A crafting system

Craft your own tools of ultimate destruction... or blow up the whole world!

OVERVIEW

After a while and a somewhat inspired alchemy system from last year, I thought I could come up with something better and actually expand that system into a fully fledged crafting system, since I love that kind of gameplay. I love it in videogames, I love it in tabletop RPG's, so why not try my hand at it from "the other side of the chair" as game design practice?

Plus, the structure of the alchemy system I made last year sort of fits the whole idea in this one, so the challenge was actually not to overcomplicate the design by giving into the Dark Side of feature creep.

On top of that, videogames can still teach something to tabletop RPG's, not only viceversa, and I have seen that the many other authors who uploaded crafting systems on the Guild tended to focus more on gold base cost and downtime.

So, I wanted to see if that tendence was just out of habit and tradition or because there is an actual design setup that prevents other system combinations from working.

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Design Principles

Units

They are an abstract measurement of the amount of each material category listed in the item's schematics a character needs in order to craft it.

In this supplement, items require a moderate amount of units to help with mathematics.

Materials

Each material is defined by **two properties**: the category they belong to, like metal, wood, leather and the like, and their specific nature, if present.

Each crafting schematic within the system lists only the required material categories in order to let the players, their characters and the GM have fun customizing the items they make to their preferences in the hope of reaching that sense of connection with one's kit and equipment.

Categories

Each material belongs to a category, like wood, metal, stone, magical essence, scales, leather, bones, crystals and so on.

A few categories, such as wood, metal and leather, are most likely to be common to many gaming settings; Game Master, however, are more than free to decide which are present in their world.

Are there no special metals, like in Dark Sun? Is there the "Crystal" category? Do the "Energy Motes" and the "Crystals" categories interact in some way, if present?

Each recipe for crafting an item only lists how many units of each category are required, because it is left to character choice which specific materials to use, if allowed.

Specific materials

Specific materials are individual variations in a category, like iron, steel, bronze for metal, and, although one of the pillars of the supplement, they are a somewhat optional rule.

Specific materials can apply additional effects to the finished product: this why they are considered optional as they can imbalance the game if used without careful planning.

Raw items, like a bar of iron, their refined counterpart, like steel, and even other manufactured times, like the arrowhead made out of the steel obtained by adding carbon to the iron ingot, can be all considered specific materials when it comes to crafting something.

The only limit is **what the group and GM find that does not take from the fun of passing time together at the table**.

By itself, the system is able to provide for extremely deep levels of customization, but by itself that is not a reason to actually go that far: the limit is when the group stops having fun or has the feeling they are playing another game on top of D&D.

How not be overwhelmed!

The exact amount, nature and distribution of specific materials varies from setting to setting, although it is not mandatory for a Game Master to have invented all of them by the first session.

If the players and the Game Master like the idea of customizing an item to its inner-most detail, as I surely love for my characters, then this option allows them to.

However, if they do not feel like introducing specific materials to their game, they can just use the "generic" material types as their average crafting materials and, perhaps, have the specific ones as particularly rare items or plot devices.

Magical Items

Just using unusual materials does not mean a crafted item counts as being magical.

For that to happen, the character must add to the item's schematic units of materials from the Magic Source category.

Proficiencies

In both the DMG and XGTE, crafting examples and options are restricted only to specific proficiencies that are easier to set up examples for.

One of the aims of this supplement is to push the idea that each and every tool proficiency in the Player's Handbook is worthy of being picked, because it offers unique items that can benefit from this system.

A few examples follow.

> **Author's note**
> As always with my work, they are just hints of what can be done. If you want to expand on them or just use some of them, you are more than welcome to!
> I wrote this whole thing to give a road for your imagination to run on, not to encapsulate it within rigid constraints!

