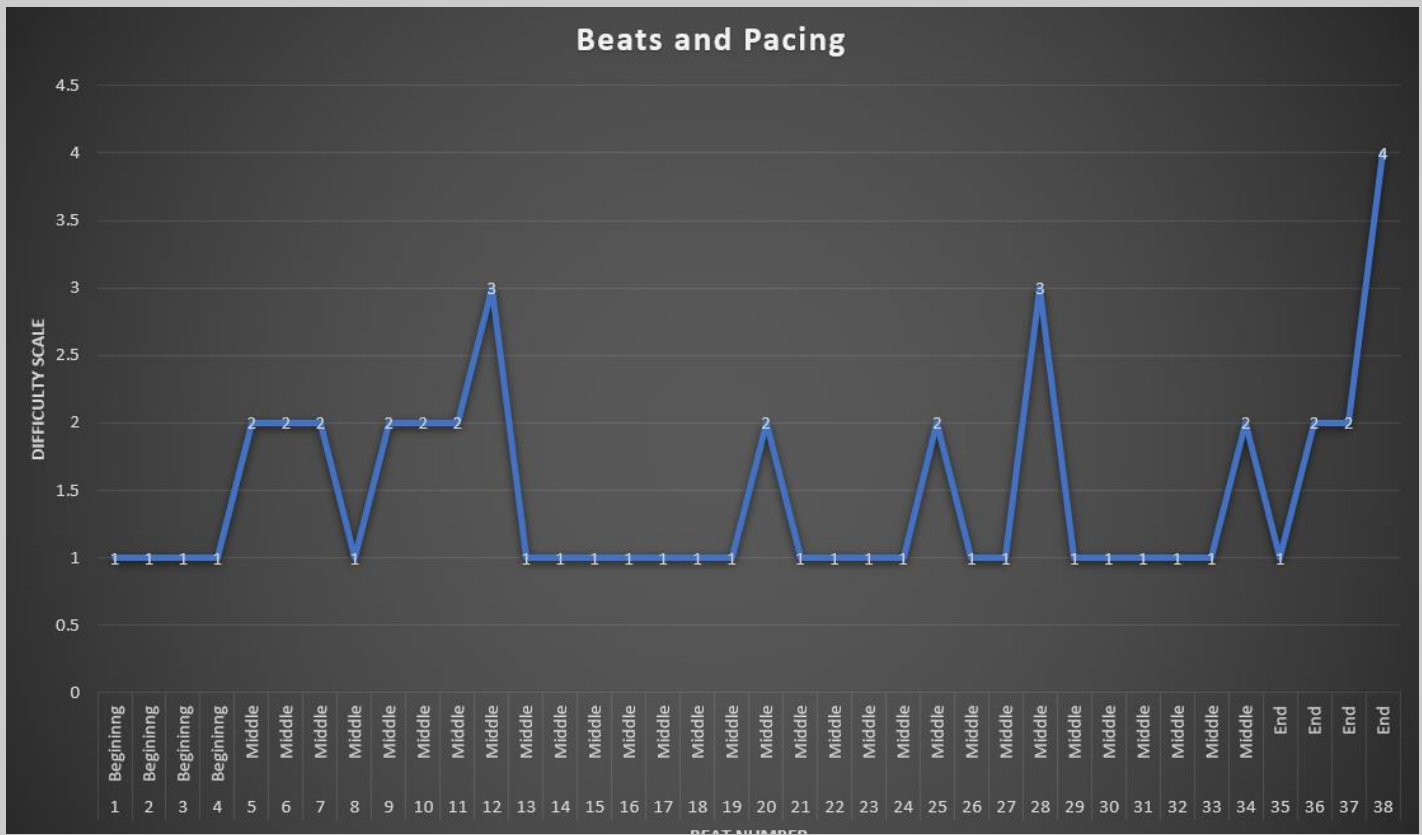
25. The player now heads back upwards from the merchant room and this time heads East instead. They pull a switch and enter a large room filled with lava.
26. The player must jump over lava pits and fight two patrol enemies in between.
27. Now at the end of the room the player reaches a locked door, they pull the switch next to it and instead of unlocking the door the player falls through a trap door and falls deep below into a cave room.
28. The player is now trapped inside until finding the ability. The head east collecting health pickups and reach another mini boss (projectile enemy).
29. The player fights and defeats the enemy.
30. Continuing East the player collects the fire spell ability and uses it to destroy the door blocking the exit from the room.
31. The player enters into a small room with an elevator. [There is a breakable wall and a secret room to the East containing a loot chest.](#) The player takes the lift and moves upwards, once at the top they jump off onto a ledge to the West.
32. The ledge leads to another ledge which finally comes to a breakable wall, the player must break this wall and enter the cavity.
33. Inside the player collects the lava boots power up (can now walk over lava without damage), they then break through another wall and enter the next room to the West.
34. The player continues West and jumps on top of some large blocks which lead to a door requiring the fire spell to move past. [Above this door is a Bat tunnel which leads to a secret room with a loot chest.](#)
35. The player uses the fire spell on the door then heads inside. This brings them back into the large lava pit room except the lava has now overflowed the room, meaning the entrance is now blocked, the player heads West and avoids the now activated fireballs that fall from the ceiling.
36. The player reaches the end of the room and has to destroy a breakable wall to escape. They jump through and fall down to the entrance of the lava room but now on the otherside. With all abilities collected the player returns to Area 2 merchant room.
37. Heading back to the door blocking the final room the player uses the fire spell, burns the door down and enters area 6, they are instantly blocked by a wall. This wall requires the player to slip through a small gap using the Bat ability and into a larger crevice. They are then blocked by a heavy block which they must move out of the way with their ability.
38. The player continues East and drops into a large room overgrown with fauna. There are traps either side firing arrows, the player must avoid these and head further into the room.
39. Once half way the Final Boss will drop down from above and the final battle will commence. Once defeated the game is completed and the game is over.

