OPEN RULEBOOK SYSTEM
for Computer Roleplaying Games (CRPGs)

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About

This rulebook system, called Open Rulebook System (ORS) is designed to be used by CRPGs games and it's completely free to use. The license applies always to current version so if you have a previous version of this rulebook, your version applies to your software, regardless of any newer version.

This rulebook is dedicated to provide a role playing system similar to pen & paper systems but completely free, simpler for CRPGs and outside of any legal concerns. This rulebook aims to offer a complete system than can be used exclusively in CRPGs.

Changes that made by others & applied on this material, can be used both personally & commercially by others as well, although the original content (the system) should be referenced in this case.

Contents

1. Planes

Our own world is just one plane of existence. There are many other planes, woven together into what called simply the "Planes". A plane could be just another reality in the same space that we call "Universe" or exist in a vastly different time and space. Therefore, the planes may overlap themselves in space. Most of these planes are materialistic, formed in one way or another by the prime elements of nature such as fire, earth etc.

Planes are vast, cosmic creations that require astonishing amounts of energy to create and even more to maintain, therefore only gods or god-like beings can form them.

1.1. Planes of existence

The existing Planes are pretty much infinite and any being with divine powers can form such a cosmic realm. The known Planes are listed here, along with fragments of information of what they are. The bigger and the most known of them are also described in the following chapters.

Name	Description
The Nature	The embodiment of the physical world. The natural plane whose denizens are living beings with a soul. Birth & death by nature is the base law on this plane.
The Bazaar	An infinite market where travelers from across the Planes come here to trade goods. There is no government or restrictions regarding trading here, but there is an infinite legion of guardians that do keep the peace. Given the place is simply infinite and noisy, its easy to get lost. There are people that will help you find your way though or what you want to trade about.
The Monarchy	A massive city, ruled by an ancient god-monarch, who conquered the entire plane when the time was young. He rules with an iron fist and his army is unequaled, but are unable to leave their plane.
The Arena	An endless, blood-soaked area, locked behind a huge, artificially locked gate. Here, warriors, casters and hero deities of all eras and cultures gather to endure through glorious battles. There's, seemingly, no authority here.
The Bath	This ocean sized, warm, relaxing body of water floats in a perpetual sunny and peaceful sky. There's a few islands in the water and a mile boarder of grass around the perimeter, but the vast majority of the plane can be walked out as the depth is pretty shallow. It is not uncommon for typically evil-natured like Demons and Devils to come here for a moment of peace.
The Warp	A huge, island-like area, floating in the perpetual darkness of space, partially composed of the space between the planes, It provides pathways into every single plane existed. However, the whole plane is fractured, unstable and largely disorganized. As a result of this, any travel there is extremely dangerous, and existing portals could just vanish or new ones will be formed.

The Castle	A single immense castle, seemingly maintained and surrounded by dark woods. In the far distance is dark spiral of a mountain, it's peak concealed by few. Inside the castle is an entry room from which sprawl labyrinthine hallways with infinite rooms, the majority of which not visited for centuries. A staircase also rises from the entry room, allowing for one to go up to more hallways or down in the catacombs below. Visitors must be wary. Pale illusions of dead beings come and go in a glimpse. The denizens of the Castle are mostly unseen but watching every step. The plane loops around itself so venturing into the featureless forest eventually leads to the Castle, and the atmosphere is so bleak that characters should rest frequently to overpass this effect.
The Fungus	An infinite gathering of swamps and marshland, filled with noxious fumes and twisted, poisoned beings. Civilized life is a pretty rare sight here but there are small settlements, trying to maintain their control with an iron fist.
The Holy Realm	The equivalent of Heaven. In this infinite plane, all gods, demigods and god-like creatures such as angels and archangels reside and where they're reforming if they were destroyed or banished on another plane. A colorful plane, full of blistering unrestricted magic. Except the divine powers, their followers also get a small piece, in their afterlife. Evil deeds here are not allowed and they're punished swiftly by the myriad holy powers.
The Unholy Realm	The equivalent of Hell. In this infinite plane, all demons, devils and arch-devils reside and where they're reforming if they were destroyed or banished on another plane. A plane full of the souls of the damned and where each devil tries to improve his position into this vast plane, full of unrelenting evil deeds. Punishing here doesn't require a reason. Here, demons serve the devils and devils serve the arch-devils, everyone for their own gain.

1.1.1. Actions

Creatures like gods and arch-devils very rarely appear themselves on any plane, except their own. Instead, gods send an "Avatar" i.e. a weakened version of themselves and arch-devils send their servants, namely devils. Notice that those beings don't have **skills** and, obviously, skill levels. As a result, they don't have an **expertise** as well. In any case an action requires a skill level or expertise i.e. spells, their level is used as a skill level and the spell's base expertise is used instead. These creatures have a **Level**, a fixed **Protection** (which is defined by either a natural armor or by equipped items), a **Toughness** (which adds to its *HP*), a **Quickness** (which defines its *initiative* in battle), a number of one-liner **Actions** (which can use in combat) and, optionally, a number of **Resistances** & **Vulnerabilities** (which can alter the *damage* they receive).

Actions that cause a condition provide all the necessary information (the condition, the chance of causing it and the ability to reduce that chance by the defender). Keep in mind that chance is further modified by attacker's level (see **Chance to inflict conditions**) and by defender's ability, related to this condition (see **Reduce the condition chance by Ability**). Actions are defined by a number of properties:

- **Target**
  This can be either **1** (one character) or **N** (all characters)

- **Reach**
  Either **S** (short reach; only when on *front-rank*) or **L** (long reach; on all ranks)

- **Chance**
  This is optional and provides the chance of this action to be chosen, for example an entry of **c20%** means that this action has this chance to be used.

- **Damage**
  Can be either physical (**Ph**) or elemental (**eX**), where X can be one of the **F/A/W/E/N/M/S**, each one for an element, like **F = Fire**. Example: *Ph:1-2*

- **Condition**
  A condition can be defined by providing the entry **Co:Cc:Aaa**, where **Cc** are the first two (2) characters of the condition i.e. **De** (Dead), **Po** (Poisoned) and **Aaa** is the character attribute to check against that chance. For example, this entry **Co:Pa:Pow** will cause the **Paralyzed** condition against **Power**.

1.2. The Holy Realm

The equivalent of Heaven. In this infinite plane, all gods, demigods and god-like creatures such as angels and archangels reside and where they're reforming if they were destroyed or banished on another plane. A colorful plane, full of blistering unrestricted magic. Except the divine powers, their followers also get a small piece, in their afterlife. Evil deeds here are not allowed and they're punished swiftly by the myriad holy powers.

In short, all gods, their servants and their followers reside here. This fact alone makes the Holy Realm a lot bigger than the other, very specific, planes. In addition, it is one of the most known Plane. In the following table(s), all known divine powers are listed:

1.2.1. Gods

Gods are probably the most powerful and oldest beings in the Planes. They are so powerful, they never make a direct appearance as this would disrupt the balance on the plane they arrive. Instead, they use weaker "Avatars" of themselves to deal with matters of high importance. They have many servants, including Archangels and Titans which they usually accompanying them. The known gods, their domain, their avatar appearance and details are listed in the following table:

Name	LV	HP	Pro	Tou	Qui	Actions	+ Res* - Vul*
Arus	132	1057	75	60	54	*Greatsword* (1,S,Ph:41-260) *Divine Strike* (1,S,eS:24-198,eN:24-198)	+Soul +Fire +Energy

Arus is a god of **justice**. His avatar appears as a mighty Paladin, holding a massive greatsword. His followers are mostly Paladins, Clerics and usually people with a strong sense of justice.

1.2.2. Archangels

The Archangels are top-tier servants of Gods and usually accompany them when their "avatar" makes an appearance on other planes. They usually are the ones to resolve any disturbances in the "Holy Realm" with an iron fist and determination. They also make an appearance on other planes, either on their own will or by an order of the god they're serving, to resolve matters of high importance.

1.2.3. Angels

The Angels are serving an Archangel. Humanoid souls, residing in Holy Realm, or alive followers with strong will, righteous intents and feats may also become Angels to strengthen the eternal war against the Unholy Realm.

1.3. The Unholy Realm

The equivalent of Hell. In this infinite plane, all demons, devils and arch-devils reside and where they're reforming if they were destroyed or banished on another plane. A plane full of the souls of the damned and where each devil tries to improve his position into this vast plane, full of unrelenting evil deeds. Punishing here doesn't require a reason. Here, demons serve the devils and devils serve the arch-devils, everyone for their own gain.

1.3.1. Archdevils

Arch-devils are the top-tier rulers of the Unholy Realm. Countless centuries of accumulating souls may ascend a devil to Arch-devil status. Their direct servants are other devils. Their power is significantly higher than other devils and they usually engage in wars against other arch-devils for territory and influence. In some extreme cases, they even wage wars against other gods in an attempt to gain their power. The known arch-devils and their details are listed in the following table:

Name	LV	HP	Pro	Tou	Qui	Actions	+ Res* - Vul*
Relzor	103	773	47	50	39	*Bite* (1,S,Ph:34-96,eE:10-40,Co:Po:Tou) *Soul Gaze* (1,S,eM:10-65,Co:Fr:Pers)	+Fire +Earth +Short Blade +Long Blade

1.3.2. Devils

The devils are serving an Arch-devil. Their job is to make bargains with beings of other planes, providing their services to those beings, in exchange their souls. Those souls are what makes those devils and their serving Arch-devil powerful, as souls are infinite sources of energy.

1.3.3. Demons

A demon is the lowest rank in the Unholy Realm. It is what an evil soul becomes when they enter in that realm. They serve the devils in a slave-master relationship and they might do it for centuries, depending on demon's will to ascend to something better than that.

Sometimes, those demons are sent to other planes to do a job, ordered by a devil. However, as devils and arch-devils, demons can also accumulate souls through bargaining or other means, but this is usually performed by rogue demons, having a death wish against the devil they're serving. However, this is how Unholy Realm works, as there no are rules, the stronger will prevail regardless their rank.

2. World

The **Planes** are a vast place, although not without rules, at least in the *Nature* plane. The party can move, get hungry, buy stuff, need to rest & there's a day-night cycle like in real life. All this may sound too obvious & perhaps a time of waste to even consider, but in a CRPG, a set of rules will be required to restrict things in favor of common sense & balance.

2.1. Time

The time can be broken down into *minutes, hour, day, month & year.* There are somewhat different rules than the ones already used in our reality, so **60 minutes** makes up an hour, **24 hours** makes up a day, **10 days** (instead of 30) make up a month and **10 months** (instead of 12) make up a year. That leads to a year taking up **100 days** (instead of 365), making it more streamlined and allowing **aging** to be a factor. Time can increase through the following ways:

- Time increases by one (1) minute when the party **moves**
- Time increases by one (1) minute when a player makes a **combat action**
- Time increases by ten (10) minutes when party **moves on difficult terrain**
- Time increases by eight (8) hours when the party performs a **long rest**
- Time increases by a period when party makes a **full rest**
- Time increases by a period when party **travels** to another map

2.2. Lighting

There are various states of lighting in the world environments. Those environments can be either interior (interior) or exterior (etc. forest). Lighting can be modified either by *environment* (i.e. daylight) or *equipment/magic* (i.e. torch, spells).

Interior areas can provide the following lighting states:

- **None** – Usually encountered in interior areas, such as dungeons. Visibility is really low, allowing up to one **(1) visible square** before everything gets pitch black.

- **Normal** – Stronger lighting that *none*. An interior area can be lit for up **two (2) visible squares** & perhaps more but the rest remains pitch black.

Exterior areas can provide the following lighting states:

- **Day** – Very strong lighting.

- **Night** – Strong lighting.

2.3. Environment

The **environment** is usually associated through a **terrain / temperature** combination (desert, iced plains etc.) or can be associated with a **weather** (rain, fog etc.). Some of the **environments** can be considered **normal** and others **hard** to go through, either living or traveling through them. Simple intuition and logic makes an environment **hard / hostile**, which sets **additional rules**, based on context. The basic environments are:

- **Hard** – Desert, Ice
- **Normal** – Everything else

2.4. Movement

Moving in the world is very context-related i.e. on *dungeon crawlers* the movement could be done **by grid**, one at a time, while on open *3D games* there's typically *free movement*. However, there are some simple rules:

- For **every movement** the party makes, there is also a movement for all monsters, NPCs etc. A creature might prefer to not move on its turn but it always takes a chance to do that. A non-move is also considered a move.

- Monsters, NPCs have an **initial position** i.e. their starting position. They can move randomly or chasing you down i.e. monsters, but they can't move

further from their initial position after some distance. This keeps monsters, NPCs population in certain places. See below for more information.

- Movement is not allowed through objects considered as **obstacles**. These objects includes trees, monsters, walls etc. General rule is, the party can't move through obstacles, under normal situations.

- Movement is not allowed when the party is **engaged in a fight** i.e. there are monsters in neighbor squares.

- Movement on **harsh terrain** requires more time i.e. it takes more minutes (see **Time**). This can be affected by skills such as *Explore* (see **Skills**).

- Movement to **another area** is done by *traveling* (see **Traveling**). Traveling requires some time (see **Time**) & food to be completed, which is distance-based. For example, the party may travel to another neighbor area in one (1) day & consume one (1) food ration. If the party has no food left, the traveling can not be done.

- Monsters that are **far but still in range** (visible or not), they're not seeing you yet and will make random, patrolling moves around their *initial position*. In code that could mean an *80%* of your *draw distance*.

- Monsters that are **far from their initial position**, they stop following you and instead making moves that keeps them *in range* with their initial position.

- Monsters can **take one (1) up to four (4) squares** in each direction of the party; therefore, up to 16 monsters can surround the party.

2.5. Traveling

The world is divided into smaller **areas**. Each area is, usually, interconnected to a number of other areas. Traveling to an area takes **time** and (optionally) **gold**, which is context-based. The areas can be *traveled* by the party in a number of ways:

- The party can travel to the **next square** on their own, **using the roads**. The time spent is **one (1) minute** on **normal** environments or **two (10) minutes** on **hard** environments (see **Environment**). If **no resting** happens in a time period of **twenty four (24) hours**, the entire party is **exhausted**.

- The party can travel to a **neighbor** area on their own, **using the roads**. The time spent is **one (1) day** and **one (1) food** is consumed. In case the party doesn't have any **food reserve**, the entire party is **exhausted** after the travel.

- The party can travel to **non-neighbor** area through a **traveling service**. In this case, the time spent is **context-based**. To compute the time spent **count the areas** the party is traveling through and add **one (1) day** per area visited.
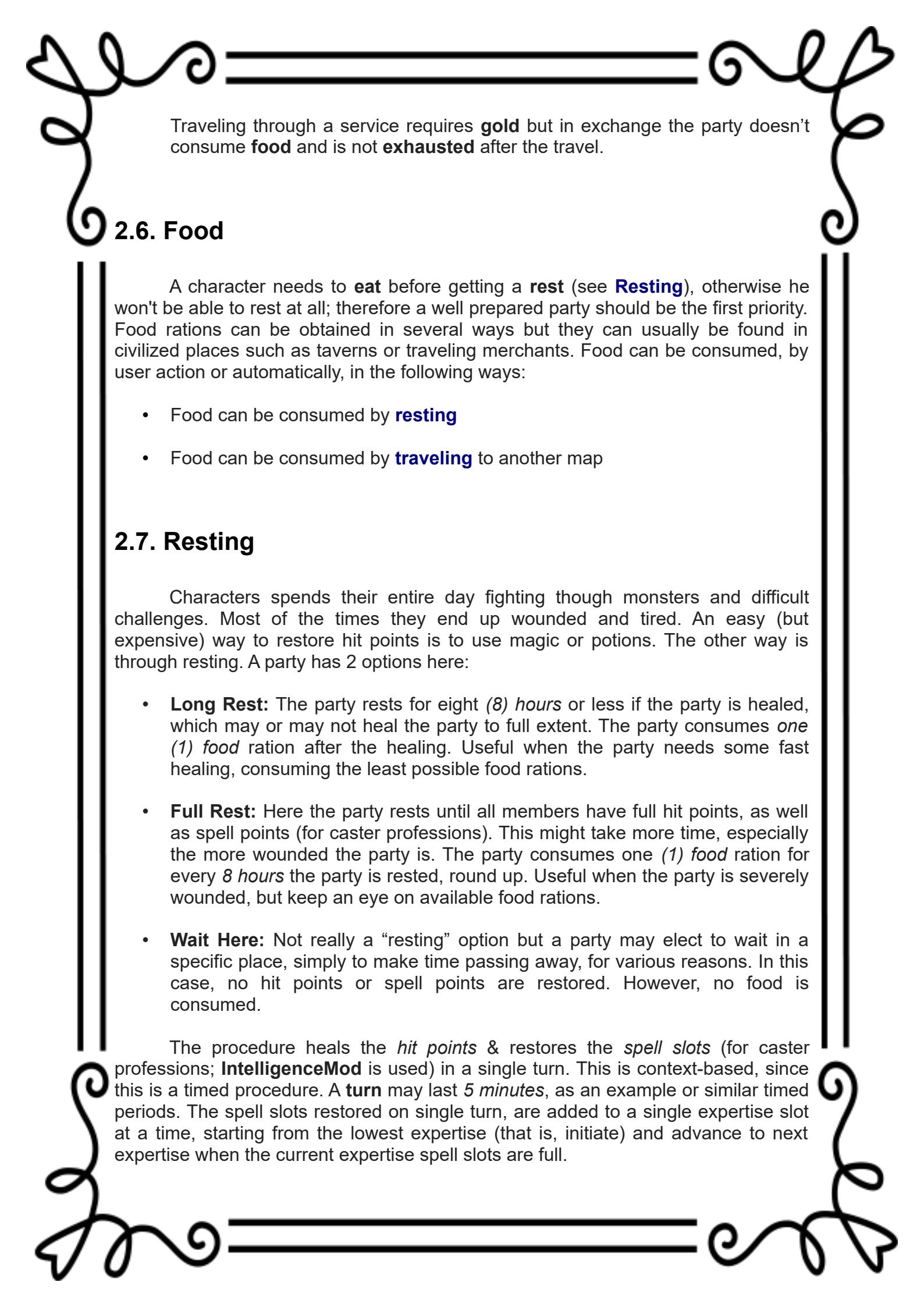
Traveling through a service requires **gold** but in exchange the party doesn't consume **food** and is not **exhausted** after the travel.

2.6. Food

A character needs to **eat** before getting a **rest** (see **Resting**), otherwise he won't be able to rest at all; therefore a well prepared party should be the first priority. Food rations can be obtained in several ways but they can usually be found in civilized places such as taverns or traveling merchants. Food can be consumed, by user action or automatically, in the following ways:

- Food can be consumed by **resting**

- Food can be consumed by **traveling** to another map

2.7. Resting

Characters spends their entire day fighting though monsters and difficult challenges. Most of the times they end up wounded and tired. An easy (but expensive) way to restore hit points is to use magic or potions. The other way is through resting. A party has 2 options here:

- **Long Rest:** The party rests for eight *(8) hours* or less if the party is healed, which may or may not heal the party to full extent. The party consumes *one (1) food* ration after the healing. Useful when the party needs some fast healing, consuming the least possible food rations.

- **Full Rest:** Here the party rests until all members have full hit points, as well as spell points (for caster professions). This might take more time, especially the more wounded the party is. The party consumes one *(1) food* ration for every *8 hours* the party is rested, round up. Useful when the party is severely wounded, but keep an eye on available food rations.

- **Wait Here:** Not really a "resting" option but a party may elect to wait in a specific place, simply to make time passing away, for various reasons. In this case, no hit points or spell points are restored. However, no food is consumed.

The procedure heals the *hit points* & restores the *spell slots* (for caster professions; **IntelligenceMod** is used) in a single turn. This is context-based, since this is a timed procedure. A **turn** may last *5 minutes*, as an example or similar timed periods. The spell slots restored on single turn, are added to a single expertise slot at a time, starting from the lowest expertise (that is, initiate) and advance to next expertise when the current expertise spell slots are full.

