This thread contains **SPOILERS!**

(Duh)

*View at your own discretion.*

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So we're stickied on the subforum!!

*Time for an obligatory gif!*

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Want a more 'visual' guide and a thorough look into what this guide's rambling about? Mr HaighYorkie's got you covered. Check out his [Thaumcraft Research Playlist](#) and all his other fancy dancy videos and tell him I sent you, why not?

Not convinced? Check out the video below~!

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FYI: Italicized Information, if any, means that it's not confirmed. Citation needed. If you can confirm it by all means post and I'll amend it. I appreciate all the help I can get.

This is an unofficial guide used without permission of the modmaker - All imagery provided are created from screenshots of the mod in use. All links provided follow the ToS and will not use profiteering third party sources such as Adfly.

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**I have more Cheat Sheets!**

- Thaumcraft 4 - [LINK](#)
- Thaumic Tinkerer V1 - [LINK](#)
- Thaumic Tinkerer V2 - [LINK](#)
- Magic Bees V2 - [LINK](#)

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Want this in a PDF/DOC File? Right Click and Save these files for yourself!

- 4.0.3a - [.doc / .pdf]
- 4.0.2a - [.doc / .pdf]
**Basic Information**

**Thaumonomicon** A Repository of Knowledge

- Research: (Starts off unlocked)
- Required Research: (Starts off unlocked)
- Recipe: [ x ]
- Nature: In-Game Reference Guide
- Description:
  
  To craft the Thaumonomicon, you must simply use your wand on a bookshelf placed in the world. The Thaumonomicon is a reference book of all things thaumaturgical. It lists all the discoveries you have made so far and gives you a general impression of how many there are still to be made. Whenever you successfully research something and use the scroll, it will automatically be added to this book. You can then browse through the discoveries and click on them to be shown more detailed information regarding them as well as any crafting recipes associated with those discoveries.

**Plants and Trees** Magical Vegetation

- Research: (Starts off unlocked)
- Required Research: (Starts off unlocked)
- Recipe: N/A
- Nature: Er... Magical Vegetation!
- Description:

  Greatwood Trees
  These large and majestic trees can be found dotted all over the countryside. Their wood is able to absorb impressive amounts of magic making it a popular component in the crafting off magical devices.

  Silverwood Trees
  These rare and magical trees are a wondrous sight. Their leaves shimmer with magical energy and their pale, soft wood is valued for its purifying properties. These trees magical nature is such that aura nodes often form within their hearts - this feature alone makes a silverwood sapling a prize beyond measure.

  Shimmerleaf
  The strange, glowing flowers only grow in the shadow of Silverwood Trees. Instead of nectar, these flowers produce quicksilver.

  Cinderpearl
  Found only in the hottest of climes, these plants burn with elemental fire. They can be harvested and ground to produce a fine powder akin to Blaze powder.

**Enchantments** New Enchantments

- Research: (Starts off unlocked)
- Required Research: (Starts off unlocked)
- Recipe: N/A
- Nature: Thaumcraft exclusive enchants
- Description:

  Thaumcraft adds several unique enchantments.

  **Potency (foci only)** This enchantment increases the damage, range or area of the focus it is applied to.

  **Frutal (foci only)** Foci with this enchantment use less vis when activated.

  **Treasure (foci only)** This enchantment functions like the Fortune enchantment, increasing the amount of items gained when harvesting.

  **Haste** This enchantment can be applied to footwear of all types and increases the wearers landspeed. The higher the level of enchant, the greater the speed bonus granted.

  **Repair** This enchantment slowly repairs the durability of items by drawing vis from the aura. The higher the level of the enchantment, the quicker this takes place. This enchantment can only be applied to items made with Thaumcraft, and even then not all of them.

**Ores** Dig deep

- Research: (Starts off unlocked)
- Required Research: (Starts off unlocked)
- Recipe: [ Clusters (Elemental) / Clusters (Mixed) ]
- Nature: Thaumcraft exclusive enchants
Description:
Infused Stone On occasion there is so much primal energy in an aura that it would settle into solid stone to form Infused Ore. The magic forms crystals within the rock that can be harvested. These crystals have various elemental properties and have many uses in Thaumaturgy. There are six types of infused stone, one for each of the Primal Aspects.

They can be combined together to form crystal clusters. Crystal clusters have no special properties beyond adding a touch of class to any home. Breaking a crystal cluster causes it to shatter into its component crystals.

Cinnabar This reddish ore is found deep underground and when smelted produces quicksilver.
Amber This ore is found near the surface and when mined drops chunks of amber.

Knowledge Fragments Fragments of lost lore
Research: (Starts off unlocked)
Required Research: (Starts off unlocked)
Recipe: [ x ]
Nature: Hidden lore loot
Description:
In your travels you might happen upon fragments of ancient and lost knowledge. In their own they aren't worth much, but if you gather enough of them together you might gain unique research that you can pursue. Usually the research they reveal cannot be gained through normal means. The fragments of knowledge can on occasion lead to false theory, but this will be revealed when you attempt to research it. When this happens most of your knowledge fragments will be returned to you. When this happens it usually means you have exhausted all current avenues of research into lost knowledge.

Auras and Nodes Magic is everywhere
Research: (Starts off unlocked)
Required Research: (Starts off unlocked)
Recipe: [ x ]
Nature: In-Game Reference Guide
Description:
The Aura is a field of magical energy prevalent throughout the world. It's origin is unclear. Some believe it is the accumulated life force of living beings, while others believe it to be merely another type of energy seeping in from another place. The last theory seems to be most likely, as the aura is often found surrounding a node of concentrated mystical energy known as an Aura Node. Each aura node has a base amount of magical energy it can contain and this energy is aligned into one or more aspects. It is usually aligned to Primal Aspects, but rarely a node may contain Compound Aspects.
The aspects within an aura node can be tapped by a thaumaturge for his own purposes. The simplest way to do so is with the use of a wand. Energy that has been harvested in this manner is known as vis.

Aura nodes are hard to see with the naked eye, but faint glimmers of light often betray their presence. The Thaumometer makes nodes slightly easier to find, as looking through its lens makes them clearly visible.
Important: Caution must be taken when draining a node. There is a small chance that when a specific type of aspect within a node is completely drained, it may disappear or harm the integrity of the node. It is possible for the node to disappear completely if all the aspects disappear.
Fortunately most nodes replenish their aspects over time and if properly maintained can provide a clever thaumaturge with all the vis he could want.

Aspects of Magic The building blocks of magic
Research: (Starts off unlocked)
Required Research: (Starts off unlocked)
Recipe: [ x ]
Nature: Vis Elements
Description:
Every item, object or creature is bound by varying mystical elements known as aspects. Aspects describe the objects makeup and bend towers the magical elements. A simple stone may process the aspect of Saxum while more complex items like trees or even creatures can be made up of various different aspects in varying amounts. There are close to 50 known aspects with more being discovered all the time.

There are two main types of aspects: Primal and Compound.

Primal Aspects are the most basic types of aspects and there are only 6 of them: Aer (air), Terra (earth), Ignis (fire), Aqua (Water), Ordo (order), Perditio (entropy).
These form the basic building blocks of all other aspects.

Compound Aspects are built from two other aspects. The simplest compound aspects are made from two primal aspects, but it is possible to have incredibly complex compound aspects made from successive layers of simpler aspects.
The simplest example of such a compound aspect, is the aspect of Victus (life) that is a combination of Terra and Aqua.

To view what aspects an item possesses, simply hover your cursor over the item and press sneak (shift), and you will see what aspects that item has and what amounts of each. You will first need to study the item however, until then the aspects will remain unknown.

Aspects that have somehow been separated from their object and purified is known as Vis and is very valuable both as a crafting ingredient and as a subject for magical research.
Vis is most often bound into wands, but it is also to store it as a magical liquid. Vis stored as a liquid is known as Essentia.

Aspect Combinations by Saice
Phone Friendly Version by Saice

Research: How you discover things
Research: (Starts off unlocked)
Required Research: (Starts off unlocked)
Recipe: [ x / alt / repair ]
Nature: How do I do learn < _>
Description:
Before you can build most thaumaturgical items and blocks, you first need to discover how to do so. There are several steps in this process:

(1) Exploring the world and examining blocks, items and creatures with a Thaumometer.
(2) Taking the research points you gathered from the first step and expanding your aspect knowledge with the Research Table.
(3) Using the aspects you know and discovering practical knowledge and recipes with the Research Table

(1) Exploration
You cannot perform research without research points, and the best way to gain research points is by exploration and examining object in the world.
The first thing you will need to do is construct a Thaumometer (see next page). By pointing the Thaumometer at objects or creatures and holding the right mouse button you will start examining them. The process does not take long but your movement speed is reduces while it is occurring.
Once the Thaumometer will display what aspects the object contains. In the bottom right of the screen you will also see a summary of the aspects and research points you discovered.
You will initially not be able to examine all objects since you have not discovered their component aspects. For example, an object containing the Lux aspect can only be examined if you have previously discovered the Lux aspect, or know the two aspects that combine to create it. The very first time you discover an aspect by examining something you gain double the number of research points you would have normally.

Objects and creatures can usually only be examined once. While exploring the world and examining things it is always a good idea to keep a filled set of scribining tools and some paper on you. Occasionally examining something will reveal additional clues and insights into thaumoturgical research, often resulting in a set of research notes that you can research further.

(2) Combining Aspects
Once you have gathered some research points you can attempt to combine them into compound aspects within a research table.

To craft a research table simply place two tables next to each other and click on them with a set of Scribing Tools. The recipe for tables is listed under the Artiface research category.

If you open the research tables inventory, you will see an interface as pictured on the right. The scribing tools you used to craft the table will be located in slot 1. You might also wish to place paper into slot 2, though paper is not needed for this phase of research.

You should see all the primal aspects (and possibly some compound aspects) listed in the area marked 3 with varying amounts attached to them. When you enter a world for the first time, every player is assigned a small pool of primal aspects to get them started. If you had done some exploring with the Thaumometer beforehand then you might have a significant number of primal and compound aspects listed here. You can now start combining aspects into more complex compound aspects but simply clicking on those you wish to combine, the selected aspects will appear in slot 4 and when you have two selected pressing the purple button marked 5 will attempt to combine them. If successful, you should see what was gained in the bottom right and it should appear in slot 3.

The component aspects are consumed even if the combination did not result in a valid compound aspect.

(3) Research Aspects
If you have paper is slot 2, then you may have noticed that when only a single aspect is selected that the green button (marked 6) lights up. If you press it then you will attempt to research the selected aspect. If successful you discover something of interest about that aspect and a set of research notes will appear in slot 7. Section 8 will also display the research sheet covered in a bewildering array of runes and symbols that looks something like the image at the top of the previous page. Don't worry, it is not as hard as it looks.

To complete your research you simply need to connect and activate all the knowledge nodes (pictured below).

The node on the left is an inactive node, while the node on the right has been activated. Once all the inactive nodes have become active, the research will be complete and the research note will change into a discovery that you can use to gain the completed research (just right click while holding it).

You connect the knowledge nodes by activating the runes.

Each rune is linked to a aspect, but at first it is unknown which rune represents which aspect. The rune/aspect link is unique to each research subject, so a rune that might represent Aer the time, might represent Terra next time.

Not all the runes are valid for the current subject you are researching. For example though there might be runes for Aer, Terra, Ignes and Aqua on the research sheet, only Ignes and Terra might actually be valid. Invalid runes are often called "red herring" runes. You discover which runes are valid by selecting an aspect on the left, and pressing the 'Research' button (6). If the aspect you selected is valid, then all runes linked to that aspect will become active. If the aspect you select is a 'red herring' then the runes linked to it will not activate, but up to two of them will be removed from the sheet entirely. If the aspect you select is not present on the research table then nothing happens.

Active runes act as possible bridges to connect knowledge nodes. A glowing line of energy will glow from an active knowledge node to any active rune nearby. You need to create a chain of active runes and nodes to complete the research.

A chain cannot form if there is more than one open space between a active runes or nodes. To form a chain you must move the runes around by clicking on a rune and selecting a valid destination.
Each rune can be moved up to 2 positions in a straight line, but only inactive runes can be moved - this means you might have to activate and deactivate your valid runes several times to get them into position.
Inactive runes prevent the forming of a connection if they lie in its path, so you need to move them out of the way.

Moving runes uses a small amount of ink each time you do it.

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**The Pech** Strange Creatures

**Research:** Auram - Motus - Permutatio - Praecantatio

**Required Research:** (Starts off unlocked)

**Nature:** Thaumic Creatures

**Description:**
These strange humanoids can be found wherever the veil between worlds are at it's thinnest. They seem drawn to the magical energies that abound in such places. Don't let their small stature fool you. They have incredible strength and can carry many times their own body weight.
Pech are normally not aggressive, but then riled up they will band together and hunt down their attacker. Under normal conditions they avoid people at all costs.
Pechs are notoriously avaricious, and will loot anything not nailed down, though they prefer precious things. It is said that if you feed this desire for material wealth it could be possible to befriend one. Once befriended they often carry wonderous objects that they might be willing to part with.
It should be noted that such 'friendships' seldom last long.
Advanced Node Tapping  
Research: Auram - Motus - Permutatio - Praecantatio
Required Research: Auras and Nodes
Recipe: N/A
Nature: Node Tapping Boost
Description:
Usually the process of drawing vis from a node with a wand is quite slow... but not anymore. You have discovered a more efficient way of tapping into aura nodes, resulting in a doubling of the vis draw rate.

Master Node Tapping  
Research: Auram - Motus - Permutatio - Praecantatio
Required Research: Advanced Node Tapping
Recipe: N/A
Nature: Node Tapping Mastery
Description:
You have added further refinements to the methods you use to tap aura nodes. You are now able to draw vis three times faster then normal.

Node Preserver  
Research: Auram - Lucrum - Sensus
Required Research: Advanced Node Tapping
Recipe: N/A
Nature: Anti-Node Wastage
Description:
You now have better control over the amount of vis you draw from nodes. You will always leave at least one vis of each aspect in the node, unless you are sneaking. Be warned, this level of control is not possible when using wants crafted from normal wood and iron.

Node in a Jar  
Research: Auram - Lucrum - Motus - Permutatio
Required Research: Node Preserver
Recipe: [ x ]
Nature: Portable Nodes
Description:
Warded jars have proven themselves capable of storing all manner of mundane and mystical things, and you believe you have discovered another use for them - trapping aura nodes. By constructing a large version of a jar around a node and enacting the proper mystical formula with your wand, the node will become trapped inside the construct which will quickly shrink to a more manageable size. The jar can then be safely picked up and moved around, but the initial trapping spell does have a very good chance of damaging the node. While trapped the node is kept suspended and will not regenerate vis, nor can vis be drawn from it. It is possible to free the node from the jar by placing it in the world and clicking on it with the wand. The jar will be destroyed in the process.

Research Expertise  
Research: Cognito - Sensus
Required Research: Research
Recipe: N/A
Nature: Research Buff
Description:
You are have become more efficient at performing research.
Whenever you attempt to research a 'red herring' aspect, up to three of its runes will be removed instead of two.
You are also able to move runes up to three positions at a time, instead of two.

Research Mastery  
Research: Cognito - Motus - Sensus  
Required Research: Research Expertise  
Recipe: N/A  
Nature: Research Buff  
Description:  
You are have become even more efficient at performing research.
Whenever you attempt to research a 'red herring' aspect, up to four of it's runes will be removed instead of three.
You are also able to move runes up to four positions at a time instead of three.
Lastly you are able to move active runes, though only a single position. Be warned however that doing this runs the risk of deactivating all runes linked to that aspect.

Deconstruction Table  
Research: Cognito - Fabrico - Perditio  
Required Research: Research Expertise  
Recipe: [ x ]  
Nature: Aspect Accumulator  
Description:  
There comes a point in any thaumaturge's career where he is unable to progress with research due to his lack of knowledge.
One possible recourse is the Deconstruction Table. The table allows you to break down objects into their smallest parts which you can examine. There are limits however - the table breaks compound aspects into their component aspects until only primal aspects remain. During this process much knowledge is lost and at best the thaumaturge can hope for is a single piece of primal knowledge. For example cobblestone (saxum and perditio) will be simplified into 2 terra and 1 perditio, only one of which having a chance of being discovered.
It is also fairly slow and the fewer aspects and object has, the lower the chance to discover something.
**Thaumaturgy**

**Basic Wandcraft** Your first tool

Research: (Starts off unlocked)

Required Research: (Starts off unlocked)

Recipe: [ Iron Cap / Iron Capped Wooden Wand ]

Nature: Vis Wand

Description:
The casting wand is your most basic but also your most important tool. It is what you use to craft objects, activate blocks like the crucible and countless other tasks.

The most basic wand stores a very limited amount of magical energy (called vis) that it uses to perform its tasks. The replenish the energy in a wand, you must right-click and hold to draw vis from an aura node.

While holding a wand you will see a indicator on the top left of the screen that shows how much vis is stored within the wand.

Holding shift will display exact numbers held by the wand and any possible discounts you have to performing magical tasks.