This graph shows the beats and pacing of the critical path, showing the excitement/difficulty levels whilst playing through the level



Critical Path and Optional Path Combined Analysis

This graph also shows the beats and pacing of the critical path, showing the excitement/difficulty levels whilst playing through the level



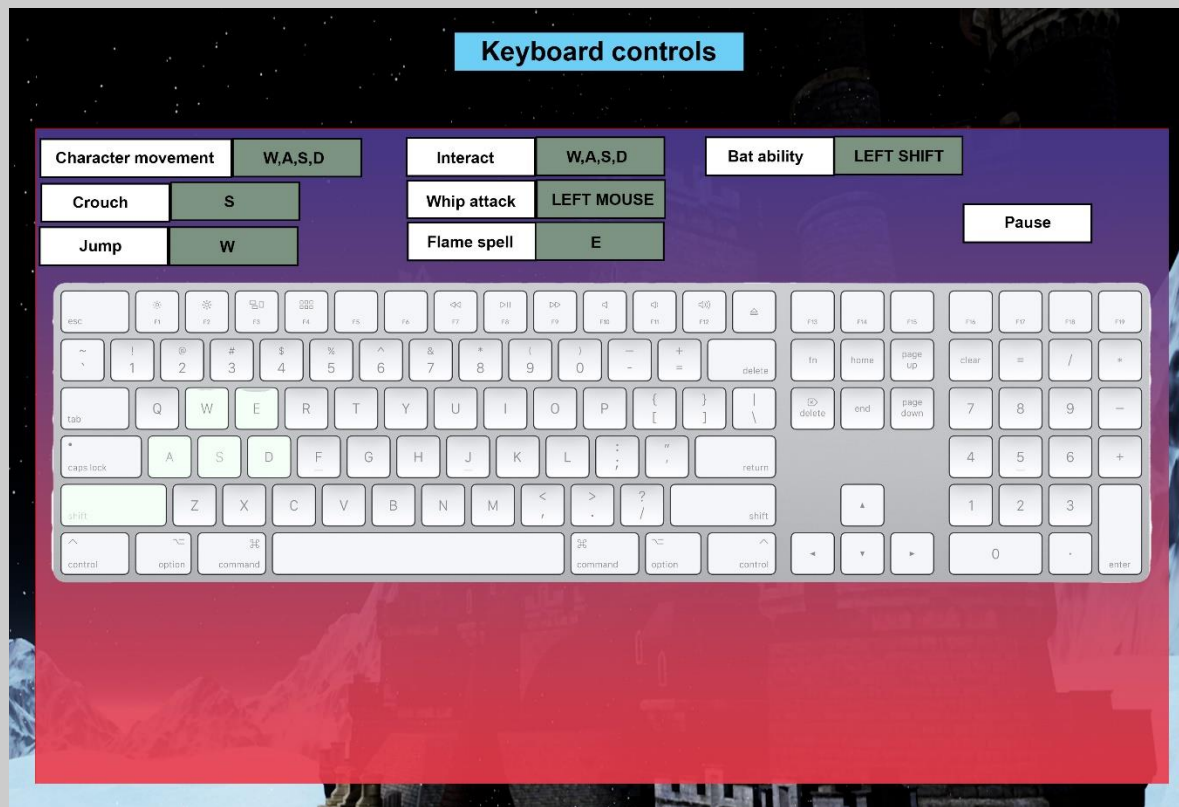
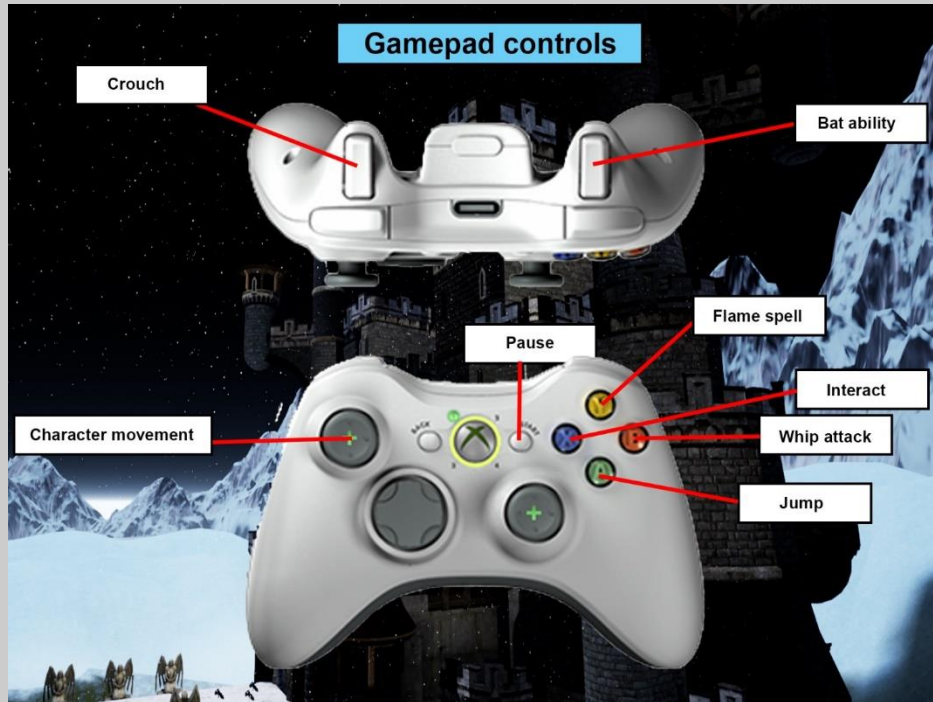
Story Element Locations