Restoring HP
The ability **ToughnessMod** dictates the amount of hitpoints restored. The formula is designed in a way to always provide at least *one hit point* per restoring turn, yet not restoring too much at highest levels:
NOTE: hit points are increasing at *a faster rate* than spell points:

```
if (ToughnessMod <= 2) { ToughnessMod = 2; }
int amount_hp = (ToughnessMod / 2);
```

Restoring SP
The ability **IntelligenceMod** dictates the amount of spellslots restored. The formula is designed in a way to always provide at least *one spell point* per restoring turn, yet not restoring too much at highest levels:
NOTE: spell points are increasing at *a slower rate* than hit points:

```
if (IntelligenceMod <= 8) { IntelligenceMod = 8; }
int amount_sp = (IntelligenceMod / 8);
```

Exhaustion
If the party is traveling a lot, *without resting* either in an inn or outside, eventually will get assigned the **exhausted condition**, which will lower some of their abilities. This condition can be healed by:

- consuming **potions**
- visiting a **temple**
- successful **resting** (not interrupted)

2.8. Currency

The **monetary system** in the Planes, wherever a currency could be used, is simple and straightforward; everything is traded through gold coins. The suffix for an amount of gold coins is simply a **g**, for example *350g* is a valid amount. However, this can lead to some problems if the amount is big enough for expensive objects i.e. selling a house could cost millions of gold. In this case there are two (2) possible solutions:

- **Format** the gold amount with commas i.e. *3420500g* becomes *3,420,500g*

- Use additional **suffixes** based on amount i.e. *150200g* becomes *150.2Kg*

Specifically:

Suffix	Name	In gold coins	Description
1Kg	1 Kilogold	1,000g	1 thousand gold coins
1Mg	1 Megagold	1,000,000g	1 million gold coins
1Tg	1 Teragold	1,000,000,000g	1 billion gold coins

3. Abilities

Capability is measured through seven (7) primary abilities, which are defining the magnitude of a skill for any entity, character, monster etc. These abilities are:

Name	Short	Description
Power	POW	The amount of force that muscles can exert against a target. It's used on **skill requirements**, **melee damage** and **bare hands damage**
Intelligence	INT	The ability to think logically & acquiring knowledge. It's used on **skill requirements** and **generating spells total**
Personality	PERS	The ability to verbally impose, persuade & cope with conversations. It's used on **skill requirements**
Toughness	TOU	The ability to exercise and develop the muscular system. It's used on **skill requirements** and calculating **hit points**
Technique	TECH	The ability of handling difficult or highly sensitive tasks, by hand. It's used on **skill requirements**, **ranged damage** and **protective armor**
Quickness	QUI	The ability of moving fast & accurately for a short time. It's used on **skill requirements** and **combat order**
Perception	PERC	The ability of sensing & coherently interpreting the environment. It's used on **skill requirements**

The above abilities can result to so called **static ability scores**. These numbers only provide a general representation of the ability's magnitude. Each static ability score can compute an **ability modifier value**, that is, the actual numbers applied to computations. Ability modifiers starts with negative values, indicating weakness on that ability and increasing as static abilities increase.

3.1. Relation to D&D attributes

D&D provides a number of attributes like Strength, Intelligence etc. A close interpretation of D&D attributes and ORS abilities is shown on the following table:

ORS ability	D&D attribute
Power The amount of force that muscles can exert against a target	**Strength** Measuring physical power and carrying capacity
Intelligence The ability to logically think & acquiring knowledge	**Intelligence** Measuring deductive reasoning, knowledge, memory, logic and rationality
Personality The ability to verbally impose, persuade & cope with conversations	**Charisma** Measuring force of personality, persuasiveness, leadership and successful planning
Toughness The ability to exercise and develop the muscular system	**Constitution** Measuring endurance, stamina and good health

Technique	Dexterity
The ability of handling difficult or highly sensitive tasks, by hand	Measuring agility, balance, coordination and reflexes
Quickness	**Dexterity**
The ability of moving fast & accurately for a short time	Measuring agility, balance, coordination and reflexes
Perception	**Wisdom**
The ability of sensing & coherently interpreting the environment	Measuring self-awareness, common sense, restraint, perception and insight

An easy way to convert D&D attribute values to ORS ability values is to simply multiply each D&D attribute value with 1.5, round up. This is only based to the fact that ORS allows larger ability values. For example:

D&D goblin attributes: STR (8), DEX (14), CON (10), INT (10), WIS (8), CHA (8)
ORS goblin abilities: POW (12), INT (15), PERS (12), TOU (15), TECH (21), QUI (21), PERC (12)

3.2. Ability modifiers

Static ability values by themselves are only used as a starting reference but they've to be converted before they be used in game mechanics, providing *bonuses & penalties* to a particular ability. A *static ability* score of **5** is not very useful to game mechanics, however it can be easily understood by humans as it represents steady improvement. Wherever an ability is referenced by its normal name i.e. **Intelligence**, it indicates its static ability score or the ability in general. When the special word **Mod** is applied as *suffix* i.e. **IntelligenceMod**, it indicates the ability modifier of that particular ability.

To compute the *ability modifier* from a *static ability* value, one *subtracts* **20** points from the *static ability* value, then *divide* by **2**, then *round down* the number to get the *ability modifier* value. If instead one prefers a limited table for the first **40** static ability values, the chapter **Initial computed values** can be used for quick reference. However, in a developed *CRPG*, the developer has to implement a computation mechanism.

3.3. Initial computed values

Static ability for 0...23	Ability modifier	Static ability for 24...41	Ability modifier
5-6	-7	24-25	+2
7-8	-6	26-27	+3
9-10	-5	28-29	+4
11-12	-4	30-31	+5
13-14	-3	32-33	+6
15-16	-2	34-35	+7

17-18	-1	**36-37**	+8
19-21	+0	**38-39**	+9
22-23	+1	**40-41**	+10

** static ability values can't go below 5 (see **Character creation**)*

3.4. Generate static ability values

A character has to generate seven (7) values to be used as the starting (static) ability values. All (static) ability values are starting at **15** points. You are given **20** ability points at the start to distribute them freely to all abilities. Remember that you can't reduce a static ability value below **5**.

4. Races

Characters are sorted into races, which greatly shapes their appearance, code of law, spoken languages, lifespan and other. Those races are:

Name	Lifespan	Adulthood	Languages	Ability Bonus
Human	~100 years	18 years	English*	Intelligence +4
	Humans are the more versatile of the races. Open minded, ambitious and adaptable, humans can be found everywhere and their kingdoms are many and usually long standing. Usually they're not interested in rivalries and traditions, except on rare occasions.			
Dwarf	~400 years	60 years	English*, Dwarvish	Toughness +4
	Dwarves are sturdy, hard-working beings, living usually in clans, high on mountains. Most of their time is consumed into working the iron and stone, and so most of them end up as skilled blacksmiths or veteran fighters. They do follow traditions, order and their rules with passion.			

* English is a language that every race can speak; its not considered a skill

4.1. Languages

Characters speaks their own languages based primarily on their race and secondly by choice for a reason i.e. trading, exploring or living in another place. The languages are:

Name	Spoken by	Description
English*	Human, Dwarf	The most common and oldest language of the Nature plane
Dwarvish	Dwarf	The native language of the Dwarves

English is a language that every race can speak; its not considered a skill

4.2. Naming

Most races have vastly different culture and ancestry, so it's only logical they have their own naming conventions. One is free however to choose whatever name he thinks about. The following table present a recommended name list:

Race		Names
Human	Male	Alphonsus, Arminel, Arthurus, Athelard, Azorius, Beroldus, Bertrand, Christofur, Emericus, Forthwind, Jacques, Jarin, Jeronim, Jesper, Galeran, Gerontius, Geffrey, Giffard, Gualterius, Hancock, Huggett, Humphrey, Maynard, Pawelinus, Percevale, Rainald, Reginald, Ricaud, Robertus, Rolph, Salemon, Sansonnet, Tamas, Searl, Warrenus, Wiscar
	Female	Adeliza, Aelesia, Alicia, Alyson, Anne, Arabella, Ariana, Ariel, Beatrice, Belle, Brigitta, Christina, Edelina, Elianora, Elisabetha, Elsa, Gisella, Gueanor, Hegelina, Isabella, Ivetta, Jacobina, Jaquelinne, Jeanette, Jennet, Joan, Joanna, Linette, Loreena, Magdalen, Mariana, Mariel, Rochilda, Rosaline, Rose, Sabeline, Sara, Selova, Seraphina, Simmonete
Dwarf	Male	Arathas, Baridouk, Betrac, Bhaznith, Bradal, Braddak, Dhuker, Folguk, Gimmod, Gizzog, Gladrag, Grolgron, Herdock, Jadrath, Jaggaed,Jolmaes, Jorreth, Kifrug, Kovrid, Krazzud, Kromir, Kromrok, Morgrud, Skognam, Snargat, Thafrim, Thaldrim, Thastut, Thobroum, Thrazzean, Throlgrik, Thughael, Thutreak, Umirhead, Urbak, Welgrid, Wegrus, Yurgen
	Female	Astelynn, Bezolda, Bozeline, Dakilsia, Danihilda, Daznelin, Devarra, Doraselsia, Dossomora, Dossorra, Erighelda, Fimwalda, Grozibella, Grundina, Herobella, Hilda, Homolsia, Jorbarika, Jossealynn, Jowathra, Kangrelda, Kherrana, Masgribela, Muzolynn, Notihilda, Nussira, Nuvealda, Olgebella, Sirfalsia, Thindroula, Thodwirra, Thubulda, Thuggulsia

5. Professions

Characters are also sorted into professions, which is simply their job, what they do. Some fight their way, other are traders and some unravel the mysteries of magic (more commonly, they're *casters*). In addition, they get different amounts of initial wealth when they start. These professions are:

Name	Caster	Initial Wealth	Description
Knight	No	120g	**Knights** offer their muscles and weapons for a payday. They can be mercenaries for hire, soldiers or guards in a King's

			court. Their numbers are always in need so while they're not living a rich life, they still manage pretty well.
Cleric	Yes	60g	**Clerics** are the natural defensive casters of the Planes. They draw energy by praying to their deities and they can be found in holy places such as Abbeys. They are usually poor and don't have much in wealth.
Wizard	Yes	180g	**Wizards** are the natural offensive casters of the Planes. They usually found in some laboratory studying spells or old enhanced items. Because they're dealing with expensive jewelry all the time, they usually live a rich life.

5.1. Hit points

The hit points is a number that defines the maximum life points i.e. how much damage one can take before getting knockout or worse. The **Profession** defines primarily a base for the hit points calculation while **Race** may or may not provide an additional bonus. The following table shows the starting hit points for every profession:

Profession	Base HP	HP / Level
Knight	40 + (5 * ToughnessMod)	+6
Cleric	28 + (3 * ToughnessMod)	+3
Wizard	28 + (3 * ToughnessMod)	+3

5.2. Spells points

Opposite to hit points, spells doesn't have *points*; instead a fixed number of spells slots (i.e. times to cast a spell) are provided. Each *casting profession* uses a specific ability as *casting ability*. This ability **IntelligenceMod** defines the total number of spells a caster can use.

5.2.1. Expertise

The spells, like the weapons, requires some kind of experience or *expertise* to be used appropriately; the main logic is:

- the ability **IntelligenceMod** defines the total number of spells
- the total number of spells are allocated per **expertise** level
- the lower the expertise, the **fewer** & **weakened** spells a caster can use
- the higher the expertise, the **more** & **stronger** spells a caster can use

The base *expertise* levels, which can be used for everything that requires an expertise level i.e. *weapons*, are the following:

Initiate / Apprentice / Adept / Master / Grandmaster

Since the total points are divided per expertise level, a spell slot list for a player may look like *3 / 1 / 0 / 0 / 0.* This can be broken down to this:

- 3 *Initiate* spells
- 1 *Apprentice* spells
- 0 *Adept* spells
- 0 *Master* spells
- 0 *Grandmaster* spells

Obviously, a caster can only cast a spell of given expertise if he's trained in the required skill (see **Skills**). In addition, when there are no available spells to cast on an expertise, the caster requires some *resting* (see **Resting**) to restore his spell slots.

5.2.2. Generate spell totals

Initially, the spell slots are shared in the following allocation, provided the character belongs to a **caster** profession, such as a *Wizard*; if the profession is **not a caster**, the total number of spells will be zero **(0)**, as well their spell allocation. Each *casting profession* uses **Intelligence** as *casting ability*. So, initially (a **Wizard** with **Intelligence** of **15**), casters are provided with the following **spell allocation**:

3 / 1 / 0 / 0 / 0

However, the value of **IntelligenceMod** (see **Abilities**) can be used to determine the final spell allocation to the different expertise levels. The following algorithm is used to *compute / allocate* the spells across all *expertises* for a given *intelligence*, which is presented below in the *C++ programming language* (but can be converted easily to any language):

```cpp
array get_base_spellslots(int32_t int_cur) {
    ...
    int32_t int_mod = BASE::ability_get_bonus( int_cur );
    ...
    spellslots[0] = (2 + (int_mod * (100 - (int_mod * 0.75)) / 100) + 1);
    float factor = 0.50;
    for(int32_t x=1;x<5;x++) {
        spellslots[x] = (int32_t)std::floor(spellslots[x - 1] * factor);
        if (spellslots[x] < 0) { spellslots[x] = 0; }
        factor += 0.10;
    }
    return spellslots;
}
```

If you instead prefer the spells slots for the first **40** static ability values of **Intelligence**, the chapter **Initial computed values** can be used for quick reference. However, in a developed *CRPG*, the developer has to implement a computation mechanism:

5.2.3. Initial computed values

Static ability for 0...23	Spell slots	Static ability for 24...41	Spells slots
5-6	3 / 1 / 0 / 0 / 0	24-25	4 / 2 / 1 / 0 / 0
7-8	3 / 1 / 0 / 0 / 0	26-27	5 / 2 / 1 / 0 / 0
9-10	3 / 1 / 0 / 0 / 0	28-29	6 / 3 / 1 / 0 / 0
11-12	3 / 1 / 0 / 0 / 0	30-31	7 / 3 / 1 / 0 / 0
13-14	3 / 1 / 0 / 0 / 0	32-33	8 / 4 / 2 / 1 / 0
15-16	3 / 1 / 0 / 0 / 0	34-35	9 / 4 / 2 / 1 / 0
17-18	3 / 1 / 0 / 0 / 0	36-37	10 / 5 / 3 / 2 / 1
19-21	3 / 1 / 0 / 0 / 0	38-39	11 / 5 / 3 / 2 / 1
22-23	3 / 1 / 0 / 0 / 0	40-41	12 / 6 / 3 / 2 / 1

5.3. Strong / weak Abilities

Professions have two (2) Abilities that are *best suited* for those characters. Those Abilities provide an *additional bonus* to the initial **Ability values** (static) when a character is created, specifically *seven (7) points*. There's also an Ability that is *unsuited* for that Profession, which causes an *additional penalty* to the initial Ability value for that Ability by the same amount. Keep in mind that the aforementioned bonuses / penalties are only applied (once) on **Character creation** procedure. The following table shows those abilities for each Profession:

Profession	Strong abilities	Weak abilities
Knight	Power, Toughness	Intelligence
Cleric	Intelligence, Personality	Power
Wizard	Intelligence, Perception	Power

6. Character progression

An adventurer's life is full of dangers, exploration and killing, which in turn provides the adventurer with experience. This experience can then be used to reach *milestones* for a character progression, more commonly named **levels** in the RPG

world. Levels are the natural progression mechanism in the system. To advance in a level, one needs to reach the required *experience points* for that lever.

However, the way characters gains experience vary greatly in this dynamic world. The experience is always shared between *live / active members*. **Dead** or **paralyzed** characters wont get a share of the experience gained. This system uses a (somewhat) complex algorithm to compute the experience required for a given level, which is presented below in the *C++ programming language* (but can be converted easily to any language):

```cpp
uint32_t experience_required_for_level(double level) {
    double exp = 0;
    for(double x = 1; x<level; x++) {
        exp += std::floor(x + (300 + (level * 100)) * std::pow(2, (x / 10)));
    }
    exp = (std::round(std::floor(exp) / 10) * 10);
    return (uint32_t)exp;
}
```

The above mechanism produces reasonable, yet *increasingly difficult* to reach, levels. At the 1st level you will advance pretty quickly by killing some monsters, but at the 2nd level the advancement will come harder and so on for every level. If instead prefer a limited table for the first **20** levels & experience required, the chapter **Initial computed levels & experience** can be used for quick reference. However, in a developed *CRPG*, the developer has to implement a computation mechanism.

6.1. Initial computed levels & experience

Level 1...10	Experience Required	Level 11...20	Experience Required
1	0	11	20960
2	540	12	25680
3	1340	13	31070
4	2420	14	37210
5	3820	15	44160
6	5580	16	51990
7	7720	17	60800
8	10280	18	70670
9	13310	19	81710
10	16850	20	94020

6.2. Advancing levels by quests

Level advancement can be done in various ways and not just by killing
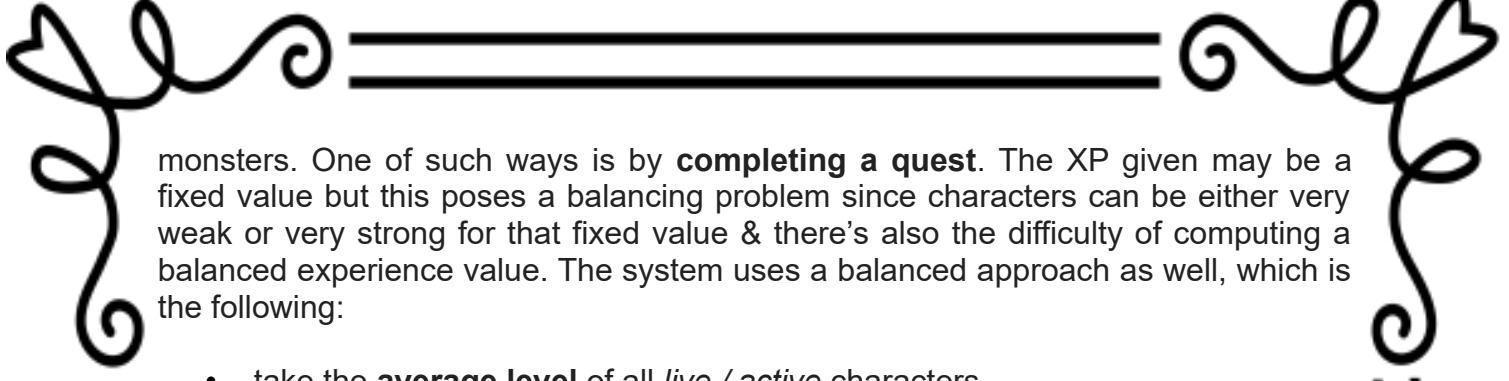
monsters. One of such ways is by **completing a quest**. The XP given may be a fixed value but this poses a balancing problem since characters can be either very weak or very strong for that fixed value & there's also the difficulty of computing a balanced experience value. The system uses a balanced approach as well, which is the following:

- take the **average level** of all *live / active* characters
- take the experience needed for **(average level + 1)**
- **divide** the experience needed by **(average level + 1)**
- **share** the final experience amount to all *live / active* characters.

Thus, the experience shared will *be always balanced*, based on average party level. Some examples:

- Avg **Level 3**, next needs **2420 XP** → 2420 / 4 = 605, xp each **151 XP**.
- Avg **Level 19**, next needs **94020 XP** → 94020 / 20 = 4701, xp each **1175 XP**.

