

Brogue

<https://brogue.fandom.com>

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Beginner's Guide

https://brogue.fandom.com/wiki/Beginner%27s_Guide_to_the_Early_Depths

Brogue is a hard game. Part of that comes from the array of potions available (some negative) and mostly from cursed equipment.

In the early depths (first couple of floors), you should do the following:

- **When [quaff-identifying](#) potions, remember possible consequences.** The ideal place for quaff-identifying potions and read-identifying scrolls is:
 - On a cleared level, because of gas potions, [aggravate monsters](#) and [scroll of teleportation](#).
 - On a fireproof terrain. [Potion of incineration](#) will fry you for sure in thick foliage, but on bare stone the fire quickly goes out.
 - But never in the [water](#): gas potions will make you vulnerable to [eels](#).
 - In a room with a door, because of [creeping death](#).
 - In a tactically advantageous place, because of [scroll of summon monsters](#).
 - Where allied magicians can't see you, because of [scroll of negation](#).
 - Somewhere near the downwards stairway, because of [potion of descent](#).

These requirements are rather contradictory, so consider what's possible and what isn't.

- **Get decent equipment and protect it:** [Scroll of remove curse](#) will render all your equipment removable, [potion of detect magic](#) will pinpoint dangerous items in your pack so you can discard them. When you got some equipment that is safe and matches your strength, use a [scroll of protect weapon](#) and [scroll of protect armor](#) on them. Do not drop protected gear until you've protected a better item.
- **Call bad scrolls:** You've finally found a [potion of detect magic](#). Harmful scrolls have no use, so you'd better discard them. But first [call](#) them as "BAD", just in case you stumble upon them again.
- **When in doubt, choose armor/weapon as if they were non-magic:** When you find a [treasure room](#) and are forced to choose among weapons and armor, consider what you'd take if they were all +0. Clearing two or three floors then hauling a bunch of unidentified potions is often a waste of food. Remember [vampire bats](#) and [ogres](#), you'll never defeat them with just [leather armor](#) and your [dagger](#).
- **When you really have no choice, equip everything:** Your starting equipment is quite weak. Even if you equip a cursed item, chances are you

will find a scroll of remove curse or a scroll of enchantment (both of which can be used to lift the curse and discard the item). Be aware that cursed equipment is nonetheless often better than your starting equipment. A -1 axe is much better than a +0 dagger, for instance. You can also use scrolls of protect weapon or protect armor to uncure your current weapon or armor, respectively.

- **Don't waste [scrolls of enchantment](#) on low-level things:** Prefer to enchant items that you will use until the end of the game. Enchanting your starting +0 dagger only to switch to a broadsword later wastes a scroll. Good candidates are upper tier weapons, plate mail, weapons with runic abilities, offensive [staves](#) and combat [charms](#).
- **Have at least one unused scroll of enchantment:** In dire situation you can [uncurse](#) a thing, recharge a [charm](#), or give one more charge to a [staff](#). And when you find a [runic](#) weapon, it really matters whether it is +1 or +2.
- **Use X to explore:** this will automatically explore until you find something interesting, like an enemy. It saves a lot of time.
- **No floor is impossible to pass:** Sometimes you find huge lakes or lava pools. You can always, always walk around these; if it appears otherwise, you need to find a hidden door -- use s to search where you suspect a door might be.
- **Have a rest behind the door you expect enemies to arrive from.** You are likely to dispatch them unaware in one hit.
- **Know when to run:** At times you will encounter a monster that is simply not within your power to defeat. When this happens knowing the best ways to [escape](#) can save your life.

Walkthrough

<https://brogue.fandom.com/wiki/Walkthrough>

Since every brogue game is random, creating a walkthrough is not straightforward. As such, this "walkthrough" is more of a set of guidelines that can work with most seeds. Do not think that this walkthrough is THE way to beat brogue, even though I will phrase things in here as if they are the "right" way. Brogue is designed to support many different play styles, which it achieves through its large variety of creatures, items, and their complex interactions. Still, if you follow the rules in this guide, I think you will have a good chance of ascending. This guide is written for Brogue 1.7.2.

Early game

Since survival is usually not difficult in the early game, liberties can be taken to optimize item identification.

Fire staves as soon as you find them, so that you can identify them. Fire them at walls, grass, and weak enemies. They recharge, so don't be parsimonious.

For everything else (scrolls, rings, potions, wands, weapons, and armor), carry but do not use or equip them. When your inventory is full or close to full, and you have just entered a new depth (usually depth 4), examine the rooms adjacent to the entry room, and kill any enemies you find in them. Then move back to the entry room and stand next to the entrance. Start quaffing potions, beginning with the ones you have two or three of. If you quaff potion of poisonous gas, move to the previous level and wait until the gas has dissipated. If you quaff potion of descent, check that the adjacent rooms are empty, and then continue quaffing the remaining potions. If you quaff creeping death, move a few steps away from the entrance (unless you are levitating). Ignite the creeping death with staff of firebolt or incendiary darts if you can. Continue quaffing potions until you quaff potion of detect magic. After that, if you are on fire, confused, darkened, or hallucinating, and you have not yet identified the potion of life, continue quaffing the good potions until you find it.

If you have identified potions of strength (because you had two or more of them), quaff them immediately. Having good armor is more important than curing weakness. With sufficiently enchanted armor, centipedes and dart turrets will usually miss you anyway.

Throw away all potions of hallucination. They are fun, but useless.

If you did not manage to find a potion of detect magic, then continue collecting items until your inventory is full once again. Fire your unidentified wands at the next weak enemy you find. If the enemy disappears, (c)all the wand "teleportation/invisibility",

unless you can figure out which it is. Aggressively exhaust your staves, potions, and wands to deal with or avoid the enemies which are too strong for your leather armor. You'll find more potions later, and you're probably carrying an unidentified recharging scroll. When your inventory is full or nearly full, and you have just entered a new depth, repeat the quaff identification process.

Identify bad potions by throwing at enemies as you encounter them.

If you have a bad scroll, (c)all it "badscroll1" and drop it. Make a mental note that you have identified one of the two bad scrolls. When you later find a second bad scroll, (c)all it "badscroll2" and drop it. After that you will know that all unidentified scrolls are good. There are extremely rare circumstances where aggravating and summoning monsters can be useful, but they aren't worth the inventory slot.

Equip all good rings. Some will immediately identify; others will identify in 1500 turns.

Equip the armor that will give you the highest armor rating. Brogue will make an estimate for you in the armor's inventory description, but be sure to adjust based on whether the armor is good or bad. Cursed armor might still be better than your leather armor, and at this point you are almost certainly carrying a scroll of enchantment, remove curse, or protect armor, so don't be afraid to equip it if your enemies are becoming overwhelming.

Equip the best weapon you can. It is ok to sacrifice a little bit of accuracy if the damage increase is large enough. Approach sleeping enemies diagonally to minimize the chance of waking them up. Hide behind doors and around corners to attack wandering monsters, and the accuracy penalty will not be a problem.