Initial starting point for the player (outside the castle) this will reveal the player's main objective to make their way into the castle

The next and last scene will be when the player kills the final boss and takes their revenge

Controls

Player Controls Map



Player Camera

The camera will be centered in the middle of the screen from a side angle. This is known as a 2.5D style of game, where the assets are all 3D, but the game is played in a 2D fashion for example the more modern Mario games have taken this approach:



Design mechanics

Character design mechanics & abilities

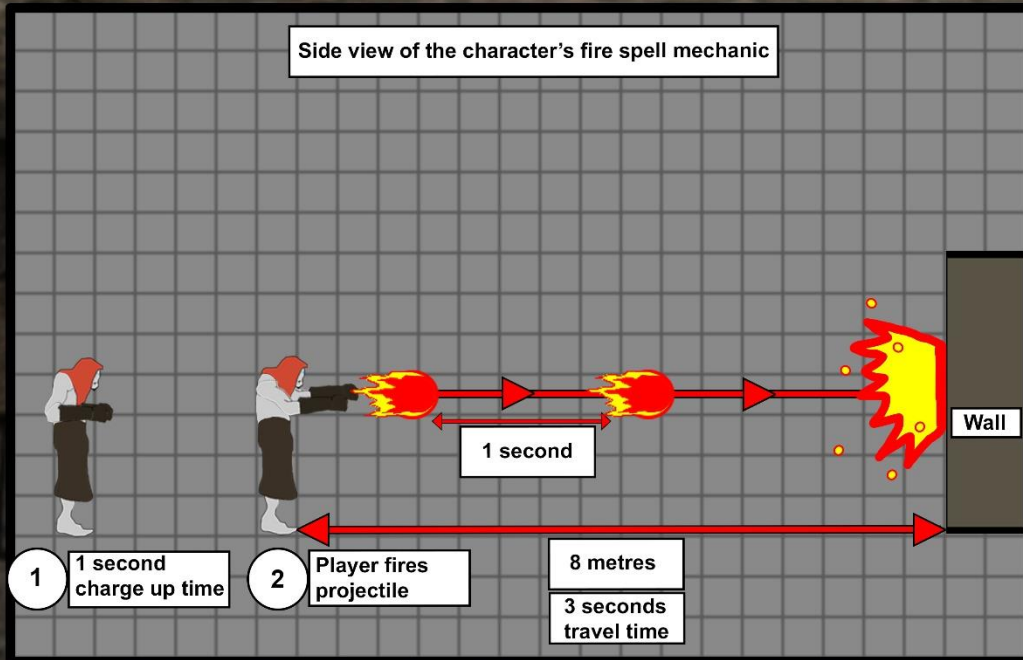
Main character default set up

Strength	100
Defence	100
Luck	100
Intelligence	100
HP	100
MP	100
Heart	0
Experience	0
Level	1
Next Lvl	1000
Gold	0
Kill count	0
Fire ability	No
Lava boots	No
Bat ability	No
Heavy Block ability	No

Main character mechanics

These graphs show the main character's fire spell mechanics. The player charges up the attack for 1 second before firing a fireball projectile in a straight line forward. The player can fire a projectile every second until they have ran out of mana (MP). The projectile will travel 8 metres before exploding unless colliding with the environment or an enemy, this takes around 3 seconds before detonation.

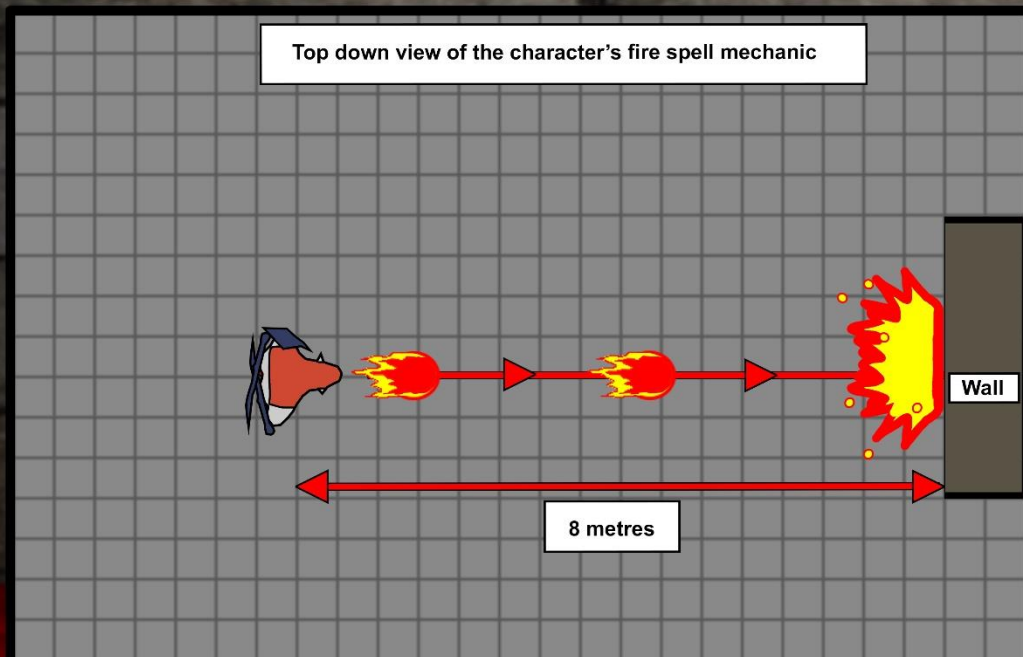
Side view of the character's fire spell mechanic