6.3. Gold rewards by quests

Gold rewards can be done in various, for example by killing monsters or chests. Another way to get gold is by **completing a quest**. The gold given may be a fixed value but this poses a balancing problem since characters can be either very weak or very strong for that fixed value & there's also the difficulty of computing a balanced gold amount. The system uses a balanced approach as well, which is the following:

- take the **average level** of all *live / active* characters
- convert the average level to a **tier** (each tier consists of **25 character levels**)
- set a **hard amount** for each *live / active* character, per tier:
  Tier 0 = 50g
  Tier 1 = 125g
  Tier 2 = 250g
  Tier 3 = 625g
- **add** this hard gold amount to each *alive / active* character

Thus, the gold shared will *be always balanced*, based on average party level. Some examples:

- Avg **Level 3** with **3** *alive / active* characters → Tier = **0**, gold = **150g**
- Avg **Level 45** with **4** *alive / active* characters → Tier = **1**, gold = **500g**
- Avg **Level 69** with **3** *alive / active* characters → Tier = **2**, gold = **750g**

7. Skills
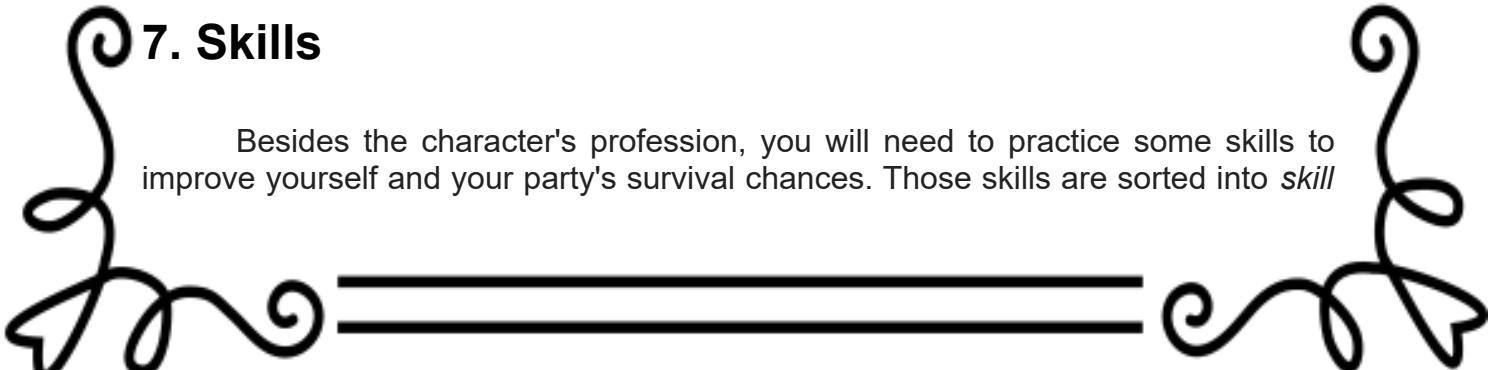
Besides the character's profession, you will need to practice some skills to improve yourself and your party's survival chances. Those skills are sorted into *skill*
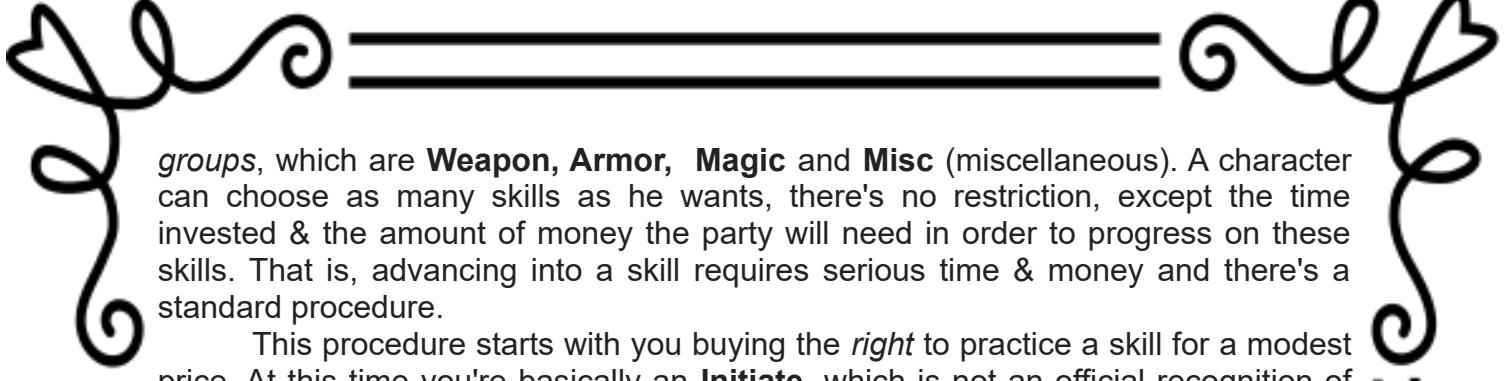
groups, which are **Weapon, Armor, Magic** and **Misc** (miscellaneous). A character can choose as many skills as he wants, there's no restriction, except the time invested & the amount of money the party will need in order to progress on these skills. That is, advancing into a skill requires serious time & money and there's a standard procedure.

This procedure starts with you buying the *right* to practice a skill for a modest price. At this time you're basically an **Initiate**, which is not an official recognition of your skill level and therefore you won't be referred as such; it just means you have the skill and can train with it. You then need to seek and find the wandering Masters to further progress on a skill.

This procedure is called *qualification* and must be done for every expertise you wish to reach in the skill. Each Master have some requirements before promote you to the next level of expertise. Also note that some skills require *additional skills* to be trained first to a specific expertise. These are (along with some examples):

- provide a *fixed amount of gold (*i.e. 100g*)*
- have the required *base ability* score (i.e. **Technique** with ability score *20+*)
- have the required *skill points* (i.e. **Small Blade** with skill points *5+*)
- have another required *skill & expertise* (i.e. **Long Blade** on *Adept* expertise)

You can't expect to advance to a **Grandmaster** status at *1ˢᵗ* level of your skill just because you're rich, nor without months of intense training. In the end of process, the character is advanced to the next expertise level.

Skill Masters are scattered throughout the land but commonly you will find them in civilized areas, villages and cities. The furthest you travel, the more knowledgeable Masters you will find, so in order to perfect a skill you need to travel to the furthest reaches of the world. A common workaround is to associate the **expertise** of Masters into *Tiers* (0,1,2,3), depending on the **place / distance** they're *located*. A **Tier 0** location means the *starting area* and nearby where a **Tier 3** location means a *far away* area you can travel to. For example:

- **Tier 0** = Initiate, Apprentice
  Tier 1 = Adept
  Tier 2 = Master
  Tier 3 = Grandmaster

The following table lists the expertise levels, with all the advancing requirements and process overall:

Name	Description
*Initiate	You just bought a piece of paper, allowing you to practice a skill. Yawn. **Initial requirement:** Base ability 20, 100g cost**, profession eligibility **What to do next:** Seek out a trainer to start your training as Apprentice.
Apprentice	An Apprentice is learning a trade from a skilled master, having agreed to work for a fixed period at low wages. **Initial requirement:** Base ability 25, Skill level 5, 500g cost **What to do next:** Seek out a trainer to start your training as an Adept.
Adept	An Adept is a skilled apprentice who has successfully completed an official

apprenticeship qualification. To further continue, the Adept needs to find a Grandmaster of his skill to start his Master qualification.
Initial requirement: Base ability 30, Skill level 10, 2000g cost
What to do next: Seek out a trainer to start your training as a Master.

Master	A Master is a seasoned Adept that shown great proficiency in his skill. He is now able to start his own business to further advance his skill to Grandmaster status. **Initial requirement:** Base ability 35, Skill level 15, 5000g cost **What to do next:** Seek out Guild headquarters to get assigned a quest.
Grandmaster	A Grandmaster is a veteran master that achieved the highest level in his skillmanship. **Initial requirement:** Base ability 40, Skill level 20, 10000g cost, assigned quest **What to do next:** Nothing, you've reached the maximum potential of your skill

* An initiate in a skill is not referenced as such
*** Prices can be further modified through **Persuasion** skill.*

7.1. Relation to D&D skills

D&D provides a number of skills, associated with an attribute. The D&D attributes relates to skills in the form of applied *restrictions*, that is, a character can't acquire / use a skill if he doesn't have the necessary D&D attribute score for the associated D&D attribute. The exact same mechanism applies to ORS as well. Furthermore, some events require some skill check:

- In **D&D**, challenges provide a *Difficulty Class* (DC) to be checked against a (related) skill score, which describes the difficulty of the challenge.

- In **ORS**, challenges require a specific *Expertise* to be checked against a (related) skill expertise, which describes the difficulty of the challenge.

In both cases, if the check passes, the challenge is overcome. The character with the highest expertise with said skill is always used. Character has to be alive and active to be considered for skill checks. Those skills belong to the *Misc* group of skills i.e. *Lore* or *Dwarvish* (language) are such skills. A close interpretation of D&D DC and ORS expertise checks is shown on the following table:

ORS Expertise	D&D Difficulty Class (DC)	ORS Expertise Bonuses	ORS Result to Beat
Initiate	Very Easy (DC 0-5)	+0	>= 4
Apprentice	Easy (DC 6-10)	+2	>= 8
Adept	Medium (DC 11-15)	+4	>= 12
Master	Hard (DC 16-20)	+6	>= 15
Grandmaster	Very Hard (DC 21-25)	+8	>= 18

The *DC to ORS Expertise Bonuses* column is used to provided static bonuses to every challenge check, mapped to an appropriate ORS expertise.

Some examples of challenge checks between D&D and ORS:

D&D DC *12* on a related X skill → **ORS** *Adept* expertise on a related X skill
D&D DC *19* on a related X skill → **ORS** *Master* expertise on related X skill

That is, a **D&D** DC 12 challenge is mapped to a **ORS** Adept expertise challenge

7.1.1. Passive skill checks

An example of an ORS passive skill check with a party of four (4) characters.
ORS challenge requires a check on **Lore** skill i.e. *reading hieroglyphs from a wall* (expertise required: **Adept**)

* *Merlin* (Has **Lore** expertise at **Master** level)
* *Amon* (Has **Lore** expertise at **Grandmaster** Level; Paralyzed)
* *Selina* (Has no **Lore** skill)
* *Percival* (Has **Lore** expertise at **Initiate** level)

The ORS chooses the highest expertise among all *alive* (i.e. not dead) & *active* (i.e. not paralyzed, maddened etc.). Thus, the higher expertise of the party is that of **Merlin** (Master). We check his expertise against the expertise the challenge requires, that is, **Master** vs **Adept**; that is, the check is succeeded and the party overcomes the challenge.

7.1.2. Active skill checks

An example of an ORS active skill check with a party of four (4) characters.
An **ORS** challenge requires a check on **Fitness** skill i.e. *climbing a dangerous cliff* (expertise required: **Master**)

* *Aragorn* (Has **Fitness** expertise at **Apprentice** level)
* *Thoth-Amon* (Has no **Fitness** skill)
* *Autolycus* (Has no **Fitness** skill)
* *Amidala* (Has no **Fitness**; maddened)

The ORS chooses the highest expertise among all *alive* (i.e. no dead) & *active* (i.e. no paralyzed, maddened etc.). Thus, the higher expertise of the party is that of **Aragorn** (Apprentice). Now make the active challenge check with this procedure:

* calculate a random number between **1-20**

- add the expertise bonus, which for **Apprentice** it is **+2**
- check the **final** result vs the **ORS result to beat** column for expertise (**>=15**)

Actual examples below from the procedure above, using various skill expertises against various expertise challenges (X vs Y):

- **Apprentice** vs **Master**; roll **8**; add **+2** bonus (**=10**); failure (**>= 15**)
- **Apprentice** vs **Master**; roll **14**; add **+2** bonus (**=16**); success (**>= 15**)
- **Initiate** vs **Master**; roll **8**; add **+0** bonus (**=8**); failure (**>= 15**)
- **Initiate** vs **Master**; roll **17**; add **+0** bonus (**=17**); success (**>= 15**)
- **Initiate** vs **Grandmaster**; roll **20**; add **+0** bonus (**=20**); success (**>= 18**)
- **Grandmaster** vs **Apprentice**; roll **3**; add **+8** bonus (**=11**); success (**>= 8**)
- **Grandmaster** vs **Initiate**; roll **1**; add **+8** bonus (**=9**); success (**>= 4**)

NOTE: one thing to keep from these mechanics is that low expertise checks can still succeed against high expertise challenges and also high expertise checks can still fail against low expertise challenges.

7.2. Mapping ORS skills to D&D skills

ORS provides fewer skills than D&D does but they do provide more context in general. A rough mapping of ORS skills to D&D skills follows:

ORS skill	D&D equivalent skill
Fitness (Power)	**Athletics** (Str), **Acrobatics** (Dex)
Lore (Intelligence)	**Arcana** (Int), **History** (Int), **Religion** (Int)
Persuasion (Personality)	**Deception** (Cha), **Persuasion** (Cha), **Intimidation** (Cha)
Survival (Toughness)	**Animal Handling** (Wis), **Survival** (Wis), **Medicine** (Wis), **Nature** (Int)
Quickhand (Technique)	**Sleight of Hand** (Dex), **Performance** (Cha)
Stealth (Quickness)	**Stealth** (Dex)
Awareness (Perception)	**Perception** (Wis), **Insight** (Wis), **Investigation** (Int)

7.3. Benefits and restrictions

A high expertise should provide some benefits in opposite to lower expertise. This is handled differently for each skills group (Weapons, Magic etc.). The following table shows the benefits / restrictions for each expertise for each skill group:

Skill group	Benefits / Restrictions	
	Expertise	Description
Weapon	Initiate	Can use weapons of +0 (base items)

	Apprentice	Can use weapons of +0 (base / magic items)	
	Adept	Can use weapons of +1	
	Master	Can use weapons of +2	
	Grandmaster	Can use weapons of +3	
Armor	Initiate	Can use armors of +0 (base items)	
	Apprentice	Can use armors of +0 (base / magic items)	
	Adept	Can use armors of +1	
	Master	Can use armors of +2	
	Grandmaster	Can use armors of +3	
Magic	Initiate	Can use Initiate spell scrolls only Can use Initiate spell books only	
	Apprentice	Can use Apprentice spell scrolls as well Can use Apprentice spell books as well	
	Adept	Can use Adept spell scrolls as well Can use Adept spell books as well	
	Master	Can use Master spell scrolls as well Can use Master spell books as well	
	Grandmaster	Can use Grandmaster spell scrolls as well Can use Grandmaster spell books as well	
Misc	Initiate	Initiate expertise skill check	
	Apprentice	Apprentice expertise skill check	
	Adept	Adept expertise skill check	
	Master	Master expertise skill check	
	Grandmaster	Grandmaster expertise skill check	

7.4. List

Everything you can wear, use or fight with is considered a skill on its own and making the best out of it will determine your fate. The following table shows the base skills, the expertise level that each profession may attain to and all the fine details that fully characterizes a skill.

Skills that have a **-** rather an expertise level are not allowed for this Profession. Some skills require another skill to be learned first. For example *Chained armor* can't be used unless *Leather armor* is learned to *Adept* expertise. This requirement is only used when you are trying to learn a skill. Finally, some skills, especially of the *Misc* group, may have different rules for learning. For example, languages are either learned or not; only one trainer is required to advance you to the *Grandmaster* status. The list of skills follows:

Name	Profession* K C W	Requires**	Group***	Advance****	Description

	N	L	I				
Short blade	A	G	G	Technique 20	We	A	**Short Blade** allows the use of small blades, such as Daggers and Short swords. *Expertise* (see **Benefits and restrictions**) *Weapons* (see **Weapons**)
Long blade	G	-	-	Power 20 Short blade	We	A	**Long Blade** allows the use of long blades, such as Falchions, Scimitars and Long swords. *Expertise* (see **Benefits and restrictions**) *Weapons* (see **Weapons**)
Bow	G	-	-	Technique 20	We	A	**Bow** allows the use of ranged weapons such as Bows and Crossbows. *Expertise* (see **Benefits and restrictions**) *Weapons* (see **Weapons**) *Long reach* (allows attacking from back rank)
Bludgeon	G	A	-	Power 20	We	A	**Bludgeon** allows the use of weapons with thick poles and heavy ends, causing a lot of impact, such as Maces, Clubs and Flails. *Expertise* (see **Benefits and restrictions**) *Weapons* (see **Weapons**)
Short axe	G	A	-	Technique 20	We	A	**Short axe** allows the use of short axes, such as Broad axes and Hand axes. *Expertise* (see **Benefits and restrictions**) *Weapons* (see **Weapons**)
Long axe	G	-	-	Power 20 Short axe	We	A	**Long axe** allows the use of long axes, such as Battle axes and War axes. *Expertise* (see **Benefits and restrictions**) *Weapons* (see **Weapons**)
Poleblade	G	-	-	Power 20 Pole	We	A	**Poleblade** allows the use of weapons with long sticks and edged ends, such as Bardiches, Halberds and Spears. *Expertise* (see **Benefits and restrictions**) *Weapons* (see **Weapon**) *Long reach* (allows attacking from back rank)
Pole	A	G	G	Technique 20	We	A	**Pole** allows the use of weapons with long sticks, such as Quarterstaffs. *Expertise* (see **Benefits and restrictions**) *Weapon* (see **Weapon**)
Shield	G	A	-	Power 20	Ar	A	**Shield** allows the use of small protective plates of variant material, such as Shields. *Expertise* (see **Benefits and restrictions**) *Shield* (see **Shield**)
Leather armor	G	A	A	Technique 20	Ar	A	**Leather armor** allows the use of protective leather, such as Leather Armor. *Expertise* (see **Benefits and restrictions**) *Armor* (see **Armor**)
Chained armor	G	-	-	Power 20 Leather armor	Ar	A	**Chained armor** allows the use of protective metal, made of interlocked metal rings, such as Chain Mail.

Name							Description
							Expertise (see **Benefits and restrictions**) *Armor* (see **Armor**)
Scaled armor	G	-	-	Technique 20 Leather armor	Ar	A	**Scaled armor** allows the use of protective scales, made of leather and overlapping metal scales, such as Scale Mail and Ring Mail. *Expertise* (see **Benefits and restrictions**) *Armor* (see **Armor**)
Plated armor	G	-	-	Power 20 Chained armor	Ar	A	**Plated armor** allows the use of full protective plate, made of thick metal and interlocking metal plates, such as Plate Mail. *Expertise* (see **Benefits and restrictions**) *Armor* (see **Armor**)
Fire magic	-	A	G	Intelligence 20	Ma	A	**Fire magic** allows the use of magic spells that are based on fire element, such as Firebolt. *Expertise* (see **Benefits and restrictions**) *Spell* (see **Spell**) *Long reach* (allows casting from back rank)
Air magic	-	A	G	Intelligence 20	Ma	A	**Air magic** allows the use of magic spells that are based on air element, such as Freezing Spikes. *Expertise* (see **Benefits and restrictions**) *Spell* (see **Spell**) *Long reach* (allows casting from back rank)
Water magic	-	A	G	Intelligence 20	Ma	A	**Water magic** allows the use of magic spells that are based on water element, such as Frosty Spear. *Expertise* (see **Benefits and restrictions**) *Spell* (see **Spell**) *Long reach* (allows casting from back rank)
Earth magic	-	A	G	Intelligence 20	Ma	A	**Earth magic** allows the use of magic spells that are based on earth element, such as Poison Roots. *Expertise* (see **Benefits and restrictions**) *Spell* (see **Spell**) *Long reach* (allows casting from back rank)
Energy magic	-	G	G	Intelligence 20	Ma	A	**Energy magic** allows the use of magic spells that are based on energy element, such as Light. *Expertise* (see **Benefits and restrictions**) *Spell* (see **Spell**) *Long reach* (allows casting from back rank)
Mental magic	-	G	A	Intelligence 20	Ma	A	**Mental magic** allows the use of magic spells that are based on character's mental power, such as Break. *Expertise* (see **Benefits and restrictions**) *Spell* (see **Spell**) *Long reach* (allows casting from back rank)
Soul magic	-	G	A	Intelligence 20	Ma	A	**Soul magic** allows the use of magic spells that are based on character's soul energy, such as Cure. *Expertise* (see **Benefits and restrictions**) *Spell* (see **Spell**)

							Long reach (allows casting from back rank)
Fitness	G	A	A	Power 20	Mi	A	**Fitness** helps overcoming environmental challenges, such as climbing, jumping and swimming. ***Expertise*** (see **Benefits and restrictions**)
Unarmed Combat	G	A	A	Power 20	Mi	A	**Unarmed Combat** hones your fighting prowess with bare fists, kicks, and head-butts. Use your body as a deadly weapon against foes in close combat. ***Damage*** (multiplies damage when attacking with **bare fists,** with increments of **0.25**, starting with **Initiate:** 1.5 and ending with **Grandmaster:** 2.5)
Dwarvish	G	G	G	Intelligence 20	Mi	B	**Dwarvish** allows the use of dwarvish language, such as reading and communicating with people. ***Expertise*** (see **Benefits and restrictions**)
Lore	A	G	G	Intelligence 20	Mi	A	**Lore** deals with ancient knowledge, such as religion, mythology, ancient history and objects. ***Expertise*** (see **Benefits and restrictions**)
Persuasion	G	G	G	Personality 20	Mi	A	**Persuasion** deals with manipulation of the will of others, such as persuading, intimidating and influencing others. ***Expertise*** (see **Benefits and restrictions**)
Survival	G	A	A	Toughness 20	Mi	A	**Survival** deals with the dangers of the wild, such as avoiding fights with animals, taming wild beasts and following tracks. ***Expertise*** (see **Benefits and restrictions**)
Explore	A	A	A	Toughness 20	Mi	A	**Explore** speeds up party travel, cutting the time it takes to travel between areas. ***Expertise*** (see **Benefits and restrictions**) ***Square travelling time*** (-2 minutes / exp.) ***Training*** (performed on non-explored squares and only 50% of time)
Quickhand	A	G	G	Technique 20	Mi	A	**Quickhand** deals with actions that require fast hands, such as quick hand reflexes and pick pocketing. ***Expertise*** (see **Benefits and restrictions**)
Stealth	G	G	G	Quickness 20	Mi	A	**Stealth** deals with the art of moving unnoticed in environments, such as concealing from enemies and guards. ***Expertise*** (see **Benefits and restrictions**)
Awareness	A	G	G	Perception 20	Mi	A	**Awareness** deals with a generic sense of the environment, such as identifying sounds, detecting signs and general observeness. ***Expertise*** (see **Benefits and restrictions**)

* Maximum expertise (on Profession) is defined as: **A** = Adept, **G** = Grandmaster
  If Profession expertise gives **-** it means this skill is not allowed for this Profession
** If a skill requires another skill, that skill has to be taught on **Adept** level first
*** Group is sorted into: **We** = Weapon, **Ar** = Armor, **Ma** = Magic and **Mi** = Misc
**** The procedure followed to advance the skill to Grandmaster status, they are:
  A = Advance from Initiate to Grandmaster; Multiple trainers
  B = Advance from Initiate to Grandmaster; One trainer

7.5. Character progression in skills

Skills need to be trained by frequent use for the character to improve their use & efficiency. Characters gets **experience** in skills when they use them (mostly), the same way their **character level** progresses. A skill consists of:

- the **level**
- the **experience**
- the **expertise**

Initially, an acquired skill is set to level **1**, experience at **0** and expertise of **Initiate**. Each time a character **uses** an acquired skill through an *item* or *action*, the skill experience is advanced by **one** (1) experience point, with some **exceptions** (see below). Each skill belongs to a specific **group**, indicating their use method to gain experience. Those skill groups are:

- **Weapon** – Involves skills such as *Short Blade, Long Blade, Pole* etc.
  Experience comes by *using weapons in a battle*.