If you have good armor (plate armor or splint mail), a good weapon (war axe or broadsword), a staff, and lots of scrolls, now would be a good time to start use-identifying your scrolls. Otherwise, wait until you have all three, at least until you can no longer handle what the dungeon is throwing at you. When you have all three, equip your best armor and your best weapon, and begin use-identifying your scrolls. Use scrolls of identify only on your staves; everything else will identify on its own eventually. Use all scrolls of enchantment on your good armor, at least until you have it up to +4 or it no longer has a strength penalty. After your armor is sufficiently enchanted, pour all enchantments into your good weapon, until it is +4 or it has no strength penalty.

Once you have identified scroll of protect armor, scroll of protect weapon, scroll of identify, and scroll of enchanting, stop use-identifying scrolls. Save them for the next time they might be useful. For example, if you encounter a treasure room blocked by a statue, use-identify your scrolls until you find the scroll of shattering.

If you have fallen down a level from quaffing a potion of descent, find your way back to the previous level and explore it fully.

Treasure rooms

It is especially important to access treasure rooms in the early game, since they will help you identify many items. Always give preference to plate armor and war axes. After that, splint mail and broadswords. Prefer good armor to good weapons. Finishing a battle quickly is no help if you still have to wait to heal afterward.

In previous versions of Brogue some vaults would contain cursed items. As of v1.7.2 this behavior no longer occurs, so feel free to equip any item you pick up in the treasure rooms.

Middle game

In the early and middle game you should always explore the levels as fully as possible. But be efficient in your navigation, and aggressively use consumables that will help you navigate the map. Use any scrolls of magic mapping as soon as you enter the next depth. Swim across lakes if it would be faster than walking around. Consume potions of fire immunity to swim through lava, and potions of levitation to cross chasms, unless you have allies. The food clock in 1.7.2 is very tight, and nothing is more frustrating than dying of starvation, so move as quickly as you can, without sacrificing completeness of exploration. Quaff potions of telepathy or potions of levitation when you need to cross lakes or bogs in the middle game, where krakens and bog monsters can severely threaten your survival or at best, cause you to consume a lot of nutrition from wait-healing. Do not waste time trying to get gold. You can get it on the way back up.

A strong set of allies is one of the easiest ways to win in rogue. Allies are frustrating to manage, but they are worth it. Allies have better eyesight than you, and so can do ranged attacks on enemies that you can't even see yet.

Trolls and ogre shamans make for a good front line, and can be empowered by allies that do healing, protecting, or hasting.

Acquire allies as early as possible (using wands of domination and wands of plenty), so that the wands can be reused when you find scrolls of recharging or scrolls of enchantment. Also, an early ally is a powerful ally, since allies learn new skills as they gain exploration experience. If you manage to keep your depth-2 monkey alive, he will probably be your most powerful ally.

Unless you have good maneuverability (staff of obstruction with tunneling, or staff of discord, or staff of entrancement), be aggressive against your enemies when running an ally build. Attack sleeping packs if you have an ally that likes to hang back, so that they will not chase you down later. Turrets and magic casting enemies (esp. discord

and negation) can wreak havoc on your pack, so do not be afraid to "waste" a consumable to make the fight end quicker. Use maneuverability consumables to disarm or destroy havoc-wreaking enemies before your allies get to them. **Consumables are FOR the middle game.** If you have fully explored the early and middle levels, you will probably have a staff, ring, and charm heavy build by the time you make it to the end game, where consumables will be less important.

If you do have good maneuverability, such as a staff of obstruction, do not engage with enemies which are not blocking you from items or the exit. You gain no experience from fighting, so there is no point in wasting nutrition on them if you can keep the peace between them and your allies.

End game

When you find yourself ignoring items because you have no room for them, because your inventory is stacked with staves, rings, and charms, and not because you have been hoarding consumables, you have entered the end game. Stop exploring the levels fully and focus on descending.

Getting better

Brogue is not the type of game that you will get better at merely by playing it over and over again (although that will help somewhat). To get really good, you must explore the strategy space. Treat every game as an experiment. For example, if you encounter a ring of stealth early on, ask yourself, "I wonder what will happen if I pour a third of all of my enchantments into a ring of stealth?" And then try it out. Anytime you see yourself flinching away from an option (e.g. "I'm pretty sure that creature would not make a good ally"), ask yourself if that conclusion is an assumption, or something borne from experience. If you've never tried it, you could be overlooking a completely different way of defeating the game.

In short, question everything in this document. I do think enchanted plate armor is a great idea. But that doesn't mean that a sufficiently enchanted chainmail of replication is a bad idea.

Games are about having fun. If you keep playing all of your brogue games the same way, not only will you probably not get better, you won't have very much fun. Winning is only one aspect of roguelikes, and it doesn't happen often, so don't make it your sole focus. Discovering new interactions can be just as rewarding, and because of brogue's complexity, you can probably make a new discovery in every game you play.

Escape

Most monsters in Brogue move the same speed as you — what's worse, you can run forever and they won't give up the chase. How do you get away?

Avoid Trouble

An ounce of prevention is worth a pound of cure. The farther you stay from dangerous enemies, the better off you'll be.

- **Inspect a monster** the moment it enters your view, even if you've seen it before. You might be tempted to underestimate it because you were better equipped or at a higher character level when you fought it in a previous run.
- Particularly **nasty monsters are often spawned asleep**. When you see them, find ways to explore the level that don't involve getting close.
- If you have a [Ring of Stealth](#), wear it. Understand the mechanics of [Stealth](#).
- There are more options for escape while a monster is still far away, so **don't let it get close in the first place** until you're fairly certain you're going to win. You'll regret every turn you waste.
- A [Potion of Telepathy](#) or a [Ring of Clairvoyance](#) will give you the chance to see a monster when it has no chance of seeing you. If you're alone on a dangerous level, these are lifesavers. Down deep, you can't see far without a [Ring of Light](#). There's nothing quite like waking a sleeping [dragon](#) because you didn't notice it in time.

Understand the Monster

- Some monsters, including [vampire bats](#), [will-o-the-wisps](#), and [eels](#), move erratically. They waste one third of their moves moving randomly.
- Flying monsters will follow you wherever you go, even down into chasms.
- Fast monsters ([jackals](#), [vampire bats](#), [wraiths](#), [furies](#), and [dragons](#)) will close distance against you quickly and proceed to damage you if you run away. You must tailor your escape to your pursuer.
- [Nagas](#) and [salamanders](#) will happily chase you through water.
- [Dar blademasters](#) can blink after you, but they still only take turns as fast as you do. So long as you don't get cornered by them, most tricks for escape will work.
- [Centaurs](#) will harry you with their arrows and [goblin conjurers](#) will send blades after you if you simply walk away from them, so be prepared to take some damage while making your escape.
- Casters ([ogre shamans](#), [pixies](#), [dar battlemages](#), [liches](#), and [dragons](#)) can attack you as long as they have a line of fire. Even a simple measure like ducking behind foliage or a door will help.