Wands are always contructed by the combination of a rod and two end caps. As you progress with your studies, you are sure you will discover different materials that you can use to craft rods and caps to make powerful wands. Only the basic wand can be put together in a normal crafting table. All other wands require the Arcane Workbench and will cost vis to construct.

The basic wand is constructed from mundane wood and iron, both of which make poor materials for working magic.

**Wand Foci** Form meets Function

Research: Ignis - Praecantatio

Required Research: Basic Wandcraft

Recipe: [ x ]

Nature: Wand Upgrade - Wand of Fire

Description:
Some careful experimentation has shown you a way to expand the abilities of even the most basic wand.

By combining crystalline vis shards with quartz crystals and infusing them with magic, you are able to align the crystals into a mystical matrix.

If the proper types and amounts of vis is focused through this matrix, it will reshape the raw magical energies into something useful, controlled and geared to a specific task - simply press F while holding the wand, and any foci you are carrying will be screwed into place. Keep pressing F to cycle through the foci you are carrying.

Your initial experiments involved the shaping of fire, and the resulting focus proved to be a simple, but useful tool. It is capable of sending forth a cone of elemental fire, burning all in its wake.

**Wand Focus: Excavation** Terra Terror

Research: Terra - Praecantatio - Perditio

Required Research: Wand Foci

Recipe: [ x ]

Nature: Wand Upgrade - Wand of Excavation

Description:
This focus turns your wand into a tool capable of moving vast amounts of earth and stone with little effort.

Simply point it at what you want to excavate and the magic does the rest. Tougher materials take longer to mine, and anything other than earth, stone or similar materials will take much longer to mine.
**Wand Focus: Frost**  Revenge is a dish best served cold
Research: Aqua - Gelum - Praecantatio
Required Research: Wand Foci
Recipe: [ x ]
Nature: Wand Upgrade - Wand of Frost
Description:
This focus is capable of hurling chunks of ice. Care must be taken when aiming, as the ice chunks is capable of destroying fragile objects.

**Wand Focus: Shock**  Thunder and Lightning
Research: Aer - Potentia - Precantatio
Required Research: Wand Foci
Recipe: [ x ]
Nature: Wand Upgrade - Wand of Lightning
Description:
This focus is capable of focusing elemental energy into bolts of lightning that you can hurl at your enemies.

**Wand Focus: Equal Trade**  This for That
Research: Terra - Permutatio - Praecantatio
Required Research: Wand Foci
Recipe: [ x ]
Nature: Wand Upgrade - Wand of Equal Trade
Description:
You can use this focus to trade dozens of blocks in the world with some you are carrying. You must first choose the block you wish to change other blocks into by sneaking and right clicking on the desired block. When you then left click on another block it will turn into the target block. Right clicking will transform a whole swathe of blocks. You must be carrying enough target blocks, and the transformed blocks will replace them in your inventory. Only blocks with at least one face adjacent to open air or non-solid blocks will be transformed.

**Focus Pouch**  Convenient container for your foci.
Research: Pracantatio - Vacuos
Required Research: Wand Foci
Recipe: [ x ]
Nature: Focus Containers
Description:
Once you have gathered a sizable collection of foci it is quite annoying to carry them all with you. This pouch solves that problem. Whenever you change the focus on your wand, it'll check this pouch first and any foci that get removed will be placed inside it first. You can also right-click the pouch to place or remove foci by hand.

**Wand Focus: Nine Hells**  Tiny Terrors
Research: Bestia - Ignis - Praecantatio - Iter
Required Research: Wand Focus: Wand of Equal Trade
Recipe: [ x ]
Nature: Hellbat Summoner
Description:
Your trips onto the nether have taught you to fear the tiny terrors known as Hellbats. Now you have
discovered a way to summon the little terrors and send them after your enemies. Excellent.

**Wand Focus: Portable Hole**  
Never be without an exit again

*Research:* Aer - Alienis - Iter - Perditio  
*Required Research:* Wand Focus: Wand of Equal Trade  
*Recipe:* [x]  
*Nature:* It makes temporary holes...  
*Description:*  
You have succeeded in using vis to create extradimensional spaces. Using this focus on a wall or other surface will create an extradimensional passage leading to the other side. This 'hole' only remains open for a few seconds and drains vis from the wand depending on its depth. Extradimensional holes cannot be created through certain kinds of matter or particularly complex objects.

**Gold Wand Caps**  
Capping things off with style

*Research:* Instrumentum - Metallum - Lucrum  
*Required Research:* Basic Wandcraft  
*Recipe:* [x]  
*Nature:* Wand Upgrade  
*Description:*  
Gold is a far superior focusing agent than iron, and wands capped with this material takes no penalty when used to channel vis.

**Thaumium Wand Caps**  
Mystical wand foci

*Research:* Instrumentum - Metallum - Praecantatio  
*Required Research:* Gold Wand Caps - Thaumium  
*Recipe:* [x]  
*Nature:* Wand Upgrade  
*Description:*  
Thaumium is known for its ability to store and absorb magic, so using it to craft wand caps is a logical choice. It is very efficient at focusing vis of all types.

**Copper Wand Caps**  
When iron caps just won't cut it

*Research:* Instrumentum - Metallum - Permutatio  
*Required Research:* Basic Wandcraft  
*Recipe:* [x]  
*Nature:* Wand Upgrade  
*Description:*  
Copper has similar properties to iron when used as a wand cap, but is as efficient as gold when used to channel Ordo or Perditio vis.

**Silver Wand Caps**  
Capping things off with a little less style

*Research:* Instrumentum - Metallum - Lucrum  
*Required Research:* Basic Wandcraft  
*Recipe:* [x]  
*Nature:* Wand Upgrade  
*Description:*  
Silver has similar properties to gold when used as a wand cap, but it is slightly more efficient at channeling the four elemental primals (fire, earth, air and water).
**Greatwood Wand Core**  Repository of magical energy

**Research:** Arbor - Instrumentum - Praecantatio

**Required Research:** Basic Wandcraft

**Recipe:** [ x ]

**Nature:** Wand Core Alternative

**Description:**
Carved from greatwood logs, this rod has double the vis storage potential of mundane wood, being able to store up to 50 vis of each type.

**Bone Wand Core**  Entropic vis storage

**Research:** Exanimis - Instrumentum - Praecantatio - Perditio

**Required Research:** Greatwood Wand Core

**Recipe:** N/A

**Nature:** Wand Core Alternative (Perditio)

**Description:**
A wand core fashioned from bone has slightly greater storage potential than greatwood cores. What makes it superior to greatwood cores however is that if the level of perdito stored inside it drops below 10%, its will slowly replenish without the use of a node.

**Obsidian Wand Core**  Earthen vis storage

**Research:** Instrumentum - Praecantatio - Terra - Saxum

**Required Research:** Greatwood Wand Core

**Recipe:** N/A

**Nature:** Wand Core Alternative (Terra)

**Description:**
A wand core chiselled from obsidian has slightly greater storage potential than greatwood cores. What makes it superior to greatwood cores however is that if the level of terra stored inside it drops below 10%, its will slowly replenish without the use of a node.

**Reed Wand Core**  Airy vis storage

**Research:** Aer - Herba - Praecantatio - Instrumentum

**Required Research:** Greatwood Wand Core

**Recipe:** [ x ]

**Nature:** Wand Core Alternative (Aer)

**Description:**
A wand core made from reeds has slightly greater storage potential than greatwood cores. What makes it superior to greatwood cores however is that if the level of aer stored inside it drops below 10%, its will slowly replenish without the use of a node.

**Blaze Rod Wand Core**  Fiery vis storage

**Research:** Ignis - Instrumentum - Potentia - Praecantatio

**Required Research:** Greatwood Wand Core

**Recipe:** N/A

**Nature:** Wand Core Alternative (Ignis)

**Description:**
Blaze rods used as wand cores has slightly greater storage potential than greatwood cores. What makes it superior to greatwood cores however is that if the level of ignis stored inside it drops below 10%, its fiery nature will slowly replenish it.

**Icy Wand Core**  Icy vis storage
**Research:** Aqua - Gelum - Instrumentum - Praecantatio

**Required Research:** Greatwood Wand Core

**Recipe:** [x]

**Nature:** Wand Core Alternative (Aqua)

**Description:**
Wand cores crafted from ice can store the same amount of vis as greatwood cores. What makes it superior to greatwood cores however is that if the level of aqua stored inside it drops below 10%, its fiery nature will slowly replenish it.

**Quartz Wand Core** Ordered vis storage

**Research:** Ordo - Instrumentum - Praecantatio - Vitreus

**Required Research:** Greatwood Wand Core

**Recipe:** [x]

**Nature:** Wand Core Alternative (Ordo)

**Description:**
A wand core chiselled from nether quartz has slightly greater storage potential than greatwood cores. What makes it superior to greatwood cores however is that if the level of ordo stored inside it drops below 10%, its fiery nature will slowly replenish it.

**Silverwood Wand Core** Magical to the core

**Research:** Arbor - Praecantatio - Instrumentum

**Required Research:** Greatwood Wand Core

**Recipe:** [x]

**Nature:** Better Wand Core

**Description:**
Silverwood has proved to be an excellent repository of magical energy and wand cores crafted from it can store up to 100 vis of each type.

**Wand Recharge Pedestal** Automated Wand Recharging

**Research:** Auram - Permutatio - Potentia - Praecantatio

**Required Research:** Infusion

**Recipe:** [x]

**Nature:** Wand Recharger

**Description:**
Traveling around the countryside to recharge your wand is all good and well, but an automatic way of doing it would be much better.

This specially crafted pedestal does just that - any wand placed in it will automatically draw vis from nearby nodes.

Nodes will not be fully drained unless it is a poor quality wand crafted from iron or sticks.

**Compound Recharge Focus** For everything a use

**Research:** Auram - Instrumentum - Permutatio - Potentia - Praecantatio

**Required Research:** Wand Recharge Pedestal

**Recipe:** [x]

**Nature:** Compound Vis Node Extractor

**Description:**
In your travels you have discovered several nodes that contain compound aspects, but as yet there has been no way to tap this rich source of vis. Until now.

This focus can be placed on top of a wand recharge pedestal which will allow any want it contains to siphon off the compound vis from any nearby nodes. Unfortunately each point of compound vis is broken down into a single point of primal vis and all the excess energy is lost. However it is a good
start and you are sure you will discover better ways to access this resource.

**Wand Focus: Pech’s Curse**  Not in the Thaumonomicon
Research: (Acquired with Pech Trade)
Required Research: (Acquired with Pech Trade)
Recipe: N/A
Nature: Offensive Wand Focus
Description:
THIS ITEM IS NOT IN THE THAUMONOMICON
Pech’s Curse is acquired only through a befriended Pech Trade at random. Like all Foci it can be attached to any wand (within reason) and can be fired at a mob to inflict Weakness 2, Slowness 3 and Poison 2 at the cost of Ignis, Aqua and Perditio vis from your wand.
NOTE: This Focus is acquired from Pech Mages which hold wands.
Alchemy

Crucible Bubble and Boil
Research: (Starts off unlocked)
Required Research: (Starts off unlocked)
Recipe: [ x ]
Nature: Alchemy Caudron
Description:
To craft the Crucible, you must simply use your wand on a cauldron placed in the world.
The crucible is an important tool for any thaumaturge. It allows him to render physical objects into
their component Essentia and recombine it again as he wishes.
The crucible needs to be placed over a source of constant heat and filled with water. Once the water
starts boiling you simply throw any items you wish into the crucible and they will be broken down into
their component Essentia.
If you know the proper formula and the mix of essentia within the crucible is correct, you can then
drop a special item into the crucible known as a Catalyst. The catalyst draws the essentia into itself
and transforms into a whole new item that the crucible then ejects.
Any leftover Essentia remains within the crucible for further use, but it is not a good idea to leave
essentia within a crucible for too long.
Crafting also uses some of the water within the crucible and you will eventually need to refill it.
Essentia within the crucible is constantly degrading. Compound essentia degrades into one of it's
component aspects, and Primal essentia simply evaporates.
Beyond the waste of resources, evaporating and degrading essentia can cause many strange side-
effects.
You can empty a crucible by right clicking on it with a wand. All the essentia is dumped into the
atmosphere... not something you would want to do too often.

Glass Phial Mystical containers
Research: (Starts off unlocked)
Required Research: (Starts off unlocked)
Recipe: [ x ]
Nature: Essentia containers
Description:
Glass phials are capable of holding all manner of liquids and substances, but their most important
use to a thaumaturge is their ability to hold Essentia.
Essentia is not easy to gather however and it indelibly stains the phial, making it only usable once.

Thaumium A magical metal
Research: Metallum - Praecantatio
Required Research: Crucible
Recipe: [ x ]
Nature: Magical Crafting Material
Description:
Thaumium is the result of infusing base metals with raw magical energy. The result is a metal
harder than iron with the ability to accept enchantments beyond that which iron is normally
capable of.
A metal such as this has many applications in the creating of more advanced thaumaturgical
devices.
It can also be used to craft tools, arms and armor in a crafting table using the normal recipes.

Iron Transmutation Transformation of metals into iron
Research: Metallum - Permutatio
Required Research: Thaumium
Recipe: [ x ]  
Nature: Iron Transfiguration  
Description:  
You have discovered a way to multiply iron by steeping iron nuggets in metallum harvested from other metals.

Gold Transmutation  Transformation of metals into gold  
Research: Metallum - Permutatio  
Required Research: Iron Transmutation  
Recipe: [ x ]  
Nature: Gold Transfiguration  
Description:  
You have discovered a way to multiply gold by steeping gold nuggets in metallum harvested from other metals.

Copper Transmutation  Transformation of metals into copper  
Research: Metallum - Permutatio  
Required Research: Iron Transmutation  
Recipe: [ x ]  
Nature: Copper Transfiguration  
Description:  
You have discovered a way to multiply copper by steeping copper nuggets in metallum harvested from other metals.

Tin Transmutation  Transformation of metals into tin  
Research: Metallum - Permutatio - Vitreus  
Required Research: Tin Transmutation  
Recipe: [ x ]  
Nature: Tin Transfiguration  
Description:  
You have discovered a way to multiply tin by steeping tin nuggets in metallum harvested from other metals.

Silver Transmutation  Transformation of metals into silver  
Research: Lucrum - Metallum - Permutatio  
Required Research: Silver Transmutation  
Recipe: [ x ]  
Nature: Silver Transfiguration  
Description:  
You have discovered a way to multiply silver by steeping silver nuggets in metallum harvested from other metals.

Lead Transmutation  Transformation of metals into lead  
Research: Metallum - Ordo - Permutatio  
Required Research: Lead Transmutation  
Recipe: [ x ]  
Nature: Lead Transfiguration  
Description:  
You have discovered a way to multiply lead by steeping lead nuggets in metallum harvested from other metals.

Magic Tallow  Rendered fat with a touch of magic  
Research: Corpus - Praecantatio  
Required Research: Crucible  
Recipe: [ x / Candle ]  
Nature: Magical Crafting Material  
Description: 
By processing and heating flesh in a crucible, you can create a mystical tallow suited for many arcane uses. This tallow can be used to craft candles. It is also possible to craft different coloured candles by combining a candle with a dye in an arcane workbench.

**Nitor**  Mystical Flame

**Research:** Lux - Ignis  
**Required Research:** Crucible  
**Recipe:** [ x ]  
**Nature:** Light Source  
**Description:**  
This flame seems to be fueled by magic itself. The number of uses for an everburning flame seems endless, but unfortunately it doesn't seem to produce much more light than heat, though it could prove to be a steady source of light and energy.  
Nitor can also be placed in the world to act as a magical light source.

**Alumentum**  Mystical Energy Source

**Research:** Potentia - Ignis  
**Required Research:** Crucible  
**Recipe:** [ x ]  
**Nature:** Magical Fuel  
**Description:**  
This substance throbs with fiery energy and it is more than eager to release that energy at the slightest bump. It may be unstable, but it would probably make a good source of fuel. It is probably not a good idea to throw it against a solid surface unless you enjoy explosions.

**Gunpowder**  Who needs creepers?  

**Research:** Ignis - Preditio  
**Required Research:** Alumentum  
**Recipe:** [ x ]  
**Nature:** Gunpowder Transfiguration  
**Description:**  
You have discovered an alternate source of gunpowder! No more hunting creepers for this explosive substance.

**Essentia Distillation**  Harvesting essentia

**Research:** Praecantatio - Aqua - Limus  
**Required Research:** Nitor - Alumentum  
**Recipe:** [ Arcane Furnace / Flux Filter / Arcane Alembic / Warded Jar ]  
**Nature:** Essentia Collecting  
**Description:**  
You see a future need where you will need ready access to multiple different kinds of aspects - not just primal aspects drawn from your wand. Using basic alchemical principles you have devised a way to break down objects and convert them into essentia.  
The first step in this process requires an Alchemical Furnace. The alchemical furnace works much like a normal furnace by burning coal to produce heat, but instead of smelting ore into metal, it breaks down objects into a slurry of raw, unprocessed essentia.  
The next step in the process is to take the essentia slurry and distill it using an Arcane Alembic. To work, arcane alembics need to be placed on top of an alchemy furnace. The essentia slurry will slowly be drawn into the alembic and the individual aspected essentia separated out. If the alchemicalurnace is being powered by alumentum, this distillation process is much faster. You can stack up to 5 different alembics on top if a single furnace. The essentia can then be extracted out of an alembic using phials. As an alternative essentia can also be stored in Warded Jars. Warded jars can be placed in world and is able to store essentia virtually indefinitely. The enchantments placed on the jars also makes adding or extracting essentia a breeze.
Jars placed under the spout of an alembic will be automatically filled. They can also be filled and emptied using phials. What is more they make an excellent storage medium for jams en preserves.