- **Armor** – Involves skills such as *Shield, Chained Armor, Plated Armor* etc.
  Experience comes by *getting hit / miss by a monster while wearing armor*.

- **Magic** – Involves skills such as *Fire Magic, Water Magic* etc.
  Experience comes by *using magic in a battle*.
  Casting spells increases skill experience by **two** (2) experience points.
  This is to balance the finite nature of spells casting vs melee use.

- **Misc** – Involves skills such as *Dwarvish* (language), *Lore* etc.
  Experience is here is very *context-based.* A convenient method of gaining experience on such skills is by utilizing items such as *Books* or similar methods. For example, reading a *Book on Lore* should improve one's skill experience, provided he's initiated on that skill.

If a skill reaches a specific level, the character might be eligible to *advance his expertise* on this particular skill. The chapter **Skills** shows the *skill requirements* for a character to advance his expertise. This system uses a (somewhat) complex algorithm to compute the experience required for a given skill level, which is presented below in the *C++ programming language* (but can be converted easily to any language):

```
uint32_t experience_required_for_skill_level(double level) {
    double exp = 0;
    for(double x=1;x<level;x++) {
        exp += std::floor(x + (150 + (level * 5)) * std::pow(2, (x / 10)));
    }
    exp = (std::round(std::floor(exp) / 10) * 10);
    return (uint32_t)exp;
}
```

The above mechanism produces reasonable, yet increasingly difficult to reach, skill levels. At the 1st level you advance somewhat quickly by using the skill, but at the 2nd level the advancement will come harder and so on for every level. If instead prefer the full table for the **20** levels & experience required, the chapter **Initial computed skill levels & experience** can be used for quick reference. However, in a developed CRPG, the developer has to implement a computation mechanism.

7.6. Initial computed skill levels & experience

Skill Level 1...10	Experience Required	Skill Level 11...20	Experience Required
1	0	11	3110
2	170	12	3650
3	370	13	4240
4	590	14	4890
5	840	15	5610
6	1130	16	6390
7	1440	17	7260
8	1800	18	8200
9	2190	19	9250
10	2630	20	10380

7.7. Capped number of skills

Although not *set in stone*, a character **should not** be able to learn all skills, for **practical reasons** (gold needed, time consuming, age restriction, defeating the party concept, defeating the skill mastering concept, allowing super characters etc.).

This is very *context-based* rule (i.e. defined in each game / world that uses this rulebook); however, a **soft limit** (which shouldn't be *that* restrictive) could be used, perhaps per group type and character overall. Mostly, there are just aren't that many skills to restrict from.

However, some skill groups i.e. **Misc**, can get pretty big in number, due to their *openness* and it's good idea to restrict characters from learning all of them.
Check this list of restrictions:

- **Weapon** – Maximum of *~8 weapon skills / per character*
- **Armor** – Maximum of *~8 armor skills / per character*
- **Magic** – Maximum of *~8 magic skills / per character*
- **Misc** – Maximum of *~8 misc skills / per character*

8. Shops

Sooner or later, the party will make its way to thriving towns & deserted villages. Except looking for quests or simply exploring, the party will need supplies, resting for a day or two or listening to rumors. All these needs can be satisfied through a *Shop*. Those shops are fully operational businesses and, as such, they have some characteristics that the party should know about, like working hours, item types and services offered. Prices can be further modified through **Persuasion** skill.

8.1. Prices

Many shops trade specific type of goods or offer services, on certain prices. These prices are always calculated by the item features and not by the shops, therefore all items are initially cost the same for every shop out there, for the most common item to the rarest of them all; the item itself defines its price.
However, the party can lower those prices through the use of **Persuasion** skill. The shop will always ask for the initial price to sell the item. In the table below you can see how those prices are further modified through **Persuasion** expertise, for buying *buying* and *selling* items or *buying* services:

Buying

- **(unskilled)** → price factor = **1.0** (price is unchanged)
- **Initiate** → price factor = **1.0** (price is unchanged)
- **Apprentice** → price factor = **0.9**
- **Adept** → price factor = **0.8**
- **Master** → price factor = **0.65**
- **Grandmaster** → price factor = **0.5** (price is halved)

To calculate the final price of a bought item is the following:

```
final_price = floor(item_price * price_factor);
```

Selling

- **(unskilled)** → price factor = **1.0** (price is unchanged)

- **Initiate** → price factor = **1.0** (price is unchanged)
- **Apprentice** → price factor = **1.1**
- **Adept** → price factor = **1.2**
- **Master** → price factor = **1.35**
- **Grandmaster** → price factor = **1.5** (price is 150%)

To calculate the final price of a sold item is the following:

```
final_price = floor(item_price * price_factor);
```

8.2. List

The base shop types and characteristics are following:

Shop	Trades / Services*	Restock	Work Hours
Magic Shop	Scroll, Amulet, Ring, Wand, Staff, Holy Symbol	5 days	08:00 – 20:00
Tavern	Buy food (100g / 10 food), Rent a room (50g / 8 hours)	-	06:00 – 23:00
General Store	Potion, Boots, Cloak, Misc	2 days	08:00 – 20:00
Weapon Shop	Weapons	5 days	06:00 – 18:00
Armor Shop	Armor, Shield, Helmet, Gauntlets	5 days	06:00 – 18:00
Library	Books	5 days	08:00 – 20:00
Temple	Heal body (100g), Heal conditions (250g), Remove curse (500g), Raise dead (1000g)	-	06:00 – 20:00
Stable	Travel through land (short distances) Cost is computed by distance and multiplied by 25 Food is computed by distance and divided by 10	-	06:00 – 18:00
Ship	Travel through sea (long distances) Cost is computed by distance and multiplied by 25 Food is computed by distance and divided by 10	-	06:00 – 18:00
Castle	Audience with royal members	-	10:00 – 14:00

** The prices of bought / sold items and / or services are further calculated by highest **Persuasion** skill of the party.*

8.3. Restock

Every shop that trades items needs to restock its inventory with newer items from time to time, depending on the shop itself. The newer items are generated randomly, based on the following factors:

- **Shop type**
Shops that trade items, they only deal with specific item types. For example, a *Weapon Shop* can't trade armors. Those item types are listed above.

- **Quantity**
Every item type that a shop offers, it should come with an appropriate quantity to increase chances for better items. That is, X number of items per Y type of item traded by shop. Although, not big enough as to make the shop a factory. A good quantity per type could be 20 items.

- **Tier**
Shops are sorted into tiers, that is, special levels that guides the quality of the generated items. There are *four* (4) tiers, with the first (tier 0) having *common* items and the last (tier 3) having better chances for generating *rare* items. The generations depends on whether the item can be enchanted or evolved or both or simply by type. Those cases are supported in the next chapter:

8.4. Generating items by feature / type

As said in previous chapter, items are sorted into the following categories, either by feature or simply by item type:

- **Weapons, Armors, Shields, Gauntlets, Helmets, Cloaks, Boots**
- **Wands, Books, Scrolls**
- **Rings**
- **Amulets**
- **Staffs**

Based on the category the item belongs to, different generation rules are involved. Each case is analyzed below:

8.4.1. Weapons, Armors, Shields, Gauntlets, Helmets, Cloaks, Boots, Staffs, Holy Symbols

- **Is magic item**
20% to generate a magic item; if not, its a base item.
Magic item means it can be either *enchanted* or *evolved*.

- **If magic item; magic item type**
60% to generate an enchanted item (i.e. *of Life*)
30% to generate an evolved item (i.e. *+1*)
1*0%* to generate an *enchanted* and an *evolved* item

- **Is evolved**
That is, *40%* as per above and its based on tier levels:

Tier 0   *100%* for base items (no magic items)
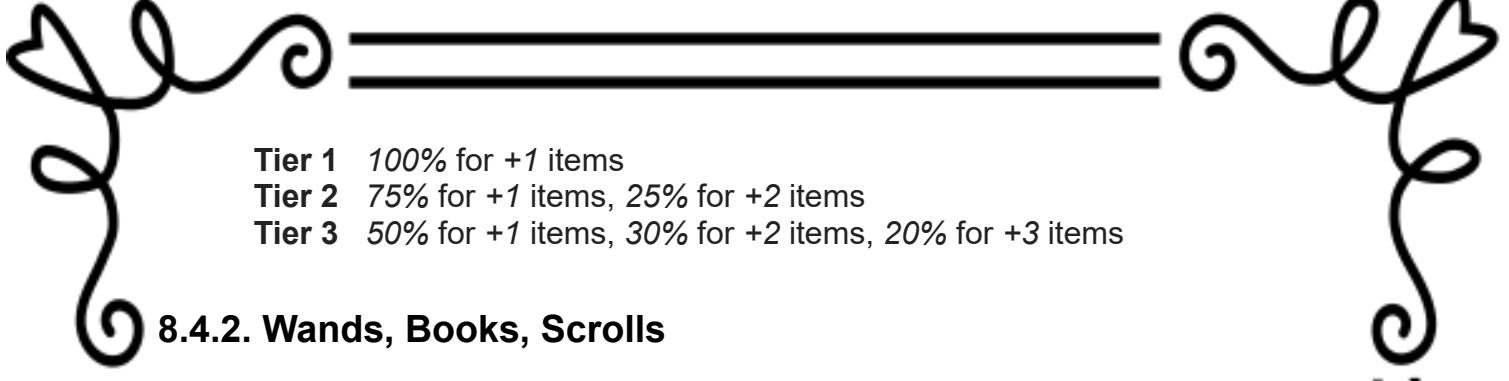
Tier 1 *100%* for *+1* items
Tier 2 *75%* for *+1* items, *25%* for *+2* items
Tier 3 *50%* for *+1* items, *30%* for *+2* items, *20%* for *+3* items

8.4.2. Wands, Books, Scrolls

Tier 0 *75% Initiate*, *25% Apprentice*
Tier 1 *50% Initiate*, *30% Apprentice*, 20% *Adept*
Tier 2 *40% Initiate*, *30% Apprentice*, 20% *Adept,* 10% *Master*
Tier 3 *30% Initiate*, *25% Apprentice*, 20% *Adept,* 15% *Master, 10% Grand*

8.4.3. Rings

- **Is magic item**
  20% to generate a magic item; if not, its a base item.
  Magic item means it can be *enchanted*.

  Tier 0 50% *Bronze*, 50% *Iron*
  Tier 1 75% *Bronze; Iron*, 25% *Silver; Golden*
  Tier 2 50% *Bronze; Iron*, 30% *Silver; Golden*, 20% *Jewel; Pearl*
  Tier 3 40% *Bronze; Iron*, 30% *Silver; Golden*, 20% Jewel; Pearl*,*
     10% *Emerald; Opal*

8.4.4. Amulets

- **Is magic item**
  20% to generate a magic item; if not, its a base item.
  Magic item means it can be *enchanted*.

  Tier 0 50% *Bone*, 50% *Celtic*
  Tier 1 75% *Bone; Celtic*, 25% *Stone*
  Tier 2 50% *Bone; Celtic*, 30% *Stone*, 20% *Crystal*
  Tier 3 40% *Bone; Celtic*, 30% *Stone; Crystal,* 20% *Idol,* 10% *Pentagram*

9. Combat

The Planes is a very dangerous place & hostile encounters may show in every step. A battle occurs when hostile characters (humans, monsters, things etc.) gets too close to the party. The battle is progressing through mutual actions, based on specific statistical computation (see **Combat order**). The battle ends when either party or the hostile characters are dead.

9.1. Combat order

When you are next to monsters, a **combat order** must be computed i.e. in which order the combatants are taking actions. The ability used to determine the combat order is **Quickness**, which used for both party and monsters. The value of **QuicknessMod** is always used. The procedure of determining the combat order is quite straightforward:

- First verify that you're facing monsters in close encounter of some *direction* i.e. *front, back, left or right*. regardless of your orientation.

- Compute the **QuicknessMod** for all, both party and monsters.

- *Sort* combatants by their **QuicknessMod**, in descending order.

The combatants are acting based on combat order. They can use both items on their hands in one turn i.e. if you have 2 swords in your hands (single-handed), you can use both before ending your turn or you can just skip one or both hands to next combatant in order (which can be another party member or an enemy). When a party member uses one of his hands, this hand *can't be used again* in current turn. In addition, item equipping is limited while you're engaged in a fight (see **Equipping items in combat**). When all combatants ends their turn, a **Movement** (see **Movement**) is initiated and combat order repeats itself.

9.2. Equipping items in combat

When the party is engaged in a combat, their number of actions are *limited*. One of such actions is equipping items. A character can only equip an item under the following conditions:

- It's his **turn** to act
- One of his **hand slot** has not been used

For example, if a character has a **Longsword** on his right hand and has used it to attack, he can't swap it with some other item while he is pondering the use of his (unused) left hand. However, an unused hand can be swapped with some other item such as weapon, a healing potion or a spell scroll. The list is an example, any item can be swapped as long the basic rules of equipping apply i.e. a 2-handed weapon can not be equipped even if the other hand has already been used.

9.3. Reach

Every attack type is governed by **reach**, that is, how far the attack is reaching and what *target*, distant-wise, is affecting. Every attack type has either a fixed reach or it is set explicitly by their variants. An attack that is *out-of-reach* it is still used (i.e. not cancelled) but **never causes** a damage to its target. Some examples of reach:

- **bare hands** → *short reach*
- **short weapons** (i.e. daggers and short swords) → *short reach*
- **long weapons** (i.e. halberds and spears) → *long reach*
- **spells** (i.e. firebolt) → *long reach*
- **monster actions** → (defined by each action)

9.4. Damage

The damage is a measurement of how powerful is an offensive item, such a *weapon* or a *spell*. It is usually not fixed since damage can be affected by a number of factors, including simple luck. Another important point is that damage is hardly just a matter of muscle; there is a number of **damage types** and only some of them involve raw power. For each kind of damage a specific procedure is followed to compute the final damage:

9.4.1. Damage by Bare hands

If there's no weapon in hand i.e. the attack is made with *bare hands* (melee attack), then only **PowerMod** score is considered as a damage. The target's **Protection** is considered as defence. The **Protection** used is not always the **100%** but a random value from **80%+** (round down) of its *true value*, to add *randomness* and *realism*, and also allowing weaker characters to land some hits. To ease the calculations below, we assume a target with no protection at all (**Protection = 0**). For example a *Wizard* with **Power** score of **14** decides to attacks with his bare fists. To compute the final damage:

```
PowerMod = compute_ability_bonus( 14 )  // PowerMod is -3 (Power 14)
finaldamage = PowerMod
finaldamage -= random(target_protection * 0.8, target_protection)
if (finaldamage < 0) { finaldamage = 0 }
```

Thus, the resulted damage its **0**. That is, the target successfully absorbed the attacker's damage. Another example, a *Knight* with **Power** score of **24** (**+2**) attacks. To compute that final damage:

```
PowerMod = compute_ability_bonus( 24 )  // PowerMod is +2 (Power 24)
finaldamage = PowerMod
finaldamage -= random(target_protection * 0.8, target_protection)
if (finaldamage < 0) { finaldamage = 0 }
```

That is, Knight deals a damage of **2**. Obviously, only very strong characters (or very weakly protected targets) would be able to cause decent damage with their fists or a character provided with strong enhancements. Keep in mind that attacking with bare hands is always a **short** reach attack, therefore only *near / front row* monsters will be affected.

9.4.2. Damage by Melee weapons

Melee weapons are any handheld weapons that can be used in close combat. Typical melee weapons include *swords* and *flails*. When attacking with a melee weapon, the **Power** ability is primarily used, then the item's offensive capability is considered. Melee weapons usually provide their damage in a *from / to* range. The target's **Protection** is considered as defense. The **Protection** used is not always the **100%** but a random value from **80%+** (round down) of its *true value*, to add *randomness* and *realism*, and also allowing weaker weaponry to land some hits. To ease the calculations below, we assume a target with no protection at all (**Protection = 0**). For example a *Knight* with **Power** score of **24 (+2)** decides to attacks with his *Long sword* (melee weapon, belonging to *Long blade* skill). To compute the final damage:

```
PowerMod = compute_ability_bonus( 24 )  // PowerMod is +2 (Power 24)
finaldamage = PowerMod
finaldamage += random(weapon_damage_from, weapon_damage_to)
// if item is enchanted and cause elemental damage(s):
loop (item_enchantments) {
   if (enchantment_cause_elemental_damage) {
      damage = random(elem_dmg_from, elem_dmg_to)
      if (target_vulnerable_to_elemental_skill) { damage *= 2 }
      if (target_resistant_to_elemental_skill) { damage /= 2 }
      finaldamage += damage
   }
}
if (target_vulnerable_to_item_skill) { finaldamage *= 2 }
if (target_resistant_to_item_skill) { finaldamage /= 2 }
if (item_has_doubledamage_enchant_vs_monster_type) { finaldamage *= 2 }
finaldamage -= random(target_protection * 0.8, target_protection)
if (finaldamage < 0) { finaldamage = 0 }
```

Things to consider:

- A melee weapon can be *enchanted* (see **Named enchantments**), which may cause *elemental damage*(s).
- If the target is *vulnerable* to the melee weapon's skill, that is *Long Blade*, it will receive double damage.
- The damage will be *halved* if the target is *resistant* to weapon's skill.
- If the melee weapon is enchanted by **double damage vs type**, the target will receive double damage.

9.4.3. Damage by Ranged weapons

Ranged weapons are any weapons capable of engaging targets at a distance. Typical ranged weapons include *bows* and *crossbows*. When attacking with a ranged weapon, the **Technique** ability is primarily used, then the item's offensive capability is considered. Ranged weapons usually provide their damage in a *from / to* range. The target's **Protection** is considered as defense. The **Protection**

used is not always the **100%** but a random value from **80%+** (round down) of its *true value*, to add *randomness* and *realism*, and also allowing weaker weaponry to land some hits. To ease the calculations below, we assume a target with no protection at all (**Protection = 0**). For example a *Knight* with **Technique** score of **24 (+2)** decides to attacks with his *Bow* (ranged weapon, belonging to *Bow* skill). To compute the final damage:

```
TechMod = compute_ability_bonus( 24 )  // TechMod is +2 (Technique 24)
finaldamage = TechMod
finaldamage += random(weapon_damage_from, weapon_damage_to)
// if item is enchanted and cause elemental damage(s):
loop (item_enchantments) {
   if (enchantment_cause_elemental_damage) {
      damage = random(elem_dmg_from, elem_dmg_to)
      if (target_vulnerable_to_elemental_skill) { damage *= 2 }
      if (target_resistant_to_elemental_skill) { damage /= 2 }
      finaldamage += damage
   }
}
if (target_vulnerable_to_item_skill) { finaldamage *= 2 }
if (target_resistant_to_item_skill) { finaldamage /= 2 }
if (item_has_doubledamage_enchant_vs_monster_type) { finaldamage *= 2 }
finaldamage -= random(target_protection * 0.8, target_protection)
if (finaldamage < 0) { finaldamage = 0 }
```

Things to consider:

- A ranged weapon can be *enchanted* (see **Named enchantments**), which may cause *elemental damage*(s).
- If the target is *vulnerable* to the ranged weapon's skill, that is *Bow*, it will receive double damage.
- The damage will be *halved* if the target is *resistant* to weapon's skill.
- If the ranged weapon is enchanted by **double damage vs type**, the target will receive double damage.

9.4.4. Damage by Magic

Magic damage can come from any item capable of casting *offensive* spells. Typical magical items include *staffs*, *wands* and *scrolls*. When attacking with a magical item, the **expertise** of caster and magic spell is primarily used. However, there are cases where the caster *isn't initiated* in the magic skill the spell belongs to. For example, a *Knight* may cast a *fire-based* spell by using a *wand*, without actually be initiated in *Fire magic*, which would be *impossible* for a Knight profession. Initially, the *non-caster* professions (such as *Knight*) have no *expertise* at all when they cast a spell. However, internally they're provided a temporary *expertise* equal to spell's required skill expertise.