Exploit the Dungeon

- Most monsters refuse to chase you through **deep water**. You'll have to grab your equipment as it floats away and mind [eels](#), but you'll save your life. Sometimes it's worth eliminating water-bound creatures to make an escape route for yourself later.
- Most monsters refuse to follow you when you **jump into chasms**. If you remember a chasm on an earlier level, you can lead a monster up to it and then jump down.
- If the monster isn't hard on your tail, you can [lead it to a trap](#) and either get it to step on the trap itself or throw a dart or wand or food ration on the trap to set it off. (Just don't get paralyzed as well! Monsters recover from paralysis quicker than you do!)
- Sometimes a monster that you can't kill on your own is an easy target standing in caustic gas or after being lit on fire. Even with a monster hard on your tail, you can throw something on a caustic gas trap after you both pass it by a few cells, and wait for the cloud to expand to cover the monster — and back away as it reaches you.
- Step on a [confusion trap](#) near a chasm or, better yet, near lava. It will send your enemy plummeting while you stand perfectly still. Be wary of lava, however, as the monster can set the whole cloud ablaze when it burns up.

Use Consumables

- A [Potion of Descent](#) is a great way to make a problem go away before a monster actually reaches you, but once it's next to you, you'll both fall. Potions of descent make temporary chasms, so the same rules apply, and flying monsters (like vampire bats) will follow you. Consider throwing it instead of drinking it.
- A [Wand of Teleportation](#) will send the monster somewhere else on the level. It might not be very far, but it will at least send it somewhere you can't see it.
- A [Scroll of Teleportation](#) will take you somewhere else on the level — somewhere you can't presently see. It might take you out of the frying pan and into the fire, so be careful.
- A [Potion of Levitation](#) will let you hover over chasms or magma to get away. You can combine it with a [Potion of Descent](#) to get rid of an adjacent enemy without plunging down yourself.
- A [Potion of Fire Immunity](#) will let you cross magma or escape through open flames, where enemies will be reluctant to follow.
- A [Potion of Speed](#) can help you put distance between you and the monster — but you should also consider whether it would give you the edge in a fight. (If you can kill the monster in a few hits but it would kill you even faster, you can attack, step back, attack, step back, attack, step back, until it's dead.)

- A thrown [Potion of Darkness](#) makes super darkness that increases your stealth checks. This might help you sneak up to or past a monster, or if you're across the level from it, make it lose track of you.
- If a flying monster won't leave you alone, you can read a [Scroll of Negation](#) or zap it with a [Wand of Negation](#) to take away its flight, and then escape across deep water or dive into a chasm or apply any of the other tricks that work on non-flying monsters.

Improve Your Permanent Equipment

- With a [Staff of Blinking](#), blink across chasms or lava that the monster can't cross. At higher levels, you can blink repeatedly or cross broader gulfs.
- With a [Staff of Obstruction](#), obstruct the monster before it reaches you. (If you have a [Staff of Tunneling](#), you can obstruct it even after it gets to you and then tunnel out.)
- The blades from a [Staff of Conjuration](#) will distract a monster, buying you time to escape.
- Weapons with runics of **Confusion**, **Slowness**, or **Paralysis** can leave monsters unable to chase you down effectively.
- Once you're out of sight, a [Ring of Stealth](#) will help shift the monster back into a *wandering* state.
- A [Staff of Entrancement](#) will make the monster walk away from you while you walk away from it, buying you time. When it snaps out of its entrancement, it has to try to notice you again — so if you're in a shadow or around a corner, it might go back to wandering.
- A [Staff of Discord](#) can occupy a group of enemies as they fight amongst themselves. (As of 1.6.2, this doesn't work on centaurs. This is a bug.)

Dungeons of Doom

The **Dungeons of Doom** are the setting of Brogue.

The Structure of the Dungeon

Every dungeon level has one stair leading down and one stair leading up. Every level is guaranteed to be connected from stair to stair without necessitating crossing any traps or dangerous terrain. You might need to search to find your way at some point.

As you descend you will discover new [monsters](#) at each depth. Their deadliness will increase as you move deeper, but the quality of the equipment you find does *not* depend on depth. If you find a great heavy weapon early and you are too weak to use, it's your responsibility to [decide what to do with it](#).

As you progress, you will become stronger and better equipped. A wise adventurer will seek to assemble a inventory of powerful weapons, armors and magics that compliment one another. Even rare runic equipment can be found. It's important to keep moving, as you have only the one ration in your pack and any food found along the way to sate you.

Be afraid, for the dungeon isn't merely comprised of random caves etched into the hardened Earth by the hand of time. No. The Dungeons of Doom have a creator. A dark and malevolent presence that painstakingly engineered the evils that await you. Treasure laden vaults will tempt you into deadly traps comprised of diabolical clockwork machines and creatures aided by ancient magics bound together.

If it all sounds like too much, fear not, for you are not alone. There are rumors of prisoners held captive throughout the dungeons. Some meek and some powerful. I've even heard unbelievable stories of mythical creatures joining the fight to rescue the Amulet. These unlikely allies will swear allegiance to you and fight by your side. They'll accompany you on your quest, growing stronger with you.

The Amulet of Yendor is the prize. It will always be found on level 26 should you make it that far. Once you have it, your quest is not over...

Monsters

Most enemies have interesting *quirks* that you can learn to deal with. Some enemies just cause you frustration and pain if you're not prepared for them. This page provides an overview of all the monsters you will encounter in Brogue. Items carried by monsters are now identified in the monster details display.

- **OOD** is the first depth a monster can be found in as a (rare hostile) out-of-depth monster
- **Depth** is the first depth a monster will normally be found in as a hostile monster
- **MD** is a monster's *Movement Delay*; (50=quickly, 200=slowly) see [Timing for more detail](#).
- **AD** is a monster's *Attack Delay*; see [Timing](#).
- **Damage** is expressed as a range and a [clumping factor](#); see [Combat](#).
- To see a listing of even more stats, see [Monster Stats](#).
- In lower dungeon levels, monsters may have [Mutations](#)

	Name	OOD	Depth	MD	AD	Damage	HP	Range	Quirks
@	You			100	100	1–2	30		
r	Rat	1	1	100	100	1–3	6		
k	Kobold	1	1	100	100	1–4	7		
j	Jackal	1	1	50	100	2–4	8		
e	Eel	2	2	50	100	3–7 (2)	18		flits , aquatic
m	Monkey	2	2	100	100	1–3	12		steals items
b	Bloat	2	2	100	100		4		flies , flits , attacks by dying, produces a cloud of caustic gas on death
b	Pit Bloat	2	2	100	100		4		flies , flits , attacks by dying, produces translucent ground on death
g	Goblin	2	3	100	100	2–5	15		Attacks up to two enemies in a line
g	Goblin Conjuror	2	3	100	100	2–4	10		summons Spectral Blade , casts slowly, sometimes carries an item