Materials

To bring the crafting gameplay to its fullest, the Game Master can award specific material proficiencies as milestones, downtime achievements, quest completion, levelling and the like, to immerse characters and players alike in their world and have them give crafting a thought as something in of itself serious than just monkeying around a workshop blasting silly crap to high heavens.
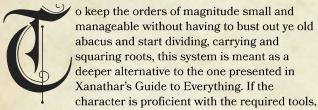
Tools

- **Alchemist's supplies:** Other than the most obvious potions, poisons and oils, alchemy can be used for things like inks to be used for scrolls and maps, explosives and projectiles. Alchemy makes heavy use of other items as specific materials, but employs categories like *Acids*, *Minerals*, *Leaves*, *Organs*, *Flowers*, *Barks* and *Magic Sources* (or something that stores magical energy).
- **Brewer's supplies:** By itself, they are used to brew spirits, although one possible variation would be to have them make potions, rather the Alchemist's supplies, to the GM and group's discretion. Common categories can be *Barks*, *Seeds*, *Flowers*, *Essences* and *Minerals*: every self-respecting dwarf should known their recipes by heart, right? Well, now they can make them too!
- **Calligrapher's supplies:** They are used to write scrolls, Divine Seals, perhaps even embellish maps and make sure a spellbook is incredibly goodlooking (not to mention incredibly more powerful than its dull-looking counterpart…). Common categories used by calligraphers can be *Inks*, *Parchments* and *Woods*.
- **Carpenter's tools:** They are used to craft complex wooden artefacts, like means of transportation from carts to longship, even Airships and Eternal Wardens if present in the setting. Since these tools are rather specialized, instead of just using "Wood" as a general, catch-all category the GM might opt to allow for more specific ones. Carpenters are likely to require higher amounts of units for their work, given the dimensions of their creations.
- **Cobbler's tool:** Cobblers make footwear and many a magic item is a set of either shoes or boots. Common categories in their use are *Leathers*, *Metals*, *Scales*, *Bones* and *Fabrics*.
- **Cook's utensils:** Although cooking is not the specific aim of this supplement and out there there are many superb expansions on the topic, as some videogames have it sometimes it can be fun to see how much does food impact the life of an adventurer. Common categories for cooking are *Meats*, *Fish*, *Eggs*, *Vegetables* and *Fruits*.
- **Glassblower's tools:** The art of glassblowing is very complex, extremely specialized and also rather dangerous for the amount of chemical inhalations that a practitioner is exposed to. However, it can provide for special containers, like jars for particularly nasty elementals or containment for magical forces, mirrors or discrete portals and other, more or less permanent, spells woven into the glass of a window. As such, in addition to *Glass*, common categories for glassblowers are *Magic Sources*, *Pigments* and *Metals*.
- **Jeweler's tools:** Rings, necklaces and tiaras abound in fantasy literature and RPG's. Fun fact: it appears it was common in the Middle Ages for jewelcrafters to be involved in the production pipeline of mail armor because they were more likely than just blacksmiths to have the necessary tools and skills to work with such small items like the individual rings and the rivets they could be closed with. As such, jewelers make great use of *Metals*, *Stones*, *Gems* and *Magic Sources*.
- **Leatherworker's tools:** In some regards, leatherworking and cobbling share items they can produce. Leatherworkers are also renowned for their skill in making the likes of bracers, armor, bags and bandoliers. Leatherworking makes common use of *Leathers*, *Scales*, some *Metals* and *Fabrics*.
- **Painter's supplies:** Though not directly usable in game terms, paintings, glyphs and illustrations can be a creative alternative to writing scrolls. For the purpose of this supplement, then, tracing runes and glyphs is covered by proficiency in the Painter's supplies. For this, common categories are *Paints*, *Supports*, *Chalks*, *Minerals* and *Magic Sources*.
- **Potter's tools:** As with Glassblower's tools, they are not frequently picked, but can provide for special containers to be used during adventurers. Common categories are *Minerals*, *Pigments*, *Clays* and *Magic Sources*.
- **Smith's tools:** Smiths deal with the heavier duty manufacturing of weapons, armor and other metallic tools or pieces. Since a smith usually requires many different pieces to make the more complex items, it is frequent for them to utilize the produce of other proficiencies as specific materials. Fun fact: the hilt assembly and sheath of a medieval sword was frequently made by craftsmen other than the blacksmith who forged the blade. It was exposed to less stress than the blade itself, it was the part of the item that was the most visible most of the time it was not drawn and also the one that offered the highest degree of customization. It might be fun, as a group effort, to design the group's trademark sword to its most minute details and then provide its entire construction, from ground up. They make heavy use of the most varied materials, like *Metals*, *Woods*, *Leathers*, *Scales*, *Minerals*, *Pigments* and *Magic Sources*.
- **Tinker's tools** Tinkers in many D&D games are the equivalent of modern day's mechanics and engineers, who work in tight collaboration with alchemists and the rest of the "non necessarily magical" science community. Especially, they are involved in the development of mechanisms, for which they commonly employ *Metals*, *Leathers*, *Fabrics*, *Crystals*, *Minerals* and sometime *Magic Sources*.
- **Weaver's tools:** Weavers work with *Fabrics*, *Pigments* and sometimes *Metals* to craft clothes, mantles, capes, carpets and even some kinds of bags.
- **Woodcarver's tools:** The difference between a woodcarver and a carpenter is mostly scope. In fact, the former deals, among other things, with weapon and arrow shafts, bows, statuettes, gaming boards, sword handles and staves. Other than *Wood*, they commonly use *Leathers*, *Metals* and *Magic Sources*.