**Ethereal Bloom** Purifying Flower
**Research:** Herba - Praecantatio - Sano - Vitium
**Required Research:** Crucible
**Recipe:** [ x ]
**Nature:** Taint Purification
**Description:**
Shimmerleaf is often overshadowed by it's mystical neighbor the Silverwood Tree, but it has magical properties of it's own. Like the Silverwood, Shimmerleaf flowers have purifying properties that lie dormant. You have found a way to awaken these properties and turn it into an Ethereal Bloom. Ethereal blooms slowly, but surely, restores land corrupted by musical means to its former glowy - this includes the blight known as Taint. While it cannot combat Taint directly, few tained growths can survive outside their native environment for long and tend to die back. The flower only purifies the land bathed in its light out to a range of about 8 blocks. Ethereal Blooms are quite fragile and breaking them will turn them back into a Shimmerleaf flower.

**Essentia Tubes** Transportation of Essentia
**Research:** Aqua - Permutatio - Praecantatio
**Required Research:** Essentia Distillation
**Recipe:** [ x / valve ]
**Nature:** Essentia Transport
**Description:**
You have discovered several ways to transport essentia, but none of them has proven useful for large scale alchemical operations - until now. You have unlocked the key to creating stable and relatively leak-free tubing. While mundane chemicals can be transported in glass, certain types of essentia either dissolves or simply passes right through it. By wrapping the glass in iron and treating it with quicksilver you have managed to protect it from even the most volatile types of essentia. Gold fittings finish off the piping system and make it visually appealing. The tubes can be connected to all manner of alchemical devices, though warded jars and alembics are their primary targets. Essentia flows through the tubes whenever something is connected to them that can accept it, like warded jars. Labelled jars have a much greater drawing strength - so strong in fact that they will draw essentia from unlabeled jars.

The essentia valve acts much like a normal length of tubing, except it can be turned off by hand or a redstone signal. When this is done the flow off essentia through it will be cut off.

**Alchemical Centrifuge** Taking things apart
**Research:** Fabrico - Perditio - Permutatio
**Required Research:** Essentia Tubes
**Recipe:** [ x ]
**Nature:** Essentia Breaker-Downer (ohgod)
**Description:**
The alchemical centrifuge is a wonderous invention that allows you to break essentia into it's component parts. When compound essentia flows into the centrifuge from below it will be broken down into the primal or compound essentia that it is made from. Only one of the components is created for each point of essentia broken down. The resulting essentia needs to be drawn from the top of the centrifuge.
### Mana Bean

**Not in the Thaumonomicon**

**Research:** (Acquired with Pech Trade)

**Required Research:** (Acquired with Pech Trade)

**Recipe:** N/A

**Nature:** Growable Aspects

**Description:**

THIS ITEM IS NOT IN THE THAUMONOMICON

Mana Beans are acquired through trades with befriended Pechs with the trade of a Gold Ingot and contain a random aspect with the value of 1. (Lucrum x1)

Like Cocoa Beans they can be planted and harvested by planting them on the side of a wood block of any kind.
**Artifice**

**Thaumometer** Measuring Magic  
Research: (Starts off unlocked)  
Required Research: (Starts off unlocked)  
Recipe: [ x ]  
Nature: Magical Scanner  
Description:  
This Thaumometer is one of the most useful and important tools in a thaumaturgist's arsenal, second only to the wand. Firstly it allows you to scan objects, creatures or mystical phenomena and determine their magical make-up. You simply need to hold the right mouse button and wait. Secondly it makes discovering nodes easier, as they become clearly visible if viewed through the Thaumometer's lens - even through solid objects!

**Item Grate** Letting the good things in  
Research: (Starts off unlocked)  
Required Research: (Starts off unlocked)  
Recipe: [ x ]  
Nature: Crucible "trapdoor"  
Description:  
The item grate allows you to toggle it open or closes with your hand, or with a redstone signal. If in the open position, any dropped items will simply fall right through it.

**Table** Some assembly required  
Research: (Starts off unlocked)  
Required Research: (Starts off unlocked)  
Recipe: [ x ]  
Nature: Decorative table / Mystical Construct Base  
Description:  
The table is more than a simple decorative block - it also serves as a base for other surfaces useful in the practice of magic, like the Arcane Worktable and the Research Table.

**Arcane Worktable** Crafting with magic  
Research: (Starts off unlocked)  
Required Research: (Starts off unlocked)  
Recipe: [ x ]  
Nature: Vis utilizing workbench  
Description:  
To create an Arcane Worktable, simply right-click with a wand on a table you have placed in the world. The Arcane Worktable serves the same purpose as a normal crafting table, with a few key exceptions. Apart from normal creating recipes, it can also craft some of the items unique to Thaumaturgy. To do that you need to place a wand in the top-right slot. This will allow you to craft items that require vis by drawing the energy directly from the wand. The vis required to craft an item will be shown in the six circular symbols surrounding the crafting grid.

**Research Table** To gather knowledge  
Research: (Starts off unlocked)  
Required Research: (Starts off unlocked)
Recipe: [ x ]
Nature: Research Interface
Description:
The research table is created by placing two tables next to each other and then clicking on them with the Scribing tools.

The research table is the most important tool for any thaumaturge. It is used to unlock all the hidden secrets of the universe and discover new ways of harnessing magic.

**Arcane Stone**  Magically strengthened building material
Research: (Starts off unlocked)
Required Research: (Starts off unlocked)
Recipe: [ Stone / Brick ]
Nature: Magical building blocks
Description:
Arcane stone is a basic building material for many complex mystical constructs. It is normal stone that has been seared by elemental fire and strengthened by elemental earth.

**Paving Stone of Travel**  Easing your journey
Research: Terra - Iter - Volatus
Required Research: Arcane Stone
Recipe: [ x ]
Nature: Speed Boost Blocks
Description:
By altering the magical structure of arcane stone you are able to create a paving stone that adds new bounce to the step of anyone walking across it. Anything walking across it will have greater speed and agility for a couple of seconds.

**Paving Stone of Warding**  Keeping things out
Research: Bestia - Motus - Vinculum
Required Research: Arcane Stone
Recipe: [ x ]
Nature: Mob Blocker
Description:
You have discovered a way of turning arcane stone blocks into mystical wards that will prevent most creatures from crossing them.
It should be noted that these wards aren't always 100% fool proof and they cannot prevent other players from entering an area, but they keep most of common threats at bay. They will also prevent golems from crossing them.
For best results you need an unbroken line of them between the area you wish to protect and the outside world.
An active redstone signal will disable this block.

**Enchanted Fabric**  Silky and Stylish
Research: Pannus - Praecantatio
Required Research: Enchanted Crafting Material and Armor
Recipe: [ x / Robe / Leggings / Boots ]
Nature: Mob Blocker
Description:
By combining spider silk and wool and infusing it with primal vis, you have created a silky length of magical cloth that would have numerous uses.
You have also discovered patterns to create cloth robes from the magical fabric. These robes have similar protective properties to leather armor, but they are much more durable than mundane materials could ever be.
They also hold mystical enchantments very well and can hold powerful magic much better than even expensive armor.
The various pieces of this outfit grant a small discount to the amount of vis drained from casting wands when you use them. You can dye the armor like you would leather armor.

**Infernal Furnace**  Not enough?
**Research:** Auram - Fabrico - Ignis - Metalum  
**Required Research:** N/A  
**Recipe:** [x]  
**Nature:** Magical Furnace

**Description:**
By harnessing raw Ignis within a furnace crafted from obsidian and netherbrick you have created a highly efficient and fuel free furnace. So efficient in fact that occasionally it will produce bonus materials in the form of nuggets or other items. While this is essentially free it is also very slow unless the furnace gets a new supply of Ignis essentia every now and again. This can be done by placing a jar of Ignis essentia within line of sight of the front of the furnace, somewhere within 10 blocks. Luckily a little essentia goes a long way. It should also be noticed that the occasional bit of Flux escapes into the environment. Items you wish to smelt needs to be dropped into the top of the furnace and will be spit out the front.

**Arcane Bellows**  Stoking the Flames  
**Research:** Aer - Machina - Motus  
**Required Research:** Infernal Furnace  
**Recipe:** [x]  
**Nature:** Furnace Upgrade

**Description:**
The Arcane Bellows performs much the same function as its mundane counterpart, the only difference is that it happily pumps away by itself sending forth a stream of neverending air. Attaching it to an Infernal Furnace has shown some interesting results. The elemental infused air not only stokes the flames increasing its smelting speed, but causes them to burn much purer, resulting in a reduction of flux generated and increasing the chance of creating bonus nuggets and other materials when smelting.

They can also be attached to normal or alchemical furnaces to increase their speed. It is also possible to attach them to crucibles to reduce the time it takes for their water to boil. You are confident more uses will reveal themselves eventually.

**Arcane Levitator**  Next best thing to flying  
**Research:** Aer - Motus - Volatus  
**Required Research:** Nitor  
**Recipe:** [x]  
**Nature:** Entity Propellor  

**Description:**
While not true flight, the Arcane Levitator is the next best thing. When placed the levitator lifts any items or creature above it up to 10 blocks in the air. A sneaking creature or player will be slowly lowered.

Each levitator placed upon another increases the range at which it can lift entities by 10 blocks, so a stack of 3 can lift entities up to 30 blocks. Levitatos can be deactivated by applying a redstone signal to them.

**Goggles of Revealing**  Seeing the Unseen  
**Research:** Auram - Sensis  
**Required Research:** Thaumometer  
**Recipe:** [x]  
**Nature:** Wearable Thaumometer

**Description:**
Building on the basic principles of the Thaumometer, you have begun refining it's ability to detect magic into something more... revealing.

This set of mystical lenses will make aura nodes much easier to find along with revealing all manner
of hidden things. They form an important tool in any Thaumaturgist's arsenal.

**Arcane Ear**

Shhh, do you hear something?  
**Research:** Aer - Potentia - Sensis  
**Required Research:** Goggles of Revealing  
**Recipe:** [ x ]  
**Nature:** Redstone Receiver  
**Description:**  
The Arcane Ear is a device that is capable of detecting the sound emitted from nearby note blocks. If it hears a note it recognizes it will emit a short redstone pulse. The Arcane Ear needs to be tuned in a manner identical to note blocks, the tone and note it listens for depends on the material it is placed upon.

**Infusion** Mystical Infusion  
**Research:** Fabrico - Machina - Praecantatio  
**Required Research:** Essentia Distillation  
**Recipe:** [ Runic Matrix / Arcane Pedestal / Mystical Construct ]  
**Nature:** Advanced Magical Crafting  
**Description:**  
Arcane crafting and alchemy can go only so far. Something better is needed to create truly powerful mystical objects. Infusion crafting is the process of infusing a single object with magical energy and the properties of other objects. You could, for example, unfuse a stone with aer is and a feather and it would result in a very light stone.

As is usual with thaumaturgy, things are not quite that simple. To even get started with infusion crafting there are several things you need: A Runic Matrix, arcane pedestals and a steady supply of magic in the form of essentia.

Once you have your Runic Matrix properly placed into a structure commonly known as an Infusion Altar, you can begin to craft. The central pedestal located under the matrix is where the item you wish to infuse will go. You will also need several more pedestals placed around the altar where you can place the blocks and items you wish to infuse into the target object. Lastly you will need warded jars or similar essentia containers holding the requisite amount of vis.

Once all this is gathered you can click on the Runic Matrix with a wand to start the crafting process. During the first stage of crafting essentia will be drained from nearby sources. Crafting will stall of there is insufficient essentia available - something that you do not want as will be explained in the following pages.

Once all the required essentia has been infused into the target object the other subjects will have their essential essence drained. Only when this is done will the crafting complete.

Infusion crafting is not without risks. The entire process involves forcing vast energies into a single object. Unpredictable things tend to happen. Usually one of the fusion objects get knocked off a pedestal, or flux gets generated, but more catastrophic events are not unheard of. The longer crafting continue due to unresolved problems like lack of vis or dropped items, the greater the chance of something bad happening.

These effects can be reduced by various means. Firstly you wish to keep the entire fusion structure as symmetrical as possible - take careful note of where you place pedestals and make sure they are balanced with other pedestals on the opposite side of the alter. When placing fusion items on them you may wish to keep them balanced as well. Lastly you can place occult paraphernalia around the alter in symmetrical formations (things like candles, skulls, crystals, etc.) . These will have the effect of reducing instability.
**Boots of the Traveller** These boots were made for walking

**Research:** Aqua - Iter - Terra - Volatus  
**Required Research:** Enchanted Fabric - Infusion  
**Recipe:** [ x ]  
**Nature:** Elemental Sword  
**Description:**  
You have merged the elemental fury of air shards with a thaumium sword.

**Sword of the Zephyr** Angry Winds

**Research:** Aer - Potentia - Telum  
**Required Research:** Thaumium - Infusion  
**Recipe:** [ x ]  
**Nature:** Elemental Sword  
**Description:**  
You have merged the elemental fury of air shards with a thaumium sword.  
When used to strike a foe, the blade will sweep in a wide arc, hitting additional foes near you main target.  
While blocking the sword will conjure a sphere of whirling winds around you, pushing enemies and loose objects away and deflecting incoming projectiles.  
While blocking it will also slowly lift you into the air.

**Axe of the Stream** Rivers of wood

**Research:** Aqua - Instrumentum - Motus  
**Required Research:** Thaumium - Infusion  
**Recipe:** [ x ]  
**Nature:** Elemental Axe  
**Description:**  
By combining water shards and a thaumium axe, you have created a tool that embodies the aspects of motion and flow.  
It functions like a normal axe on all materials except natural logs and trees. When used on them the axe seeks to furthest block of the same type that is still connected to the block you are attempting to harvest and harvests that one instead.
In effect you will chop trees from the top down even if you hit the bottom-most block.

**Shovel of the Earthmover**  
*Shifting Earth*  
**Research:** Fabrico - Instrumentum - Terra  
**Required Research:** Thaumium - Infusion  
**Recipe:** [ ]  
**Nature:** Elemental Shovel  
**Description:** Combining earth shards with a thaumium shovel you have created a peerless digging implement. When used to dig earth, sand and similar materials it will dig a 3x3 area. If you right click on the side of a block, it will attempt to place a 3x3 section of the same material in the world so long as you have sufficient blocks in your inventory. The orientation of both the digging and construction depends on the face you dug or clicked. If shift is held while using this tool all its special properties are suspended and it functions like a normal shovel.

**Pickaxe of the Core**  
*Purifying Heat*  
**Research:** Ignis - Instrumentum - Sensus  
**Required Research:** Thaumium - Infusion  
**Recipe:** [ ]  
**Nature:** Elemental Pickaxe  
**Description:** By infusing a thaumium pickaxe with fire shards, you have created a pickaxe that glows with the heat of a forge. When you mine ore blocks there is a chance that you will mine a cluster instead. Native clusters are much easier to process and produces double the normal amount of metal when smelted. It can also be used to sound out any surface you right click against to find out what valuable materials can be found nearby. If shift is held while using this tool all its special properties are suspended and it functions like a normal pickaxe.

**Hoe of Growth**  
*Balance of Nature*  
**Research:** Instrumentum - Mesis - Vicius  
**Required Research:** Thaumium - Infusion  
**Recipe:** [ ]  
**Nature:** Elemental Hoe  
**Description:** By merging the magical energy from order and entropy shards with a thaumium hoe, you have created a farming implement with few equals. When used to till fields, it will till a 3x3 area instead of just a single block. When used to crops or other plants it will act as bonemeal to promote its growth, though at a higher cost to its durability. It might even be able to grow plants that normal bonemeal can’t. If shift is held using this tool, all its special properties are suspended and it functions like a normal hoe.

**Arcane Bore**  
*Mining evolved*  
**Research:** Instrumentum - Machina - Motus - Perfodio  
**Required Research:** Wand Focus: Excavation - Infusion  
**Recipe:** [ Bore / Base ]  
**Nature:** Magic Mini Quarry
Description:
You have discovered a device capable of extending the range and power of an Excavation focus. Of even greater use is the fact that the machine can do so without your constant supervision. You merely need to place it on a specially constructed base, point it in the right direction with a wand and apply a redstone signal.

The arcane bore requires two things to function. The first is an excavation focus placed in its leftmost inventory slot. Any enchantments applied to the focus will also alter the functions of the bore.

Secondly you need to place any kind of pickax to the rightmost slot. The material of the pickax will have little effect on the operation of the bore, but the greater its durability, the longer it will last. Like the wand, any enchantments or special abilities of the pickax will also be applied to whatever the bore mines.

Placing a jar of periditio essentia somewhere behind the bore (within 5 blocks) will greatly speed up the rate in which it mines.