	Name	OOD	Depth	<u>M</u> <u>D</u>	<u>A</u> <u>D</u>	<u>Dam</u> <u>age</u>	<u>H</u> <u>P</u>	Ranged	Quirks
<u>G</u>	Goblin Mystic	4	6	100	100	2–4	10	protection	sometimes carries an item
<u>♀</u>	Goblin Totem	4	5		300		30	lightning, haste	inanimate
<u>J</u>	Pink Jelly	3	4	100	100	1–3	50		splits
<u>t</u>	Toad	3	4	100	100	1–4	18		hallucination
<u>v</u>	Vampire Bat	4	6	50	100	2–6	18		flies , flits , steals health
<u>•</u>	Arrow Turret	4	5		250	2–6	30	arrows	inanimate
<u>a</u>	Acid Mound	4	6	100	100	1–3	15		corrosive
<u>c</u>	Centipede	5	7	100	100	4–12	20		causes weakness
<u>O</u>	Ogre	5	7	100	200	9–13 (2)	55		
<u>B</u>	Bog Monster	7	7	200	100	3–4	55		flees near death, flits , aquatic, grabs hold
<u>♀</u>	Ogre Totem	8	12		400		70	slowness, healing	inanimate
<u>s</u>	Spider	6	9	100	100	3–4 (2)	20	webs	casts slowly, poisons
<u>•</u>	Spark Turret	8	11		150		80	lightning	inanimate
<u>w</u>	Will-o-the-wisp	7	10	100	100	5–8 (2)	10		flies , flits , ever-burning, dies if negated
<u>W</u>	Wraith	7	10	50	100	6–13 (2)	50		flees near death
<u>Z</u>	Zombie	8	11	100	100	7–12	80		surrounded by a cloud of putrescence

	Name	OOD	Depth	<u>M</u> <u>D</u>	<u>A</u> <u>D</u>	<u>Dam</u> <u>age</u>	<u>H</u> <u>P</u>	Ranged	Quirks
<u>I</u>	Troll	8	12	100	100	10–15 (3)	65		regenerates quickly
<u>O</u>	Ogre Shaman	10	14	100	200	5–9	45	lightning, haste	summons Ogre , casts slowly
<u>N</u>	Naga	8	12	100	100	7–11 (4)	75		surrounded by a puddle of water, attacks all adjacent enemies simultaneously
<u>S</u>	Salamander	9	13	100	100	5–13 (3)	60		ever-burning, surrounded by sputtering embers
<u>b</u>	Explosive Bloat	7	10	100	100		10		flies , flits , attacks by dying, produces a violent explosion on death
<u>d</u>	Dar Blademas ter	7	10	100	100	5–9 (2)	35		blinks, sometimes carries an item
<u>d</u>	Dar Priestess	10	15	100	100	2–5	20	lightning, negation, haste, healing	sometimes carries an item
<u>d</u>	Dar Battlemage	13	18	100	100	1–3	20	discord, slows, firebolt	sometimes carries an item
<u>J</u>	Acidic Jelly	10	14	100	100	2–6	60		corrosive , splits
<u>C</u>	Centaur	10	14	50	100	4–8 (2)	35	arrows	
<u>U</u>	Underworm	12	12	150	200	18–22 (2)	80		

	Name	OOD	Depth	<u>M</u> <u>D</u>	<u>A</u> <u>D</u>	<u>Dam</u> <u>age</u>	<u>H</u> <u>P</u>	Ranged	Quirks
	Sentinel	12	12		175		50	lightning, healing	inanimate , casts slowly, dies if negated
	Acid Turret	10	15		250	1–2	35	corrosive	inanimate
	Dart Turret	10	15		250	1–2	20	arrows	inanimate , causes weakness
	Kraken	10	15	50	100	15–20 (3)	120		flees near death, flits , aquatic, grabs hold, regenerates quickly
	Lich	17	22	100	100	2–6	35	firebolt	summons Phantom , summons Fury , sometimes carries an item
	Phylactery	17	22		150		30		becomes Lich , inanimate , dies if negated
	Pixie	10	14	50	100	1–3	10	discord, slows, lightning, negation	flies , flits
	Phantom	11	16	50	200	12–18 (4)	35		invisible , flies , flits
	Flame Turret	10	14		250	1–2	40	firebolt	inanimate
	Imp	12	17	100	100	4–9 (2)	35		blinks, steals items
	Fury	13	18	50	100	6–11 (4)	19		flies
	Revenant	14	19	100	100	15–20 (5)	30		immune to weapons

	Name	OOD	Depth	<u>M</u> <u>D</u>	<u>A</u> <u>D</u>	<u>Dam</u> <u>age</u>	<u>H</u> <u>P</u>	Ranged	Quirks
<u>H</u>	Tentacle Horror	17	22	100	100	25–35 (3)	120		regenerates quickly
<u>G</u>	Golem	16	21	100	100	4–8	400		reflective, dies if negated
<u>D</u>	Dragon	19	24	50	200	25–50 (4)	150	breathes fire	carries an item, attacks all adjacent enemies simultaneously
<u>g</u>	Goblin Warlord	5	5	100	100	3–6	30		summons Goblin Conjuror , summons Goblin , sometimes carries an item
<u>J</u>	Black Jelly	5	5	100	100	3–8	120		splits
<u>V</u>	Vampire	10	10	50	100	4–15 (2)	75	discord	blinks, summons Vampire Bat , flees near death, steals health, produces a pool of blood on death
<u>F</u>	Flamedancer	10	10	100	100	3–8 (2)	65	firebolt	ever-burning, surrounded by clouds of infernal flame
<u>↑</u>	Spectral Blade	2	3	50	100	1	1		inanimate , flies , dies if negated
<u>↓</u>	Spectral Sword			50	100	1	1		inanimate , flies , dies if negated
<u>⌘</u>	Stone Guardian	4	4	100	100	12–17 (2)	1000		inanimate , immune to weapons, reflective, dies if negated , moves only when activated,

	Name	OOD	Depth	<u>M</u> <u>D</u>	<u>A</u> <u>D</u>	<u>Dam</u> <u>age</u>	<u>H</u> <u>P</u>	Ranged	Quirks
									surrounded by a red glow
℔	Winged Guardian	4	4	100	100	12–17 (2)	100 0		blinks, inanimate , immune to weapons, reflective, dies if negated , moves only when activated, surrounded by a red glow
⌘	Guardian Spirit			100	100	5–12 (2)	100 0		inanimate , immune to weapons, reflective, dies if negated , appears only when summoned with a Guarding Charm, surrounded by a red glow
Υ	Warden of Yendor			100	100	12–17 (2)	100 0		Never sleeps, invulnerable, always hunting, immune to polymorph
⌘	Mirrored Totem	5	5		100		80		inanimate , immune to weapons, reflective, moves only when activated, surrounded by a red glow
Ú	Unicorn			50	100	2–10 (2)	40	protection, healing	
℥	Ifrit			50	100	5–13 (2)	40	discord	flies , regenerates quickly
ℙ	Phoenix			50	100	4–10 (2)	30		flies

	Name	OOD	Depth	<u>M</u> <u>D</u>	<u>A</u> <u>D</u>	<u>Dam</u> <u>age</u>	<u>H</u> <u>P</u>	Ranged	Quirks
	Phoenix Egg				150		150		becomes Phoenix , in animate
	Mangrove Dryad			100	100	2–8 (2)	70	cast vines	immune to web

Mutations

Starting from depth 11, some monsters can receive one **mutation**, including boss monsters. The mutations are:

- **Explosive**: 0.5× HP, 0.5× defense. Monster is surrounded in an orange glow and [explodes](#) on death, much like [explosive bloats](#). Will not appear on waterborne monsters.
- **Infested**: 0.5× HP, 0.5× defense, releases [creeping death](#) (lichen) upon death. Will not appear on monsters which already have an on-death effect.
- **Agile**: 2× move speed, 1.5× defense, flees when low on health, can blink. Will not appear on monsters which already blink or flee when low on health.
- **Juggernaut**: 3× HP, 0.5× move speed, 0.5× attack speed, 0.75× defense, 2× attack damage. Will not appear on monsters which keep their distance.
- **Grappling**: 1.5× HP, 0.5× defense, [seizes](#) prey on attack. Will not appear on monsters which keep their distance or already seize their prey.
- **Vampiric**: Has [transference](#). Will not appear on monsters which keep their distance or already have transference.
- **Toxic**: 0.5× attack speed, simultaneously saps strength (like a [centipede](#)) and poisons (like a [spider](#)). Will not appear on monsters which keep their distance, already sap strength or poison.
- **Reflective**: Reflects ½ spells; ¼ are reflected back to caster. Will not appear on spellcasters (as they are already hard to reach) and monsters which are already reflective.