Mechanics

To keep the orders of magnitude small and manageable without having to bust out ye old abacus and start dividing, carrying and squaring roots, this system is meant as a deeper alternative to the one presented in Xanathar's Guide to Everything. If the character is proficient with the required tools, has enough units of the necessary materials and a space where to work, then they have just to pay a **third of the item's cost** in accessories, secondary components, rents, taxes, living and the like: it is assumed that they are competent enough to be less likely to fail the entire project completely, as Fifth Edition does not features more levels of knowledge and skill once the proficiency has been acquired.

> ### Author's note
> I did not add a required check to complete the crafting process, because I think that the process of gathering the materials and securing a workplace already presents enough occasions for failure.
>
> On top of that, I don't like the idea of **checks** as **makers or breakers**: failing a check does not feel a mistake on the part of the player.
>
> If anything, it feels like something they had no power to avoid other than stack their modifiers and bonuses to have a higher chance of succeeding.
>
> Plus, as Matt Colville rightly said in his work on mass battles, I do not want my players to play another game on top of D&D.

Artefacts and sentient items cannot be crafted, save by the gods or primeval forces themselves.

Crafting Time

The amount of time necessary to craft an item is a number of **workdays** equal to **10 times** the total of material **units**.

An item that requires 3 units of whatever base material to be made, requires 30 workdays to be produced.

Sizes

To craft an item for a creature whose size is other than Medium, add or subtract 1 unit of each material for each size increment of difference.

Help

The character attempting the crafting can be helped by a number of **people up to their Intelligence modifier**, taking care of different aspects of the project.

Helping characters, if proficient in a tool that can be used to make the process faster, states how they help and, if appropriate, **reduce** the necessary **workdays** by an amount equal to their **highest ability modifier**.

A particularly smart character or NPC can help by coordinating the development, while a strong one takes care of the heavy lifting and the face of the group help securing resources at lower prices: the "help" feature is not intended just as a way to churn out stuff faster, but as an occasion for the whole party to shine and contribute to the common goal.

There are mountains of coals to shove in the furnace, pools of colours to be constantly mixed to the right density, workers to be coordinated, inscriptions and glyphs to etch on a bewildering array of different surfaces: each character in the party can somehow lend a hand.

Magical Items

To enchant an item with a specific effect or spell, whether the incantation is carried out during the item's creation process or at a later date, the characters need an amount of **units from the Magic Source category** (or local equivalent) equal to the sum of the involved spell's levels.

If the item is being enchanted with the equivalent of one spell then is that spell's level; if more than one, it is their sum.

Cantrips require just one unit of Magic Sources.

Moving permanent enchantments

To move an enchantment from an item onto another, the character must attempt a **DC 20 spellcasting ability check** and use the amount of Magic Source units they would normally be using if the enchantment was originally cast on the target item, plus 2.

If the enchantment is not a spell that can be replicated by the characters, then the cost in Magic Source units is not the total sum of spell levels, but 1 unit per rarity tier, plus 5 if the source item is sentient or an artefact.

Enchantment Limits

As moving enchantments and ensorcelling items is potentially even more balance-breaking than the already high average of this system, there are multiple ways to set limits to how many enchantments an item can have on it at the same time.

Piece count
If the item is made by multiple pieces, like a sword or a suit of armor, then each of them can accommodate one enchantment of a level comparable to its size, which is purposefully left to GM discretion.