An arcane bore can only be placed above or below an arcane bore base. Any items mined will be ejected from the base in the direction its nozzle is pointing.

It will eject into an inventory if possible. This direction can be changed with a wand.

Thaumostatic Harness
This is a bird...

Research: Aer - Iter - Machina - Volatus
Required Research: Boots of the Traveller
Recipe: [ x ]
Nature: Magic Jetpack
Description:
You have finally managed to unlock the secret of flight. You have created a harness that anchors itself into the Thaumic Field using thaumostatic energy allowing you to defy gravity. You think quantum’s and quarks might also be involved somehow. Unusually the only vis required to power this harness is added during it’s creation process. Instead the fuel it requires for flight is Potentia. Simply right click while holding the harness to insert filled jars. Double tapping space while wearing the harness activates it. While active the harness will constantly use Potentia. It can be enchanted with the Haste enchant to increase the speed at which you move while flying.

Mirror Magic Throught the looking glass

Research: Alienis - Iter - Tenebrae - Vitreus
Required Research: Infusion
Recipe: [ Mirrored Glass / Magic Mirror ]
Nature: Item Teleportation
Description:
You are now able to enchant a pair of magical mirrors what act as doorways to the void between the worlds. Anything shoved through the one mirrir will pass through this realm and exit through the other mirror - even across dimensional bounderies. Unfortunately this realm is extremely hostile to mortal creatures like yourself so using these mirrors to transport living creatures is not yet visible.

To link a pair of these magical mirrors you simply need to place one of them in a desired location. you then right click with a second mirror on the one you placed, and the pair will become linked. You may then place the second wherever you wish and items thrown into one will be ejected out the other.

Mirrors can only be linked in pairs, so while both are placed in the world and able to transmit items you cannot link them to another mirror. When you pick up the mirrir it will remember the last
partner it was linked with, allowing you to easily move it without having to relink it. However while one of the paired mirrors is picked up, you may easily relink either of them.

**Magical Hand Mirror**  
**Personal Reflection**  
**Research:**  
Alienis - Iter - Instrumentum - Vitreus  
**Required Research:**  
Mirror Magic  
**Recipe:**  
[ x ]  
**Nature:**  
Handheld Item Teleportation  
**Description:**  
This magical hand mirror functions much the same way as other magical mirrors, you simply push items through the glass and they will pop out the linked mirror. Simple right-click while holding the linked hand mirror and you will be able to place any items in your inventory into the looking glass to have them transported. The hand mirror can be linked to a mirror that is already paired with another. It should be noted that the hand mirror can only send items, not receive them.

**Brain in a Jar**  
*Sealing in the foulness*  
**Research:**  
Cognito - Exanimis - Sensus  
**Required Research:**  
Lost Research (Requires Infusion)  
**Recipe:**  
[ x ]  
**Nature:**  
EXP Sponge  
**Description:**  
- Throw one rotten zombie brain into a jar.  
- Add some spider eyes and water.  
- Stir gently with your wand while thinking dark thoughts.  
If you follow the recipe exactly you should now have a partially animated and fully malicious zombie brain. It retains some of the hunger it possessed as a zombie and while it cannot consume brains, it still enjoys eating the thoughts and experiences of those slain nearby. Giving its jar a good shake will make it surrender some of its ill-gotten gains for your own use.

**Salis Mundus**  
*Just a pinch*  
**Research:** (Starts off unlocked)  
**Required Research:** (Starts off unlocked)  
**Recipe:** (NOTE: Uses any type of shard/essence/bean)  
[ x / alt ]  
**Nature:**  
Alternative Enchanting  
**Description:**  
Salis Mundus, or Thaumaturge's Salt as it is more commonly known, is crafted by crushing vis crystals and mixing them with substances naturally rich in magic. Like its mundane counterpart, Thaumaturge's salt adds flavour (metaphorically speaking) to any magical recipe or formula. It is a strong binding agent, able to hold the most disparate of magical elements together. There are several substances that can be mixed with the crushed crystals to create Salis Mundus.

**Arcane Lamp**  
*Large source of light*  
**Research:**  
Lux - Sensus - Tenebrae  
**Required Research:**  
Nitor - Infusion  
**Recipe:**  
[ x ]  
**Nature:**  
Large Light Source
**Description:**
This mystical lamp can be attached to walls, floors or ceilings and will provide strong and steady light.
Additional sources of light may also appear up to 16 blocks away wherever light levels fall below accepted 'safe' levels. Remember: Only YOU can prevent zombie outbreaks. These secondary sources of light will disappear soon after the lamp has been removed.

You are sure additional uses for this lamp will present itself, so remember to check here after making discoveries.

**Arcane Bore**
When attached to the base of an arcane bore, the arcane lamp gains an additional ability: It will draw Lux essentia from a nearby source to light up the tunnel that the bore digs. A single point of lux creates a single point of light. These sources of light will not disappear after the lamp has been removed.

**Infusion Enchantment** - Enchanting with Essentia

**Research:** Cognito - Instrumentum - Praecantatio - Telum - Tutamen

**Required Research:** Infusion

**Recipe:** (NOTE: All recipes use Salis Mundus)
[ Recipes / Essentia and Level cost ]

**Nature:** Alternative Enchanting

**Description:**
For ages now wizards and thaumaturges have been enchanting weapons, tools and armor by imbuing objects with their own life energy. While effective, the process is tedious and the results are completely unpredictable. Your discovery of infusion crafting might have uncovered a solution to both problems.

You have discovered a way to enchant objects with an infusion altar. Simply place the item you wish to enchant on the central pedestal and supply the proper ingredients and essentia.

It also requires some life essence in the form of experience, but much less than would be normally required to enchant something. This experience is drawn from anyone near the infusion altar so care should be taken.

The essentia and experience costs listed in following recipes are for the first level of enchantment. To enchant an item to higher levels, simply perform the infusion process again - it can be repeated till the required enchantment has reached it's maximum possible level. Essentia and experience cost are multiplied by the level of enchantment you are performing, so a level II enchantment costs twice as much as a level I.

Additional costs might is also required if the item already contains enchants other than the one you are currently performing. This cost is usually around 10% per level of enchantment. So enchanting a sword with Fire Aspect that already contains Smite III will cost 30% more.

Instability also increases as the total number of enchantments on the object increases. Enchanting items with an infusion altar follows the normal rules for enchantment as it applies to what enchants can combine with others.
**Golemancy**

**Hungry Chest** A chest that doesn't wait to be opened  
**Research:** Fames - Vacuos  
**Required Research:** N/A  
**Recipe:** [ x ]  
**Nature:** Onnom Chest  
**Description:**  
The hungry chest is able to pick up items by itself if they are dropped close enough to touch it.

**Straw Golems** Simple Magical Minions  
**Research:** Messis - Motus - Permutatio - Spiritus  
**Required Research:** Hungry Chest  
**Recipe:** [ x ]  
**Nature:** Lowest Golem  
**Description:**  
You have discovered the secret of creating golem workers. While the Iron Golem is impressive in its own way, it is very limited and uncontrollable. You have managed to solve both those problems. Your golem workers have just enough will and self-awareness to make them useful tools, but not enough to render them uncontrollable.  
-----  
You have also discovered how to make the Golemancer's Bell and Golem Animation Cores (see their respective research entries for more detail). The golem you craft can be placed in the world, but will remain inactive until given an animation core. The placement of the golem needs to be considered carefully - if you wish it to interact with inventories, you will need to place it by clicking (or shift-clicking) on the inventory on the side you wish it to interact with.  
Most golems can operate in a range of 19 blocks around their home location. The first golem you can create is made from bundles of hat and straw. It is physically weak and easy to destroy, but very light and nimble.  
**Straw Golem Attributes**  
Durability: Very Low  
Strength: Very Low  
Self-repair: Average  
Carry Limit: 1  
Speed: Fast  
Upgrades: 1

**Wood Golems** How much wood would a good golem chop if a wood golem could chop wood?  
**Research:** Arbor - Motus - Permutatio - Spiritus  
**Required Research:** Straw Golem  
**Recipe:** [ x ]  
**Nature:** Below Average Golem  
**Description:**  
This golem is carved from a greatwood log. It is moderate improvement over the straw golem.  
**Wood Golem Attributes**  
Durability: Below Average  
Strength: Low  
Self-repair: Average
**Tallow Golems** *Keep away from open flames*

**Research:** Corpus - Motus - Permutatio - Praecantatio - Spiritus  
**Required Research:** Wood Golem - Tallow  
**Recipe:** [Tallow Block / Golem]  
**Nature:** Below Average Golem (Better than Wood)  
**Description:** This advanced golem is only marginally better than the wood golem, but is capable of holding two upgrades.  
**Tallow Golem Attributes**  
Durability: Low  
Strength: Low  
Self-repair: Average  
Carry Limit: 4  
Speed: Above Average  
Upgrades: 2

**Clay Golems** *Tough and Durable*

**Research:** Motus - Permutatio - Spiritus - Terra  
**Required Research:** Wood Golem  
**Recipe:** [x]  
**Nature:** Average Stat Golem  
**Description:** Fired clay is proven to be a superior crafting material for golems. It is fireproof and has more than adequate mobility.  
**Clay Golem Attributes**  
Durability: Average  
Strength: Average  
Self-repair: Slow  
Carry Limit: 8  
Speed: Average  
Upgrades: 1

**Flesh Golems** *it's alive!*

**Research:** Corpus - Mortuus - Motus - Permutatio - Spiritus  
**Required Research:** Clay Golem  
**Recipe:** [Flesh Block / Golem]  
**Nature:** Average Stat Golem (Better than clay)  
**Description:** While macabre, golems made from zombie flesh has several features to recommend them. Not only does it repair itself quickly, it is able to hold 2 upgrades.  
**Flesh Golem Attributes**  
Durability: Average  
Strength: Average  
Self-repair: Very Fast  
Carry Limit: 8  
Speed: Average
Stone Golems

Research: Motus - Permutatio - Saxum - Spiritus

Required Research: Clay Golem

Recipe: [ x ]

Nature: Above Average Golem

Description:
Stone golems are very durable and able to carry heavy loads, but they are much slower than most golems.

Stone Golem Attributes
Durability: Above Average
Strength: Above Average
Self-repair: Slow
Carry Limit: 16
Speed: Slow

Upgrades: 1

Iron Golems

Research: Metallum - Motus - Permutatio - Spiritus

Required Research: Clay Golem

Recipe: [ x ]

Nature: Highest Golem

Description:
Iron golems are extremely tough and strong, able to carry huge loads. Their weight however causes them to move quite slowly.

Iron Golem Attributes
Durability: High
Strength: High
Self-repair: Very Slow
Carry Limit: 32
Speed: Very Slow

Upgrades: 1

Thaumium Golems

Research: Metallum - Motus - Permutatio - Praecantatio - Spiritus

Required Research: Iron Golem - Thaumium

Recipe: [ Thaumium Block / Golem ]

Nature: Highest Golem (Better than Iron)

Description:
Thaumium golems have slightly better attributes than iron golems and they are able to have 2 upgrades. They are also highly resistant to magical damage.

Thaumium Golem Attributes
Durability: Very High
Strength: High
Self-repair: Slow
Carry Limit: 32
Speed: Slow

Upgrades: 2
**Golem Core: Gather**  Picking up what you are putting down

**Research:**  Straw Golem  
**Required Research:**  Hungry Chest  
**Recipe:**  [Blank / Gather]  
**Nature:**  Animation Core: Pickup  
**Description:**  
Golem Animation cores are used to give your golems purpose - without a core they remain inanimate.  
The first such core you are able to create is the Gather core.  
Golems fitted with this core will seek dropped items within 16 blocks, pick them up and then place them inside an attached inventory. If they are not attached to an inventory they will simply hold on to them.  
If you right click on the golem you will be able to set specific items they should pick up - all others will be ignored.  
Simply right-click on a freshly placed golem with a core to attach it to the golem.

**Golem Core: Fill**  Keeping an inventory supplied

**Research:**  Fames - Permutatio - Vacuos  
**Required Research:**  Golem Core: Gather  
**Recipe:**  [x]  
**Nature:**  Animation Core: Inventory Filling  
**Description:**  
Golems fitted with this core will examine inventories you have marked for certain items, and place them in their home inventory. There are two modes of operation:  
In Precise Amount mode the golem will fill its home inventory with the specific items until it contains an amount equal to the amount you specified in its interface.  
In Any amount mode the golem will keep filling the current inventory with the specified items so long as there is room and available items.

**Golem Core: Empty**  Moving things somewhere else

**Research:**  Lucrum - Permutatio - Vacuos  
**Required Research:**  Golem Core: Gather  
**Recipe:**  [x]  
**Nature:**  Animation Core: Empty  
**Description:**  
Golems fitted with this core will remove items from an attached inventory and take them to the marked location. If the marked location is a container, they will place it inside.  
If you wish, you can specify what items should be removed from the inventory by accessing the golems interface. All other items will be ignored.

**Golem Core: Use**  Clickity Click

**Research:**  Humanus - Instrumentum - Machina - Permutatio  
**Required Research:**  Golem Core: Empty - Infusion  
**Recipe:**  [x]  
**Nature:**  Animation Core: Click Simulation  
**Description:**  
Like the Empty core, golems fitted with this core will remove items from an attached inventory or dropping it in the world, they will attempt to use it on a target block or location.  
They will attempt to use the item as if they are a player right-clicking on the target block or
location with the item.
If you wish, you can specify what items should be removed from the inventory by accessing the
golems interface. All other items will be ignored.

**Golem Core: Harvest** Animated Farmer

**Research:** Iter - Messis - Meto  
**Required Research:** Golem Core: Gather  
**Recipe:** [ x ]  
**Nature:** Animation Core: Farmer  
**Description:**
Golems fitted with this core need not be attached to an inventory. They seek out fully grown crops,
reeds and other commonly farmed plants within a small radius and harvests them. The harvested
material simply drops to the ground and must be gathered by some other means.
Unfortunately they are not smart enough to replant the crops they have harvested, but you are sure
with a bit of work you might be able to eventually fix that bug.
**Order Upgrade Unlocked** (Unlocked with Golem Upgrade: Order)
Harvest golems fitted with this upgrade will now attempt to replant the crop they just harvested.
This could fail if the plant failed to drop the proper seed or seedling.

**Golem Core: Chop** Animated Lumberjack

**Research:** Arbor - Instrumentum - Meto - Potentia  
**Required Research:** Golem Core: Harvest - Axe of the Stream  
**Recipe:** [ x ]  
**Nature:** Animation Core: Lumber Chopper  
**Description:**
Like Harvester golems, Lumberjack golems can be placed anywhere. They will seek out nearby
trees and chop them down. Stronger golems will chop them faster.
Lumberjack golems do not replant the trees they have chopped down.

**Golem Core: Guard** Guarding your valuables

**Research:** Sensus - Telum - Vinculum  
**Required Research:** Golem Core: Gather  
**Recipe:** [ x ]  
**Nature:** Animation Core: Mob Protection  
**Description:**
Golems fitted with this core act as guards, attacking any hostile creatures within range.
You are sure with a little bit of tinkering you could make a golem a bit more selective with the
targets it attacks, bit for now it only seeks out aggressive mobs other than creepers.
**Order Upgrade Unlocked** (Unlocked with Golem Upgrade: Order)
If you fit this upgrade you can specify the types of creatures the golem will attack. The golem will
also be able to attack more than just hostile entities.

**Golem Core: Decanting** Keeping a tank filled with liquid

**Research:** Aqua - Iter - Permutatio  
**Required Research:** Golem Core: Fill  
**Recipe:** [ x ]  
**Nature:** Animation Core: Liquid Filling  
**Description:**
Golems fitted with this core will attempt to keep the liquid inventory they are attached to filled
with an appropriate liquid.
If you wish, you can specify what liquid should be placed in the tank by accessing the golem's interface and placing a liquid container (like a filled bucket) in a slot. All other liquids will be ignored.

A decanting golem can only carry 100mB of liquid per item its material type is normally allowed to carry, though they will always carry a full buckets worth if instructed to pick up liquids blocks in the world.

**Golem Core: Alchemy Moving Essentia Around**

**Research:** Aqua - Iter - Potentia - Praecantatio

**Required Research:** Golem Core: Decanting - Infusion

**Recipe:** 

**Nature:** Animation Core: Liquid Filling

**Description:**
This core is a specialized version of a decanting core, specifically designed to transport essentia. Alchemy golems assigned to an alchemy furnace or alembic will draw essentia from the entire stack of alembics and transport it to marked warded jars. It is not required to mark every single jar - the golem will automatically fill all jars adjacent to the marked jar and all other similarly connected jars.

Alchemy golems prioritize nearby jars first and will try to fill an entire jar before starting on a new one.

**Golemancer's Bell Pay Attention**

**Research:** Straw Golem

**Required Research:** Hungry Chest

**Recipe:** 

**Nature:** Golem Order Tool

**Description:**
Golems are notoriously bad at following verbal commands, but this bell allows you to avoid all that. Simply right click on a golem to select it. Once that is done a glowing, gearlike circle will appear indicating the golem's 'home' location and the side it is attached to.