Scale

2 blocks equates to around 1 in- game metre

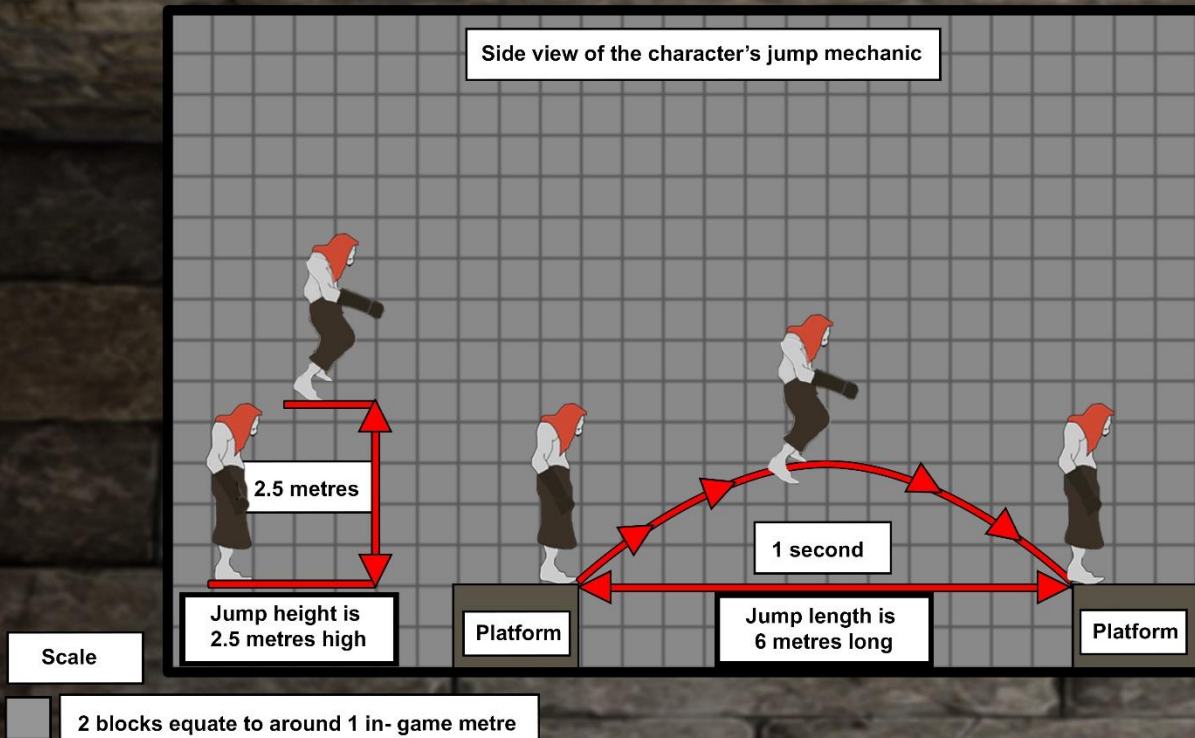
Top down view of the character's fire spell mechanic



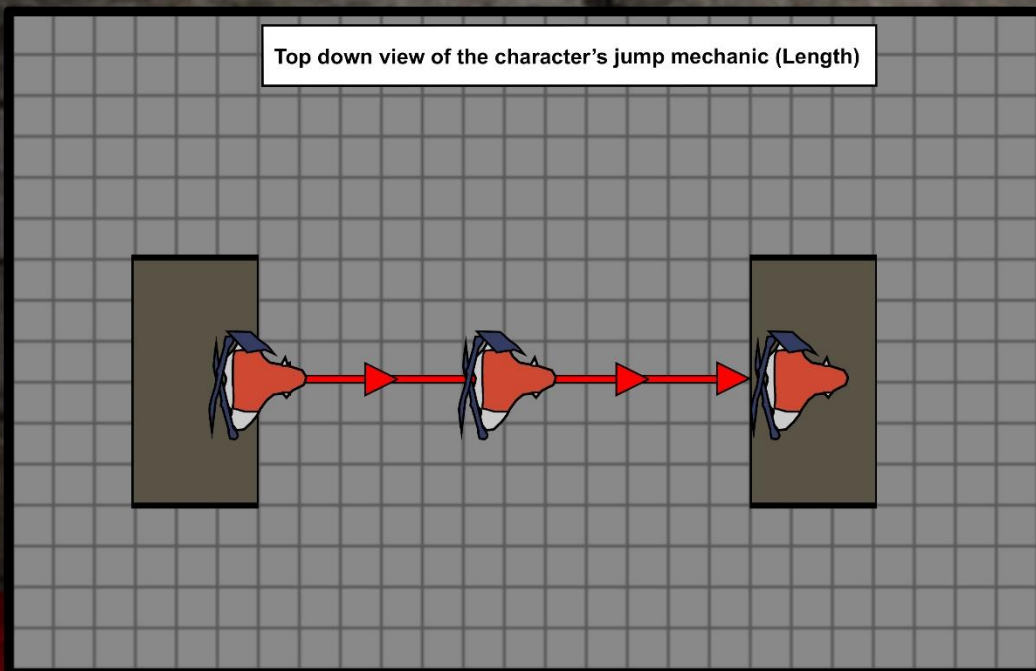
Main character mechanics

These graphs show the main character's jump mechanics. The player can jump up to 2.5 metres high and jump across distances of 6 metres