[Polymorphing](#) a monster will remove its mutation.

[Negating](#) a mutated monster will remove any extra abilities added from the mutation.

This includes the explosion on death from explosive, the creeping death from infested, the blinking from agile, the seizing from grappling, the transference from vampiric, both effects from toxic, and the reflection from reflective. The sidebar will still show the mutation, but hovering over to display the monster's description show the qualities have been removed.

The following table gives the chance for a monster generated on a given depth to be mutated. All possible mutations are equally likely.

Depth	% Chance
11	1
12	2
13	3
14	4
15	5

16	6
17	7
18	8
19	9
20-26	10
27	11
28	13
29	16
30	18
31	21
32	25
33	30
34	35
35	41
36	48
37	56
38	65
39	75
40	75

Item

There are many different types of items in Brogue, many of which can help you survive in the dungeons.

- [Weapons](#) and [Armor](#) are (usually) your primary means of attack and defense. These are the only types of item that have a chance to be [runic](#).
- [Scrolls](#) and [Potions](#) disappear when used. Potions can be thrown. They have a variety of effects, and learning the quirks of all the different kinds will help you survive the dungeon.
- [Staves](#) and [Wands](#) fire blasts of magical energy but have a finite number of charges. Staves recharge over time, but wands do not.
- [Charms](#) only hold one charge, but recharge over time. Their effects tend to be less directional than staves and wands, often affecting either everything in the area, or only yourself.
- [Rings](#) provide permanent passive bonuses (or penalties if cursed)
- [Food](#) refills your nutrition, allowing you to delve deeper.
- [Keys](#) grant you access to treasure hidden away.
- [Gold](#) is the main thing to determine your [Score](#).
- Finally, the [Amulet of Yendor](#) allows you to win the game...

If you want to see the relative frequency of different items, check [Item Generation](#).

It is important to note that the appearance of each type of [Potion](#), [Scroll](#), [Staff](#), [Wand](#) and [Ring](#) when unidentified changes from game to game. There is no point in memorising the fact that, say, green potions are [Potions of Strength](#) in your current game, because when you start another game the appearance will have changed.

For more information on identifying items, see [Item Identification](#).

Terrain Features

The terrain features you find in the [dungeon](#) will shape your quest just as much as the [monsters](#) or [items](#). It's wise to be aware of your surroundings at all times.

These features include:

- [ground](#)
- [stone wall](#)
 - [rough granite wall](#)
- [wooden door](#)
- fungus
 - [grass-like fungus](#)
 - [withered fungus](#)
 - [dense foliage](#)
 - [dead foliage](#)
 - [luminescent fungus](#)
 - [creeping death](#)
- water
 - [shallow waters](#)
 - [murky waters](#)
- [chasm](#)
- brink of a chasm
- stone bridge
- [lava](#)
- [bog](#)
- [rickety rope bridge](#)
- upward staircase
- downward staircase
- lighting features
 - [wall-mounted torch](#)
 - patch of sunlight
 - patch of shadows
- pool of blood
- candle-lit altar
- [locked iron door](#)
- [stone pedestal](#)
- iron cage
- [statue](#)
- carpet
- iron manacles
- billowing flames
- sputtering embers
- pile of ashes

- burned carpet
- [pressure plate](#)
 - [Confusion trap](#)
 - [Caustic gas trap](#)
 - [Net Trap](#)
 - [Paralysis Trap](#)
 - [Alarm Trap](#)
 - [Fire trap](#)
 - Water Trap
 - Part of a [Key Holder](#)
- [crystal formation](#)
- green crystal
- [marble statue](#)
- pile of filthy hay
- pile of filthy effects
- pile of rubble
- pile of bones
- [gas clouds](#)
 - cloud of [caustic gas](#)
 - cloud of [confusion gas](#)
 - cloud of [paralytic gas](#)
 - cloud of [explosive gas](#)
 - cloud of [putrescence](#)
 - cloud of [scalding steam](#)
- steam vent
- thick spiderweb
- puddle of water
- puddle of urine
- missing: Features which only occur in some vault puzzles (portcullis, grates, wooden barricade?)
- missing: Any features which occur only deep in the dungeon (brimstone?)

Stealth

About old stealth mechanics see [Stealth/1.7.2](#).

You dispatched the rat, catching it unaware.

Stealth lets you avoid enemies or attack them while they are helpless.

Stealth Mechanics

You have a stealth range where any creature within this range has a flat 25% chance to notice you per turn. The stealth range is calculated as follows:

- [You](#) start with a base range of 7.
- The range is doubled if you are in light or halved (rounding up) if you are in darkness.
- Add 1 to the range for each point of your armor's base strength requirement over 12.
 - For example, [Plate Armor](#) always adds 7, regardless of enchantment.
 - [Leather Armor](#) and [Scale Mail](#) are the only armors that will not increase your stealth range.
- If you rested the previous turn, halve (rounding up) the range. Searching does not count for this bonus.
- If you are [aggravating monsters](#), add 1 for each turn left in the effect.
- Subtract the enchantment level of any equipped [rings of stealth](#).

The minimum stealth range is 2 unless you rested on the previous turn, which reduces the minimum to 1. If you are [invisible](#), your stealth range is always 1.

You can press "J" to toggle the display of this stealth range while you are playing.

Losing Track of You

A monster that is hunting for you will lose track of you if they are farther away than triple your stealth range, or more than two spaces away if you are invisible. See [this page](#) for some tips.

Stealth Attacks

If you attack a monster that is sleeping, wandering, or paralyzed:

- You do triple damage, quintuple if you are wielding a [dagger](#)
- You are guaranteed to hit
- A weapon [runic](#)'s chance of triggering is doubled or increased halfway to 100%, whichever is lower

- Examples: A 20% chance becomes 40%. A 50% chance becomes 75%.
- If the monster was sleeping or wandering, it does not react for a turn (or its attack speed, whichever is slower). If the monster was paralyzed, it becomes unparalyzed.

[Allies](#) can stealth attack sleeping and paralyzed monsters.

Stealth tips

- **Always approach monsters diagonally** -- monsters will spend fewer turns in your stealth range.
- If you don't want to wake up a monster, **don't stand where you can see it** - - and if you have to, keep your distance and minimize the time spent there.
- When you rest, **stand next to the door you expect monsters to arrive from**.
- A [War Hammer](#) is generally the best weapon for stealth attacks, as it has the highest base damage.

