

Castles & Clanks

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Characters

People in the world of *Girl Genius* have three main **Aptitudes** that define their general competency in the areas of **Adventure**, **Romance**, and **Mad Science**. Aptitudes are rated numerically from 2 to 12, and must be even numbers. A character's rating in an Aptitude defines the size of the dice rolled when attempting tasks in that area.

Under each of the three broad Aptitudes are six **Capabilities** which represent more specific areas of expertise. They are rated numerically from 1 on up, and determine how many dice one uses in task resolution. The eighteen Capabilities are:

Adventure:

Fisticuffs is the ability to defend oneself and soundly beat one's foes senseless when armed with nothing more than one's own two hands (or more, for some constructs).

Melee is the ability to do likewise with weaponry, be it a fine rapier or a scavenged table-leg.

Firearms allows one to employ the devastating punch of pistols, rifles, and other more exotic forms of personal artillery.

Awareness indicates how well one keeps track of goings-on in one's environment and how well one picks up on small details.

Strength merely measures how well one can exert physical force upon objects.

Stamina is vital to prolonged strenuous activities and helps one to shrug off the pain of being injured.

Romance:

Beauty is that elusive quality which makes one more appealing to others.

Charm impresses others when socializing and makes one's company most desirable.

Grace is physical elegance and how one comports oneself, not to mention highly valuable when dancing.

Education reflects how well-grounded one is in the liberal arts, comprising the trivium of grammar, logic, and rhetoric and the quadrivium of geometry, astronomy, arithmetic, and music, in which all cultured individuals are conversant.

Prudence measures one's judgement and ability to discern whether or not a course of action is a good idea.

Stealth is used to avoid the notice of those one would rather not have to deal with, and covers other means of concealing information, such as the applications of cryptography.

Mad Science:

Biology is the science of all things living, including the fields of anatomy and medicine, and is employed in the creation of constructs.

Chemistry is knowledge of elements and materials, used to craft new and wondrous compounds or brew strange elixirs.

Physics is the science of the world itself operates, and is based upon the higher mathematics of calculus; it is employed in the discovering of new principles to drive future creations.

Engineering is the comparatively mundane art of building mechanical devices both large and small, and needed for the production of clanks, airships, and other engines.

Command is the means to impose one's will on others, ordering them about, and cowing them into submission.

Resolve is a measure of tenacity and determination, of how willing one is to see things through to their completion, and of resistance to the manipulations of others.

Character Creation

When creating a character for the world of *Girl Genius*, one must first decide upon the concept. Will this individual be a faithful bodyguard, a wise advisor, a loyal lab assistant, a rapacious bandit, a dashing young rake, or one of the great Sparks themselves? Once the general idea is fixed, one should fill out some of the details of the character's history and motivations, then finally chose a suitable name.

Once all that has been decided, one must distribute 18 points among the character's three Aptitudes. Each Aptitude must be between 2 and 12 and be an even number. Then, one must distribute 36 points among the character's eighteen Capabilities, with at least one point placed in each. That's all there is to it!

Task Resolution

To perform a task, first determine which Capability it relies on. Then, roll a number of dice equal to the character's rating in that Capability, with the size of each die equal to the character's rating in the Aptitude which governs that Capability. After rolling, simply choose the highest number amongst those visible on the dice. That number represents how well or how poorly the character has performed.

In addition to relying on natural Aptitude, characters can make use of Tools which allow them to surpass their natural limits. While these are often physical tools, such as weapons and other fantastical inventions, they can also be more abstract, such as blueprints or even a stunning argument. Tools are rated in die sizes, exactly as Aptitudes are. When relying on a Tool, characters can use the Tool's die size in place of their Aptitude. Thus, the highly talented can make do with even the most wretched of raw materials and equipment yet still display genius, while the mostly finely crafted of tools allow even the hopeless to have a chance of success. As the character's Capability still

applies, training is still key to maximizing the utility one derives from Tools.