No
The limit is just 1 enchantment per item, no matter what.

Progression
Each time the character gains a proficiency increase, they can store one more enchantment in the items **they** make.

Spell level
If they are spellcasters, the total number of spell slots' worth they can put in the items **they** craft is equal their highest spell slot at the moment of the item's creation.

Materials

If the group makes use of the rules for specific materials, they are able to craft alternative or better versions of an item by simply changing the specific materials they use during the production process.

If so, the crafting time multiplier is 5 workdays instead of 3. Because of this, mixing different materials of the same category can rapidly become a game breaker, so a few options are presented to prevent it or bend it to be a useful aspect.

Still, equipment produced just with different materials does not count as a magical item.

No!

One good, solid reason not to allow the mixing of materials is that if each of the required units of the same category can be of a different material, then it is an open invite to powerplaying and to the production of items that exist not because they fit the game setting or the plot, but just because they are optimization-hoards.

If the group chooses not to allow mixing, then, if an item is made with materials different from its base configuration, the PC's must supply half the whole amount instead of just some units.

Yes! Alloys and compounds

A middle ground is allowing some **specific materials to be mixed with a limited range of others**: if the characters know of their existence and how to work them, then, they can try to mix them to produce other kinds of specific materials.

Keep in mind that **mixing two units** always results in **one unit of another material of the same category**. Only particularly dramatic materials should be made by mixing specific materials of different categories.

Once the alloy or compound has been discovered, then, it is as the previous case: half of the units' worth covered by the new material to apply its effect to the item.

The upside is that the GM has more control on the consistency with the game setting, the campaign's pacing and difficulty.

The increase in workload for the GM is easily offset by deciding such things when they are needed.

Deciding effects

There is no exact science behind the effect that an alloy or compound should take, but the rule of thumb I use is to make it have both principles, though at least of one smaller die size or, in case of fixed bonuses, requiring double the units to achieve the same +X.

Yes! Experimenting with materials

Of course, why do all the work when the PC's can try their own luck in experimenting between adventures?

As with many spells named after a specific person, who often was a character of the developers', it can lead to fun moments of explosive madness and also communal, shared world-building occasions that will be remembered in the future, perhaps long after the individual campaign has ended.

Plus, the GM has less work to worry about, although the process of sanctioning the players' operation might not be immediate.

Materials: Effects guide

When creating special and specific materials, deciding their effect in a way that can be easily stacked and does not break the game can become a creative challenge.

The effect of a specific material, then, can come in two forms: those that add a hard number to something like bonus damage, bonus Armor Class, bonus or temporary Hit Points, the Difficulty Class of a check or save and damage reduction, and those that add or modify a condition, or something that can be applied only once, like resistances, vulnerabilities, advantages, disadvantages, proficiencies and the like.

"+/-X" materials

The items made using them add +1 or a die of a specific size per unit present to quantifiable aspects like damage, AC, checks and the like while not making the item magical per se.

Materials that add an integer are easier to keep track of because the bonus they offer is equal to their units present in the item, or half that number if the material in question is an alloy or compound.

In addition to that, an integer adds an **invariable factor** in the calculation, making its average more easily manageable.

Instead, adding an interval, like a die of some size, makes the item's role less predictable and more fluctuating.

An Example

Instead of crafting a greatsword with 4 units of steel, the characters decide to use some of their newly-acquired mithril, that the GM chose it adds +1 piercing damage to whatever weapon it is used for.

Since the greatsword requires 4 units, they need to use half of that in mithril units in order for it to apply its bonus, which is equal the number of units of the special material that have been used.

So, after 4x5 workdays, instead of 4x3 because special materials are involved, and at the cost of a third of the greatsword's base price, the characters have crafted a greatsword that deals its 2d6 + Strength bonus slashing damage + 2 piercing damage.

Types

The gameplay that revolves around the ideas of resistances, proficiencies and advantages is a switch: something either **is or is not** under that specific condition.

If it is, no matter the context, it is under the same effects every time.

In a system that is quantity-based, like the one discussed in this supplement, a quality-based condition like that poses a challenge to be portrayed accurately, because no matter how many units of flamebrand iron one invests into their greatsword, its damage can be converted to fire only once.