For example **Firebolt** is an *Initiate* spell, belonging to *Fire magic* skill; If a caster doesn't have that skill at all, therefore *no expertise* at all, he will cast the spell as if he had *Initiate expertise* on *Fire magic* skill. The same happens when the profession is a caster but not initiated in the magic skill the spell belongs to. Magical

items provide their damage in a min / *max* range. However, this damage is further modified by the caster's expertise on the *skill* the spell belongs to. Specifically, each offensive spell has a *min / max* damage range, as well as a *multiplier* to this damage. The multiplier is used to multiply the damage computed on previous expertise, if the caster happens to have a higher expertise than spell skill's expertise requires, up to *Grandmaster* expertise (if character has reached this expertise).

The target's **Resistance** to the spell's skill is considered as defense. However, this is computed differently if the target is a *monster* or the *party*. Magical damage is also *capped* to the skill's *expertise* (i.e. Initiate, Apprentice…), which results in a *max* damage. Finally, some spells may cause a *non-elemental* damage as well. The target's **Protection** can be used as defense in this case. To ease the calculations below, we assume a target with no protection at all (**Resistance = 0**). For example a *Wizard* with **Fire magic** expertise of *Initiate* decides to attacks with a **Firebolt** spell (a fire-based spell, belonging to *Fire magic* skill). To compute the final damage:

```
expertise = 0                          // 0 = Initiate, 1 = Apprentice...
if (not_a_caster) { expertise = 0 }    // non-casters are always level 1
if (not_initiated) { expertise = 0 }   // casters missing the magic skill

damage_current = (1,5)                 // example starting damage
damage_multiplier = (1.4)              // example damage multiplier
loop (from spell expertise to caster expertise in spell skill) {
    damage_current = (damage_current * damage_multiplier)
    damage_range = (damage_current.from, damage_current.to)
}
finaldamage = random(damage_range.from, damage_range.to)

    // target is a monster
    if (target_vulnerable_to_spell_skill) { finaldamage *= 2 }
    if (target_resistant_to_spell_skill) { finaldamage /= 2 }

    // target is a party's character
    finaldamage -= target_resistance
    if (damage < 0) { damage = 0 }

if (spell_causes_nonelemental_damage) {
    damage = 0
    loop (skill_level times) {
        damage += random(spell_nonelem_dmg_from, spell_nonelem_dmg_to)
    }
    damage -= target_protection
    if (damage < 0) { damage = 0 }
    finaldamage += damage
}
```

Things to consider:

- If the target is *vulnerable* to the ranged weapon's skill, for example, *Fire magic*, it will receive double damage.
- If the target is *resistance* to weapon's skill, for example *Long Blade*, it will receive half damage.
- Magic damage can also be *non-elemental*. In this case, *Protection* will be used as a defense.

9.4.5. Damage by Action

While party characters are usually act through their equipped items such as swords or staffs, monsters act through *actions*. A monster may have one or more actions to use on his turn against the party. Their effects are various and related to the monster in question.

For example, a **Goblin** may possess an action named *Broad Axe* (dealing physical damage) while a **Dragon** may possess an action named *Fire Breath* (dealing elemental damage). Some actions may look like they're dealing with an item (ex. *Broad Axe*) but they're not related to ORS items at or with an action with the same name of diffferent monsters.

For example, a **Dragon** may possess an action named *Bite* that deals X physical damage. However, a **Wolf** may also possess an action named *Bite* that deals Y damage. Just because they have the same name, doesn't mean they're dealing the same damage. Each action's properties are exclusive to its monster.

Actions can deal physical damage (against a character's *Protection*) or elemental damage (against a character's specific *Resistance)* or cause a condition. The current properties of an action follows (see **Monster List** for monster actions): To compute the final damage of an action:

```
finaldamage = 0
variant = 0
if (action_cause_physical_damage) {
   dmg_from = floor(action_physical_dmg_from)
   dmg_to = floor(action_physical_dmg_to)
   // filter by monster's variant
   float perc = (1.0f + (float)variant * 0.15f);
   dmg_from = round(action_physical_dmg_from * perc)
   dmg_to = round(action_physical_dmg_to * perc)
   // final damage
   finaldamage += random(dmg_from, dmg_to)
   finaldamage -= target_protection
}
if (action_cause_elemental_damage) {
   dmg_from = floor(action_elemental_dmg_from)
   dmg_to = floor(action_elemental_dmg_to)
   // filter by monster's variant
   float perc = (1.0f + (float)variant * 0.15f);
   dmg_from = round(action_physical_dmg_from * perc)
   dmg_to = round(action_physical_dmg_to * perc)
   // final damage
   finaldamage += random(dmg_from, dmg_to)
   finaldamage -= target_resistance
}
if (finaldamage < 0) { finaldamage = 0 }
```

Monster variants

There are some monsters that have improved variants from the original monster, like *Goblin → Goblin Warrior* etc. These *improved* variants shows an *improved damage* on the same actions (when the action is offensive, like the action *Broad*

Axe of Goblin). Not only these stronger variants have increased level and hit points, but they hit harder with the same actions.

The calculation is based on the original action, provided by the original monster (first). On the code above, **variant = 0** really means the original monster; replace with **variant = 1** (stronger than *original*), **variant = 2** (stronger than *variant = 1*) and so on. If a monster doesn't have variants, just leave it as *variant = 0*.

10. Conditions

A condition (mostly negative) is caused usually by a spell, a monster's action, the environment or character choices. Its intention is to inflict direct or indirect damage to a character's statistics for as long the condition lasts or until its cured. The base conditions are:

Name	Description
Dead	A dead character's hit points has reached 0 or less and can't take actions (immobilized) until he's raised back to life. Rest of conditions are removed. **CAUSE:** hit points reduced to 0 or less. **CURE:** spells and temple visits.
Poisoned	A poisoned character has reduced Power, Personality, Toughness, Technique, Quickness, Perception by 25% and increased Earth resistance by 100%. *Each action loses 2% of maximum hp. A poisoned character can't restore his HP/SP (restless) while resting. **CAUSE:** monster actions, traps, potions. **CURE:** spells, potions and temple visits.
Flamed	A flamed character has reduced Personality, Technique and Perception by 50%, increased Quickness by 50% and increased Fire resistance by 100%. *Each action loses 5% of maximum hp. A flamed character can't restore his HP/SP (restless) while resting. **CAUSE:** monster actions, traps. **CURE:** spells, potions and temple visits.
Paralyzed	A paralyzed character can't take actions (immobilized). **CAUSE:** monster actions, traps. **CURE:** spells, potions and temple visits.
Frightened	A frightened character has reduced Personality, Quickness, Perception and Mental resistance by 50%. **CAUSE:** monster actions, spells, events. **CURE:** spells, potions and temple visits.
Maddened	A mad character has reduced Personality by 100%, increased Power, Quickness by 50% and increased Mental resistance by 100%. He also randomly attacks party members (*per-turn), causing a damage of 5% of his maximum hp. **CAUSE:** monster actions, spells. **CURE:** spells, potions and temple visits.
Exhausted	An exhausted character has reduced Power, Technique, Perception by 50% and reduced experience gained by 50%. **CAUSE:** party has not rested for a day. **CURE:** rest, spells, potions and temple visits.
Cursed	A cursed character can't restore his HP/SP (restless) while resting.

** Actions are counted in per-turn basis. Such actions are party movement and
combat turns. In addition, there's a 50% chance to cause those effects (per-turn).*

NOTE: if the entire party becomes one of:
Dead, Paralyzed, Maddened
the game ends.

10.1. Chance to inflict conditions

Computing the chance for inflicting a condition is straightforward and is used for
both **party** and **monsters**:

```
condition_chance = floor(chance + (attacker_level / 4))
```

For example, if a character casts a spell that have **10%** chance to inflict the **Flamed**
condition, he will instead have **16%** chance if he is on level **25**.

10.2. Reduce the condition chance by Ability

Some conditions provide a way to reduce the chance to get inflicted by using an
ability such as **Power** for example. In this case, the condition chance, set by both
condition and attacker's level, is further subtracted by the provided **AbilityMod**,
multiplied by **2**:

```
condition_chance -= (AbilityMod * 2)
```

For example, a character have a **Power** of **25 (+2)** and got hit by a condition-based
attack, with a chance of **40%** of causing the condition, the **ability** to reduce that
chance is **Power** and the attacker level is **25**. Based on attacker's level, the chance
rises to **40 + (25 / 4) = 46%.** However, the **PowerMod** of defender is **2**, which
updates that final chance to **46 – (2*2) = 42%**

10.3. Inflict conditions by items

Some enhanced weapons can cause conditions i.e. a special long sword may
be infused with poison effect to cause **Poisoned** condition when it hits its target. In
addition, the weapon must deal a damage before causing a condition as well;
otherwise, the condition is not considered at all.
The formula takes into consideration the attacker's level, therefore the higher
the attacker's level, the more his chance to cause conditions with his attacks. In

addition, the item's evolved level (i.e. **+1**) is considered as well to further modify the chance. The higher the item's evolved level, the higher the initial chance starts with. Those chances are never set per item, but only by the item's evolved level. The condition chances per evolved level follows:

Evolved	Initial Chance to inflict condition
(non evolved)	10%
+1	15%
+2	20%
+3	25%

NOTE: The condition can only be caused if the (offensive) item causes actual damage. If the item misses, there is no chance to cause a condition.

Example:

- A **Level 18** Knight attacks with a **+1** long sword, causing a condition.
  `chance = (item_chance + (attacker_level / 4))`
- **(15 + (18 / 4)) = 20%**
- The attack will cause the condition about **20%** of times.

10.4. Inflict conditions by spells

Some spells are causing conditions i.e. a the **Flamed** condition. The formula takes into consideration the caster's level, therefore the higher the caster's level, the more his chance to cause conditions with his spells. In addition, the higher the spell's expertise, the higher the initial chance starts with. Those chances are never set per spell, but only by the spell's expertise. The condition chances per expertise follows:

Expertise	Initial Chance to inflict condition
Initiate	10%
Apprentice	15%
Adept	20%
Master	25%
Grandmaster	30%

NOTE: if a spell causes damage as well, then a condition can only be caused if the spell actually caused some damage. If an offensive spell misses, there is no chance for a condition effect to be used. This is not a requirement for non-offensive spells.

Example:

- A **Level 18** Wizard casts a spell of **Master** expertise, causing a condition.
  `chance = (spell_chance + (attacker_level / 4))`

- **(25 + (18 / 4)) = 30%**
- The spell will cause the condition about **30%** of times.

10.5. Inflict conditions by actions

The formula used for spells is *also used* in actions to cause conditions. Actions are mainly caused by monsters. The only difference is that an action *must deal some kind of damage* for the condition to apply. If an action is supposed to deal some damage but it misses, either by target's protection or resistances, a condition check can't be considered.

For example, a giant rat's **Bite** action is supposed to cause the **Poisoned** condition and is supposed to deal damage. However, it won't be able to cause anything if it misses. A further difference is that initial chance starts with **25%** chance, since *actions* themselves don't really have an initial chance, expertise, evolved or any other metric to base on. Finally, the attacker's level is considered as well to finalize the chance.

NOTE: if an action causes damage as well, then a condition can only be caused if the action actually caused some damage. If an offensive action misses, there is no chance for a condition effect to be used. This is not a requirement for non-offensive actions.

Example:

- A **Level 35** monster uses an **offensive** action, causing a condition.
  ```
  chance = (25 + (attacker_level / 4))
  ```
- **(25 + (35 / 4)) = 34%**
- The action will cause the condition about **34%** of times.

10.6. Resistances

There are many types of **damage types** out there: *physical, magical, elemental* and more. Furthermore, there are conditions that can get inflicted by absence of some resistance. A character may be strong enough to withstand raw power but can die in agony in few hours by getting **Poisoned** through a spider bite.

This kind of damaging, called **elemental damage**, requires more planning since the typical **Protection** of a character (usually provided by *armor, boots etc.*) wont help much against since they're only protecting against *physical* damage. Fortunately, there is a way to reduce the effects of such damage types; by improving the other kind of character protection; the *resistances*. They're specifically:

Resistance	Description
Fire	Protects against the fire element such as dragon breaths, fire-based spells etc.
Air	Protects against the air element such as cold, lightnings, thunders etc.
Water	Protects against the water element and ice-based attacks.

Earth	Protects against the earth element such as poison, stone and acid.
Energy	Protects against non-elemental magical energy
Mental	Protects against attacks that cause mental effects such as confusion, insanity etc.
Soul	Protects against attacks on soul itself that cause aging, divine spells etc.

10.7. Relation to D&D resistances

D&D provides a number of damage types such a *Fire*, *Cold* etc. A close interpretation of D&D damage types and ORS resistance types is shown on the following table:

ORS resistance type	D&D damage type
Fire	**Fire**
Air	**Cold** **Thunder**
Water	**Cold**
Earth	**Poison** **Acid**
Energy	**Force** **Lightning**
Mental	**Psychic**
Soul	**Radiant** **Necrotic**
Protection	**Slashing** **Piercing** **Bludgeoning**

11. Monsters

Monsters are the natural inhabitants of the wilderness. Some of them are intelligent, other are not but all of the them have a purpose and their location is never random. Some of them guard a fortress, others are hired for protecting some place, others are magically constructed by some mad wizard, others may came from another plane etc. Every monster has a specific set of attacks. Those attacks are defined by *weapons, spells* & *actions*. Finally, party may encounter *stronger variations* of monsters (more commonly referred as **bosses**), with *higher statistics* (i.e. hp and damage).

11.1. D&D challenge rating to monster level

ORS system provides levels for monsters. However, D&D provides a **Challenge Rating (CR)** for its monsters, which is, as the name suggests, the difficulty to kill a monster. The maximum CR for D&D is 30, while the level cap in ORS system is 100. An easy way to convert a D&D monster's CR to ORS monster level is to multiply the CR with **3.3**, round up.

```
monster_level = ceil(CR * 3.3)
```

Some examples:

D&D Goblin (CR: ¼) → (¼) * 3.3 = **Level 1**
D&D Troll   (CR: 5) → (5 * 3.3) = **Level 17**

11.2. Compute Hit Points

To compute the hit points for a monster, two (2) need to be known, its level & its toughness. First, multiply its level by **5** and add to initial hit points. Then, perform a somewhat complex formula add to **total hit points**:

```
hp = (monster_level * 5)
hp += ceil(0.4f + (floor(monster_level * (Toughness * 0.4f)) * 0.125f))
```

Some examples:

Goblin (Level **1**, Toughness **15**) → **7 HP**
Goblin (Level **5**, Toughness **15**) → **30 HP**

11.3. Loot

Killed monsters drop a predefined amount of **gold** and potentially have a chance of **dropping an item** as well, defined by its characteristics and level. Not all monsters can drop items; however, all monsters drop gold, in the same way the party receive experience for killing them.

Computing the **gold dropped** by a killed monsted is quite simple:

```
gold_start = (monster_level * 5)
gold_end = (gold_start * 2)
gold_dropped = random(gold_start, gold_end)
```

Some examples, in **ranges** of gold dropped:

Goblin   (Level **1**)   → **5 - 10 gold dropped**
Goblin, Chief (Level **5**)   → **25 - 50 gold dropped**
Wyrm, Blue   (Level **10**) → **50 - 100 gold dropped**

Killed monsters may also **drop an item**, related to their characteristics and level; however, **not** all monsters can drop items. Furthermore, there's a chance for dropping an item. The following details are considered on dropping an item:

- **Item**
  A monster must have a **list of items** that can drop. Some monsters have **nothing** to drop. Mostly, the **actions** of the monster or its **protection** indicate the items that it can drop.

- **Tier**
  The dropped items not only are characterized by type but also its tier level. The item generation is based on **shop mechanics.** Generally, the higher level of monster leads to more evolved dropped items, (see **Weapons, Armors, Shields, Gauntlets, Helmets, Cloaks, Boots, Staffs**)

- **Chance**
  All monsters start with a chance of **10%** to drop an item, when killed. This chance may further improved by **skills**.

- **Position**
  If an item is dropped, it should be **placed** on the same square where the monster was killed.

- **Boss**
  If the monster is **strong / boss-like**, he can drop an item of a **higher tier** than current area suggests. For example, when a strong monster is killed on a **Tier 0** area, he may drop a **Tier 1** item.

11.4. Bosses

Besides the *normal monsters*, the party may encounter **stronger variants** of same monsters, with effectively the same statistics, actions and behaviour, just higher. These monsters are more commonly referred as **bosses.** Their purpose and placement are usually indicating the conclusion of a side quest or something that matters more than getting experience. The basic components that make a boss to differ that their normal variants and help to build a *boss battle*, summarized below.

- **Name**
  A boss should always have a **unique name** and not be referred like his normal variants. This not only will make him *unique* but also *memorable* and instictively the party will get more prepared for him.

- **Minions**
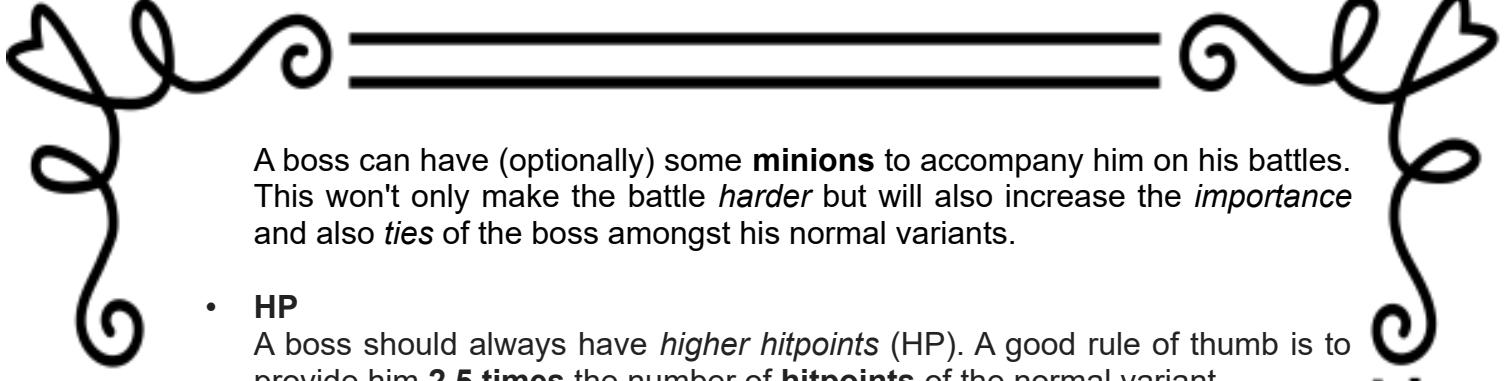
A boss can have (optionally) some **minions** to accompany him on his battles. This won't only make the battle *harder* but will also increase the *importance* and also *ties* of the boss amongst his normal variants.

- **HP**
  A boss should always have *higher hitpoints* (HP). A good rule of thumb is to provide him **2.5 times** the number of **hitpoints** of the normal variant.

- **Damage**
  A boss should always hit harder and cause *more damage*. This counts for both **physical** and **magical damage**. A good rule of thumb is to provide him **2.5 times** the amount of **damage** of the normal variant.

11.5. Traps

Besides the **monsters**, the party may encounter situations which still **deal damage**, although not necessarily resulting in **combat**. Such situations are **skill challenges** (see **Skills**) and **traps**. Although **skill challenges** may not result in party getting **damage**, traps most certainly **do**.

In addition, a trap can cause **physical damage** or **elemental damage** or a combination of them. A good rule of thumb for setting the base damage for a trap is by using the **tiers** system, for example:

Tier 0 = Damage 1-8
Tier 1 = Damage 8-16
Tier 2 = Damage 16-24
Tier 3 = Damage 24-32

11.6. List

Notice that monsters doesn't have **skills** and, obviously, skill levels. As a result, they don't have an **expertise** as well. In any case an action requires a skill level or expertise i.e. spells, the monster's level is used as a skill level and the spell's base expertise is used instead. Monsters belong to a **type**, have a **Level** (which defines its *HP*), a fixed **Protection** (which is defined by either a natural armor or by equipped items), a **Toughness** (which adds to its *HP*), a **Quickness** (which defines its *initiative* in battle), a number of one-liner **Actions** (which can use in combat) and, optionally, a number of **Resistances** & **Vulnerabilities** (which can alter the *damage* they receive).

Actions that cause a condition provide all the necessary information (the condition, the chance of causing it and the ability to reduce that chance by the defender). Keep in mind that chance is further modified by attacker's level (see **Chance to inflict conditions**) and by defender's ability, related to this condition (see **Reduce the**

condition chance by Ability). Actions are defined by a number of properties:

- **Target**
  This can be either **1** (one character) or **N** (all characters)

- **Reach**
  Either **S** (short reach; only when on *front-rank*) or **L** (long reach; on all ranks)

- **Chance**
  This is optional and provides the chance of this action to be chosen, for example an entry of **c20%** means that this action has this chance to be used.