When performing a simple task, the goal is to equal or exceed on a single roll the number chosen by the GM to represent the difficulty of the task. If the roll is successful, the difference between the roll and the difficulty is called the Quality of the success. For certain actions, such as attacks in combat, the effects of the Quality are defined objectively, while for other actions the GM must interpret the Quality qualitatively, as it were.

Some tasks require prolonged effort, in which case they are rated in terms of Complexity as well as Difficulty, and the character will need to make multiple rolls over time, summing the Quality from each successful roll until sufficient total Quality has been accumulated to equal or exceed the Complexity of the task, indicating it is complete. Each roll represents the passage of some amount of time in the game. The archetypical example of this is scaling a wall, where each roll represents a unit of time, and accumulated Quality represents how far the character has ascended, with the height of the wall expressed as its Complexity.

In addition to tasks that require an extended effort, it is possible to try and improve upon the results of what would otherwise be a simple roll. If there is sufficient time available, the character may try again, adding the results of a second roll to the first, although the Difficulty of the task increases by two, as that problem has already been attempted and one is unlikely to have fresh insights. This can be repeated several times, but the penalty increases cumulatively (that is, on the third attempt, increase the Difficulty by an *additional* four, then by an *additional* six, and so on), so characters will quickly find the Difficulty increase past the limits of their abilities.

Often, a character will be attempting to do something to another character or two characters will be engaged in a contest to see who can do something first or better. This is handled by comparing the results obtained by the two characters to each other rather than to a fixed difficulty number, with the higher result indicating the winner, and the difference between the two results yielding the Quality of the victor's success.

Difficulty for Simple Tasks:

Pathetic—Only the most incompetent of people could possibly fail: 2

Easy—Most anyone with any talent or training should be able to do this: 4

Moderate—Reasonably well-trained individuals should be able to do this: 6

Advanced—Skilled individuals should be able to do this: 8

Hard—Only some experts could be expected to be able to do this: 10

Masterful—Only top individuals in the field could be expected to be able to do this: 12

Having Adventures

It is an unfortunate fact of the times that many people tend to find themselves embroiled in combat far more often than they would prefer. Once a battle begins, for

game purposes, time is measured in intervals of seconds. While characters can actually attempt to strike quite frequently, for purposes of simplification, their behavior is abstracted into a series of actions that occur at distinct intervals, representing viable openings for effective acts. When combat begins, the players and the GM roll their characters' Awareness to determine the order in which they act. Each character subtracts the results of the roll from twenty-five to determine their Initiative. Initiative represents how many seconds since the inception of the combat each character's next opening will fall. Whoever has the lowest Initiative acts first. In case of ties, the character with the highest Awareness gets to act first; if they are still tied, then the character with the highest Adventure gets to go first. If this still does not break the tie, the two characters should reroll just to determine which acts before the other; this will not affect their order of action relative to characters they were not initially tied with.

For their action, characters may choose to attack someone, run, or do something else more complicated. Attacks may either be performed close-up with either bare fists or weapons, or at range employing firearms, archery equipment, or all manner of exotic devices. For a close-in attack, the aggressor rolls either Fisticuffs or Melee, depending on the mode of attack. The victim of the attack also rolls whichever of these two skills is appropriate. If the attacker rolled higher, then the target has been struck. Otherwise, the attack is a miss. Due to the extra difficulty involved in parrying a weapon when unarmed, defenders using Fisticuffs against opponents using Melee must halve their defense rolls. (Certain special individuals, often the creations of Mad Science, are always treated as if they were armed, even when using the Fisticuffs skill. It is said that certain exotic fighting arts of the Far East also confer such an advantage.) Attackers employing ranged weapons roll their Firearms skill against a fixed difficulty based on range to the target.

Ranged Difficulty Table—Use the general difficulty table for now.