Side view of the character's jump mechanic

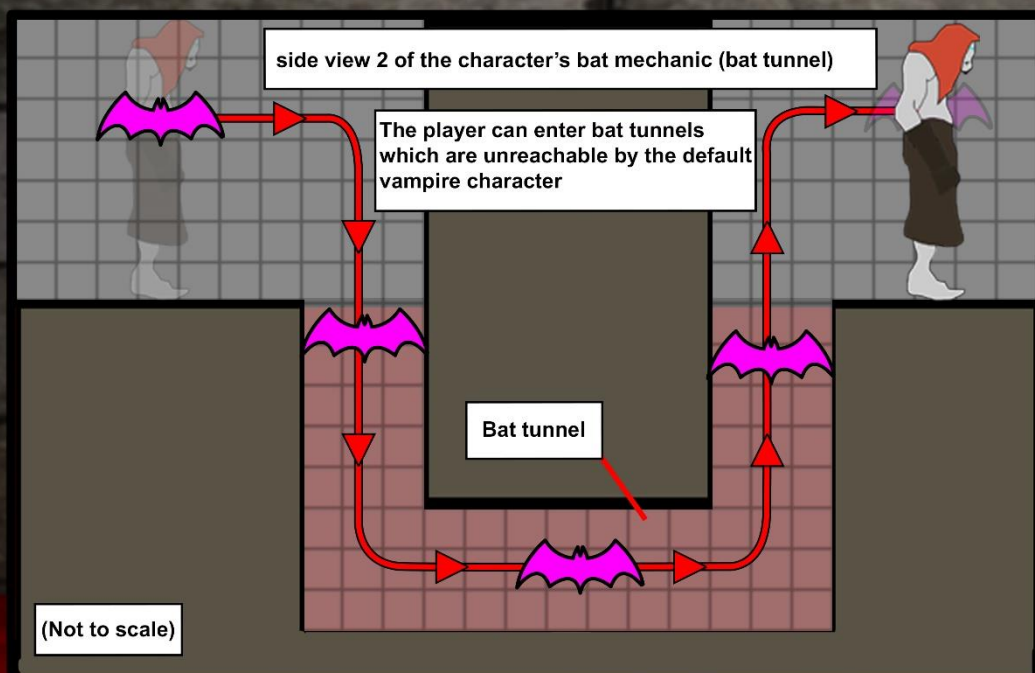
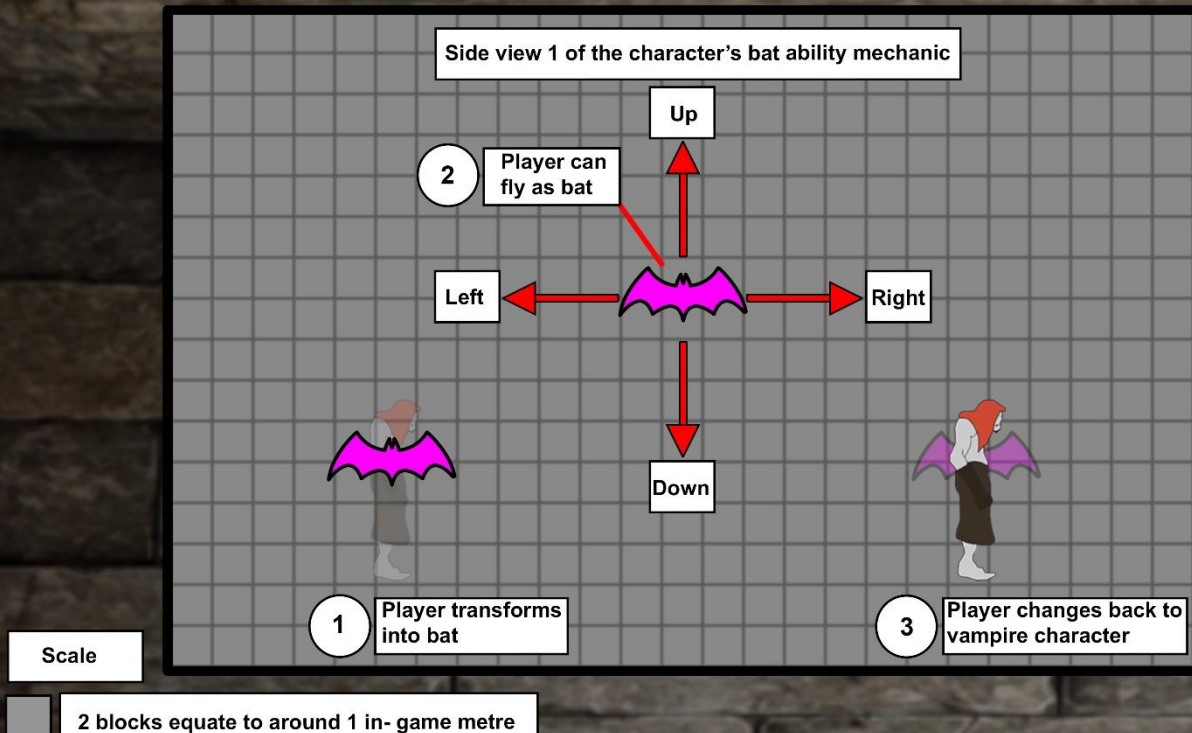