- **Damage**
  Can be either physical (**Ph**) or elemental (**eX**), where X can be one of the **F/A/W/E/N/M/S**, each one for an element, like **F = Fire**. Example: *Ph:1-2*
  NOTE: For the increased damage, dealt by *improved* monster variants (i.e. *Goblin Warrior*), see **Damage by Action**.

- **Condition**
  A condition can be defined by providing the entry **Co:Cc:Aaa**, where **Cc** are the first two (2) characters of the condition i.e. **De** (Dead), **Po** (Poisoned) and **Aaa** is the character attribute to check against that chance. For example, this entry **Co:Pa:Pow** will cause the **Paralyzed** condition against **Power**.

The base monsters are:

Name / Loot**	Type	LV	HP	Pro	Tou	Qui	Actions	+ Res* / - Vul*
Cube, Ooze *Dagger* *Ring Mail*	Ooze	7	46	3	30	7	***Jelly Slap*** (1,S,eE:3-18) ***Devour*** (1,S,eE:3-18,Co:Po:Tou)	
Devil *Halberd*	Demonic	10	62	7	23	24	***Claw*** (1,S,Ph:4-12,Co:Po:Tou) ***Trident*** (1,L,Ph:6-16)	+Fire +Earth +Short Blade +Long Blade
Doppelganger	Magical	10	61	8	21	29	***Slap*** (1,S,Ph:5-10)	-
Goblin	Humanoid	1	7	6	15	23	***Broad Axe*** (1,S,Ph:3-8)	-
Goblin, Warrior *Broad Axe*	Humanoid	2	12	6	15	23	***Broad Axe*** (1,S,Ph:3-9) ***Bow*** (1,L,Ph:3-9)	-
Goblin, Chief *Bone Amulet* *Bronze Ring*	Humanoid	5	30	8	15	23	***Falchion*** (1,S,Ph:4-10) ***Bow*** (1,L,Ph:4-10)	-
Guard *Leather Armor* *Gauntlets*	Humanoid	1	7	7	18	20	***Spear*** (1,L,Ph:3-10)	-
Plant, Flytrap	Plant	1	7	5	18	22	***Bite*** (1,S,Ph:3-6)	+Earth -Fire
Plant, Carnivore	Plant	6	36	6	18	21	***Bite*** (1,S,Ph:3-7) ***Swallow*** (1,S,Ph:3-17,Co:Po:Tou)	+Earth -Fire
Skeleton *Short Sword*	Undead	1	7	6	23	23	***Short Sword*** (1,S,Ph:4-9) ***Bow*** (1,L,Ph:3-10)	+Earth -Bludgeon
Skeleton, Warrior	Undead	4	25	7	23	23	***Long Sword*** (1,S,Ph:4-18)	+Earth

							Attacks	Resistances
Long Sword *Scale Mail*							***Bow*** (1,L,Ph:3-10)	-Bludgeon
Skeleton, Mage *Staff* *Initiate Scroll*	Undead	6	38	7	23	20	***Staff*** (1,S,Ph:3-9, eS: 2-5) ***Firebolt*** (1,L, eF:2-10, Co:Fl)	+Earth +Energy -Bludgeon
Snail	Animal	1	7	3	20	8	***Lick*** (1,S,Ph:1-2, eE:1-4)	+Earth
Snake, Constrictor	Animal	1	7	5	18	23	***Bite*** (1,S,Ph:2-4) ***Grapple*** (1,S,Ph:2-5,Co:Pa:Pow)	-
Thug *Leather Armor*	Humanoid	2	13	5	21	19	***Dagger*** (1,S,Ph:3-8) ***Crossbow*** (1,L,Ph:1-10)	-
Wyrm, Blue *Initiate Wand* *Iron Ring*	Dragon	10	62	9	23	17	***Claw*** (1,S,Ph:3-13, eE:1-6) ***Electrocute*** (1,L,c20%,eN:6-37)	+Energy

* Each resistance & vulnerability refers to a skill
** Loot is not dropped by all monsters

11.7. Experience

The monster's experience to give is computed by weighting all of its properties in a predefined way. Starting with its **Level**, we use the following simple formula:

```
XP = (Level * 25)
```

That is, a monster of **Level 14** will give an experience of **350**, at this point.

Next, we consider its **Protection** and **Quickness** with the following formula:

```
XP += (Protection * 2)
XP += (Quickness * 2)
```

As well, a monster with **Protection** of **10** will give **20** experience.
Finally, a monster with **Quickness** of **8** will give **15** experience.

Next, we consider its **Number of actions** with the following formula:

```
XP += (number_of_actions * 25)
```

That is, a monster with **Number of actions** of **2** will give **50** additional experience.

Finally, we consider its **Resistances** with the following formula:

```
XP += (number_of_resistances * 10)
```

That is, a monster with resistance to **Bludgeon** and **Earth Magic** will provide **20** additional experience.

12. NPC Companions

The party is the list of characters which the player controls. However, a number of additional non-player characters, can be used to aid the players in their quests. These characters are more commonly referred as NPCs or Companions. Their use is to act as hired mercenaries, used to *supplement* the characters with some extra offense, skills, stats and generally gaping any weaknesses the party might have at the time.

Generally, a good number of allowed NPCs is one (1) or two (2), which can be replaced or simply dismissed at any time. These companions, as per name, are not controlled by the player; they instead offer a number of services and the game itself (the equivalent of DM in cRPGs) decides what to use whenever a hired NPC companion has to act. They can be found everywhere but usually on streets, searching for a capable party to offer their services. Their ability also varies depending on the place / distance the party has to go through to reach them, which further affects their services i.e. these NPCs (should) become more powerful as the party progresses.

12.1. Services

A NPC companion can offer a number of services, similarly to the ones offered by regular characters. However, this is much simpler with NPCs. An important feature of NPCs is how capable / strong they're. A common workaround is to sort them into *Tiers* (0,1,2,3), depending on the place / distance they be *reached*. The basic services offered by wandering NPCs are the following:

- **Weapon – Melee**
  The NPC carries a specific melee weapon i.e. a **Long Sword**. Depending on the NPC's *tier*, this weapon can be *evolved,* as well as NPC's *Power*:
  Tier 0 = Weapon +0, Power 25 (+2)
  Tier 1 = Weapon +1, Power 35 (+7)
  Tier 2 = Weapon +2, Power 45 (+12)
  Tier 3 = Weapon +3, Power 55 (+17)

- **Weapon – Ranged**
  The NPC carries a specific ranged weapon i.e. a **Bow**. Depending on the NPC's *tier*, this weapon can be *evolved,* as well as NPC's *Technique.* NPC is provided with a fixed amount of **charges**, which he replenish when the party *rests* (successfully).
  Tier 0 = Weapon +0, Technique 25 (+2), Charges 20
  Tier 1 = Weapon +1, Technique 35 (+7), Charges 20
  Tier 2 = Weapon +2, Technique 45 (+12), Charges 20
  Tier 3 = Weapon +3, Technique 55 (+17), Charges 20

- **Spell**
The NPC is capable of casting a specific spell i.e. *Firebolt*. A NPC doesn't have spell slots so the spell is cast always. Depending on the NPC's *tier*, the spells *should* be taken from appropriate **expertise.** In addition, NPCs have appropriate *expertise* on the **skills** that these spells are associated with by their **Tier**. For example, if a NPC uses the *Firebolt* spell (associated with **Fire Magic** and requiring **Initiate** expertise) but he's a **Tier 2** NPC, then he will cast this spell with a **Master** expertise on **Fire Magic** skill. NPC is provided with a fixed amount of *charges*, which he replenish when the party *rests* (successfully).
Tier 0 = Initiate/Apprentice, Charges 20
Tier 1 = Adept, Charges 20
Tier 2 = Master, Charges 20
Tier 3 = Grandmaster, Charges 20

- **Skill**
The NPC offers a specific skill i.e. *Lore*, to be exploited by the whole party. This skill can then be used on events, checking this skill expertise, just like if another character had the skill. Depending on the NPC's *tier*, the appropriate *expertise* to the skill is used:
Tier 0 = Apprentice
Tier 1 = Adept
Tier 2 = Master
Tier 3 = Grandmaster

- **Payment**
The NPC asks for some *Initial* one-time payment* to join the party and then a *Daily* payment to stay with the party yet another week. Depending on the NPC's *tier*, both amounts gets increasingly more expensive:
Tier 0 = Starting 250g, Daily 100g
Tier 1 = Starting 500g, Daily 200g
Tier 2 = Starting 1000g, Daily 400g
Tier 3 = Starting 2500g, Daily 1000g

** Payments can be further modified through **Persuasion** skill.*

13. Items

Items are very versatile and can be used differently by profession or not at all, for example a spell book item can't be used by non-casters such as **Knights** and a regular *Longsword* can't be used by a caster. However, all items have common elements such as name, body part to be worn and value.

In addition, most items have improved versions which are more efficient, as well costing more and are rarer to find; those items have a plus **+** symbol next to their name, for example an item named *Longsword +1* it's an improved version of *Longsword*.

13.1. Equipping

One needs to have an expertise in the weapon's skill before using it, otherwise the item can not be used / equipped. In addition, items belong to specific body parts; that is, most of the items have to be worn in a specific body part when they're equipped to be *used correctly*.

For example, a *Longsword* is a weapon that belongs to the *hand* and unless it's not equipped there, it can't be used. However, they can be placed anywhere in inventory, although not used then. In addition, you can't equip an item while you're engaged in a fight. The following table shows the body parts, some example items that belongs there and how many instances of that body part exist in a character:

Body part	Items	Number
Head	Helmet	1
Neck	Amulet	1
Shoulder	Cloak	1
Chest	Plate mail	1
Arm	Gauntlets	1
Hand	Longsword	2
Finger	Ring	4
Feet	Boots	1

13.2. Enchantments

Some items have magical features, called *enchantments*. Those enchantments are providing the wearer effects such as *Power* or *Hit Points* increase or decrease, as long as the wearer have those items equipped. Such items are the *staffs*, which provides the wearer i.e. a caster, with a permanent bonus of *Intelligence*, as long as they hold the staff. A rule of thumb is that an enchantment can increase / decrease *temporary* any of character's statistics.

13.2.1. Mode of calculation

The effects an enchantment provides to a statistic can be computed with the following modes. The same enchantment can work differently though item because the mode of calculation used is different. The following list shows the calculation modes, along with a description & the formula used:

Name	Description	Formula*
Fixed value	Applies directly to statistic	statistic = statistic + effect
Efficiency	Uses the efficiency bonus i.e. +1	statistic = statistic + (effect * (efficiency) + 1)

% of value	Uses % of provided value	statistic = statistic + ((effect / 100) * value)
% of stat total	Uses % of statistic total value	statistic = statistic + ((effect / 100) * stat total)
Name	Self-describes the enchantment	By context
Range	Random select from 2 numbers	Used supplementary with other modes
Double	Doubles the effect	Used supplementary with other modes
Half	Halves the effect	Used supplementary with other modes

** statistic = the current & final value of character's statistic after the calculation,
   effect = the value indicated by the enchantment i.e. Power +2,
   stat total = the total value of a character's statistic i.e. not current or filtered*

13.2.2. Named enchantments

Enchantments can also be grouped under a *common name* that indicates their purpose. This named group may have *one or more* enchantments, providing an arsenal of enchantment effects to the wearer of item. Items may or may not be infused with a named enchantment. By default, only one *named enchantment* may infuse the item and inform players about. However, an item may further enchanted by *multiple enchantments.* In such case, the context of the game decides the correct way to present the item's various enchantments to the player.

All items can get infused by an enchantment except items that are defined by magic or have a single use such as *wands, books, scrolls & potions*. The following tables shows the named enchantments, along with the effects they provide, the mode which are using for calculating the effect & the list of item types on which can be infused:

Name	Effect	Mode	Allowed***
of Protection	+5 Protection	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Pyre Ward	+5 Fire Resistance	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Tempest Ward	+5 Air Resistance	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Hydro Ward	+5 Water Resistance	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Terra Ward	+5 Earth Resistance	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Shock Ward	+5 Energy Resistance	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Mind Ward	+5 Mental Resistance	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Ethereal Ward	+5 Soul Resistance	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Health	+10 HP	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Life	+1 HP / **turn	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Greater Life	+10 HP, +1 HP / **turn	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Power	+2 Power	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Intelligence	+2 Intelligence	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Personality	+2 Personality	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Toughness	+2 Toughness	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Technique	+2 Technique	Efficiency	*Ar, Cl, Am, St, Ho, Ri

Name	Effect	Type	Items
of Quickness	+2 Quickness	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Perception	+2 Perception	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Pyre Strike	1-4 Fire Damage	Range, Efficiency	We
of Tempest Strike	1-4 Air Damage	Range, Efficiency	We
of Hydro Strike	1-4 Water Damage	Range, Efficiency	We
of Terra Strike	1-4 Earth Damage	Range, Efficiency	We
of Shock Strike	1-4 Energy Damage	Range, Efficiency	We
of Mind Strike	1-4 Mental Damage	Range, Efficiency	We
of Ethereal Strike	1-4 Soul Damage	Efficiency	We
of Knights	+2 Power, +2 Toughness	Efficiency	We, *Ar, Cl, Am, Ri
of Clerics	+2 Intelligence, +2 Personality	Efficiency	We, *Ar, Cl, Am, Ho, Ri
of Wizards	+2 Intelligence, +2 Perception	Efficiency	We, *Ar, Cl, Am, St, Ri
of Wizardry	+4 Intelligence, +4 Perception	Efficiency	We, *Ar, Cl, Am, St, Ri
of Cavalier	+2 Personality, +2 Technique	Efficiency	We, *Ar, Cl, Am, St, Ho, Ri
of Shadow	+2 Technique, +2 Quickness	Efficiency	We, *Ar, Cl, Am, St, Ho, Ri
of Giant	+2 Toughness, +2 Protection	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Titan	+4 Toughness, +4 Protection	Efficiency	*Ar, Cl, Am, St, Ho, Ri
of Hydra	+2 Toughness, +1 HP / **turn	Efficiency	We, *Ar, Cl, Am, St, Ho, Ri
of Scholar	+10% Experience gained	% of value	We, *Ar, Cl, Am, St, Ho, Ri
of Savant	+25% Experience gained	% of value	We, *Ar, Cl, Am, St, Ho, Ri
of Animals	x2 damage vs Animals	Double	We
of Oozes	x2 damage vs Oozes	Double	We
of Elementals	x2 damage vs Elementals	Double	We
of Dragons	x2 damage vs Dragons	Double	We
of Demons	x2 damage vs Demons	Double	We
of Angels	x2 damage vs Angels	Double	We
of Medicine	Immune to Poisoned	Name	*Ar, Cl, Am, St, Ho, Ri
of Humidity	Immune to Flamed	Name	*Ar, Cl, Am, St, Ho, Ri
of Mobility	Immune to Paralyzed	Name	*Ar, Cl, Am, St, Ho, Ri
of Courage	Immune to Frightened	Name	*Ar, Cl, Am, St, Ho, Ri

of Logic	Immune to Maddened	Name	*Ar, Cl, Am, St, Ho, Ri
of Invigorate	Immune to Exhausted	Name	*Ar, Cl, Am, St, Ho, Ri
of Blessing	Immune to Cursed	Name	*Ar, Cl, Am, St, Ho, Ri

Armor here includes the types: Armor, Shield, Gauntlets, Helmet & Boots
*** Stat affections apply 50% of the time when applied on per-turn basis*
**** Ar = Armor, Cl = Cloak, Am = Amulet, St = Staff, Ri = Ring, We = Weapon*

13.3. Worth

Some items are more expensive than other because are constructed by specific components, which can be either common or rare and require different expertise for their making. All item types have a *base worth* that shows how much this item is worth initially.

13.3.1. Worth by evolution

Evolved versions of item are built upon base worth to increase the item worth. The formula to calculate the worth of an evolved item is the following, *rounded up*:

```
worth_evolved = (base worth * (1 + (2.50 * evolved level)))
```

For example the weapon *Longsword* has a base worth of 50g; an evolved version of it like *Longsword +1* will increase its worth to *(50 * (1 + (2.5 * 1))) = 175g.*

13.3.2. Worth by property

The item can break down into its *properties* such damage on weapons, protection on armors, magic on amulets etc. Each property and amount of it increases the item's worth. Note that some items provides one or more of these properties; for that reason we don't deal with item types here rather properties themselves. The following table shows the worth per property type & amount:

Property	Worth	Example
+1 damage	2g	2-4 damage = 12g
+1 protection	2g	8 protection = 16g
+1 enchantment affection, valued	4g	+4 Power = 16g
+1 enchantment affection, named	15g	Potion of Cure Poison = 35g
+1 named enchantment	50g	of Protection = 50g

13.3.3. Worth by spell

If item contains a spell i.e. *wands*, the expertise of spell and also its number of charges are used to define the additional price. The formula to calculate the additional worth of a spell-contained item is the following:

```
worth_spell = (((expertise + 1) * 5) * number_of_spell_charges)
```

The above equation assumes that *expertise* is a number from **0...n**, where the first **(0)** means the *Initiate* expertise and gets increased from then. Since this rulebook is all about CRPGs, it's game developer duty to implement this mechanism.

13.4. Loot

Items can be bought by shops (see **Shops**) but can also be found, in various places and ways. These include **chests, niches** or even **floor**. Their quantity and quality varies and may or may not contain a certain amount of **gold** as well. Generally, the following criteria should be considered to add loot:

- **Container**
  As said, items can be found everywhere but usually are contained in **chests, niches** or even left / thrown in the **floor**, either by a party that had no more use for these or simply because the ones carried them were simply died. In any case, these items / containers should be rather **sparsely** placed.

- **Distance**
  Generally, the more distant a loot is, in terms of *distance*, the better quality it (should) have, given that not many people reached to it. In game mechanics, this should translate to four (4) **tiers by distance**, example:
  Tier 0
  Tier 1
  Tier 2
  Tier 3

- **Generate by shop rules**
  Having computed the item **tier**, we can simply use the **shop** rules (see **Generating items by feature / type**) to generate as many items as needed. This will make sure that our item is never *too weak / too strong* for the area.

- **Gold**
  Containers may not only contain a variant number of items, but also **gold**. The amount of gold should also be based on the **tiers** computed above, to **balance** better with **higher leveled** parties. If a container offers some gold, use the following list to provide a **tier-based gold** ranged amount.
  Tier 0   *25g to 50g*
  Tier 1   *50g to 125g*

Tier 2 125g *to 250g*
Tier 3 250g *to 500g*

13.5. Cursed items

Items can also be **cursed** by spells, rituals or any magical action that infuse the item with permanent evil energy that causes various effects to the wearer once he equips the item. Check the following list:

- the item can't get **unequipped**, once equipped
- **enchanted** items (see **Enchantments**) may reverse their effects

The only way to get rid of a **cursed** item is by visiting a **Temple** (see **Shops**).

13.6. Capped effect by ability bonus

Some items such as **Leather armor** provide a bonus based on a character's dynamic ability score i.e. **4 + TechMod**. So, a character with a **Technique 25** (+2) will gain a **protection** equal to **4 + 2 = 6**. However, the bonus provided is always capped at a maximum of **+15** (ability score **50**) in such cases, so for this specific example the maximum protection provided will be at **4 + 15 = 19**. This is to *balance* bonuses and making them act like *supplements* to items. Otherwise, a **Technique 100** (+40) would cause a simple **Leather armor** to provide a protection of **4 + 40 = 44**, which clearly shows the *imbalance*.

Check this **formula** to calculate the **technique** ability bonus for such items:

```
int32_t tech_bonus = ability_get_bonus( tech_score );
tech_bonus = ((item_protection + tech_bonus) > 0 ?
            (tech_bonus <= 15 ? tech_bonus : 15) : 0);
character_protection += tech_bonus;
```

13.7. List

In the following content, the *base* items are presented. *Base* means that those items are the basis for other, more *specialized* versions. Those specialized versions may differ in efficiency, including added effects. However, they will always share the basic properties of the item, the skill, the usable body part etc.

13.7.1. Weapon

Weapons are the primary tool to cause damage to your foes and there's a large variety of them. Each weapon has one or more improved variations that increases damage as the **Efficiency** increases; that is, an improved version of a weapon is stronger that previous.