After taking an action, the acting character again rolls Awareness, subtracts the result from twenty-five, and *adds it to his or her current Initiative* to obtain his next Initiative. Afterwards, whoever has the lowest initiative gets to act next, and the cycle repeats.

Characters who are the victims of attacks have the option of yielding ground to engage in additional defensive maneuvers, at the cost of losing opportunities to find an opening. When attacked, one may increase one's Initiative by one in order to increase one's defense roll by one. This may be done multiple times, with the caveat that one must stop if this would increase one's Initiative past twenty-five more than the attacker's current Initiative, or if it would more than double the results of the original defense roll or the range-based difficulty.

Once an attack has struck someone, the unfortunate victim will no doubt be injured. Damage to the body is measured on a simple abstract scale represented by a single number. When struck by an attack, the defender takes one point of Injury for every point by which the attacker's roll exceeded the defense roll, plus the attacker's Strength Capability.

Injured characters are not as effective as they were when healthy. For every number of points of Injury taken equal to twice a character's Stamina Capability, that character reduces the dice used for each of his three Aptitudes by two sides each. When reduced to dice with no sides at all for a given Capability, the unfortunate wretch is completely incapable of taking any actions whatsoever that rely upon that Capability. Thus, after having taken points of Injury equal to his Adventure Aptitude times his Stamina Capability, a character will be incapable of any physical action, and indeed will be verging on the edge of death, with further injury likely to push him over the edge.

Often, one does not want to cause lasting Injury to one's opponents, only to incapacitate them or otherwise get out of the fight. In such cases, one can choose to employ non-lethal techniques with Fisticuffs, inflicting Pain instead of Injury, which has an identical effect on the opponent's ability to take action, but which does not run the risk of killing him, her, or it. Inflicting Pain with weapons is actually rather difficult, and requires that one halve one's attack rolls unless one has had special training in how to subdue others. Inflicting Pain with projectile weapons not explicitly designed for the purpose is impossible, as they are precise but lethal implements.

Characters who do get roughed up in combat recover from it gradually. Pain is reduced by two for each scene that passes, and wiped out entirely by a good night's rest. Injury reduces by two for each night of decent rest, though severe Injuries may require medical attention. Some advanced Constructs may heal substantially more rapidly than this, while simple ones do not heal naturally at all, and require the attention of competent Biologist.

At times, the situation confronting one calls for nothing more than a display of brute force and strength. Under normal circumstances, people are able to briefly dead-lift a maximum of ten times their Adventure Aptitude times their Strength Capability in kilograms. Thus, the average individual with an Adventure of d6 and a Strength of 2 can lift up to 120 kg (264 lbs). Under extraordinary circumstances, such as needing to lift a giant engine boiler off of a loved one, a character can lift an additional number of kilograms equal to ten times the result of a Resolve roll.

Far more common than the need to exert oneself to the limit is the need to transport objects on one's person. Characters can comfortably carry on their back up to their Adventure Aptitude times their Strength Capability in kilograms (one-tenth their maximum lifting capacity). They can carry twice that without risk of excess exhaustion (but with mild grumbling), and four times that for reasonable but not excessive distances.

Sometimes, what one needs to do is move as quickly as possible. Unladen characters can travel up to their Adventure Aptitude in meters per second, and can keep this up for a number of seconds equal to their Adventure Aptitude times their Stamina Capability. Characters needing to move long distances by foot can cover up to their Adventure Aptitude in kilometers in an hour, and can keep this up for a number of hours per day equal to half their Adventure Aptitude times their Stamina Capability.

Finding Romance

Humans (and things that resemble humans) being as shallow as they are, first impressions are highly influenced by one's Beauty Capability, but such impressions wear thin with time, allowing the Charm Capability to ultimately dominate most repeated social interactions.

Prolonged social interaction, other than the purely amicable sort, generally has as its goal to convince people of other things, such as persuading someone that one's own ideas are correct or that a certain third party has no place in their social circle. This is handled by mechanics quite similar to the combat system.