You are now able to right click anywhere in the world to link the golem to blocks, locations or inventories it may interact with. Clicking on the same location will unmark it or cycle through different colors if the golem is able to interact with different colored markers.

Shift + right-clicking on a marked location will always clear it and pressing F will clear all marked locations.

Left-clicking on a golem picks it up and with all its current upgrades and settings intact. Shift + left-clicking picks up the golem but removed its core and any attached upgrades which drop separately. There is a good chance that upgrades will be lost if you do this however.

**Golem Upgrade: Air Making your golem faster**

**Research:** Aer - Motus

**Required Research:** Golemancer's Bell

**Recipe:** 

**Nature:** Golem Upgrade: Speed

**Description:**
When this upgrade is attached to a golem it will increase its movement and ranged attack speed. Specific golem cores might benefit from this upgrade in other ways, so you might wish to check if additional pages were added to their Thaumonomicon entry.
Golem Upgrade: Earth  Making your golem stronger
Research: Terra - Victus
Required Research: Golemancer's Bell
Recipe: [ x ]
Nature: Golem Upgrade: Strength
Description:
This upgrade will increase the increase the amount of items your golem can carry at a time. Each upgrade increases the limit between 4 and 16 (dependant on the golem's base carry limit). It also increase its physical damage and how quickly it harvests materials or performs tasks dependant on brute strength.
Specific golem cores might benefit from this upgrade in other ways, so you might wish to check if additional pages were added to their Thaumonomicon entry.

Golem Upgrade: Fire  Making your golem all fired up
Research: Ignis - Potentia
Required Research: Golemancer's Bell
Recipe: [ x ]
Nature: Golem Upgrade: Inventory Increase
Description:
This upgrade increases the interface inventory of a golem by 2 slots, allowing more items to be filtered or sorted.
This golem's melee attacks also sets its target on fire.
Specific golem cores might benefit from this upgrade in other ways, so you might wish to check if additional pages were added to their Thaumonomicon entry.

Golem Upgrade: Water  Making your golem more perceptive
Research: Aqua - Sensus
Required Research: Golemancer's Bell
Recipe: [ x ]
Nature: Golem Upgrade: Perception
Description:
This upgrade increases the visual range of most golems allowing them to travel further afield to perform their tasks. It also increases the range and accuracy of ranged attacks.
Specific golem cores might benefit from this upgrade in other ways, so you might wish to check if additional pages were added to their Thaumonomicon entry.

Golem Upgrade: Order  Making your golem more organized
Research: Cognito - Ordo
Required Research: Golemancer's Bell
Recipe: [ x ]
Nature: Golem Upgrade: Golem Organization
Description:
This upgrade allows golems to specify different colors for blocks marked with the Golemancer's Bell. This allows for greater control over what they do and where they do it. This upgrade also unlocks certain features of some golem cores giving them a greater scope of operation.
Specific golem cores might benefit from this upgrade in other ways, so you might wish to check if additional pages were added to their Thaumonomicon entry.
Golem Upgrade: Entropy  Making your golem prickly... and fuzzy

Research:  Cognito - Perditio
Required Research:  Golemancer's Bell
Recipe:  [ x ]
Nature:  Golem Upgrade: Thorns and Discernment

Description:
Golems fitted with this upgrade automatically inflicts damage on anything damaging them. Golems with this upgrade also become slightly less discerning. In general this means that when tasked to filter a certain type of item (a copper ingot for instance) they will check for all items that count as copper ingots - not just the specific ingot you specified. Specific golem cores might benefit from this upgrade in other ways, so you might wish to check if additional pages were added to their Thaumonomicon entry.

Advanced Golem  Maybe I should think this through...

Research:  Cognito - Potentia - Sensus - Victus
Recipe:  [ x ]
Nature:  Golem Upgrade: Advanced

Description:
You have discovered a way of improving golems in several minor ways. Firstly, golems that go through this process are able to hold one additional upgrade, though they can never have more than two upgrades of a single type. Secondly, they move slightly faster. Thirdly, they have a slightly greater sight radius. You are sure the malevolent intent in their eyes is just your imagination.

Golem Upgrade: Air  Making your golem faster

Research:  Aer - Motus
Required Research:  Golemancer's Bell
Recipe:  [ x ]
Nature:  Golem Upgrade: Speed

Description:
When this upgrade is attached to a golem it will increase its movement and ranged attack speed. Specific golem cores might benefit from this upgrade in other ways, so you might wish to check if additional pages were added to their Thaumonomicon entry.

Golem Upgrade: Earth  Making your golem stronger

Research:  Terra - Victus
Required Research:  Golemancer's Bell
Recipe:  [ x ]
Nature:  Golem Upgrade: Strength

Description:
This upgrade will increase the increase the amount of items your golem can carry at a time. Each upgrade increases the limit between 4 and 16 (dependant on the golem's base carry limit). It also increase its physical damage and how quickly it harvests materials or performs tasks dependant on brute strength. Specific golem cores might benefit from this upgrade in other ways, so you might wish to check if additional pages were added to their Thaumonomicon entry.
Golem Upgrade: Fire  Making your golem all fired up
Research: Ignis - Potentia
Required Research: Golemancer's Bell
Recipe: [ x ]
Nature: Golem Upgrade: Inventory Increase
Description:
This upgrade increases the interface inventory of a golem by 2 slots, allowing more items to be filtered or sorted.
This golem's melee attacks also sets its target on fire.
Specific golem cores might benefit from this upgrade in other ways, so you might wish to check if additional pages were added to their Thaumonomicon entry.

Golem Upgrade: Water  Making your golem more perceptive
Research: Aqua - Sensus
Required Research: Golemancer's Bell
Recipe: [ x ]
Nature: Golem Upgrade: Perception
Description:
This upgrade increases the visual range of most golems allowing them to travel further afield to perform their tasks.
It also increases the range and accuracy of ranged attacks.
Specific golem cores might benefit from this upgrade in other ways, so you might wish to check if additional pages were added to their Thaumonomicon entry.

Golem Upgrade: Order  Making your golem more organized
Research: Cognito - Ordo
Required Research: Golemancer's Bell
Recipe: [ x ]
Nature: Golem Upgrade: Golem Organization
Description:
This upgrade allows golems to specify different colors for blocks marked with the Golemancer's Bell. This allows for greater control over what they do and where they do it.
This upgrade also unlocks certain features of some golem cores giving them a greater scope of operation.
Specific golem cores might benefit from this upgrade in other ways, so you might wish to check if additional pages were added to their Thaumonomicon entry.

Golem Upgrade: Entropy  Making your golem prickly... and fuzzy
Research: Cognito - Perditio
Required Research: Golemancer's Bell
Recipe: [ x ]
Nature: Golem Upgrade: Thorns and Discernment
Description:
Golems fitted with this upgrade automatically inflicts damage on anything damaging them.
Golems with this upgrade also become slightly less discerning. In general this means that when tasked to filter a certain type of item (a copper ingot for instance) they will check for all items that count as copper ingots - not just the specific ingot you specified.
Specific golem cores might benefit from this upgrade in other ways, so you might wish to check if additional pages were added to their Thaumonomicon entry.

Advanced Golem  Maybe I should think this through...
**Research**: Cognito - Potentia - Sensus - Victus


**Recipe**: [x]

**Nature**: Golem Upgrade: Advanced

**Description**: You have discovered a way of improving golems in several minor ways. Firstly, golems that go through this process are able to hold one additional upgrade, though they can never have more than two upgrades of a single type. Secondly, they move slightly faster. Thirdly, they have a slightly greater sight radius. You are sure the malevolent intent in their eyes is just your imagination.

**Tiny Hats** *Keeping the sun at bay*

**Research**: Lucrum - Pannus - Victus

**Required Research**: (Lost Research)

**Recipe**: [x]

**Nature**: Golem Upgrade: Health

**Description**: This tiny hat is the perfect accessory for any golem. Not only is it stylish and dashing, but any golem wearing it will have increased health and vitality.

**Tiny Spectacles** *The better to see you with*

**Research**: Lucrum - Pannus - Sensus

**Required Research**: (Lost Research)

**Recipe**: [x]

**Nature**: Golem Upgrade: Perception

**Description**: Golems are notoriously short sighted, and these glasses alleviate that weakness to some degree.

**Tiny Bowties** *...are cool*

**Research**: Iter - Lucrum - Pannus

**Required Research**: (Lost Research)

**Recipe**: [x]

**Nature**: Golem Upgrade: Speed

**Description**: A must for any golem on the go, this bowtie will fill it with additional energy, increasing its pace.

**Tiny Fezzes** *...are cool too*

**Research**: Lucrum - Pannus - Potentia

**Required Research**: (Lost Research)

**Recipe**: [x]

**Nature**: Golem Upgrade: Self Repair

**Description**: This strange headgear seems to fill any golem wearing it with unusual vitality, allowing it to repair damage at a much faster pace.

**Golem Dart Launcher** *Small but pointy*

**Research**: Lucrum - Telum - Volatus

**Required Research**: (Lost Research)
Recipe: [ x ]
Nature: Golem Upgrade: Ranged Attack
Description:
This dart launcher can only be attached to combat golems. It is not quite as powerful as
the golems primary attack, but gives golems limited to melee combat a means of
attacking foes at range.

Golem Visor Thank you for your cooperation
Research: Lucrum - Sensus - Tutamen
Required Research: (Lost Research)
Recipe: [ x ]
Nature: Golem Upgrade: Experience Dropper
Description:
This metal visor will grant a combat golem a small amount of additional armor protection.
It will also insure that any foes attacked by the golem will drop experience orbs when they
die.

Golem Armor A tough nut to crack
Research: Lucrum - Metallum - Tutamen
Required Research: (Lost Research)
Recipe: [ x ]
Nature: Golem Upgrade: Damage Resistance
Description:
The armored playing grants the golem wearing it increased resistance to physical harm.
Unfortunately the additional protection comes at a cost, as all the heavy ironmongery will
slow it down.

Golem Mace Its clobbering time
Research: Lucrum - Metallum -Telum
Required Research: (Lost Research)
Recipe: [ x ]
Nature: Golem Upgrade: Damage Resistance
Description:
The armored playing grants the golem wearing it increased resistance to physical harm.
Unfortunately the additional protection comes at a cost, as all the heavy ironmongery will
slow it down.
Aspects of Magic

Primal Aspects

Aer (Air)
Aqua (Water)
Ignis (Fire)
Ordo (Order)
Perditio (Entropy)
Terra (Earth)

Compound Aspects

Alienis = Vacuos + Tennebrae
Arbor = Terra + Herba
Auram = Praecantatio + Aer
Bestia = Motus + Victus
Cognito = Terra + Spiritus
Corpus = Mortuus + Bestia
Exanimis = Motus + Mortuus
Fabrico = Humanus + Instrumentum
Fames = Victus + Vacuos
Gelum = Aqua + Ordo
Granium = Victus + Terra
Herba = Granum + Terra
Humanus = Bestia + Cognito
Instrumentum = Humanus + Metallum
Iter = Motus + Terra
Limis = Victus + Aqua
Lucrum = Huamnus + Fames
Lux = Aer + Ignis
Machina = Motus + Instrumentum
Messis = Granum + Humanus
Metallum = Saxum + Ordo
Meto = Messus + Humanus
Mortuus = Victus + Perditio
Motus = Aer + Ordo
Pannus = Instrumentum + Bestia
Perfodio = Humanus + Saxum
Permutatio = Motus + Aqua
Potentia = Ordo + Ignis
Preacantatio = Vacuos + Potentia
Sano = Victus + Victus
Saxum = Terra + Terra
Sensus = Aer + Spiritus
Spiritus = Victus + Mortuus
Telum = Instrumentum + Perditio
Tempestas = Aer + Aqua
Tempus = Vacuos + Ordo
Tenebrae = Vacuos + Lux
Tutamen = Instrumentum + Terra
Vacuos = Aer + Perditio
Venenum = Aqua + Mortuus
**Vicus** = Aqua + Terra

**Vinculum** = Motus + Perditio

**Vitium** = Praecantatio + Perditio

**Vitreus** = Saxum + Aqua

**Volatus** = Aer + Motus

**Vanilla Item Aspects**

Stone = Saxum 2  
Grass = Terra 1 - Herba 1  
Dirt = Terra 2  
Cobblestone = Saxum 1 - Perditio 1  
Wood Planks (All) = Arbor 1  
Bedrock = Aer 10 - Aqua 10 - Ignis 10 - Ordo 10 - Perditio 10 - Terra 10 - Vacuos 10  
Sapling (All) = Arbor 1 - Granum 1 - Herba 1  
Water = Aqua 6  
Lava = Ignis 3 - Saxum 3  
Sand = Perditio 1 - Terra 1  
Gravel = Saxum 1 - Terra 1  
Gold Ore = Lucrum 1 - Metalum 2 - Saxum 1  
Iron ore = Metalum 3 - Saxum 1  
Coal Ore = Ignis 1 - Potentia 3 - Saxum 1  
Wood Log (All) = Arbor 4  
Leaves (All) = Herba 1  
Sponge = N/A  
Glass = Vitreus 1  
Lapis Lazuli Ore = Sensus 1  
Lapis Lazuli Block = Sensus 9  
Dispenser = Arbor 1 - Bestia 1 - Machina 1 - Pannus 1 - Perditio 7 - Potentia 3 - Saxum 7  
Sandstone = Perditio 4 - Saxum 1 - Terra 4  
Chiseled Sandstone = Perditio 4 - Praecantatio 1 - Saxum 1 - Terra 3  
Smooth Sandstone = Ordo 1 - Perditio 4 - Saxum 1 - Terra 3  
Note Block = Aer 4 - Arbor 2 - Machina 1 - Sensus 4  
Powered Rail = Machina 2 - Metallum 1  
Detector Rail = Machina 2 - Metallum 2 - Sensus 2  
Sticky Piston = Arbor 2 - Limus 2 - Machina 2 - Motus 4  
Cobweb = Pannus 1 - Vinculum 2  
Grass (plant) = Aer 1 - Herba 1  
Fern = Aer 1 - Herba 1  
Dead Bush = Herba 1 - Perditio 1  
Piston = Arbor 2 - Machina 2 - Motus 4  
Wool (all colors) = Fabrico 1 - Pannus 4  
Flower (dandelion and rose) = Herba 2 - Lux 1 - Sensus 1  
Mushroom (plant - both) = Herba 2 - Tenebrae 1  
Block of Gold = Lucrum 10 - Metalum 11  
Block of Iron = Metalum 12  
Stone slab (single and double) = Saxum 1  
Sandstone slab (single and double) = Perditio 1 - Terra 1  
Wooden slab (single and double - all) = Arbor 1  
Cobblestone slab (single and double) = None  
Bricks slab (single and double) = Ignis 1 - Terra 1  
Nether Brick slab (single and double) = Saxum 1  
Quartz slab (single and double) = Potentia 1 - Vitreus 1  
Bricks = Ignis 4 - Terra 4  
TNT = Ignis 8 - Perditio 12 - Terra 4  
Bookshelf = Arbor 2  
Moss Stone = Herba 1 - Praecantatio 1 - Saxum 1  
Obsidian - Ignis 2 - Saxum 2 - Tenebrae - 1  
Torch = Lux 1  
Fire = Ignis 6
Monster Spawner (any) = Bestia 4 - Exanimis 4 - Iter 4 - Praecantatio 4
Wood Stairs (any) = Arbor 1
Chest (single or double) = Arbor 2 - Vacuos 4
Diamond Ore = Lucrum 3 - Saxum 1 - Vitreus 3
Block of Diamond = Lucrum 12 - Vitreus 12
Crafting Table = Arbor 2 - Fabrico 4
Farmland = Meto 2 - Terra 1
Furnace = Ignis 2 - Perditio 8 - Saxum 8
Ladder = Arbor 1
Stone Stairs = Perditio 2 - Saxum 2
Lever (on and off) = Arbor 1 - Machina 1 - Perditio 1 - Saxum 1
Stone Pressure Plate = Machina 1 - Saxum 3 - Sensus 1
Wooden Pressure Plate = Arbor 2 - Machina 1 - Sensus 1
Redstone Ore Block = Machina 2 - Potentia 3 - Saxum 1
Redstone Ore Block (On) = Machina 1 - Potentia 3
Cake (block) = None
Snow Block = Gelum 4
Snow Slab (any size, even full) = Gelum 1
Ice = Gelum 4
Stone Button = Machina 1 - Saxum 2
Redstone Torch (On and off) = Arbor 1 - Machina 3 - Potentia 3
Cactus = Aqua 1 - Herba 3 - Perditio 1
Clay (block) = Aqua 3 - Terra 3
Jukebox = Aer 4 - Arbor 2 - Machina 2 - Sensus 4
Fence = Arbor 1
Pumpkin = Messis 2
Netherrack = Ignis 1 - Saxum 1 - Terra 1
Soul Sand = Spiritus 1 - Terra 1 - Vinculum 1
GlowsStone (block) = Lux 10 - Sensus 3
Portal (nether) = Ignis 4 - Iter 4
Jack o' Lantern = Lux 1 - Messis 2
Trapdoor = Arbor 1 - Motus 1
Stone Monster Egg (all) = None
Stone Bricks = Saxum 2
Mossy Stone Bricks = Herba 1 - Saxum 1
Cracked Stone bricks = Perditio 1 - Saxum 1
Chiseled Stone Bricks = Ordo 1 - Saxum 1
Mushroom (block - both) = Herba 2 - Tenebrae 1
Iron Bars = Metalum 1
Glass Pane = None
Mushroom (block) = Fames 9 - Messis 2
Vines = Herba 1
Fence Gate = Arbor 3 - Iter 1 - Machina 1
Brick Stairs = Ignis 2 - Terra 2
Stone Brick Stairs = Saxum 2
Nether Brick = Ignis 1 - Saxum 2
Mycelium = Herba 1 - Terra 1
Lily pad = Aqua 1 - Terra 2
Nether Brick Fence = Ignis 1 - Saxum 1
Nether Brick Stairs = Ignis 2 - Saxum 2
Enchantment Table = Cognito 4 - Fabrico 4 - Ignis 5 - Lucrum 5 - Praecantatio 8 - Saxum 5 - Tenebrae 4 - Vitreus 5
Portal (end) = Alienis 4 - Iter 4
End Portal Frame = Alienis 4 - Iter 4 - Machina 4
End Stone = Tenebrae 1 - Terra 1
Dragon Egg = Alienis 8 - Praecantatio 8
Redstone Lamp (on and off) = Lux 10 - Machina 4 - Potentia 5 - Sensus 3
Cocoa (block) = None
Sandstone Stairs = Perditio 2 - Saxum 2 - Terra 2
Emerald Ore = Lucrum 4 - Saxum 1 - Vitreus 3
Tripwire Hook = Machina 1 - Sensus 1 - Vinculum 1
Ender Chest = Alienis 4 - Ignis 11 - Iter 6 - Permutatio 2 - Praecantatio 3 - Saxum 9 - Sensus 4 - Tenebrae 8 - Vacuos 4
Block of Emerald = Lucrum 13 - Vitreus 12
Command Block = None
Beacon = Alienis 8 - Auram 2 - Ignis 4 - Lux 8 - Ordo 8 - Permutatio 2 - Praejectatio 10 - Saxum 4 - Tenebrae 3 - Vitreus 5
Cobblestone Wall = Perditio 1 - Saxum 1
Mossy Cobblestone Wall = Herba 1 - Praejectatio 1 - Saxum 1
Anvil = Fabrico 2 - Instrumentum 2 - Metalum 21
Slightly Damaged Anvil = Fabrico 1 - Instrumentum 2 - Metalum 17
Very Damaged Anvil = Fabrico 1 - Instrumentum 1 - Metalum 13
Trapped Chest = Arbor 2 - Machina 1 - Sensus 1 - Vacuos 4 - Vinculum 1
Weighted Pressure Plate (light) = Lucrum 3 - Metalum 4
Weighted Pressure Plate (heavy) = Metalum 5
Daylight Sensor = Arbor 3 - Lux 3 - Machina 3 - Potentia 3 - Sensus 2 - Vitreus 6
Block of Redstone = Machina 3 - Potentia 10
Nether Quartz Ore = Saxum 1 - Vitreus 3
Block of Quartz (including chiseled and pillar) = Potentia 4 - Vitreus 4
Quartz Stairs = Potentia 3 - Vitreus 2
Activator Rail = Metalum 1
Dropper = Machina 1 - Perditio 7 - Potentia 3 - Saxum 7
Stained Clay = None
Hay Bale = Fames 9 - Messis 10
Carpet (all) = Fabrico 1 - Pannus 2
Hardened Clay = None
Block of Coal = Ignis 10 - Potentia 10