Some weapons starts slow, then increased rapidly in much improved versions, others are already somewhat strong from the start but they doesn't improve a lot. Some offensive items (weapons) can be further upgraded to inflict conditions as well, see **Inflict conditions by items**. Finally, some weapons are restricted to some professions. The base weapons are:

Name	Efficiency	Damage	Dmg Type	Num Hand	Reach	Body part	Used by	Skill	Base Worth	Price
Bardiche	+0	4-18	Melee	Two	L	Hand	Knight	Poleblade	70g	114g
Bardiche +1	+4	8-22	Melee	Two	L	Hand	Knight	Poleblade	70g	305g
Bardiche +2	+8	12-26	Melee	Two	L	Hand	Knight	Poleblade	70g	496g
Bardiche +3	+10	14-28	Melee	Two	L	Hand	Knight	Poleblade	70g	679g
Battle axe	+0	4-10	Melee	One	S	Hand	Knight	Long axe	40g	68g
Battle axe +1	+4	8-14	Melee	One	S	Hand	Knight	Long axe	40g	184g
Battle axe +2	+6	10-16	Melee	One	S	Hand	Knight	Long axe	40g	292g
Battle axe +3	+8	12-18	Melee	One	S	Hand	Knight	Long axe	40g	400g
Bow*	+0	6-12 / 1-6	Ranged	Two	L	Hand	Knight	Bow	65g	101g**
Bow* +1	+2	8-14 / 1-6	Ranged	Two	L	Hand	Knight	Bow	65g	272g**
Bow* +2	+5	11-17 / 1-6	Ranged	Two	L	Hand	Knight	Bow	65g	446g**
Bow* +3	+8	14-20 / 1-6	Ranged	Two	L	Hand	Knight	Bow	65g	621g**
Broad axe	+0	3-8	Melee	One	S	Hand	Knight	Short axe	35g	57g
Broad axe +1	+3	6-11	Melee	One	S	Hand	Knight	Short axe	35g	157g
Broad axe +2	+6	9-14	Melee	One	S	Hand	Knight	Short axe	35g	256g
Broad axe +3	+9	12-17	Melee	One	S	Hand	Knight	Short axe	35g	356g
Club	+0	2-5	Melee	One	S	Hand	Knight Cleric	Bludgeon	15g	25g
Club +1	+3	5-8	Melee	One	S	Hand	Knight Cleric	Bludgeon	15g	75g
Club +2	+6	8-11	Melee	One	S	Hand	Knight Cleric	Bludgeon	15g	124g
Club +3	+9	11-14	Melee	One	S	Hand	Knight Cleric	Bludgeon	15g	174g
Crossbow*	+0	4-14 / 1-6	Ranged	Two	L	Hand	Knight	Bow	60g	96g**
Crossbow* +1	+3	7-17 / 1-6	Ranged	Two	L	Hand	Knight	Bow	60g	258g**
Crossbow* +2	+6	10-20 / 1-6	Ranged	Two	L	Hand	Knight	Bow	60g	420g**
Crossbow* +3	+9	13-23 / 1-6	Ranged	Two	L	Hand	Knight	Bow	60g	582g**
Dagger	+0	1-4	Melee	One	S	Hand	Knight Cleric Wizard	Short blade	15g	23g
Dagger +1	+4	5-8	Melee	One	S	Hand	Knight Cleric	Short blade	15g	77g

Name	Hit	Damage	Range	Hands	Size	Grip	Class	Type	Weight	Cost
Dagger +2	+8	9-12	Melee	One	S	Hand	Knight Cleric Wizard	Short blade	15g	126g
Dagger +3	+10	11-14	Melee	One	S	Hand	Knight Cleric Wizard	Short blade	15g	172g
Falchion	+0	4-10	Melee	One	S	Hand	Knight	Long blade	40g	68g
Falchion +1	+4	8-14	Melee	One	S	Hand	Knight	Long blade	40g	184g
Falchion +2	+6	10-16	Melee	One	S	Hand	Knight	Long blade	40g	292g
Falchion +3	+8	12-18	Melee	One	S	Hand	Knight	Long blade	40g	400g
Flail	+0	3-8	Melee	One	S	Hand	Knight	Bludgeon	35g	57g
Flail +1	+2	5-10	Melee	One	S	Hand	Knight	Bludgeon	35g	153g
Flail +2	+4	7-12	Melee	One	S	Hand	Knight	Bludgeon	35g	248g
Flail +3	+8	11-16	Melee	One	S	Hand	Knight	Bludgeon	35g	352g
Greatsword	+0	6-20	Melee	Two	S	Hand	Knight	Long blade	90g	142g
Greatsword +1	+3	9-23	Melee	Two	S	Hand	Knight	Long blade	90g	379g
Greatsword +2	+7	13-27	Melee	Two	S	Hand	Knight	Long blade	90g	620g
Greatsword +3	+12	18-32	Melee	Two	S	Hand	Knight	Long blade	90g	865g
Halberd	+0	4-18	Melee	Two	L	Hand	Knight	Poleblade	70g	114g
Halberd +1	+4	8-22	Melee	Two	L	Hand	Knight	Poleblade	70g	305g
Halberd +2	+8	12-26	Melee	Two	L	Hand	Knight	Poleblade	70g	496g
Halberd +3	+10	14-28	Melee	Two	L	Hand	Knight	Poleblade	70g	679g
Hammer	+0	8-12	Melee	Two	S	Hand	Knight	Bludgeon	70g	110g
Hammer +1	+5	13-17	Melee	Two	S	Hand	Knight	Bludgeon	70g	305g
Hammer +2	+10	18-22	Melee	Two	S	Hand	Knight	Bludgeon	70g	500g
Hammer +3	+15	23-27	Melee	Two	S	Hand	Knight	Bludgeon	70g	695g
Hand axe	+0	4-7	Melee	One	S	Hand	Knight Cleric	Short axe	30g	52g
Hand axe +1	+4	8-11	Melee	One	S	Hand	Knight Cleric	Short axe	30g	143g
Hand axe +2	+6	10-13	Melee	One	S	Hand	Knight Cleric	Short axe	30g	226g
Hand axe +3	+8	12-15	Melee	One	S	Hand	Knight Cleric	Short axe	30g	309g
Long sword	+0	4-12	Melee	One	S	Hand	Knight	Long blade	50g	82g
Long sword +1	+4	8-16	Melee	One	S	Hand	Knight	Long blade	50g	223g
Long sword +2	+8	12-20	Melee	One	S	Hand	Knight	Long blade	50g	364g

Name	Bonus	Damage	Range	Hands	Size	Type	Class	Category	Weight	Cost
Long sword +3	+10	14-22	Melee	One	S	Hand	Knight	Long blade	50g	497g
Mace	+0	2-8	Melee	One	S	Hand	Knight Cleric	Bludgeon	35g	55g
Mace +1	+3	5-11	Melee	One	S	Hand	Knight Cleric	Bludgeon	35g	155g
Mace +2	+6	8-14	Melee	One	S	Hand	Knight Cleric	Bludgeon	35g	254g
Mace +3	+10	12-18	Melee	One	S	Hand	Knight Cleric	Bludgeon	35g	358g
Morning star	+0	5-10	Melee	One	S	Hand	Knight	Bludgeon	50g	80g
Morning star +1	+2	7-12	Melee	One	S	Hand	Knight	Bludgeon	50g	213g
Morning star +2	+5	10-15	Melee	One	S	Hand	Knight	Bludgeon	50g	350g
Morning star +3	+8	13-18	Melee	One	S	Hand	Knight	Bludgeon	50g	487g
Quarterstaff	+0	2-6	Melee	One	L	Hand	Knight Cleric Wizard	Pole	20g	36g
Quarterstaff +1	+2	4-8	Melee	One	L	Hand	Knight Cleric Wizard	Pole	20g	94g
Quarterstaff +2	+4	6-10	Melee	One	L	Hand	Knight Cleric Wizard	Pole	20g	152g
Quarterstaff +3	+6	8-12	Melee	One	L	Hand	Knight Cleric Wizard	Pole	20g	210g
Scimitar	+0	7-9	Melee	One	S	Hand	Knight	Long blade	50g	82g
Scimitar +1	+3	10-12	Melee	One	S	Hand	Knight	Long blade	50g	219g
Scimitar +2	+6	13-15	Melee	One	S	Hand	Knight	Long blade	50g	356g
Scimitar +3	+9	16-18	Melee	One	S	Hand	Knight	Long blade	50g	493g
Scythe	+0	1-8	Melee	Two	L	Hand	Knight Cleric	Poleblade	60g	78g
Scythe +1	+5	6-13	Melee	Two	L	Hand	Knight Cleric	Poleblade	60g	248g
Scythe +2	+10	11-18	Melee	Two	L	Hand	Knight Cleric	Poleblade	60g	418g
Scythe +3	+15	16-23	Melee	Two	L	Hand	Knight Cleric	Poleblade	60g	588g
Short sword	+0	3-7	Melee	One	S	Hand	Knight	Short blade	25g	45g
Short sword +1	+2	5-9	Melee	One	S	Hand	Knight	Short blade	25g	116g
Short sword +2	+5	10-14	Melee	One	S	Hand	Knight	Short blade	25g	190g
Short sword +3	+9	14-18	Melee	One	S	Hand	Knight	Short blade	25g	269g
Spear	+0	2-12	Melee	Two	L	Hand	Knight	Poleblade	50g	78g
Spear +1	+4	6-16	Melee	Two	L	Hand	Knight	Poleblade	50g	219g

Spear +2	+8	10-22	Melee	Two	L	Hand	Knight	Poleblade	50g	360g
Spear +3	+12	14-26	Melee	Two	L	Hand	Knight	Poleblade	50g	501g
War axe	+0	5-7	Melee	One	S	Hand	Knight	Long axe	40g	64g
War axe +1	+4	9-11	Melee	One	S	Hand	Knight	Long axe	40g	180g
War axe +2	+8	13-15	Melee	One	S	Hand	Knight	Long axe	40g	296g
War axe +3	+12	17-19	Melee	One	S	Hand	Knight	Long axe	40g	412g

* Additional elemental damage (right side), if the item is of elemental type
** Prices are for non-elemental type items; they change if the item gets elemental

13.7.2. Armor

The armor is what gets in between from any kind of attack out there. Without armor, you wouldn't go much further as you would literally take damage to its fullest. There are various armors for your chest and there are improved versions of the same armoring which adds more protection to it.

Most armors are providing a fixed protection, for example **Chain mail** provides a fixed protection of **9.** However, some armors are using the character's ability scores to define the armor's protection. An example is **Leather armor** which provides a protection of **4 + TechniqueMod**, meaning a fixed protection of **4**, plus the **dynamic modifier** of Technique of this character. A *negative dynamic modifier* here is converted to **0**, so the fixed protection is not affected; its just that character wont get benefited from any bonus.

The base armors are:

Name	Efficiency	Protection	Body part	Used by	Skill	Base worth	Price
Chain mail	+0	9	Chest	Knight	Chained armor	100g	136g
Chain mail +1	+2	11	Chest	Knight	Chained armor	100g	394g
Chain mail +2	+5	14	Chest	Knight	Chained armor	100g	656g
Chain mail +3	+8	17	Chest	Knight	Chained armor	100g	918g
Leather armor	+0	4 + TechniqueMod	Chest	Knight Cleric	Leather armor	40g	56g
Leather armor +1	+2	6 + TechniqueMod	Chest	Knight Cleric	Leather armor	40g	166g
Leather armor +2	+5	9 + TechniqueMod	Chest	Knight Cleric	Leather armor	40g	276g
Leather armor +3	+7	11 + TechniqueMod	Chest	Knight Cleric	Leather armor	40g	386g
Plate mail	+0	13	Chest	Knight	Plated armor	200g	252g

Name	Efficiency	Protection	Body part	Used by	Skill	Base worth	Price
Plate mail +1	+4	17	Chest	Knight	Plated armor	200g	768g
Plate mail +2	+8	21	Chest	Knight	Plated armor	200g	1284g
Plate mail +3	+12	25	Chest	Knight	Plated armor	200g	1800g
Ring mail	+0	7	Chest	Knight	Scaled armor	70g	98g
Ring mail +1	+4	11	Chest	Knight	Scaled armor	70g	289g
Ring mail +2	+8	15	Chest	Knight	Scaled armor	70g	480g
Ring mail +3	+12	19	Chest	Knight	Scaled armor	70g	671g
Robe	+0	1 + TechniqueMod	Chest	Knight Cleric Wizard	-	20g	24g
Robe +1	+1	2 + TechniqueMod	Chest	Knight Cleric Wizard	-	20g	78g
Robe +2	+2	3 + TechniqueMod	Chest	Knight Cleric Wizard	-	20g	132g
Robe +3	+3	4 + TechniqueMod	Chest	Knight Cleric Wizard	-	20g	174g
Scale mail	+0	7 + TechniqueMod	Chest	Knight	Scaled armor	80g	108g
Scale mail +1	+2	9 + TechniqueMod	Chest	Knight	Scaled armor	80g	318g
Scale mail +2	+5	12 + TechniqueMod	Chest	Knight	Scaled armor	80g	528g
Scale mail +3	+7	14 + TechniqueMod	Chest	Knight	Scaled armor	80g	738g

13.7.3. Shield

A shield is armor worn in the hand and provides extra armoring if a character decides to use a shield. There are various shields for the hand and as in weapons, there are improved versions of the same shield which adds a bit more protection to it. The base shields are:

Name	Efficiency	Protection	Body part	Used by	Skill	Base worth	Price
Buckler	+0	1	Hand	Knight Cleric Wizard	Shield	20g	24g
Buckler +1	+1	2	Hand	Knight Cleric Wizard	Shield	20g	78g

Name	Efficiency	Protection		Body part	Used by	Skill	Base worth	Price
Buckler +2	+2	3		Hand	Knight Cleric Wizard	Shield	20g	132g
Buckler +3	+3	4		Hand	Knight Cleric Wizard	Shield	20g	186g
Shield	+0	4		Hand	Knight Cleric	Shield	40g	54g
Shield +1	+1	5		Hand	Knight Cleric	Shield	40g	158g
Shield +2	+2	6		Hand	Knight Cleric	Shield	40g	262g
Shield +3	+3	7		Hand	Knight Cleric	Shield	40g	366g
Kite shield	+0	5		Hand	Knight	Shield	60g	90g
Kite shield +1	+1	6		Hand	Knight	Shield	60g	271g
Kite shield +2	+3	8		Hand	Knight	Shield	60g	452g
Kite shield +3	+5	10		Hand	Knight	Shield	60g	633g

13.7.4. Gauntlets

The gauntlets are providing yet another layer of protection and they're worn in hands. The protection they offer is not as much as armors and shields but it could make a difference on difficult situations. They also do not require a skill to be used and can be used by all professions. The base gauntlets are:

Name	Efficiency	Protection		Body part	Used by	Skill	Base worth	Price
Gauntlets	+0	1		Arm	Knight Cleric Wizard	-	10g	14g
Gauntlets +1	+1	2		Arm	Knight Cleric Wizard	-	10g	43g
Gauntlets +2	+2	3		Arm	Knight Cleric Wizard	-	10g	72g
Gauntlets +3	+3	4		Arm	Knight Cleric Wizard	-	10g	101g

13.7.5. Helmet

The helmet provides basic protection for the head. They're more like supplementary armoring to the real thing, armors. However, as with gauntlets and shields they provide good protection in improved versions. They also do not require a skill to be used.

Some helmets are providing a fixed protection, for example regular **Helmet** provides a fixed protection of **1.** However, some helmets are the character's ability scores to define the helmet protection. An example is **Mage hat** which provides a protection of **0 + IntelligenceMod**, meaning a fixed protection of **0**, plus the **dynamic modifier** of Intelligence of this character. A *negative dynamic modifier* here is converted to **0**, so the fixed protection is not affected; its just that character wont get benefited from any bonus.

The base helmets are:

Name	Efficiency	Protection	Body part	Used by	Skill	Base worth	Price
Helmet	+0	1	Head	Knight Cleric	-	10g	14g
Helmet +1	+1	2	Head	Knight Cleric	-	10g	43g
Helmet +2	+2	3	Head	Knight Cleric	-	10g	72g
Helmet +3	+3	4	Head	Knight Cleric	-	10g	101g
Mage hat	+0	0 + IntelligenceMod	Head	Cleric Wizard	-	20g	20g
Mage hat +1	+1	1 + IntelligenceMod	Head	Cleric Wizard	-	20g	70g
Mage hat +2	+2	2 + IntelligenceMod	Head	Cleric Wizard	-	20g	120g
Mage hat +3	+3	3 + IntelligenceMod	Head	Cleric Wizard	-	20g	170g

13.7.6. Amulet

The amulets are usually magically enchanted and the majority of them are expensive because of the jewelry they're covered with, as well the amount of magic they contain. They also do not require a skill to be used and can be used by all professions. The base amulets are:

Name	Evolved*	Efficiency**	Body part	Used by	Skill	Base worth	Price
Bone amulet	+0	+0	Neck	Knight Cleric Wizard	-	100g	100g
Celtic amulet	+1	+1	Neck	Knight Cleric Wizard	-	100g	350g
Stone amulet	+2	+2	Neck	Knight Cleric Wizard	-	100g	600g
Crystal amulet	+3	+3	Neck	Knight	-	100g	850g

				Cleric Wizard			
Idol amulet	+4	+4	Neck	Knight Cleric Wizard	-	100g	1100g
Pentagram amulet	+5	+5	Neck	Knight Cleric Wizard	-	100g	1350g

* Evolved on amulets should not be shown as they are self-described by name
** Efficiency shows the amount of enchantment bonus

13.7.7. Cloak

The cloaks are worn above armors and usually give a small protection. However, the power of cloaks is often magical and they boost one or more abilities. They also do not require a skill to be used and can be used by all professions.
The base cloaks are:

Name	Efficiency	Protection	Body part	Used by	Skill	Base worth	Price
Cloak	+0	1	Shoulder	Knight Cleric Wizard	-	10g	14g
Cloak +1	+1	2	Shoulder	Knight Cleric Wizard	_	10g	43g
Cloak +2	+2	3	Shoulder	Knight Cleric Wizard	_	10g	72g
Cloak +3	+3	4	Shoulder	Knight Cleric Wizard	_	10g	101g

13.7.8. Boots

The boots, as well shields, helmets and gauntlets are serving supplementary role, providing similar protection to these armors, yet a worthy one if they're put all together. They also do not require a skill to be used and can be used by all professions. The base boots are:

Name	Efficiency	Protection	Body part	Used by	Skill	Base worth	Price
Boots	+0	1	Feet	Knight Cleric Wizard	-	10g	14g
Boots +1	+1	2	Feet	Knight	_	10g	45g

Name	Efficiency	Enchantments	Num Hands	Body part	Used by	Skill	Base worth	Price
					Cleric Wizard			
Boots +2	+3	4		Feet	Knight Cleric Wizard	-	10g	76g
Boots +3	+5	6		Feet	Knight Cleric Wizard	-	10g	107g

13.7.9. Staff

The staffs are the primary equipment for **Wizards** as it allows to channel *elemental forces* in the form of a spell. Without it, casters won't be able to cast the spells they possess. Staffs are always magically enchanted. They also do not require a skill to be used. The base staffs are:

Name	Efficiency	Enchantments	Num Hands	Body part	Used by	Skill	Base worth	Price
Staff	+0	+2 Intelligence	One	Hand	Wizard	-	100g	108g
Staff +1	+2	+4 Intelligence	One	Hand	Wizard	_	100g	358g
Staff +2	+4	+6 Intelligence	One	Hand	Wizard	_	100g	608g
Staff +3	+6	+8 Intelligence	One	Hand	Wizard	_	100g	858g

13.7.10. Holy Symbol

The holy symbols are the primary equipment for **Clerics** as it allows to channel *divine forces* in the form of a spell. Without it, casters won't be able to cast the spells they possess. Holy symbols are always magically enchanted. They also do not require a skill to be used. The base holy symbols are:

Name	Efficiency	Enchantments	Num Hands	Body part	Used by	Skill	Base worth	Price
Holy Symbol	+0	+2 Intelligence	One	Hand	Cleric	-	100g	108g
Holy Symbol +1	+2	+4 Intelligence	One	Hand	Cleric	_	100g	358g
Holy Symbol +2	+4	+6 Intelligence	One	Hand	Cleric	_	100g	608g
Holy Symbol +3	+6	+8 Intelligence	One	Hand	Cleric	_	100g	858g

13.7.11. Wand

The wands are practically staffs that cast one particular spell. Each wand contains a certain number of charges. In addition, wands are the only magical items

that can be used by non spell-casting professions, such as Knights, although only wands of weaker power can be used by them. They also do not require a skill to be used. However, those items can't be *enchanted,* nor *evolved*. The base wands are:

Name	Effect	Num Hands	Body part	Used by	Skill	Base worth	Price
Initiate wand	Casts an Initiate* spell (12 charges)	One	Hand	Knight Cleric Wizard	-	50g	110g
Apprentice wand	Casts an Apprentice* spell (12 charges)	One	Hand	Knight Cleric Wizard	-	50g	**
Adept wand	Casts an Adept* spell (12 charges)	One	Hand	Knight Cleric Wizard	-	50g	230g
Master wand	Casts a Master* spell (12 charges)	One	Hand	Cleric Wizard	-	50g	290g
Grandmaster wand	Casts a Grandmaster* spell (12 charges)	One	Hand	Cleric Wizard	-	50g	350g