Characters roll their Beauty Capability to determine who gets to make each round of arguments first. Those most pleasing to the eye do tend to get listened to more, even in ostensibly enlightened circles. The acting character employs the Charm Capability, which the listener likewise defends against with his Charm Capability. Should the listener score higher, the argument is ineffective. However, should the speaker score higher, take the difference between the two rolls and add the speaker's Education, for those that know more can make more convincing arguments, and note down that the listener has now experienced this much Persuasion. Then, in decreasing order of their Beauty rolls, the other characters involved get to likewise make their arguments. This repeats as need, until either the parties involved give up, or the listener accumulates a total amount of Persuasion equal to his Prudence Capability times his Romance Aptitude, at which point he agrees with the one that put forth the argument.

Introduce the unnaturalness of the concept to be persuaded of as an Armor rating that reduces damage.

Unlike Injury, Persuasion has a much more specific deleterious effect. Only when trying to argue against the point in question does the subject of the attempted Persuasion suffer a penalty, in which case he reduces his Romance dice by two sides for every number of points of Persuasion taken equal to twice his Prudence Capability. In all other cases, the Persuasion attempt causes no penalties. It is possible to be the subject of multiple persuasion attempts simultaneously. Simply track the progress separately for each individual issue under contention. Unsuccessful Persuasion does wear off gradually, with each intervening night making the arguments involved seem more distant, and erasing two points Persuasion. A character who has been successfully persuaded of something, however, will remain convinced indefinitely.

When trying to persuade people, disarming their social defenses is often quite useful. Similarly, when arguing against another individual in an attempt to persuade a third party, flustering one's adversary can greatly increase one's chances of success. To this end, one can make arguments that seek not to persuade, but to vex. Vexation is analogous to Pain, in that for every number of points of Vexation taken equal to twice a character's Prudence Capability, that character reduces the dice used for each of his Romance and Mad Science Aptitudes by two sides each. Vexation does not, however, affect one's Adventure; indeed, many an individual who is sufficiently vexed resorts to

the use of Fisticuffs. Vexation normally disappears entirely at the end of the scene in which it was caused, but the memory of being so made a fool of will last much, much longer.

Lastly, one can use the social graces to engage in character assassination or to drive up oneself's or another's popularity. Campaigns of reputation are waged analogously to ranged physical combat, with each party involved in the machinations employing their Charm Capability against fixed difficulty levels to persuade a general group of people or social circle that someone else is to be shunned or accepted.

When a character is about to attempt something which is clearly not a good idea, the GM should use that character's Prudence Capability to determine if, indeed, that little voice of premonition goes off within the character's head allowing for the avoidance of tragedy.

Employing the Stealth Capability as a means of moving about unobserved is generally opposed by a potential observer's Awareness Capability, while attempts to decipher encoded messages typically rely on the Education Capability, though it is not unheard to employ the more mathematical aspects of the Physics Capability, and ciphers that one knows are easily unravelled through the application of one's own Stealth Capability.

Performing Mad Science

- *The Sciences*
 - *In general, Sciences let you make Tools. The die size of the Tool is equal to the Quality of the roll to make it. Appropriate materials are required, and it tends to take a while. More details coming soon...*
- *Biology:*
 - *Making Constructs — Each roll takes one week*
 - *Spend Quality on character traits*
 - *Sum of Adventure die size and Adventure Capabilities*
 - *Double cost for Romance*
 - *Triple cost for Mad Science*
 - *Surgical Medicine—Each roll takes one day*
 - *Can heal damage equal to the Quality of the roll*
 - *Can cure chronic conditions*
- *Chemistry: Explosives & Corrosives, Drugs & Poisons, Raw Materials*
- *Engineering: Clanks, Weapons, Vehicles*

Physics is the key to understanding the underlying principles behind inventions. Its primary use is to produce blueprints, a Tool which can guide efforts to put theory into practice. Creating a blueprint is normally a simple roll that takes one day of study to complete, with the die size of the blueprint equal to the Quality of the roll, though it should be of course noted that, like other simple rolls, additional effort can be expended to try and improve the blueprints, such that with sufficient work and a little luck,

characters can create blueprints rated better than their own Mad Science Aptitude. The character that makes the blueprint need not be the one to use it, either, as many a genius hands off his designs to subordinates to put them into practice.