Top down view of the character's jump mechanic (Length)



Main character mechanics

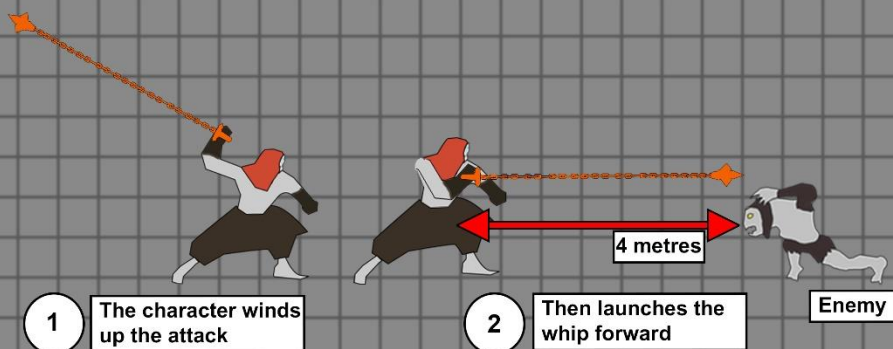
These graphs show the main character's bat ability mechanics. The player instantly changes into a bat character for an infinite amount of time until they decide to change back to the main vampire character. Once the player has control of the bat they are able to fly in an up,down,left, right direction.



Main character mechanics

These graphs show the main character's whip mechanics. This is the standard attack for the player. After the input is pressed by the player the attack has a wind up animation which lasts for 1 second and then flings the whip forward. The whip reaches hits the 4 metre range and will damage an enemy within that range. The attack takes 2 seconds for the entire sequence to finish and start again on constant input presses

Side view of the character's whip mechanic

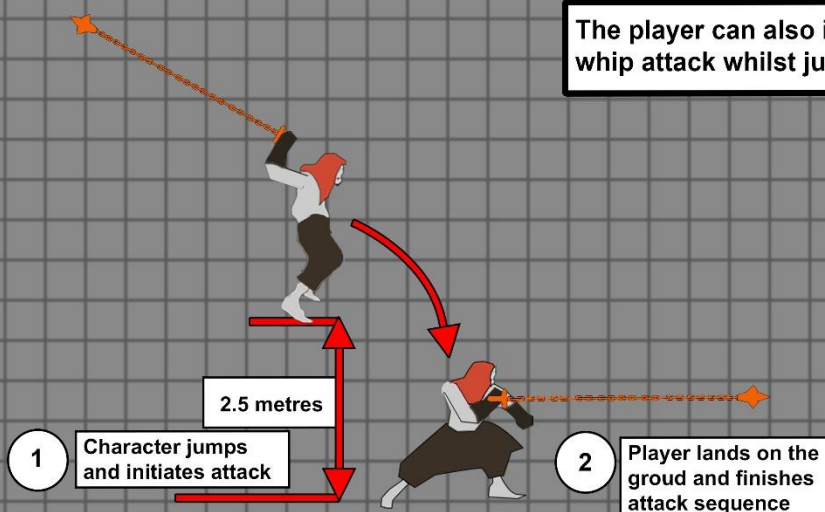


Scale

2 blocks equate to around 1 in- game metre

side view of the character's whip mechanic (jumping)

The player can also initiate the whip attack whilst jumping.



Enemy difficulty table

Scale reference   Quick Point Table: Nightbreed					
5 = Very high 4 = High 3 = Medium 2 = Low 1 = Very low	Enemy	Damage	Health	Defense	Speed
	Patrol	3	1	2	3
	Floating Head	3	1	2	3
	Bomber	3	1	2	3
	Projectile	1	2	4	3
	Troll	1	5	2	4
(scale reference for Damage was measured by max stat number of 150 dived by 5) (scale reference for Range was measured by max stat number of 1000 dived by 5) (scale reference for Reload time was measured by max stat number of 30 dived by 5) (scale reference for Damage was measured by max stat number of 100 dived by 5)					

Enemy design mechanics

Enemy: Patrol enemy

Patrol enemy mechanics

This enemy constantly moves from left to right swinging it's claw in the air every second. The enemy has a customisable distance that it can move to, each one being custom set depending on the enemy's location. The enemy moves at 300 speed and has 100 health points as standard (first enemy encounter is less for the tutorial area). If the player is caught in the patrol line and makes contact with the enemy they will be hit by the claw swing which has a damage rating of 100. The enemy' defence is 20.

Damage to player	100
Defence	20
Health	100
Movement Speed	300
Sight Radius	N/A
Peripheral vision	N/A

Side view of the patrol mechanic

1

The enemy patrols a set path from left to right, back and forth swiping it's claw in the air

Enemy

Scale

2 blocks equate to around 1 in- game metre

side view of the enemy's claw attack

1

If the player enters the path of the enemy then they will be damaged by the enemy's claw attack

Enemy: Bomber

Bomber enemy mechanics

This enemy is hunched over on all fours waiting for it's victim to get close so it can activate the huge bomb that it carries on it's back. The enemy stays in position until the player enters it's detection area. Once the player has entered, the enemy's bomb is activated and the enemy starts to crawl it's way towards the player in a moderate speed (300). If the enemy makes contact with either the player or the environment then the bomb will explode killing the enemy and damaging the player if they are hit reducing their health to half (player at level 1). The enemy is weak against the player's attacks, being killed with just one hit.