Combat

Brogue uses a simple combat model. First it uses the attacker's accuracy and the defender's defense to determine whether the attacker hits the defender at all. If it does hit, then it rolls the damage done by the attacker; this roll is based *exclusively* on the attacker's intrinsic or wielded damage stat.

Chance to Hit

The chance to hit is calculated as:

```
hitProbability = accuracy * 0.987 ^ defense;
```

If hitProbability is more than 100%, the hit will always land. So long as accuracy is more than 0, though, no amount of defense can guarantee that no hits will ever land.

Targets that are unaware, stuck, paralyzed, etc. will always be hit.

Accuracy

Players have a base accuracy value of 100. Each marginal point of weapon enchantment multiplies your accuracy by 1.065. The player's accuracy is thus:

```
accuracy = 100 * 1.065^(weapon net enchant)
```

Armor

The player's defense value is the defense value of the equipped armor. The amount displayed in game is 10% of the actual value. The chance of a monster to hit you is

```
chance to hit = (monster accuracy) * .987^(defense value in game * 10)
```

A rule of thumb is that for every 5.2 points of armor, monsters' chance to hit you is halved.

Weakness

For the player, the effect of weakness is more severe when the resulting strength falls below the strength required to wield or wear equipment. Above that threshold, there is an effective penalty of -.25 enchantment levels per level of weakness; below it, there is an effective penalty of -2.5 enchantment levels.

For monsters, the effect of weakness is much simpler: There is always an effective penalty of -2.5 enchantment levels per point of weakness. It is as if monsters were all just strong enough to use their intrinsic equipment.

Damage

Damage is expressed as a *range* and a *clumping factor*. Damage never falls below the minimum or exceeds the maximum of the range, and the average damage is always the average of the two. The clumping factor controls how central the distribution is: a higher clumping factor produces more values that are close to the average damage. From the source code:

If the range is 0-10 with a clumping factor of 1, it's a uniform distribution. With a clumping factor of 2, it's calculated as 2d5 (with d5 meaning a die numbered from 0 through 5). With 3,

it's 3d3, and so on. Note that a range not divisible by the clumping factor is defective, as it will never be resolved in the top few numbers of the range. In fact, the top $\ast (\text{rangeWidth} \% \text{clumpingFactor})$ will never succeed. Thus we increment the maximum of the first $(\text{rangeWidth} \% \text{clumpingFactor})$ die by 1, so that in fact 0-10 with a CF of 3 would be $1d4 + 2d3$. Similarly, 0-10 with CF 4 would be $2d3 + 2d2$.

For the player, each point of weapon enchantment multiplies damage by 1.065.

Special Properties

[Revenants](#) are immune to physical damage as calculated here, but weapon runics still affect them.

[Acid mounds](#) and [acidic jellies](#) only degrade your weapon if you actually hit them, and they (along with [acid turrets](#)) only degrade your armor if they actually hit you.

Examples

This table gives the effective enchantment level (the weapon's natural enchantment level plus the bonus/penalty from strength) required achieve a certain to hit chance against some typically dangerous [monsters](#).

Monster	50%	66%	75%	90%	95%	100%
Vampire Bat	-5.50	-1.25	1.00	3.75	4.50	5.25
Ogre \ Wraith	1.75	6.00	8.00	11.00	11.75	12.75
Troll \ Dar Blademaster \ Phantom \ Golem	3.75	8.00	10.25	13.00	14.00	14.75
Fury \ Dragon	8.00	12.25	14.25	17.25	18.00	18.75
Tentacle Horror	9.00	13.25	15.25	18.25	19.00	20.00

This table gives the amount of armor, as displayed in the sidebar, required to reduce a monster's chance to hit to a certain value. An armor value of 11.5 means that the sidebar displays 11 armor and you have a strength bonus of +0.5 (or +1.5, or +2.5, etc.).

Monster	50%	33%	25%	10%	5%	2%
Vampire Bat	5.25	8.50	10.50	17.00	21.75	27.00
Wraith	6.75	9.75	11.75	18.50	23.00	28.25
Ogre \ Troll	7.00	10.00	12.00	18.75	23.50	28.75

Dar Blademaster \ Phantom	9.00	12.00	14.00	20.50	25.25	30.50
Fury	10.50	13.75	15.75	22.25	27.00	32.25
Golem \ Tentacle Horror	11.50	14.50	16.50	23.25	27.75	33.00
Dragon	12.25	15.50	17.50	24.00	28.75	34.00

Stairdancing

Stairdancing is the practice of, in a roguelike, using the property of stairs separating you from monsters to pick them off one by one or retreat to a safer place. While in Brogue monsters are capable of hunting you across levels expertly, there are nevertheless ways to exploit stairs (and chasms!) to your advantage.

Monsters Follow When...

For a monster to follow you when you take the stairs or a pit, the following must be true:

1. The monster must still be 'Hunting' (which means it must not be: entranced, paralyzed, affected by magical fear, confused)
2. If you used a chasm instead of the stairs, the monster must be flying (or be an ally with 11+ hp)
3. If the monster is non-flying, it must not be standing on AND have a route it can take to you free of T_PATHING_BLOCKER (walls/green crystal, a chasm/pitfall trap, a trap, lava, deep water, fire, brimstone)
4. If the monster is flying, it merely not be encased in green crystal AND have a route it can take to you free of walls/green crystal

If all these are satisfied, the game calculates how long it would take the monster to walk to where you were (**not to the stairs, to where you were**), and it will appear that number of turns later.

Leaving Them Behind

So, for a monster to NOT follow you when you change levels, you must make one of the conditions not true.

Try one of these:

1. **Throw it off your scent.** Cross or create T_PATHING_BLOCKER (green crystal, chasm, trap, lava, deep water, fire, brimstone) so it has no scent it can follow to you - Get out of LOS and wait long enough, and the scent will become so old that it will go back to Wandering and not follow you across stairs, even if there is an unobstructed path it could use to do so. Increasing your [Stealth](#) will make it give up sooner since the perceived distance will be larger.
2. **If it does not fly, take a chasm**, or use a potion of descent/pitfall trap/pit bloat/staff of entrancement so your opponent takes the chasm instead!
3. **Use status effects:** entrancement, paralysis, cause fear or confusion (from a trap or consumable). These status effects prevent it from hunting and thus following you.
4. **Use incineration/firebolt/a flood trap/obstruction.** If it is either in T_PATHING_BLOCKER or has NO path free of T_PATHING_BLOCKER when you take the stairs, it will not follow. (If it flies, only obstructions will work)

Exploit Monster Following Behavior

Perhaps you would like to exploit some useful properties of monsters following stairs:

1. **Taking stairs costs 0 turns.** When you take the stairs, even if there was a monster next to you, **you have a whole turn where you can do whatever you want**, THEN the monster will show up. You might use this to pop consumables or blink into a better position to flee.
2. If a group of monsters is following you, when the first one appears up the stairs **it will be alone** and easier to pick off than if it had spellcasters buffing it and debuffing you at every moment.
3. **Perhaps the terrain on the other side of the staircase/pit is more favourable to you.** It might have a door/corridor/other chokepoint/exploitable trap/pool of water/lava/brimstone/chasm you can exploit to your advantage that the other level either didn't or you couldn't reach safely.
4. **'Parking' monsters** - Lure a monster onto an earlier, cleared level, get it into a situation where it can't follow you back and then resume clearing the level you were on. You won't have to deal with it until after you have the Amulet, that way.
5. **Splitting up monsters of different speeds** - When you take the stairs, it calculates how long it would take using its movement speed to have arrived on your tile, and so weak but fast monsters like pixies will race ahead and allow you to dispatch their piddly 10 hp with ease.