One possible way of considering the matter is that even large or complex items, as said greatsword, do not require many units, unless they are a building, meaning that there is not going to be a great difference in effects or cost between one or two units of flamebrand iron.

This solution is more conservative and has the overall balance of the game in mind.

An alternative, instead, is to have the first unit apply the change in type, whether in damage, resistance, etc, and then a comparatively small die, like a d4 or a d3, of that same type each two units after the first. This other solution, instead, is less conservative and is meant to make each unit of material count and affect the game somehow.

Which solution to choose is up to the players and GM together, though they are more than free to come up with their own.

Gathering Materials

Materials are available in shops and markets, although the pricing is likely to be higher accounting for their rarity, difficulty of extraction or even specific laws that might limit their availability.

Also, **materials** can be considered to all effect a form of **currency** as valid as magical items, art and the spoils the characters usually find during their runs.

For the sake of brevity and simplicity, this supplement uses a system for gathering materials without buying them that is heavily based on the **Alchemical Hazards** supplement: it does not matter their category, materials can be either **natural** or **magical**.

Gathering natural Materials

Harvesting a creature's parts is a **Wisdom (Survival)** check with a DC appropriate to its anatomy and the conditions the corpse was found or left.

If the same animal has been killed in two drastically different ways, like a spear strike and a fireball, its bones, fat, claws or hide are very likely to be in very different conditions and some might even be completely ruined, thus altering the check DC.

The check takes an amount of time as listed in the Check Duration table.

If a body part is present in a limited quantity, like hearts, eyes and lungs, then it can be harvested up to that number and count as individual units.

For all the others, the character rolls a number equal to their Wisdom modifier of the dice indicated in the Units per Creature size table.

The result is the amount of units the have gathered for that check.

Ranger and Druid characters also add their proficiency bonus, if proficient in Survival, to the Wisdom modifier for the purpose of calculating dice amounts.

Check Length

Creature size	Check duration
Tiny	half an hour
Small	1 hour
Medium	2 hours
Large	3 hours
Huge	4 hours
Gargantuan	8 hours

Units per Creature size

Creature size	Die
Tiny	d2 units
Small	d3 units
Medium	d4 units
Large	d5 units
Huge	d6 units
Gargantuan	d8 units

Plants follow the same rules, with the only difference being that they possess fewer limited or unique components.

To gather **minerals**, assuming they have the proper equipment for the task, the character has to attempt an hourly **Constitution (Survival)** check.

The check's DC is influenced by factors like the weather, how rich is the vein and the conditions of the earth.

If the character works for an amount of working hours greater than their Constitution modifier, they have to roll a **DC 15 Constitution saving throw** or suffer **one level of exhaustion**.

Mining counts as heavy activity for the purposes of benefiting from long rests.

When rolling for units, it is important to remember that what the characters extract from the earth is enough raw material to obtain that amount of the refined one: for simplicity, instead of rolling Wisdom bonus (plus proficiency for Rangers and Druids) dice of variable size, just roll Constitution bonus d6's.

GATHERING MAGIC MATERIALS

Magic components are required to craft magical items, as they provide for the raw magic charge that will power whatever enchantment they will be carrying.

To acquire units of materials from the **Magic Source** category, characters have to attempt a **ritual** costing 1 hour and 25 gold pieces worth of components per spell slot spent to fuel it, in a place where the corresponding magical force is very strong, such as a Plane itself, a rift between Planes, a powerful consecrated place or an elemental distortion.

After the ritual is completed, its units are an amount of d6's equal to the slot level used for the ritual and the caster's spellcasting modifier.

If the ritual was carried out in the pertinent Plane itself, its yield is the same amount of d8's rather than d6's.

Schematics

The following list contains the schematics for the items listed in the Player's Handbook only, since most of the magical items in other sources are just a variation of their normal counterpart.