Damage to player	100
Defence	20
Health	10
Movement Speed	300
Sight Radius	9 Metres
Peripheral vision	180

Side view of the detection mechanic

1

The enemy patrols a set path from left to right, back and forth swiping it's claw in the air

Player detection zone

Enemy

9 metres distance

Scale

2 blocks equate to around 1 in- game metre

side view of the enemy's bomb attack

1

Player enters the detection zone, the enemy is alerted

2

The enemy moves towards the player, whilst the bomb on their back is activated

3

Once the enemy either makes physical contact with the player or the environment, the bomb/enemy will explode and damage the player

Floating Head enemy mechanics

Damage to player	100
Defence	20
Health	50
Movement Speed	300
Sight Radius	N/A
Peripheral vision	N/A



side view of the enemy's path and the player crossing it/avoiding it

- 1 If the player enters the path of the enemy then they will be damaged by the enemy on impact
- 2 The player can use their dodge mechanic to avoid the enemy
- 3 They can also use the jump mechanic to avoid the enemy

The diagram illustrates a side-view scenario on a grid background. A red wavy line represents the enemy's path, moving from left to right. A grey enemy character is positioned at the start of this path. A player character, wearing a red hood and black pants, is shown in three different positions along the path, each labeled with a number in a circle: 1, 2, and 3. At position 1, the player is standing on the path, and a text box explains that they will be damaged. At position 2, the player is in a crouching 'dodge' pose, and a text box explains this mechanic. At position 3, the player is in a jumping pose, and a text box explains this mechanic. A separate text box at the top right provides a general rule: 'side view of the enemy's path and the player crossing it/avoiding it'.

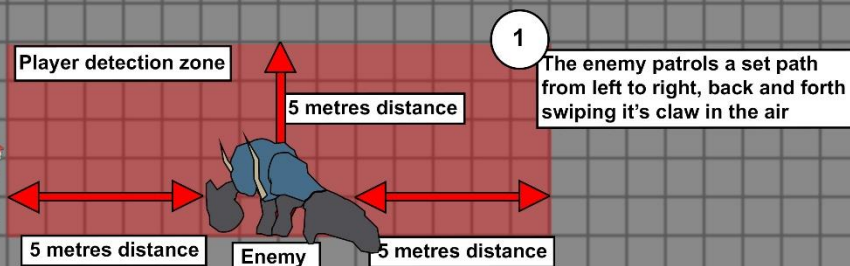
Enemy: Projectile enemy

Projectile enemy mechanics

This enemy begins to throw projectiles at the player once the player has entered the enemy's detection zone. The enemy fires two projectiles with 1 second between around every second. The enemy has a high amount of health (400) but the projectiles have low damage to the but it's projectiles can be difficult to evade, making this foe a little bit tricky for the player.

Damage to player	20
Defence	24
Health	400
Movement Speed	300
Sight Radius	9 Metres
Peripheral vision	180

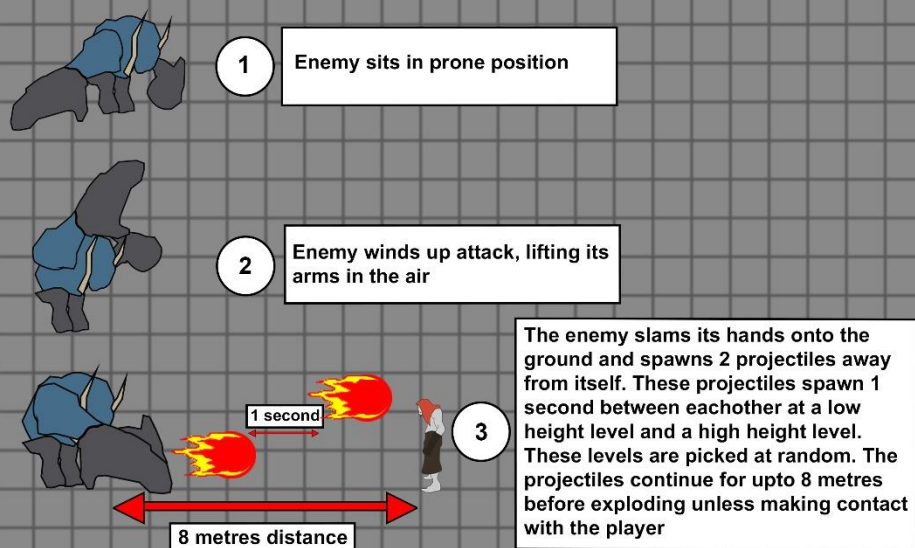
Side view of the detection mechanic



Scale

1 blocks equate to around 1 in- game metre

side view of the enemy's projectile attack



Enemy: Troll/boss

Troll/boss enemy mechanics

This enemy is the final boss for the game. Once the player reaches the boss trigger zone the enemy will drop from the air and then start patrolling the room from left to right. If the player gets within a metre of the enemy then the enemy will take a swing at the player with its club causing a damage to the play (20). After pacing the room 3 times the enemy will slam the ground causing fireballs to fall from the ceiling, these fireballs spawn once each time this attack is made. A small circle will appear on the ground where the fireball will land, giving the player time to avoid them. The enemy has high health (1000) and it moves at a fast pace (400).