Iron Shovel = Arbor 2 - Instrumentum 3 - Metalum 4
Iron Pickaxe = Metalum 6 - Perfordio 3
Iron Axe = Instrumentum 3 - Metalum 6
Flint and Steel = Ignis 4 - Instrumentum 1 - Metalum 4 - Saxum 1
Apple - Fames 1 - Messis 2
Bow = Arbor 1 - Bestia 1 - Pannus 1 - Telum 3 - Volatus 1
Arrow = Telum 1
Coal = Ignis 2 - Potentia 3
Charcoal = Ignis 2 - Potentia 3
Diamond = Lucrum 4 - Vitreus 4
Iron Ingot = Metalum 4
Gold Ingot = Lucrum 2 - Metalum 3
Iron Sword = Arbor 1 - Metalum 5 - Telum 3
Wooden Sword = 3 Arbor - Telum 1
Wooden Shovel = 3 Armor - Instrumentum 1
Wooden Pickaxe = Arbor 2 - Perfordio 1
Wooden Axe = Arbor 2 - Instrumentum 1
Stone Sword = Arbor 1 - Perditio 2 - Saxum 2 - Telum 2
Stone Shovel = Arbor 1 - Instrumentum 2 - Perditio 1 - Saxum 1
Stone Pickaxe = Perditio 3 - Perfordio 2 - Saxum 3
Stone Axe = Instrumentum 2 - Perditio 3 - Saxum 3
Stick = Arbor 1
Bowl = Vacuos 1
Mushroom Stew = Fames 4 - Herba 4 - Tenebrae 2 - Vacuos 1
Golden Sword = Arbor 1 - Lucrum 3 - Metalum 4 - Telum 1
Golden Shovel = Arbor 2 - Instrumentum 1 - Lucrum 2 - Metalum 3
Golden Pickaxe = Lucrum 4 - Metalum 5 - Perfordio 1
Golden Axe = Instrumentum 1 - Lucrum 4 - Metalum 5
String = Bestia 1 - Pannus 1
Feather = Aer 1 - Volatus 2
Gunpowder = Ignis 4 - Perditio 4
Wooden Hoe = Arbor 2 - Meto 1
Stone Hoe = Meto 2 - Perditio 2 - Saxum 2
Iron hoe = Metalum 5 - Meto 3
Diamond Hoe = Lucrum 5 - Meto 4 - Vitreus 5
Gold Hoe = Lucrum 3 - Metalum 4 - Meto 1
Seeds = Granum 1
Crops (wheat - all growth stages) = Messis 3
Wheat = Fames 1 - Messis 2
Bread = Fames 3 - Messis 4
Leather Cap* = Bestia 5 - Pannus 6 - Tutamen 5
Leather Tunic* = Bestia 8 - Pannus 9 - Tutamen 8
Leather Pants* = Bestia 7 - Pannus 8 - Tutamen 7
Leather Boots* = Bestia 4 - Pannus 5 - Tutamen 4
Chain Helmet = Metalum 8 - Tutamen 2
Chain Chestplate = Metalum 12 - Tutamen 5
Chain Leggings = Metalum 11 - Tutamen 4
Chain Boots = Metalum 7 - Tutamen 1
Iron Helmet = Metalum 8 - Tutamen 2
Iron Chestplate = Metalum 11 - Tutamen 6
Iron Leggings = Metalum 11 - Tutamen 5
Iron Boots = Metalum 7 - Tutamen 2
Diamond Helmet = Lucrum 8 - Tutamen 3 - Vitreus 8
Diamond Chestplate = Lucrum 11 - Tutamen 8 - Vitreus 11
Diamond Leggings = Lucrum 10 - Tutamen 6 - Vitreus 10
Diamond Boots = Lucrum 7 - Tutamen 3 - Vitreus 7
Golden Helmet = Lucrum 7 - Metalum 7 - Tutamen 2
Golden Chestplate = Lucrum 9 - Metalum 10 - Tutamen 5
Golden Leggings = Lucrum 8 - Metalum 9 - Tutamen 3
Golden Boots = Lucrum 5 - Metalum 6 - Tutamen 1
Flint = Instrumentum 1 - Saxum 1
Raw Porkchop = Bestia 1 - Corpus 3 - Fames 1
Cooked Porkchop = Corpus 3 - Fabrico 1 - Fames 3
Painting = Arbor 2
Golden Apple (nugget) = Fames 1 - Bestia 9 - Messis 2 - Metalum 10 - Praecantatio 2 - Sano 4
Sign = Arbor 1
Wooden Door = Arbor 2 - Machina 1 - Motus 1
Bucket = Metalum 8 - Vacuos 1
Water Bucket = Aqua 4 - Metalum 8 - Vacuos 1
Lava Bucket = Ignis 4 - Metalum 8 - Saxum 2 - Vacuos 1
Minecart = Iter 4 - Machina 2 - Metalum 8
Saddle = Bestia 2 - Iter 3 - Pannus 3
Iron Door = Machina 2 - Metalum 9 - Motus 1
Redstone Dust = Machina 1 - Potentia 3
Snowball = Gelum 1
Boat = Aqua 4 - Arbor 2 - Iter 4
Leather = Bestia 1 - Pannus 2 - Tutamen 1
Milk Bucket = Aqua 2 - Fames 2 - Metalum 8 - Sano 2 - Vacuos 1
Brick = Ignis 1 - Terra 1
Clay = Aqua 1 - Terra 1
Sugar Canes = Aer 1 - Aqua 1 - Herba 1
Paper = Cognito 1
Book = Cognito 4
Slimeball = Limus 2
Minecart with Chest = Arbo 2 - Iter 4 - Machina 2 - Metalum 8 - Vacuos 4
Minecart with furnace = Ignis 2 - Iter 4 - Machina 2 - Metalum 8 - Perditio 8 - Saxum 8
Egg = Bestia 1 - Corpus 1 - Granum 1
Compass = Machina 1 - Metalum 7 - Potentia 3
Fishing Rod = Aqua 1 - Arbor 1 - Instrumentum 1
Clock = Lucrum 5 - Machina 3 - Metalum 6 - Potentia 3
Glowstone Dust = Lux 2 - Sensus 1
Raw Fish = Aqua 1 - Corpus 3 - Fames 1
Cooked Fish = Corpus 4 - Fabrico 1 - Fames 3
Dyes (Including Lapis/Cocoa/Bone Meal/etc) = Sensus 1
Sugar = Aer 1 - Aqua 1 - Herba 1
Bone = Corpus 1 - Mortuus 2
Cake = Aer 2 - Awua 6 - Bestia 1 - Corpus 1 - Fames 7 - Granum 1 - Herba 2 - Messis 4 - Sano 4
Bed = Fabrico 3 - Pannus 6
Redstone Repeater = Arbor 2 - Machina 5 - Potentia 5 - Saxum 4
Cookie = Fames 1
Shears = Metalum 5 - Meto 3
Melon Slice = Fames 1
Pumpkin Seeds = Granum 1
Pumpkin Stem = Herba 1
Melon Seeds = Granum 1
Melon Stem = Herba 1
Raw Beef = Bestia 1 - Corpus 4 - Fames 2
Steak = Corpus 4 - Fabrico 1 - Fames 4
Raw Chicken = Bestia 1 - Corpus 3 - Fames 2
Cooked Chicken = Corpus 4 - Fabrico 1 - Fames 3
Rotten Flesh = Corpus 2 - Humanus 1
Ender Pearl = Alienis 4 - Iter 4 - Praecantatio 2
Blaze Rod = Ignis 4 - Praecantatio 2
Ghast Tear = Aqua 1 - Mortuus 4 - Spiritus 4
Gold Nugget = Metalum 1
Netherwart = Herba 1 - Praecantatio 1
Glass Bottle = Vacuos 1 - Vitreus 1
Spider Eye = Bestia 2 - Sensus 2 - Venemus 2
Fermented Spider Eye = Aer 1 - Aqua 1 - Bestia 2 - Sensus 2 - Tenebrae 1 - Venemus 2
Blaze Powder = Ignis 2 - Praecantatio 1
Magma Cream = Ignis 2 - Limus 2 - Praecantatio 1
Brewing Stand = Aqua 2 - Fabrico 2 - Ignis 4 - Perditio 3 - Praecantatio 2 - Saxum 3
Cauldron = Metalum 10
Eye of Ender = Alienis 4 - Ignis 2 - Iter 4 - Praecantatio 3 - Sensus 4
Glistening Watermelon = Fames 1 - Metalum 8
Monster Eggs (all) = None
Bottle o’ Enchanting = None
Fire Charge = Ignis 3 - Perditio 1 - Potentia 1
Book and Quill = Aer 1 - Cognito 4 - Sensus 1 - Volatus 2
Written Book = None
Emerald = Lucrum 4 - Vitreus 4
Item Frame = Arbor 2
Flower Pot = Herba 1 - Ignis 3 - Terra 3 - Vacuos 1
Carrot = Fames 1 - Messis 1 - Sensus 1
Carrot Crop =
Potato = Fames 1 - Messis 1 - Terra 1
Baked Potato = Fames 2 - Messis 1
Poisonous Potato = Messis 1 - Venemus 2
Empty Map = Cognito 8 - Machina 1 - Metalum 7 - Potentia 2
Golden Carrot = Fames 1 - Messis 1 - Metalum 8 - Sensus 3
Skeleton Skull = Exanimis 4 - Mortuus 4 - Spiritus 4
Wither Skeleton Skull = Exanimis 4 - Mortuus 4 - Spiritus 4 - Venemus 4
Zombie Head = Corpus 4 - Mortuus 4 - Spiritus 4
Head = Humanus 4 - Mortuus 4 - Spiritus 4
Creeper Head = Ignis 2 - Mortuus 4 - Perditio 2 - Spiritus 4
Carrot on a Stick = Aqua 1 - Arbor 1 - Fames 1 - Instrumentum 1 - Iter 4 - Messis 1 - Sensus 1
Nether Star = Alienis 8 - Lux 8 - Ordo 8 - Praecantatio 8
Firework Rocket (blank) = None
Pumpkin Pie = Aer 1 - Aqua 1 - Bestia 1 - Corpus 1 - Granum 1 - Herba 1 - Messis 2
Firework Star (blank) = None
Enchanted Book (blank) = Praecantatio 1
Redstone Comparator = Arbor 3 - Machina 5 - Potentia 5 - Saxum 4 - Vitreus 1
Nether Brick = None
Nether Quartz = Potentia 1 - Vitreus 1
Minecart with TNT = Ignis 8 - Iter 4 - Machina 2 - Metalum 8 - Perditio 12 - Terra 4
Minecart with Hopper = Arbor 2 - Iter 4 - Machina 4 - Metalum 16 - Permutatio 2 - Vacuos 4
Horse Armor (all) = None
Lead = Bestia 2 - Limus 1 - Pannus 2
Name Tag = None
Music disc (13) = Aer 4 - Aqua 4 - Mucrus 4 - Sensus 4
Music disc (cat) = Aer 4 - Bestia 4 - Mucrus 4 - Sensus 4
Music disc (blocks) = Aer 4 - Instrumentum 4 - Mucrus 4 - Sensus 4
Music disc (chirp) = Aer 4 - Mucrus 4 - Sensus 4 - Terra 4
Music disc (far) = Aer 4 - Alienis 4 - Mucrus 4 - Sensus 4
Music disc (mall) = Aer 4 - Humanus 4 - Mucrus 4 - Sensus 4
Music disc (mellohi) = Aer 4 - Fabrico 4 - Mucrus 4 - Sensus 4
Music disc (stal) = Aer 4 - Mucrus 4 - Sensus 4 - Tenebrae 4
Music disc (strad) = Aer 4 - Mucrus 4 - Machina 4 - Sensus 4
Music disc (ward) = Aer 4 - Mucrus 4 - Praecantatio 4 - Sensus 4
Music disc (13) = Aer 4 - Mucrus 4 - Sensus 4

NOTE: Placed Heads/Skulls have the same aspects as their item.