Similarly, given an invention, Physics allows one to determine the blueprints needed to reconstruct said wonder. This process may or may not involve destroying the original wonder. It is handled similar to creating a blueprint from scratch, with the die size of the , and the resulting blueprint may, in fact, improve upon the original, as a skilled investigator can identify flaws in the original which were not apparent to its creator.

Should have some kind of revision system, where you can use an invention for a while, then produce an updated blueprint that incorporates what you've learned from using it.

As opposed to the more nuanced interactions covered by the Romance Aptitude, it is possible to simply order others about by sheer force of will, making use of the Command Capability. Victims of such bullying may resist with their Resolve Capability, with bonuses or penalties based on circumstances such as any existing relationship between the two characters, the appearance and general presentableness of the of the would-be master, standing orders, and whatnot.

Mad Science combat as a mass combat system.

Physics == Initiative

Other Science Skills == Attack & Defense

Command == Damage

Resolve == Hit points

Ranged == Acting on someone who's not there.

Hats

Hats are an important stylish accessory that no well-dressed individual would ever be without. However, in the course of encountering dangers, it is possible for tragedy to befall even the most beloved and fashionable hat. Heroes begin naturally begin their adventures with a hat of the appropriate quality. However, all sorts of grim fates await it.

Perhaps the worst thing that can happen to a hero is, to put it delicately, to expire in the line of duty. Being fortunate people and possessed of keen senses, heroes often have a feeling of impending dread, and move fast enough to **Dodge Death** at the last moment, but not fast enough to avoid having their hat be char-broiled, mangled, flattened, or merely splashed into a cup of poisoned wine. Observers will often be so fixated on the doom that befell the hat, they will not notice that the hero is not, in fact, dead, and will not bother to search for a body, as no one could have survived *that*.

Alternately, sometimes heroes need to perform flawlessly. They become so focussed on a single task of critical importance as they give it their all and achieve a **Perfect Roll** that they lose track of where they left their hat in all the excitement. In such

situations, all of the dice automatically roll their maximum possible value, but our hero is left temporarily uncovered.

Heroes are also known to, in times of exasperation, take off their their hat to mop their brow, and to fortuitously set the hat down upon precisely the **Conveniently Placed Object** the hero needs to solve the problem at hand. Such is most people's delirious joy at this finding that they forget where they set down the enabling hat until such time as it is far too late to worry about going back for it.

Lastly, heroes have been known at times to bump into seemingly random people who, in truth, they met long ago. On the occasions where the hero doffs his hat, the unobscured view of his face allows the stranger to recall that the hero is, in truth, an **Old Friend**. Being forgetful people, heroes tend to get so caught up in the excitement of meeting such a long-lost companion that they don't bother to put the hat on until after the friend has done a favor for the hero, at which point everyone realizes that leaving one's stylish hat sitting about is just asking for it to be stolen.

Fortunately, hats are sold in fine establishments throughout the civilized world, and hatless heroes can easily obtain a new one given some time when no other matters are pressing upon them.

Character Improvement

At the end of every session, the characters will have learned something of importance and utility from their exploits. To reflect this practice, all the participants may increase one of their character's capabilities by one. In addition, a character can become sufficiently proficient at a group of related skills to be able to sublimate some of that learned talent into an increase in his, her, or its base faculties. If all of a character's Capabilities under a given Aptitude are ranked at a minimum of two, that Aptitude may be increased by two sides at a cost of reducing all its associated Capabilities by one each.