[See Also](#)

Like abusing terrain? Read on:

[Doors](#)

[Water](#)

[Staff of Obstruction](#)

Character builds

There are no classes in Brogue. There are no races. There is only you and the dungeon and the things in the dungeon.

Who you *become* is up to you. It depends on how you [identify equipment](#), what you put your [enchantments](#) into, what [weapon](#) and [armor](#) you protect against corrosion, and what equipment you leave behind on the dungeon floor. Rather than *class* or *race*, we talk about *kits* and *builds*. Here are a few.

Most characters end up as mix of these, but the components of these builds cooperate particularly well.

- [Ally Build](#)
- [Maneuverability Build](#)
- [Melee Build](#)
- [Stealth Build](#)
- [Wizard Build](#)

Level Generation

Monster Spawning

Monsters are generated in packages called 'hordes'. A horde is a monster and allies that may spawn with it (or it may have none) - for instance, the 'vampire bat' horde spawns a vampire bat, then 0-2 vampire bat allies at random. Deeper depths are characterized by new monsters but also by new, larger hordes.

When a level is first created, 6 hordes are spawned asleep outside of the upstairs' FOV (unless you are deeper than the amulet - then it increases by 1 per level to 20.).

'Captive' monsters will be picked by this initial spawn - the only thing it doesn't place are 'machine only' hordes (captives without captors, bosses, statued monsters...)

Every 125-175 turns, a new horde is spawned on your current level awake.

Periodically spawned hordes will never spawn in your FOV, within 15 [king's moves](#) of you or inside of 'machines', which is where key/door puzzles and boss fights are hosted. The tile it chooses must also be devoid of liquids and be open floor, so no periodic eel spawns or spawns on doors. Finally, immobile monsters cannot be periodically spawned.

If a horde places multiple monsters, they are all 'allies'. This means that if one is alerted to your location, they all will be, making sneaking up on them difficult.

Depth

Starting at level 2, 10% of hordes are generated 'out of depth'. This means they're picked as though they spawned 1dK levels lower where $K = \min(\text{depth} / 2, 5)$ (allowing ogres, being 'min depth 7', to spawn on depth 5). Until you go below depth 26, however, hordes deeper than depth 26 will not be picked. (The post-amulet depths feature hordes such as dragon packs and revenant+tentacle horror packs.)

Level Profiles and Level Specs

Certain probabilities about level generation in Brogue are controlled by the level profile chosen. Currently there is only one level profile, as follows:

Cave level chance = 33%

Cross room chance = 100% (Yes, all rooms are cross rooms - normal rectangles must have been considered too boring :))

Chance to attempt to place corridor = 80%

Door placement chance = 60%

Maximum number of rooms = 99

Maximum number of loops = 30

The level spec is also determined before continuing. It seems most aspects about it were designed to change with the depth, but no such functionality is implemented yet. Currently the parameters are as follows:

Rooms (the longer dimension of each cross room half) can be 4-20 tiles wide and 3-7 tiles high.

Cross rooms (the shorter dimension of each cross room half) can be 3-12 tiles wide, and 2-5 tiles high.

Corridors can be 5 to 15 tiles horizontally, or 2 to 10 tiles vertically.

Doors are made secret $(\text{depth}-1) \times 67/25\%$ of the time (rounded down), clamped in the range 0-67%.

The number of traps is random between $(\text{depth}-1)/4$ to $(\text{depth}-1)/2$ inclusive.

Depth Level	Secret Door Chance	Number of Traps
2	2%	0
3	5%	0-1
4	8%	0-1
5	10%	1-2
10	24%	2-4
15	37%	3-7
20	50%	4-9
26	67%	6-12

Digging the Level

The level starts by randomly placing the first room - if this is the first level of the dungeon, it is always made as a cross room with an upside-down T shape on the bottom center of the map - one rectangle 9x10, the other 20x4. (Measure it - it's always true.)

Else, there's a 33% chance of the first room being a cave (see Cave Levels)

Else, the first room is a boring rectangle - 4-25 width, 2-7 height, placed randomly on the level.

Now, we make 600 attempts (or until we have 99 rooms) to build off of currently existing rooms. Each of those 600 attempts, we pick a direction at random and 80% try to make a corridor with a room at the end 20% try to make a new room (except for the last 225 attempts which are always attempts to make new rooms)

After we pick our direction, we pick a random wall that would allow us to build in that direction (from a cave, corridor or room) and attempt 15 times to build a room (or corridor + room) in that direction, choosing lengths, cross lengths and corridor lengths at random within the level spec's ranges. If it worked, we update various structures about how many rooms exist, which rooms connect to which, what walls point where, etc. We also connect it via a door with 60% chance.

The next step is to add loops so our tree-structure dungeon has places suitable for pillar dancing and monkeys endlessly running away from you ;) 500 attempts are made or until we have 30 loops. We pick a direction to loop in, pick a random wall and look at the tiles one to either side of it. If they both exist in different rooms, are both floor and are further than 2 rooms apart via shortest path, the wall is hollowed out and turned into a doorway. Thus, loops are only added to rooms that were already adjacent but not connected closely.

Next, we add lakes (see the Lakes section)

Next, we run autoGenerators, which goes through the autoGeneratorCatalogue looking for entries that satisfy the current depth. This includes terrain (grass, luminescent foliage, fungus forest, bones...), statues, torches, traps, sunlight, darkness, steam vents and machines which build themselves (swamp, idyll, remnant, dismal, bridge turret, lake path turret, trick statue, sentinel, worms in the walls). Connectivity is checked - meaning, for example, traps will never make part of a level inaccessible.

If it picked a 'machine', it goes to buildAMachine which does a whole bunch of stuff probably machine specific that I haven't read yet :)

Next, we remove diagonal openings. It scans the map for blocks of passable/unpassable terrain in the shapes of

10 01

01 10

and randomly makes one of the two walls floor (or liquid, if it was next to a liquid/chasm)

Next, we analyze the map, finding and building a map of all loops and chokepoints.

Next, we add treasure machines. Treasure machines are generated at depths 3, 7, 11, 15, 19 and 23. When we generate one, there's a 20% chance of generating a second (then a 20% chance of generating a third, etc) which will mean more machines now but future treasure machines will not spawn until the game catches up (Expect 6 treasure machines unless you get two in depth 23.) buildAMachine is then called to place it.