Armor

- **Breastplate:** 3 units of Metal, 2 units of Leather
- **Chain Mail**: 6 units of Metal, 2 units of Leather
- **Chain Shirt**: 4 units of Metal, 4 units of Leather
- **Half Plate**: 4 units of Metal, 1 unit of Leather
- **Hide**: 3 units of Hide, 2 units of Leather
- **Leather**: 5 units of Leather
- **Padded**: 2 unit of Leather, 4 units of Fabrics
- **Plate**: 8 units of Metal
- **Ring Mail**: 4 units of Metal, 2 units of Leather
- **Scale Mail**: 6 units of Metal
- **Shield**: 2 units of Wood, 1 unit of Metal
- **Splint**: 3 units of Leather, 3 units of Metal
- **Studded Leather**: 4 units of Leather, 1 unit of Metal

Weapons

- **Battleaxe:** 2 units of Wood, 1 unit of Metal
- **Blowgun:** 1 unit of Wood
- **Club:** 2 units of Wood
- **Crossbow, hand:** 2 units of Wood, 1 unit of Metal, 1 unit of Gears
- **Crossbow, heavy:** 6 units of Wood, 3 unit of Metal, 3 unit of Gears
- **Crossbow, light:** 4 units of Wood, 2 unit of Metal, 2 unit of Gears
- **Dagger:** 1 unit of Metal
- **Dart:** 1 unit of Metal
- **Flail:** 2 units of Wood, 2 units of Metal
- **Glaive:** 3 units of Wood, 1 unit of Metal
- **Greataxe:** 3 units of Wood, 1 unit of Metal
- **Greatclub:** 4 units of Wood
- **Greatsword:** 4 units of Metal
- **Halberd:** 3 units of Wood, 1 unit of Metal
- **Handaxe:** 1 units of Wood, 1 unit of Metal
- **Javelin:** 2 units of Wood, 1 unit of Metal
- **Lance:** 4 units of Wood, 1 unit of Metal
- **Light Hammer:** 1 unit1 of Wood, 1 unit of Metal
- **Longbow:** 3 units of Wood, 1 unit of Fabric
- **Longsword:** 3 units of Metal
- **Mace:** 2 units of Wood, 1 unit of Metal
- **Maul:** 3 units of Wood, 1 unit of Metal
- **Morningstar:** 2 units of Wood, 1 unit of Metal
- **Net:** 4 units of Fabrics
- **Pike:** 3 units of Wood, 1 unit of Metal
- **Quarterstaff:** 3 units of Wood
- **Rapier:** 3 units of Metal
- **Scimitar:** 2 units of Metal
- **Shortbow:** 2 units of Wood
- **Shortsword:** 2 units of Metal
- **Sickle:** 1 unit of Wood
- **Sling:** 2 units of Leather

- **Spear:** 2 units of Wood, 1 unit of Metal
- **Trident:** 3 units of Wood, 1 unit of Metal
- **War pick:** 2 units of Metal
- **Warhammer:** 2 units of Wood, 1 unit of Metal
- **Whip:** 3 units of Leather

Inspiration

- City and Wild, by Ignacio Portilla. It is a truly massive and magnificent guide on basically everything related to survival, guilds and crafting with both alchemy and many of the other proficiencies. A must have if interested in this kind of things!
- How to Cook, by Cecilia D'Anastasio. Because every adventurer should always take care of their health, plus this supplement offer an interesting eye on D&D sessions and campaigns through the lens of preparing meals.

External Sources

- Alchemy Hazards, by myself. I used the gathering system from this supplement, because I am strong believer in interconnecting already existent pieces of a machine in order to have it gain new functions. Plus, I already had the idea of having a crafting system originate from that.

Parting Words

All of this would have looked like rotten goblin poop, a simple Libreoffice file brimming with half-scribbled notes and horrendous tab-markings, had I not stumbled upon the fantasticly looking (did I mention flippin' useful?) format made at the [Homebrewery](#) that resembles closely the selfsame format the hallowed Player Hand Book uses!

I have heard he even has a [patreon](#) to keep up the good stuff, so go give him a look and a tip for beer and coffee!

Also, special thanks to Voice Actor, GM and overall awesome person Matthew Mercer, GM for the Critical Role show on Geek and Sundry, as I got watching him and the show the spur to finally put on a decent format what was a series of half discarded notes in some dusty copy book of mine.

Rolls of Honour

If you want to try it, you surely can! Just send me a message or leave a comment on any impressions you have, it is going to be greatly appreciated, and, of course, you are going to be added to the Playtesters' Rolls of Honour.

Special mention goes to **Symatt**, @symatt over on Twitter, for volunteering to give this hot mess a read and helping me make it better!

Legal Stuff