Damage to player	20
Defence	20
Health	1000
Movement Speed	400
Sight Radius	1 Metre
Peripheral vision	n/a

Side view of the trigger mechanic

boss trigger zone

4 metres distance

boss spawn point

Enemy

The player enters the boss trigger zone and the enemy crashes down from the sky and lands at the spawn point

Scale

1 blocks equate to around 1 in- game metre

side view of the enemy's attacks

1 The troll attacks the player with its club if the player gets within 1 metre of the troll's location

2 Once spawned the troll will pace from one end of the room to the other unless making contact with the player

(not to scale) Room length is 25 metres

3 After patrolling the room 3 times the enemy will slam the ground causing fireballs to fall from the ceiling.

Rewards and progress

The player is rewarded by exploring the environments, overcoming traps and obstacles by using their abilities and discovering loot. The focus is the collection of all the abilities to progress through the level and reach the end.

Save game

The player will be able to save their position and stats by interacting with the save points. Upon death or exiting the game, if the player has used this system, then they will respawn in the spot in which the system was used. The save points come in the form of an angelic statue with glowing green lights hovering around it.



Goals

The main goal for the player is to make their way through the castle and eventually reach the final room where they will need to defeat the boss and end the game.

To do this the player will have to acquire all the abilities guarded by enemies in 3 separate areas, from an old library and torture chamber to a lava filled cave and underground tomb.

Abilities

The following abilities will need to be collected to finish the level:

Heavy block ability – The player can move previously unmovable blocks and reach new areas

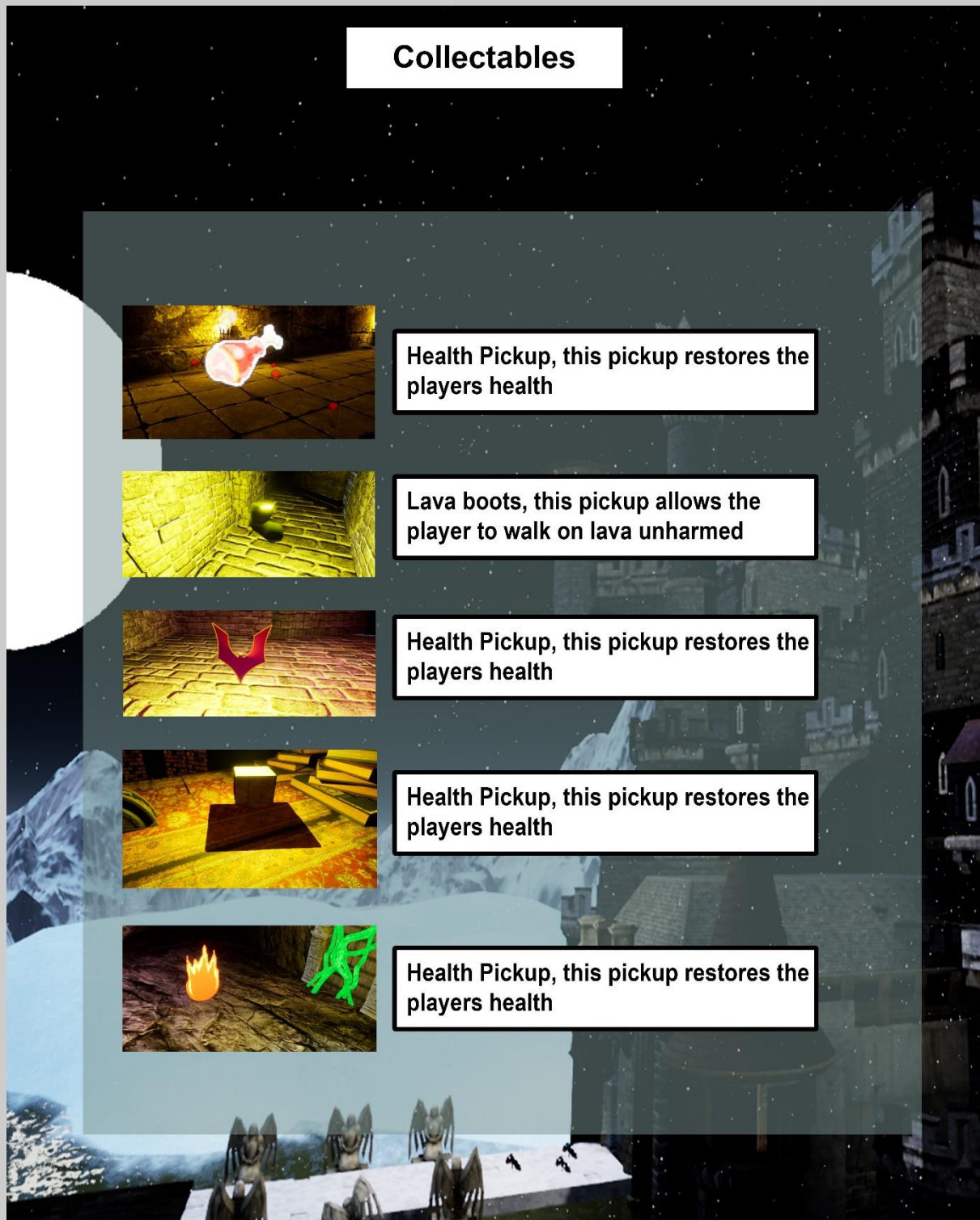
Bat ability – The player can transform into a bat and reach new areas previously unreachable

Lava boots – The player can walk on lava without taking damage

Fire spell ability – The player can cast a fireball projectile (this destroys certain types of doors)

Collectables

Collectables the player can acquire throughout the level, some hidden in secret areas



Merchant room (main focal point)

This room allows the player to replenish their health and boost their strength (attack damage)



Secret Rooms

There are hidden rooms containing chest with gold inside, the player can try to find all of these to gain 100% completion