Water Bottle = Aqua 1 - Vitreus 1
Awkward Potion = Aqua 1
Thick Potion = Aqua 1
Mundane Potion = Aqua 1
Potion of Regeneration = Aqua 1 - Praecantatio 2 - Sano 3
Potion of Fire Resistance = Aqua 1 - Ignis 2 - Praecantatio 2 - Tutamen 1
Potion of Swiftness = Aqua 1 - Motus 3 - Praecantatio 2
Potion of Poison = Aqua 1 - Praecantatio 2 - Venemus 3
Potion of Healing = Aqua 1 - Praecantatio 2 - Sano 3
Potion of Night Vision = Aqua 1 - Praecantatio 2 - Sensus 3
Potion of Strength = Aqua 1 - Praecantatio 2 - Telum 3
Potion of Weakness = Aqua 1 - Mortuus 3 - Praecantatio 2
Potion of Snowness = Aqua 1 - Praecantatio 2 - Vinculum 3
Potion of Harming = Aqua 1 - Mortuus 3 - Praecantatio 2
Potion of Invisibility = Aqua 1 - Praecantatio 2 - Sensus 3

Potion of Regeneration II = Aqua 1 - Praecantatio 4 - Sano 6
Potion of Swiftness II = Aqua 1 - Motus 6 - Praecantatio 4
Potion of Poison II = Aqua 1 - Praecantatio 4 - Venemus 6
Potion of Healing II = Aqua 1 - Praecantatio 4 - Sano 6
Potion of Strength II = Aqua 1 - Praecantatio 4 - Telum 6
Potion of Harming II = Aqua 1 - Mortuus 6 - Praecantatio 4

NOTE: Splash Potions use the same aspects as their respective concoction with the addition of 2 perditio

Creeper = Herba 2 - Ignis 2
Skeleton = Exanimis 3 - Humanus 1 - Terra 1
Wither Skeleton = Exanimis 4 - Humanus 1 - Ignis 2
Zombie = Exanimis 2 - Humanus 1 - Terra 1
Zombie Pigman = Exanimis 4 - Ignis 2
Blaze = Alienis 4 - Ignis 1
Witch = Humanus 3 - Ignis 1 - Praecantatio 2
Iron Golem = Metalum 4 - Terra 3
Snow Golem = Aqua 1 - Gelum 3
Villager = Aer 2 - Humanus 3
Ocelot = Bestia 3 - Perditio 3
Wolf = Bestia 3 - Terra 3
Chicken = Aer 1 - Bestia 2 - Volatus 2
Sheep = Bestia 2 - Terra 2
Slime = Aqua 2 - Limus 2
Pig = Bestia 2 - Terra 2
Cow = Bestia 3 - Perditio 3
Mooshroom = Bestia 3 - Herba 1 - Terra 2
Spider = Bestia 3 - Perditio 2
Cave Spider = Bestia 2 - Terra 1 - Venemus 1
Enderman = Aer 2 - Alienis 4 - Iter 2
Silverfish = Bestia 1 - Terra 1
Magma Cube = Ignis 2 - Limus 3
Bat = Aer - Bestia - Volatus
Squid = Aqua 2 - Bestia 2
Horse = Aer 1 - Bestia 4 - Terra 1
Ghast = Examinis 3 - Ignis 2
Ender Dragon = Aer 10 - Alienis 10 - Aqua 10 - Ignis 10 - Ordo 10 - Perditio 10 - Terra 10
Wither = Aer 7 - Aqua 7 - Examinis 7 - Ignis 7 - Ordo 7 - Perditio 7 - Terra 7

**Thaumcraft Item Aspects**

Cinnabar Ore = Metallum 3 - Saxum 1 - Sensus 1 - Venemus 1
Aer Infused Stone = Aer 3 - Saxum 1 - Vitreus 2
Ignis Infused Stone = Ignis 3 - Saxum 1 - Vitreus 2
Aqua Infused Stone = Aqua 3 - Saxum 1 - Vitreus 2
Terra Infused Stone = Saxum 1 - Terra 3 - Vitreus 2
Ordo Infused Stone = Ordo 3 - Saxum 1 - Vitreus 2
Perditio Infused Stone = Perditio 3 - Saxum 1 - Vitreus 2
Amber Bearing Stone = Saxum 1 - Vinculum 3 - Vitreus 2
Greatwood Sapling = Arbor 1 - Granum 1 - Herba 1 - Praecantatio 1
Silverwood Sapling = Arbor 1 - Granum 1 - Herba 1 - Praecantatio 1
Shimmerleaf = Herba 2 - Permutatio 2 - Praecantatio 2
Cinderpearl = Herba 2 - Ignis 2 - Praecantatio 2
Greatwood Log = Arbor 3 - Praecantatio 1
Silverwood Log = Arbor 3 - Ordo 1 - Praecantatio 1
Greatwood Leaves = Herba 1
Silverwood Leaves = Herba 1
Crucible = Fabrico 4 - Metallum 10 - Praecantatio 4
Arcane Alembic = Aer 2 - Aqua 2 - Arbor 3 - Lucrum 3 - Metallum 20 - Ordo 2 - Praecantatio 1 - Vacuos 1
Item Grate = Arbor 1 - Metallum 1 - Motus 1
Table = Arbor 2 - Instrumentum 1
Deconstruction Table = Aqua 2 - Arbor 2 - Instrumentum 1 - Lucrum 10 - Metallum 13 - Perditio 10 - Praecantatio 2 = Terra 2 - Vitreus 2
Arcane Worktable = Arbor 2 - Fabrico 4 - Instrumentum 1
Hungry Chest = Aer 2 - Arbor 3 - Motus 1 - Ordo 1 - Perditio 1
Arcane Furnace (tile) = None
Tallow Candle (all) = Corpus 1 - Lux 2 - Praecantatio 1
Warded Jar = Aqua 1 - Arbor 1
Brain in a Jar = Aqua 4 - Arbor 1 - Bestia 3 - Cognito 14 - Corpus 2 - Examinis 20 - Mortuus 2 - Sensis 13 - Venemis 3
Arcane Bellows = Aer 5 - Arbor 2 - Bestia 1 - Metallum 4 - Ordo 2 - Praecantatio 1 - Tutamen 1 - Vitreus 1
Arcane Ear = Aer 5 - Arbor 4 - Cognito 4 - Corpus 2 - Lucrum 3 - Metallum 8 - Mortuus 2 - Ordo 5 - Potentia 2 - Praecantatio 2
Arcane Bore Base = Aer 5 - Arbor 5 - Machina 1 - Metallum 5 - Ordo 5 - Pannus 1 - Perditio 7 - Potentia 2 - Praecantatio 2 - Saxum 7
Arcane Bore = Arbor 8 - Lucrum 13 - Machina 34 - Metallum 4 - Motus 20 - Perfidio 32 - Potentia 16 - Praecantatio 4 - Vacuos 16 - Vitreus 12
Arcane Levitator = Aer 5 - Arbor 4 - Ignis 3 - Lux 5 - Metallum 5 - Potentia 3 - Praecantatio 4 - Sensus 1 - Terra 2 - Vitreus 2
Air Crystal Cluster = Aer 7 - Praecantatio 6 - Vitreus 6
Fire Crystal Cluster = Fire 7 - Praecantatio 6 - Vitreus 6
Water Crystal Cluster = Aqua 7 - Praecantatio 6 - Vitreus 6
Earth Crystal Cluster = Terra 7 - Praecantatio 6 - Vitreus 6
Order Crystal Cluster = Ordo 7 - Praecantatio 6 - Vitreus 6
Entropy Crystal Cluster = Perditio 7 - Praecantatio 6 - Vitreus 6
Mixed Crystal Cluster = Aer 2 - Aqua 2 - Ignis 2 - Ordo 2 - Perditio 2 - Praecantatio 6 - Terra 2 - Vitreus 6
Amber Block = Vinculum 5 = Vitreus 5
Amber Bricks = Vinculum 2 = Vitreus 2
Obsidian Totem = Alienis 2 - Saxum 4 - Tenebrae 2
Obsidian Tile = Ignis 1 - Saxum 1 - Tenebrae 1
Paving Stone of Travel = Aer 1 - Terra 1
Paving Stone of Warding = Ignis 1 - Ordo 1
Thaumium = Metallum 12 - Praecantatio 12
Tallow Block = Corpus 10 - Humanus 9 - Praecantatio 10
Arcane Stone Block = Ignis 1 - Terra 1
Arcane Stone Bricks = Ignis 1 - Terra 1
Magic Mirror = Alienis 4 - Ignis 5 - Iter 12 - Lucrum 4 - Metallum 9 - Permutatio 8 - Praecantatio 2 - Sensus 1 - Tenebrae 8 - Terra 5
Block of Flesh = Corpus 10 - Humanus 9
Alchemical Furnace = Aqua 2 - Fabrico 4 - Ignis 3 - Metallum 10 - Perditio 8 - Praecantatio 4 - Saxum 8 - Terra 1
Arcane Pedestal = Aer 1
Runic Matrix = Aer 3 - Alienis 4 - Ignis 1 - Iter 4 - Ordo 20 - Praecantatio 4 - Terra 1 - Vitreus 2
Scribing Tools = Sensus 1
Thaumonomicon = Arbor 2 - Cognito 2 - Praecantatio 2
Iron Cap = Metallum 2
Gold Cap = Metallum 2 - Ordo 1
Thaumium Cap = Metallum 2 - Ordo 3
Greatwood Rod = Arbor 4 - Perditio 1 - Praecantatio 2
Obsidian Rod = Ignis 3 - Saxum 3 - Tenebrae 2 - Terra 3
Silverwood Rod = Arbor 4 - Ordo 2 - Perditio 4 - Praecantatio 2
Icey Rod = Aqua 3 - Gelum 5
Quartz Rod = Ordi 3 - Potentia 3 - Vitreus 2
Wand Focus: Frost = Metallum 5
Wand Focus: Equal Trade = Metallum 4
Wand Focus: Portable Hole = Metallum 5
Wand Focus: Fire = Ignis 10 - Perditio 5 - Potentia 3 - Praecantatio 2 - Vitreus 4
Wand Focus: Shock = Aer 5 - Fames 1 - Messis 1 - Ordo 5 - Perditio 5 - Potentia 2 - Praecantatio 2 - Terra 1 - Vitreus 4
Wand Focus: Excavation = Lucrum 5 - Ordo 2 - Perditio 2 - Potentia 2 - Praecantatio 2 - Terra 10 - Vitreus 8
Wand Focus: Nine Hells = Aer 17 - Bestia 15 - Ignis 29 - Lucrum 2 - Perditio 27 - Potentia 4 - Praecantatio 4 - Vitreus 7
Wand Focus: Frost = Aqu 5 - Lucrum 4 - Ordo 5 - Perditio 5 - Potentia 2 - Praecantatio 2 - Vitreus 8
Wand Focus: Portable Hole = Aer 2 - Alienis 14 - Iter 29 - Perditio 27 - Permutatio 10 - Potentia 4 - Praecantatio 5 - Terra 2 - Vitreus 7
Wand Focus: Bestia = Bestia 2 - Lucrum 2 - Metallum 3 - Ordo 5 - Pannus 3 - Perditio 5 - Terra 5 - Tutamen 2
Wand Focus: Fire = Ignis 10 - Perditio 5 - Potentia 3 - Praecantatio 2 - Vitreus 4
Wand Focus: Shock = Aer 5 - Fames 1 - Messis 1 - Ordo 5 - Perditio 5 - Potentia 2 - Praecantatio 2 - Terra 1 - Vitreus 4
Wand Focus: Equal Trade = Metallum 4 - Ordo 7 - Perditio 2 - Praecantatio 4 - Sensus 1 - Terra 5 - Venenum 1 - Vitreus 6
Wand Focus: Excavation = Lucrum 5 - Ordo 2 - Perditio 2 - Potentia 2 - Praecantatio 2 - Terra 10 - Vitreus 8
Wand Focus: Nine Hells = Aer 17 - Bestia 15 - Ignis 29 - Lucrum 2 - Perditio 27 - Potentia 4 - Praecantatio 4 - Vitreus 7
Wand Focus: Frost = Aqu 5 - Lucrum 4 - Ordo 5 - Perditio 5 - Potentia 2 - Praecantatio 2 - Vitreus 8
Wand Focus: Portable Hole = Aer 2 - Alienis 14 - Iter 29 - Perditio 27 - Permutatio 10 - Potentia 4 - Praecantatio 5 - Terra 2 - Vitreus 7
Straw Golem = Fames 9 - Humanus 3 - Messis 10 - Motus 3 - Spiritus 3
Wood Golem = Arbor 3 - Humanus 3 - Motus 3 - Praecantatio 1 - Spiritus 3
Tallow Golem = Corpus 10 - Humanus 14 - Motus 5 - Praecantatio 10 - Spiritus 5
Clay Golem = Humanus 3 - Ignis 4 - Motus 3 - Spiritus 3 - Terra 4
Flesh Golem = Corpus 10 - Humanus 14 - Motus 5 - Spiritus 5
Stone Golem = Humanus 3 - Motus 3 - Saxum 2 - Spiritus 3
Iron Golem = Humanus 3 - Metallum 12 - Motus 3 - Spiritus 3
Thaumium Golem = Humanus 5 - Metallum 5 - Motus 5 - Praecantatio 12 - Spiritus 5
Golem Animation Core (fill) = Fames 5 - Ignis 5 - Lux 5 - Ordo 2 - Potentia 3 - Sensus 1 - Terra 2 - Vacuos 5
Golem Animation Core (empty) = Ignis 5 - Lucrum 5 - Lux 5 - Ordo 2 - Potentia 3 - Sensus 1 - Terra 2 - Vacuos 5
Golem Animation Core (gather) = Ignis 5 - Lucrum 5 - Lux 5 - Ordo 2 - Potentia 3 - Sensus 1 - Terra 7 - Vacuos 5
Golem Animation Core (harvest) = Ignis 5 - Lux 5 - Messis 5 - Meto 5 - Ordo 2 - Potentia 3 - Sensus 1 - Terra 2
Golem Animation Core (guard) = Ignis 5 - Lux 5 - Ordo 2 - Potentia 3 - Sensus 1 - Terra 5 - Telum 5 - Terra 2 - Vacuos 5
Golem Animation Core (decanting) = Aqua 5 - Ignis 5 - Lux 5 - Ordo 2 - Potentia 3 - Sensus 1 - Terra 2 - Vacuos 5
Golem Animation Core (alchemy) = Aqua 23 - Ignis 5 - Lux 5 - Motus 15 - Ordo 2 - Potentia 3 - Praecantatio 15 - Terra 2 - Vacuos 5 - Vitreus 3
Golem Animation Core (chop) = Aqua 19 - Arbor 29 - Ignis 5 - Instrumentum 15 - Lux 5 - Messis 5 - Metallum 13 - Meto 20 - Praecantatio 8 - Vitreus 6
Golem Animation Core (use) = Humanus 20 - Ignis 9 - Instrumentum 21 - Lucrum 5 - Lux 5 - Machina 26 0 Metallum 9 - Potentia 9 - Saxum 6 - Vacuos 5
Golem Animation Core (blank) = Ignis 5 - Lux 5 - Ordo 2 - Potentia 3 - Sensus 1 - Terra 2
Accessory: Top Hat = Fabrico 2 - Ignis 4 - Lucrum 2 - Metallum 3 - Ordo 4 - Pannus 5
Accessory: Spectacles = Aer 2 - Aqu 2 - Metaulm 4 - Vitreus 2
Accessory: Bowtie = Aer 2 - Bestia 1 - Fabrico 2 - Ordo 2 - Pannus 6
Accessory: Fez = Aqua 2 - Bestia 2 - Fabrico 2 - Pannus 7 - Terra 2
Accessory: Dart Launcher = Aer 2 - Arbor 1 - Ignis 2 - Machina 1 - Metallum 5 - Pannus 1 - Perditio 7 - Potentia 2 - Saxum 7 - Telum 2
Accessory: Visor = Aqua 2 - Metallum 13 - Terra 2
Accessory: Iron Plating = Metallum 16 - Terra 4
Accessory: Mace Arm = Ignis 2 - Metallum 5 - Terra 2
Golemancer's Bell = Arbor 1 - Ordo 2 - Potentia 2 - Vitreus 2
Golem Upgrade: Air = Aer 5 - Metallum 2 - Praecantatio 1 - Vitreus 1
Golem Upgrade: Earth = Metallum 2 - Praecantatio 1 - Terra 5 - Vitreus 1
Golem Upgrade: Fire = Ignis 5 - Metallum 2 - Praecantatio 1 - Vitreus 1
Golem Upgrade: Water = Aqua 5 - Metallum 2 - Praecantatio 1 - Vitreus 1
Golem Upgrade: Entropy = Metallum 2 - Perditio 5 - Praecantatio 1 - Vitreus 1
Golem Upgrade: Order = Metallum 2 - Ordo 5 - Praecantatio 1 - Vitreus 1
Thaumometer = Aqua 2 - Lucrum 2 - Metallum 3 - Praecantatio 2 - Terra 2 - Vitreus 2
Arcane Door = None
Iron Arcane Key = None
Gold Arcane Key = None
Magic Hand Mirror = Cognito 8 - Ignis 5 - Instrumentum 16 - Iter 28 - Lucrum 4 - Metallum 23 - Permutatio 8 - Potentia 4 - Tenebrae 8 - Terra 5
Thaumostatic Harness = Arbor 8 - Bestia 8 - Iter 16 - Machina 37 - Metallum 9 - Pannus 9 - Potentia 37 - Saxum 4 - Tutam 8 - Volatus 32
Goggles of Revealing = Aer 2 - Aqua 3 - Ignis 2 - Lucrum 6 - Metallum 8 - Pannus 3 - Praecantatio 3 - Terra 3 - Tutam 2 - Vitreus 3
Thaumium Helm = Metallum 8 - Praecantatio 8 - Tutam 2
Thaumium Chestplate = Metallum 11 - Praecantatio 11 - Tutam 6
Thaumium Leggings = Metallum 10 - Praecantatio 10 - Tutam 5
Thaumium Boots = Metallum 7 - Praecantatio 7 - Tutam 2
Thaumium Sword = Arbor 1 - Metallum 5 - Praecantatio 5 - Telum 3
Thaumium Pickaxe = Metallum 5 - Perfidio 4 - Praecantatio 5
Thaumium Shovel = Arbor 2 - Instrumentum 4 - Metallum 4 - Praecantatio 4
Thaumium Axe = Arbor 1 - Instrumentum 4 - Metallum 5 - Praecantatio 5
Thaumium Hoe = Arbor 1 - Metallum 5 - Meto 4 - Praecantatio 5
Boots of the Traveller = Aer 5 - Aqua 2 - Bestia 7 - Corpus 3 - Fabrico 2 - Iter 25 - Pannus 12 - Tutam 4 - Vitreus 2 - Volatus 27
Sword of the Zepher = Aer 11 - Arbor 4 - Lucrum 4 - Metallum 5 - Motus 8 - Potentia 8 - Praecantatio 8 - Telum 4 - Vitreus 6
Shovel of the Earthmover = Arbor 5 - Fabrico 8 - Instrumentum 4 - Lucrum 4 - Metallum 4 - Praecantatio 7 - Terra 19 - Vitreus 6
Pickaxe of the Core = Arbor 3 - Ignis 11 - Lucrum 5 - Metallum 5 - Perfidio 8 - Praecantatio 8 - Sensus 8 - Vitreus 6
Axe of the Stream = Aqua 19 - Arbor 12 - Instrumentum 4 - Lucrum 4 - Metallum 5 - Praecantatio 8 - Vitreus 6
Hoe of Growth = Arbor 4 - Herba 8 - Lucrum 4 - Metallum 5 - Meta 8 - Ordo 2 - Perditio 2 - Praecantatio 8 - Terra 8 - Vitreus 6
Thaumaturge's Robe = Aer 2 - Aqua 1 - Bestia 3 - Fabrico 2 - Ignis 1 - Ordo 1 - Pannus 7 - Perditio 1 - Terra 1 - Tutam 3
Thaumaturge's Leggings = Aer 1 - Aqua 2 - Bestia 3 - Fabrico 2 - Ignis 1 - Ordo 1 - Pannus 7 - Perditio 1 - Terra 1 - Tutam 3
Thaumaturge's Boots = Aer 1 - Aqua 1 - Bestia 3 - Fabrico 2 - Ignis 1 - Ordo 1 - Pannus 7 - Perditio 1 - Terra 1 - Tutam 1
Alumentum = Ignis 5 - Perditio 3 - Potentia 5
Nitor = Ignis 3 - Lux 5 - Potentia 3 - Sensus 1
Thaumium Ingot = Metallum 4 - Praecantatio 4
Quicksilver = Metallum 4 - Sensus 1 - Venemus 1
Magic Tallow = Corpus 2 - Humanus 1 - Praecantatio 2
Zombie Brain = Cognito 4 - corpus 2 - Mortuus 2
Amber = Vinculum 2 - Vitreus 2
Enchanted Fabric = Aer 1 - Aqua 1 - Bestia 2 - Fabrico 1 - Ignis 1 - Ordo 1 - Pannus 6 - Perditio 1 - Terra 1
Flux Filter = Aqua 2 - Arbor 3 - Lucrum 3 - Metallum 4 - rdo 2 - Praecantatio 1
Knowledge Fragment = Cognito 8
Mirrored Glass = Ignis 5 - Metallum 4 - Sensus 1 - Terra 5 - Venemus 1
Tainted Goo = Limus 1 - Vitium 3
Taint Tendril = Fames 1 - Lucrum 1 - Vitium 2
Chicken Nugget = Fames 1
Beef Nugget = Fames 1
Pork Nugget = Fames 1
Fish Nugget = Fames 1
Triple Meat Treat = Sano 1
Iron Nugget = Metallum 1
Quicksilver Drop = Metallum 1
Thaumium Nugget = Metallum 1
Native Iron Cluster = Metallum 6 - Saxum 2
Native Cinnabar Cluster = Metallum 5 - Saxum 2 - Sensus 2 - Venemus 2
Native Gold Cluster = Lucrum 2 - Metallum 4 - Saxum 2
Phail of Essentia (all) = None
Glass Phail = Vacus 1
Wisp Essence = Auram 2
Greatwood Planks = Arbor 1
Silverwood Planks = Arbor 1
Ethereal Bloom = Herba 10 - Permutatio 2 - Praecantatio 10 - Sano 8 - Vitium 8
Wand Recharge Pedestal = Aer 3 - Auram 10 - Ignis 2 - Permutatio 2 - Permutatio 15 - Potentia 2 - Praecantatio 18 - Vitreus 7
Compound Recharge Focus = Aqua 5 - Arbor 9 - Lucrum 14 - Machina 5 - Metallum 7 - Ordo 15 - Permutatio 10 - Potentia 5 - Praecantatio 19 - Vitreus 8
Angry Zombie = Cognito 1 - Exanimis 3 - Humanus 1 - Terra 1
Pech Forager = Humanus 2 - Permutatio 2 - Praecantatio 2 - Telum 2
Pech Mage = Humanus 2 - Lucrum 2 - Permutatio 2 - Praecantatio 2
THAUMATURGY
CAP_iron
ROD_wood  THAUMATURGY
BASICTHAUMATURGY
FOCUSFIRE Aspects: FIRE:2, MAGIC:1  Parents: BASICTHAUMATURGY
FOCUSFROST Aspects: WATER:2, MAGIC:1  Parents: FOCUSFIRE
FOCUSSEXCAVATION Aspects: EARTH:2, ENTROPY:1, MAGIC:1  Parents: FOCUSFIRE
FOCUSSHOCK Aspects: AIR:2, ENERGY:1, MAGIC:1  Parents: FOCUSFIRE
FOCUSTRADE Aspects: EARTH:1, EXCHANGE:2, MAGIC:1  Parents: FOCUSFIRE
FOCUSHELLBAT Aspects: TRAVEL:1, BEAST:2, FIRE:1, MAGIC:1  Parents: FOCUSTRADE
FOCUSPORTABLEHOLE Aspects: TRAVEL:1, ENTROPY:1, ELDRITCH:2, AIR:1  Parents: FOCUSTRADE
FOCUSPOUCH Aspects: VOID:2, MAGIC:1  Parents: FOCUSFIRE
CAP_gold Aspects: METAL:1, GREED:2, TOOL:1  Parents: BASICTHAUMATURGY
CAP_thaumium Aspects: METAL:1, MAGIC:2, TOOL:1  Parents: CAP_gold  THAUMIUM
CAP_copper Aspects: METAL:1, EXCHANGE:2, TOOL:1  Parents: BASICTHAUMATURGY
CAP_silver Aspects: METAL:2, GREED:1, TOOL:1  Parents: CAP_gold
ROD_greatwood Aspects: TOOL:1, TREE:2, MAGIC:1  Parents: BASICTHAUMATURGY
ROD_reed Aspects: TOOL:1, AIR:2, PLANT:1, MAGIC:1  Parents: ROD_greatwood
ROD_blaze Aspects: TOOL:1, FIRE:2, ENERGY:1, MAGIC:1  Parents: ROD_greatwood
ROD_obsidian Aspects: TOOL:1, EARTH:2, STONE:1, MAGIC:1  Parents: ROD_greatwood
ROD_quartz Aspects: TOOL:1, ORDER:2, CRYSTAL:1, MAGIC:1  Parents: ROD_greatwood
ROD_bone Aspects: TOOL:1, ENTROPY:2, UNDEAD:1, MAGIC:1  Parents: ROD_greatwood
ROD_silverwood Aspects: TOOL:1, TREE:1, MAGIC:2  Parents: ROD_greatwood
WANDPED Aspects: AURA:2, MAGIC:1, EXCHANGE:1, ENERGY:1  Parents: INFUSION
NODEPRESERVE
WANDPEDFOC Aspects: AURA:2, MAGIC:1, EXCHANGE:1, ENERGY:1, TOOL:1  Parents: WANDPED
ARTIFICE
ARCANESTONE
GRATE TABLE ARCTABLE
RESTABLE
THAUMOMETER
PAVETRAVEL Aspects: TRAVEL:2, EARTH:1, FLIGHT:1  Parents: ARCANESTONE
PAVEWARD Aspects: MOTION:2, TRAP:1, BEAST:1  Parents: ARCANESTONE
LEVIATOR Aspects: MOTION:2, FLIGHT:1, AIR:1  Parents: NITOR
ARCANEAR Aspects: SENSES:2, ENERGY:1, AIR:1  Parents: GOGGLES
INFERNALFURNACE Aspects: FIRE:2, METAL:1, CRAFT:1, AURA:1
BELLOWS Aspects: AIR:2, MECHANISM:1, MOTION:1  Parents: INFERNALFURNACE
GOGGLES Aspects: SENSES:2, AURA:1  Parents: THAUMOMETER
ENCHFABRIC Aspects: CLOTH:2, MAGIC:1
INFUSION Aspects: MAGIC:1, MECHANISM:1, CRAFT:2  Parents: DISTILESSENTIA
BOOTSTRAVELLER Aspects: TRAVEL:2, EARTH:1, FLIGHT:1, WATER:1  Parents: ENCHFABRIC
HOVERHARNESS Aspects: FLIGHT:2, TRAVEL:1, AIR:1, MECHANISM:1  Parents: BOOTSTRAVELLER
MIRROR Aspects: TRAVEL:2, ELDRITCH:1, DARKNESS:1, CRYSTAL:1  Parents: INFUSION
MIRRORHAND Aspects: TOOL:2, ELDRITCH:1, CRYSTAL:1, TRAVEL:1  Parents: MIRROR
ARCANEBORE Aspects: MINE:2, MOTION:1, MECHANISM:1, TOOL:1  Parents: FOCUSSEXCAVATION
INFUSION
ELEMENTALAXE Aspects: TOOL:1, WATER:2, MOTION:1  Parents: THAUMIUM
INFUSION
ELEMENTALPICK Aspects: TOOL:1, FIRE:2, SENSES:1  Parents: THAUMIUM
INFUSION
ELEMENTALWORD Aspects: WEAPON:1, AIR:2, ENERGY:1  Parents: THAUMIUM
INFUSION
ELEMENTALSHOVEL Aspects: TOOL:1, EARTH:2, CRAFT:1  Parents: THAUMIUM
INFUSION
ELEMENTALHOE Aspects: TOOL:1, LIFE:2, CROP:1  Parents: THAUMIUM
INFUSION
JARBRAIN Aspects: SENSES:1, MIND:2, UNDEAD:2  Parents: INFUSION
ALCHEMY
PHIAL
CRUCIBLE
NITOR Aspects: LIGHT:2, FIRE:1  Parents: CRUCIBLE
ALUMENTUM Aspects: ENERGY:2, FIRE:1  Parents: CRUCIBLE
GUNPOWDER Aspects: FIRE:2, ENTROPY:1  Parents: ALUMENTUM
THAUMIUM  Aspects: METAL:2, MAGIC:1  Parents: CRUCIBLE  
TRANSIRON  Aspects: METAL:2, EXCHANGE:1  Parents: THAUMIUM  
TRANSGOLD  Aspects: METAL:2, EXCHANGE:1  Parents: TRANSIRON  
TRANSCOPPER  Aspects: METAL:2, EXCHANGE:1  Parents: TRANSIRON  
TRANSSTIN  Aspects: METAL:2, EXCHANGE:1, CRYSTAL:1  Parents: TRANSIRON  
TRANSISILVER  Aspects: METAL:2, EXCHANGE:1, GREED:1  Parents: TRANSIRON  
TRANSLEAD  Aspects: METAL:2, EXCHANGE:1, ORDER:1  Parents: TRANSIRON  
TALLOW  Aspects: FLESH:2, MAGIC:1  Parents: CRUCIBLE  
DISTILESSENTIA  Aspects: MAGIC:2, WATER:1, SLIME:1  Parents: NITOR, ALUMENTUM  
ETHEREALBLOOM  Aspects: MAGIC:1, PLANT:2, HEAL:1, TAINT:1  Parents: CRUCIBLE, INFUSION  