* a spell of an appropriate expertise must infuse the wand
** no spells yet for this type of wand (based on expertise)

13.7.12. Ring

Rings are an important gear of every adventurer because of their flexibility, as well as by the fact that wearer can equip up to four (4) of them. In addition, they can be enchanted & equipped by every profession. They also do not require a skill to be used. However, those items can't be *evolved*, as its the name that characterizes their efficiency. The base rings are:

Name	Evolved*	Efficiency**	Body part	Used by	Skill	Base worth	Price
Bronze ring	+0	+0	Finger	Knight Cleric Wizard	-	25g	25g
Iron ring	+0	+0	Finger	Knight Cleric Wizard	-	25g	25g
Silver ring	+1	+1	Finger	Knight Cleric Wizard	-	50g	175g
Golden ring	+1	+1	Finger	Knight Cleric Wizard	-	50g	175g
Jewel ring	+2	+2	Finger	Knight Cleric Wizard	-	75g	450g
Pearl ring	+2	+2	Finger	Knight Cleric Wizard	-	75g	450g
Emerald ring	+3	+3	Finger	Knight	-	100g	850g

				Cleric Wizard			
Opal ring	+3	+3	Finger	Knight Cleric Wizard	-	100g	850g

* Evolved on rings should not be shown as the rings are self-described by name
** Efficiency shows the amount of enchantment bonus

13.7.13. Book / Scroll

Books and scrolls are very versatile items in the sense that they can be the basic weapon of spell casters and at the same improve anyone's ability or knowledge permanently. They can contain both knowledge and magic powers and their effects varies. They are usable by hand. A scroll is also used for casting spells but only once and caster doesn't actually learn anything about that particular spell. They also do not require a skill to be used. However, those items can't be *enchanted,* nor *evolved.* The base books and scrolls are:

Name	Effect	Num hands	Body part	Used by	Skill	Base worth	Price
Initiate book	Teaches an Initiate spell	One	Hand	Cleric Wizard	-	100g	105g
Apprentice book	Teaches an Apprentice spell	One	Hand	Cleric Wizard	-	150g	*
Adept book	Teaches an Adept spell	One	Hand	Cleric Wizard	-	200g	215g
Master book	Teaches a Master spell	One	Hand	Cleric Wizard	-	250g	270g
Grandmaster book	Teaches a Grandmaster spell	One	Hand	Cleric Wizard	-	300g	325g
Initiate scroll	Casts an Initiate spell	One	Hand	Cleric Wizard	-	20g	25g
Apprentice scroll	Casts an Apprentice spell	One	Hand	Cleric Wizard	-	40g	*
Adept scroll	Casts an Adept spell	One	Hand	Cleric Wizard	-	60g	75g
Master scroll	Casts a Master spell	One	Hand	Cleric Wizard	-	80g	100g
Grandmaster scroll	Casts a Grandmaster spell	One	Hand	Cleric Wizard	-	100g	125g
Book of Power	+1 Power permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Personality	+1 Personality permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Intelligence	+1 Intelligence permanently	One	Hand	Knight Cleric Wizard	-	100g	100g

Name	Effect						
Book of Toughness	+1 Toughness permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Technique	+1 Technique permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Quickness	+1 Quickness permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Perception	+1 Perception permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Fitness	+50 skill XP permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Dwarvish	+50 skill XP permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Lore	+50 skill XP permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Persuasion	+50 skill XP permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Survival	+50 skill XP permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Quickhand	+50 skill permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Stealth	+50 skill permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Awareness	+50 skill permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Fire Element	+1 Fire resistance permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Air Element	+1 Air resistance permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Water Element	+1 Water resistance permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Earth Element	+1 Earth resistance permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Energy Element	+1 Energy resistance permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Mental Element	+1 Mental resistance permanently	One	Hand	Knight Cleric Wizard	-	100g	100g
Book of Soul Element	+1 Soul resistance permanently	One	Hand	Knight Cleric Wizard	-	100g	100g

no spells yet for this type of book / scroll (based on expertise)

13.7.14. Potion

Potions are one of the most flexible items because their effects vary greatly and can be consumed by anyone. In addition, potions are **targetable**, meaning that *another character* can consume the potion instead. They are usable by hand. They also do not require a skill to be used. The basic potions are:

Name	Effect	Num hands	Body part	Used by	Skill	Base worth	Price
Potion of Healing	Restores 6-9 Hit points	One	Hand	Knight Cleric Wizard	-	10g	18g
Potion of Healing +1	Restores 12-18 Hit points	One	Hand	Knight Cleric Wizard	_	10g	43g
Potion of Healing +2	Restores 18-27 Hit points	One	Hand	Knight Cleric Wizard	_	10g	68g
Potion of Healing +3	Restores 24-36 Hit points	One	Hand	Knight Cleric Wizard	_	10g	93g
Potion of Cure Poison	Cures Poisoned condition	One	Hand	Knight Cleric Wizard	_	10g	35g
Potion of Cure Flaming	Cures Flamed condition	One	Hand	Knight Cleric Wizard	_	10g	35g
Potion of Cure Paralysis	Cures Paralyzed condition	One	Hand	Knight Cleric Wizard	_	10g	35g
Potion of Cure Fear	Cures Frightened condition	One	Hand	Knight Cleric Wizard	_	10g	35g
Potion of Cure Insanity	Cures Maddened condition	One	Hand	Knight Cleric Wizard	_	10g	35g
Potion of Cure Exhaustion	Cures Exhausted condition	One	Hand	Knight Cleric Wizard	_	10g	35g
Potion of Cure Curse	Cures Cursed condition	One	Hand	Knight Cleric Wizard	_	10g	35g
Potion of Poison	Causes Poisoned condition	One	Hand	Knight Cleric Wizard	_	10g	35g

13.7.15. Misc

Finally, there are items that couldn't be placed into any of the aforementioned categories, mostly because their **features** vary a lot. Most of these don't have any relation to each other but they still can be quite common in the world and/or provide common abilities, while on occasion share some some abilities with all common-type items referred in previous chapters. Finally, such items are more open to interpretation, for example *Torch* has 24 turns before burning out. Such items are:

Name	Num Hands	Body part	Used by	Skill	Features	Base Worth	Price
Torch	One	Hand	*	-	Lighting (24 turns)	1g	13g

* Usable by all professions

14. Spells

Spells are the workhorse of casting professions such as **Wizards** and **Clerics** i.e. **Knights** can't cast spells. A caster can cast a spell with various methods such as using his Staff (i.e. not quarterstaff), a Scroll or a Wand. For a caster to cast a spell using a staff, the spell must be learned first by using a spell book. In addition, caster is required to learn the particular magic skill first i.e. to even learn a fire-based spell one has to learn the Fire magic skill first. Some spells can't be used by some casting professions. They're sorted primarily by their expertise because of the varied amount of energy required for casting and secondly by profession.

14.1. Relation to D&D spell levels

D&D provides a number of levels, specifically nine (9) levels per casting class, which levels is a general indicator of how powerful the spell is. ORS uses descriptive expertise levels i.e. *Master*, rather numeric ones. A close interpretation of D&D spell levels & ORS expertise levels is shown on following table:

ORS expertise level	D&D spell level(s)
Initiate	**0 (cantrips), Level 1**
Apprentice	**Level 2, Level 3**
Adept	**Level 4, Level 5**
Master	**Level 6, Level 7**
Grandmaster	**Level 8, Level 9**

14.2. Duration

Spells may have an instant effect i.e. causing damage, while some may have a continuous effect on the target, for a predefined amount of **turns / skill level**. For example, the spell **Light**, which it casts on caster himself, provides lighting for **24** turns / skill level. **One (1) turn** is equivalent to the following:

- 1 minute (on a **party move**)
- 1 minute (on a **combat turn**)
- 5 minutes (on a **resting turn**)

14.3. Capped effect by level

Some spells are using the caster's expertise level for their effect. These spells have a maximum limit of levels based on the expertise's starting level, **plus 5 levels**. If the caster has more than expertise's level **plus 5 levels**, the level used is limited to this number. Check the following formula:

```
expertise_level = (expertise_level > starting_expertise_level + 5 ?
                   starting_expertise_level + 5 :
                   expertise_level)
```

In game context, the starting expertise level can be easily computed if developer gives an index of *0..n* to expertise i.e. *Initiate = 0, Apprentice = 1* etc. Therefore, the starting expertise level can be computed with the following formula:

```
starting_expertise_level = (expertise * 5)
```

NOTE: Since monsters do not have an expertise level, their level is used instead. The following formula does this, shrinking the monster's level by 4 to normalize high levels:

```
monster_expertise_level = (monster_level / 4)
```

14.4. Capped effect by expertise

Expertise on a magic skill helps **certain spells** to increase their magic output. However, for **balancing** reasons, the extend of this is based on the **spell's expertise** itself i.e. an *Initiate* spell wont **extend / evolve** as much as an *Apprentice* spell.

To make things clearer, the **magic output** (let's say, of an *offensive spell*) is based on a **multiplier** that all *spells based on expertise* have (not all spells extend by

expertise). This **multiplier** increases the *spell's potential*, from its **initial expertise** to the **caster expertise**. Say, if an *Initiate* spell like **Firebolt** is cast by a Wizard with his **Fire magic** skill trained to *Grandmaster* expertise, the **Firebolt** will get an increased *damage output range*, a result of the expertise gap from *Initiate* (the spell's expertise) to *Grandmaster* (the caster's expertise).

However, this causes **balancing** issues, as usually *very weak, starting* spells get too strong of a **magic output** if the expertise is too big. For this reason and especially for the *starting spells*, a **capped effect** comes into play where the spell won't increase **infinitely** to its caster's *expertise*.

For example, if the wizard is again having trained his **Fire magic** skill to *Grandmaster* expertise, then an *Initiate* spell will be cast as a *Master* spell (i.e. not a *Grandmaster* one), an *Apprentice* spell will be cast as a *Grandmaster* spell. This **balances** these starting spells to never make it into a point to **rival out** the stronger spells on *higher expertises.*

The following code shows how this **capped effect** is utilised, and how the *magic output* is computed, in general. To simplify computations, you can use a range **0..n** of expertise indexes. The **value** is the initial magic output (as range) and **multiplier** is a **float** number that multiplies that **value** in *each step*, through the *expertises*:

```
J3D_VEC2 value_inc = J3D_VEC2(value.x,value.y);
for(int32_t e=spell_exp,num_exp=0;e<=caster_expertise;e++,num_exp++) {
   // capped effect by expertise
   if (num_expertises == 4) {
      break;
   }
   // compute current + max value
   value_inc = J3D_VEC2(value_inc.x * (num_exp == 0 ? 1.0 : multiplier),
                        value_inc.y * (num_exp == 0 ? 1.0 : multiplier));
   // round the magic output
   value_range = J3D_POINT(round(value_inc.x), round(value_inc.y));
}
```

14.5. Casting a spell as a non spell-caster

There are cases where a character can cast a spell without being a spell-caster or simply not knowing the skill at all. One of such cases is casting a spell from a **Wand** or a **Scroll**, which doesn't take professions into account. In this case, the character may not have the skill of the spell contained in the wand, therefore his **expertise level** is simply zero (0). In such cases, the non-caster's skill level becomes **one** (1).

```
skill_level = (skill_level == 0 || not_caster ? 1 : skill_level)
```

14.6. List

Spells are the primary weapons of caster professions, such as **Wizards** & **Clerics**. They're sorted into the element they're drawing their power from, by which profession(s) can be used, the expertise level that is required and such. Wherever a **level** is mentioned, the caster's skill level is considered, not the caster's level. The base spells are:

Name	Skill ***	Prof. *	Expertise*	Duration**	On *****	Action****
Astral Fire	Fire	Wi	GR	Instant	VA	**24-60** Fire damage
Bless	Soul	Cl	IN	2 turns	PA	**150%** Physical damage
Bolt of Judgement	Soul	Cl	IN	Instant	V1	**5-12** Soul damage
Bolt of Lightning	Energy	Wi	AP	Instant	V1	**8-20** Energy damage
Break	Mental	Cl	IN	2 turns	VA	**50%** Physical damage
Cure	Soul	Cl	IN	Instant	P1	**3-6** HP healing (**5-10** max)
Firebolt	Fire	Wi	IN	Instant	V1	**2-5** Fire damage (**5-14** max) Causes **Flamed**
Fire Shield	Fire	Cl, Wi	AP	40 turns	P1	**+5** Fire Resistance
Freezing Spikes	Air	Wi	IN	Instant / 2 turns	V1	**2-4** Air damage (**6-12** max) **-5** Quickness
Frosty Spear	Water	Wi	IN	Instant	V1	**5-12** Water damage
Hardskin	Earth	Wiz	AD	8 turns	P1	**200%** Protection
Holy Fire	Fire	Cl	IN	Instant	V1	**2-4** Fire damage (**6-12** max)
Holy Mantle	Soul	Cl	IN	8 turns	P1	**+4** Protection
Iron Ward	Mental	Wi	IN	2 turns	S	**+25** Protection
Light	Energy	Cl, Wi	IN	40 turns	S	Normal **lighting**
Magical Armor	Energy	Wi	IN	8 turns	P1	**+4** Protection (**+7** max)
Mind Slap	Mental	Cl	IN	Instant	V1	**4-10** Mental damage
Poison Roots	Earth	Wi	IN	Instant	V1	**2-4** Earth damage (**6-12** max)
Starbeam	Fire	Wi	MA	Instant	VA	**10-24** Fire damage Causes **Flamed**
Venom Extract	Earth	Cl	AP	Instant	V1	Cures **Poisoned**

* *Expertise:* **IN:** Initiate, **AP:** Apprentice, **AD:** Adept, **MA:** Master, **GR:** Grandmaster
* *Casting professions, as two-chars:* **Wi** = Wizard, **Cl** = Cleric
** *Duration can be either instant or lasting a predefined amount of **turns / level***
*** *The skill the spell belongs to i.e. **Fire magic***
**** *The **max** value is reached with skill expertise on **Grandmaster** level.*
     *If spell causes a condition, see **Inflict conditions by spells***
***** *Targets are:* **P1** *(Party, one),* **PA** *(Party, all),* **V1** *(Villain, one),* **VA** *(Villain, all),*
          S *(self)*

15. Starting equipment

At the start of adventuring, the party characters require some basic equipment to get going, without getting killed in minutes. For spell casters, they're supposed to know some spells as well. The chosen *Profession* and *Skills* are used to define the character's starting equipment. The following tables provides a list of starting equipment, based on each character's properties:

15.1. By Profession

Professions may define a starting set of equipment. The following table lists all professions and the equipment they give to starting-out characters:

Profession	Starting equipment
Knight	Helmet, Boots
Cleric	Robe, Boots, Holy Symbol
Wizard	Robe, Boots, Staff

15.2. By Skill

The items & spells the character starts with are based primarily on starting *Skills*. The following table lists all the skills and the starting equipment & spells:

| Skills	Starting equipment	Spells**
Short blade	Dagger	-
Bow	Bow	-
Bludgeon	Club	-
Short axe	Hand axe	-
Pole	Quarterstaff	-
Shield	Shield	-
Leather armor	Leather armor	-
Fire magic	-	Firebolt (Wi), Holy Fire (Cl)
Air magic	-	Freezing Spikes (Wi)
Water magic	-	Frosty Spear (Wi)
Earth magic	-	Poison Roots (Wi)
Energy magic	-	Light (Wi,Cl)
Mental magic	-	Iron Ward (Wi), Break (Cl)
Soul magic	-	Cure (Cl)

one item, regardless the number of magic skills
*** one spell, based on character's casting profession, **Wi** = Wizard, **Cl** = Cleric*

16. Character creation

Creating a character is straightforward, it just requires the right order of information. For example, it is wrong order to choose a Profession before choosing a Race because in most occasions a prior selection gives bonuses and/or penalties to the next one. Just try to follow the guide to arrive correctly on *1st level* of your character:

- Go to the **Races** and select a race

- Go to **Naming** chapter and choose a *gender* & *name*

- Choose a **Profession**

- Go to **Generate static ability values** to generate the seven (7) **Abilities**

- Go to **Races** and update the **Abilities** by racial *Ability Bonuses*

- Go to **Strong / weak Abilities** and update the affected *Abilities values*

- Go to **Skills** and choose three (3) eligible skills from all skill groups.

- Go to **Races** and add your native language, if any, on your *Misc* skills.
  NOTE: *English* is not considered a skill, therefore do not add it as a skill

- Go to **Skills** and choose one (1) eligible skill from *Misc*

- Go to the **Starting equipment** and pick up equipment *by Profession*

- Go to the **Starting equipment** and pick up equipment *by Skill*

- Update **Abilities** by picked up equipment

- Go to **Hit points** and calculate hit points

- Go to **Spell points** and calculate spell slots

- Set your character at *1st* level, experience points at *0* and an **Adulthood** age

- Repeat the procedure *3* times (a *4-member* party is required)

- Sum the *initial wealth* of each character's **Profession** to *party gold*
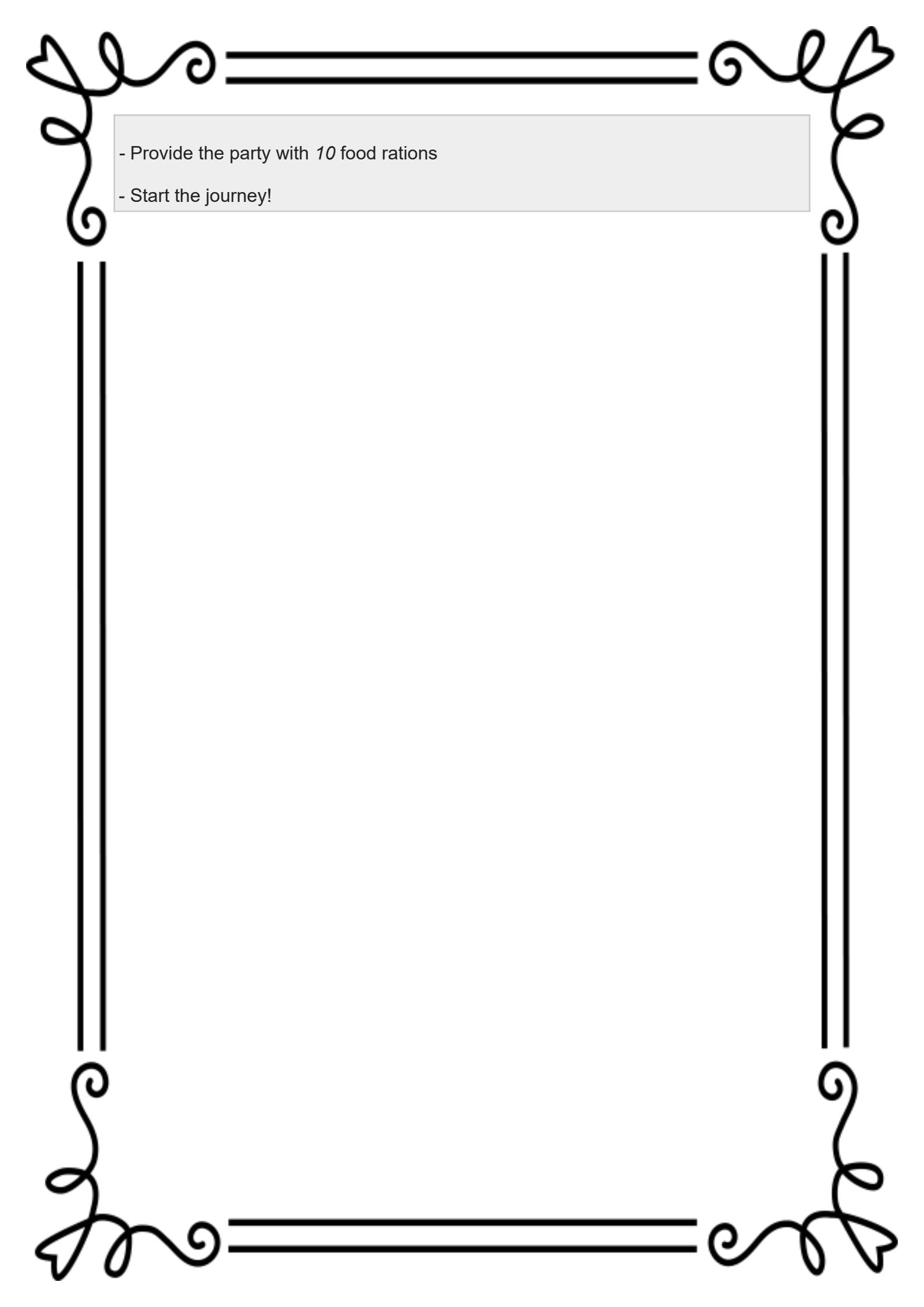
- Provide the party with *10* food rations

- Start the journey!