A treasure machine has two components, which will be mixed and matched randomly:

Reward Rooms

Key Holders

Mixed Item Library

Secret Room

Single Item Category Library

Throwing Tutorial (throw an item on the plate)

Apothecary/Archive

Flammable Barricade doorway (burn to enter)

Pedestal (Guaranteed Good)

Fun with Fire (trigger the fire trap in the same room)

Allies in Cages (cage key)

Flood Room (shallow water floods surrounding rooms, contains eels)

Vampire Lair (cage key)

Collapsing floor

Legendary Ally Altar (needs crystal key)

Lots of pit traps

Nested Item Library (holds second key)

Levitation challenge (only way across is via a guaranteed potion of levitation)

Web climbing (like lev challenge, but spider at altar - cross via webs)

Lava moat room/lava moat area (lev/fire immunity guaranteed)

Poison gas with closing portcullis (There is a guaranteed trapdoor, or a dart stops the portcullis closing)

Explosive situation (gas and fire appear)

Burning grass

Statuary (statues turn into monsters)

Worms in the walls (statues turn into [underworms](#))

Mud pit (bog monsters spawn)

Haunted house (phantoms appear)

Gauntlet (turrets appear)

Boss (secret room with boss, boss holds key)

Next, we knock down the boundaries between similar lakes where possible. I think what this does is destroy 1 tile thin walls when it detects lakes (also chasms!) are on both sides of it.

Next, we build bridges until we can't find nice places to build them. Because this is done after making the level all connected otherwise, burning down bridges will never strand you.

Next, we remove orphaned doors and upgrade some doors to secret doors. Orphaned doors are at a T-intersection or a more open area than that or at a dead end or encased in wall, and since that's a weird place for a door to be they'll be removed. Finally, doors are made secret doors with $(\text{depth}-1) \cdot 67/25$ % chance clamped to 0-67%.

Finally, we make all unexposed walls granite and all exposed walls non-granite.

That's all for digging - the rest of the level population (monsters, items, staircases) is handed elsewhere.

Lakes

In Brogue, lakes, chasms, pools of lava and brimstone are all called 'lakes' and generated the same way - via a cellular automata.

A buffer as big as the level is used, and seeded with 55% alive elements and 45% dead elements. 5 iterations are made of the rule B5678/S45678:

If I am dead and have 5-8 alive neighbours, I become alive.

If I am alive and have 4-8 alive neighbours, I stay alive, else I become dead.

After this, every 'blob' of horizontally/vertically connected alive elements is counted, and the largest blob smaller than lakeMaxWidth and lakeMaxHeight is preserved. If no blob is made larger than 4x4 and smaller than this, the cellular automata is started over.

lakeMaxWidth/Height start at 30x15 and decrease by 2x1 until 20x10, for 10 different lakes in total. Each lake, once generated, is attempted to be placed - if its placement would block passability from some room to another, the game tries again and gives up after 10 tries. As a result, between 0 and 10 lakes are placed on the map.

After placing our lakes, a random liquid type is chosen per lake - lava cannot appear before depth 4, and brimstone cannot appear before depth 18. Then, the lake(s) is(are) placed on the map, surrounded by a 'wreath' of the shallower version of the liquid (1 for chasms, 2 for water and brimstone).

If you're interested in how cellular automata work, try MCell: <http://www.mirekw.com/ca/index.html>

Cave Levels

Caves are generated similarly to lakes, except with a B678/S45678 rule, and a minimum blob width and height of 50x20, and a max size of the level minus its boundaries. It is then randomly placed on the level as floor and surrounded by walls. This cave, however large or small it may be, is designated the first room and new rooms/corridors are built off of it as normal.

Item Generation

Most items are generated at the same time the [level](#) is. A few are dropped by enemies such as [Dragons](#). Items are also generated as part of [treasure machines](#) which at times make certain item types (such as [rings](#)) more common than they would otherwise be. The frequency at which different items appear is listed below. Items are never generated in hallways.

Name	Type	Frequency
Door Key	Key	1*
Cage Key	Key	1*
Crystal Orb	Key	1*
Ration of Food	Food	3*
Mango	Food	1*
Dagger	Weapon	10
Sword	Weapon	10
Broadsword	Weapon	10
Mace	Weapon	10
War Hammer	Weapon	10
Spear	Weapon	10
War Pike	Weapon	10
Axe	Weapon	10
War Axe	Weapon	10
Dart	Weapon	0
Incendiary Dart	Weapon	10
Javelin	Weapon	10
Leather Armor	Armor	10
Scale Mail	Armor	10
Chain Mail	Armor	10
Banded Mail	Armor	10
Splint Mail	Armor	10
Plate Armor	Armor	10
Identify	Scroll	30
Teleportation	Scroll	10

Name	Type	Frequency
Remove Curse	Scroll	15
Enchanting	Scroll	0*
Recharging	Scroll	12
Protect Armor	Scroll	10
Protect Weapon	Scroll	10
Magic Mapping	Scroll	12
Cause Fear	Scroll	8
Negation	Scroll	8
Shattering	Scroll	8
Aggravate Monsters	Scroll	15
Summon Monsters	Scroll	10
Telepathy	Potion	20
Levitation	Potion	15
Detect Magic	Potion	20
Speed	Potion	10
Fire Immunity	Potion	15
Strength	Potion	0*
Poisonous Gas	Potion	15
Paralysis	Potion	10
Hallucination	Potion	10
Confusion	Potion	15
Incineration	Potion	15
Darkness	Potion	7
Descent	Potion	7
Creeping Death	Potion	7
Teleportation	Wand	1
Slowness	Wand	1
Negation	Wand	1
Domination	Wand	1

Name	Type	Frequency
Beckoning	Wand	1
Plenty	Wand	1
Invisibility	Wand	1
Lightning	Staff	15
Firebolt	Staff	15
Poison	Staff	10
Tunneling	Staff	10
Blinking	Staff	11
Entrancement	Staff	5
Obstruction	Staff	10
Discord	Staff	10
Conjuration	Staff	8
Healing	Staff	6
Haste	Staff	6
Protection	Staff	6
Clairvoyance	Ring	1
Stealth	Ring	1
Regeneration	Ring	1
Transference	Ring	1
Light	Ring	1
Awareness	Ring	1
Wisdom	Ring	1
Amulet of Yendor	Amulet	0*

* The frequency of starred items is controlled by separate code. Keys are only generated as a part of a [machine](#). The generation of [Potions of Strength](#), [Scrolls of Enchantment](#) and [food](#) are strictly controlled by the game, ensuring that you have a steady supply. The [Amulet of Yendor](#) is guaranteed to be generated on level 26, and on each depth thereafter if you don't have it with you already. You should expect to find 6.67 potions of life per seed on average (99.7% of runs get 6-9, range 6-13, median 7). You should expect to find 8.67 potions of strength per seed on average (98.8% of runs get 7-10, range 3-10, median 9). You should expect to find 14.8 scrolls of enchanting per seed on average (98.3% of runs get 11-18, range 4-22, median 15).¹¹

1. <http://hastebin.com/kehicipuru.erl>

Machine

Machines are the mechanism that the game uses to spice up the dungeon. [Treasure machines](#) provide you with good loot every few levels, and even the [flavor machines](#) can [kill](#) you.

- [Category:Boss Monster](#)
- [Commutation Altar](#)
- [Flavor machine](#)
- [Category:Guardian](#)
- [Category:Key](#)
- [Key Holder](#)
- [Reward room](#)
- [Treasure Machine](#)
- [Vestibule](#)