GOLEMANCY  
HUNGRYCHEST  Aspects: HUNGER:2, VOID:1, -1, 0, 2, ) ) ;  Parents: HUNGRYCHEST  
GOLEMWOOD  Aspects: SOUL:1, MOTION:1, CROP:2, EXCHANGE:1  Parents: GOLEMWOOD  
GOLEMSTRAW  Aspects: SOUL:1, MOTION:1, TREE:2, EXCHANGE:1  Parents: GOLEMWOOD  
GOLEMTALLOW  Aspects: SOUL:1, MOTION:1, FLESH:2, MAGIC:1, EXCHANGE:1  Parents: GOLEMWOOD  

GOLEMTALLOW  Aspects: SOUL:1, MOTION:1, FLESH:2, MAGIC:1, EXCHANGE:1  Parents: GOLEMWOOD  TALLOW  
GOLEMCLAY  Aspects: SOUL:1, MOTION:1, EARTH:2, EXCHANGE:1  Parents: GOLEMWOOD  
GOLEMSTRAW  Aspects: SOUL:1, MOTION:1, CROP:2, EXCHANGE:1  Parents: GOLEMWOOD  
GOLEMWOOD  Aspects: SOUL:1, MOTION:1, TREE:2, EXCHANGE:1  Parents: GOLEMWOOD  
GOLEMTALLOW  Aspects: SOUL:1, MOTION:1, FLESH:2, MAGIC:1, EXCHANGE:1  Parents: GOLEMWOOD  

GOLEMCLAY  Aspects: SOUL:1, MOTION:1, EARTH:2, EXCHANGE:1  Parents: GOLEMWOOD  
GOLEMSTONE  Aspects: SOUL:1, MOTION:1, STONE:2, EXCHANGE:1  Parents: GOLEMCLAY  
GOLEMIRON  Aspects: SOUL:1, MOTION:1, METAL:2, EXCHANGE:1  Parents: GOLEMCLAY  
GOLEMTHAUMIUM  Aspects: SOUL:1, MOTION:1, METAL:1, MAGIC:2, EXCHANGE:1  Parents: GOLEMSTRAW  
GOLEMIRON  Aspects: SOUL:1, MOTION:1, METAL:2, EXCHANGE:1  Parents: GOLEMCLAY  
THAUMIUM  Aspects: SOUL:1, MOTION:1, METAL:2, EXCHANGE:1  Parents: GOLEMSTRAW  

COREGATHER  Aspects: WATER:2, EXCHANGE:1, TRAVEL:1  Parents: COREGATHER  
CORELUMBER  Aspects: WATER:2, EXCHANGE:1, TRAVEL:1, TOOL:1, ENERGY:1  Parents: COREGATHER  

COREHARVEST  Aspects: HARVEST:2, CROP:1, TRAVEL:1  Parents: COREGATHER  
CORELUMBER  Aspects: TREE:2, HARVEST:1, TOOL:1, ENERGY:1  Parents: COREHARVEST  

COREGUARD  Aspects: WEAPON:2, TRAP:1, SENSES:1  Parents: COREGATHER  
CORELIQUID  Aspects: WATER:2, EXCHANGE:1, TRAVEL:1  Parents: COREGATHER  
COREALCHEMY  Aspects: WATER:2, TRAVEL:1, MAGIC:1, ENERGY:1  Parents: COREGATHER  

UPGRADEAIR  Aspects: AIR:2, MOTION:1  Parents: GOLEMSTRAW  
UPGRADEEARTH  Aspects: EARTH:2, LIFE:1  Parents: GOLEMSTRAW  
UPGRADEFIRE  Aspects: FIRE:2, ENERGY:1  Parents: GOLEMSTRAW  
UPGRADEWATER  Aspects: WATER:2, SENSES:1  Parents: GOLEMSTRAW  
UPGRADEORDER  Aspects: ORDER:2, MIND:1  Parents: GOLEMSTRAW  
UPGRADEENTROPY  Aspects: ENTROPY:2, MIND:1  Parents: GOLEMSTRAW  
ADVANCEDGOLEM  Aspects: LIFE:1, ENERGY:1, MIND:2, SENSES:1  Parents: INFUSION  
UPGRADEAIR  UPGRADEEARTH  UPGRADEFIRE  UPGRADEWATER  UPGRADEORDER  UPGRADEENTROPY  
TINYHAMMER  Aspects: METAL:1, ARMOR:2, GREED:1  LOST  
TINYHAT  Aspects: CLOTH:2, LIFE:1, GREED:1  LOST  
TINYGLASSES  Aspects: CLOTH:2, SENSES:1, GREED:1  LOST  
TINYARMOR  Aspects: METAL:1, ARMOR:2, GREED:1  LOST  
TINYFEZ  Aspects: CLOTH:2, ENERGY:1, GREED:1  LOST  
TINYDART  Aspects: FLIGHT:1, WEAPON:2, GREED:1  LOST  
TINYBOWTIE  Aspects: CLOTH:2, TRAVEL:1, GREED:1  LOST  
TINYVISOR  Aspects: SENSES:1, ARMOR:2, GREED:1  LOST  
TINYPONTE  Aspects: CLOTH:2, TRAVEL:1, GREED:1  LOST  

BASICS  
ASPECTS  
NODES  
RESEARCH  
KNOWFRAG  
THAUMONOMICON  
ORE  
PLANTS  
ENCHANT  
NODETAPPER1  Aspects: AURA:2, MAGIC:1, MOTION:1, EXCHANGE:1  Parents: NODES  
NODEPRESERVE  Aspects: AURA:2, GREED:1, SENSES:1  Parents: NODETAPPER1
<table>
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<tr>
<th>Entity</th>
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<td>MIND:2, CRAFT:1, ENTROPY:1</td>
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<td>MIND:2, MOTION:1, SENSES:1</td>
<td>RESEARCHER1</td>
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