

Determination of the Canonical Age of All Main Characters from the Television Show My Little Pony: Friendship is Magic

Skaijo (Karen Cho, Science Filly)^{a, c}, HasbrosDad (J.B. David, Science Brony)^a, Wired (Chin Ho Kim, Science Brony)^b

^a Institute of Georgia Technology, Atlanta, GA, 30332 USA School of Chemistry and Biochemistry

^b Everett Alvarez High School, Salinas, CA, 93906 USA

^c Corresponding author. Email address: skaijo@gmail.com

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ABSTRACT

Through the use of the canonical evidence, the concept and rate of passing time within the fictional world of Equestria was established. This new standard was used to determine the general age of the six main characters in the show. Findings were substantiated by episode transcripts, and a comprehensive review of equine development collaborated by equine research officials, and post-production notes from executive producer Lauren Faust. Equestrian Time (ET) was shown to attempt to mimic Earth-based standard time, or Universal Time (UT). For example, seconds (s) were the minimal unit of time recorded in the show that were confirmed to be equivalent to Earth Standard, or Universal Time (UT) seconds. Additional statements within the show provide a strong argument that time within Equestria is cataloged via the **ISO 8601 international standard**, which includes the naming convention of *days, weeks, months, years*, etc. By defining a “day” in ET to mean the passing of one *solar cycle*, it was still possible to apply ISO 8601 naming conventions, as done in the show. After a the means of recording time was established, a comprehensive review of literary evidence established that the acceptable age range for a young adult horse is 4 years old, which is ~18-22 human years old. Based on the date of post-production notes, the likely ages of all characters in the main cast of the show were established within a specific window of the production airdate.

Introduction

My Little Pony: Friendship is Magic (MLP:FiM) is an animated television series and a property of Hasbro, which represents the fourth generation of the My Little Pony franchise. MLP:FiM consists of stylized anthropomorphic colorful equines and their episodic exploits in the fictional world of Equestria. Of the many equines in the show, there are six that make up the leading cast. These ponies are pegasi Rainbow Dash and Fluttershy, unicorns Twilight Sparkle and Rarity, and earth ponies (wingless and hornless variants) Pinkie Pie and Applejack. As of this date, there are 26 episodes (~13 hours) of canonical material that have been produced from which a variety of intriguing arguments and theories have been made concerning aspects of the world these ponies exist in. The following is, at heart, a light-hearted and over-analyzed assessment on the aspect of time within the show. With diligent use of the scientific method, peer-reviewed literary evidence, canonical evidence, and post-production notes offered by executive producer Lauren Faust (given as of December 5th, 2010), it is possible to establish the rate of time in Equestria and determine the non-contradictory ages of *all* the main characters of the show.

Manner of Time Flow and Conventions of Time in Equestria

It is important to define two key terms: **Universal Time (UT)**, the manner in which we experience time based on the rotation of the Earth; and **International Standard 8601 (ISO 8601)**, a series of conventions and terminologies used to describe increments of time (seconds, days, weeks, months, years, etc.). All land-bound humans on Earth experience UT by default. However, ISO standards are artifacts of intellectual design and are not as fundamentally widespread among cultures, but they are more widely applicable as they aren't dependent on relating the passing of time on Earth. For example, the time it takes for Venus to orbit the sun can be recorded as ~224.65 Earth *days* long UT, ~0.61 Earth *years* long UT, or 1 *year* long VT (Venusian Time), which demonstrates that that ISO 8601 conventions can be applied both Earth and other planetary bodies, or even fictional worlds, so long as the perspective of time experienced is defined. ^{[10],[11],[12]} Equestria Time (ET) is not based on the rotation of the Earth, but rather the manipulation of the sun's position by a deity-like character known as Princess Celestia. Therefore, a “day” based on the perspective of ET is the time it takes for Princess Celestia to raise, lower, and return the sun again to an initial position (solar cycle). Hence, 2 *days* ET may not necessarily be 2 *days* UT, but can still be described with the use of ISO 8601 terminologies. The next steps would then be to *prove that time exists in Equestria* and to *determine if ET and UT rates share any similarities*.

Time Exists in Equestria

On a fundamental level, it has to be established that time exists in Equestria, that it passes at a conceivable rate, and that the characters of the show utilize a class of naming conventions to distinguish appropriate intervals of passing time. Based on show transcripts, the concept of time in Equestria is established fairly early in the series.^{[1],[2],[3],[4],[7]} Likewise, the passing of time has also been ingrained as a function of the MLP:FiM mythos and is not stationary.^[3]

Equestrian Time and Universal Time Share Similarities

Characters not only make use of ISO 8601 conventions, but also specifically time their actions with results that demonstrate that ET is generally equivalent to UT. During episode 8 of season 1 (S1EP8) *Look Before You Sleep*, Twilight Sparkle clearly makes references to days of the Georgian Calender (Thursday and Saturday), which has been incorporated into the ISO 8601 standard. She additionally mentions weeks and months, which are recognized ISO 8601 intervals of time.^[5] During S1EP11 *Winter Wrap Up*, Rainbow Dash states that the season of winter lasted for three months ET, which is identical to the amount of time it takes for winter to pass under UT.^{[9],[16]} Most convincingly, during S1EP1 *Friendship is Magic Part 1*, Rainbow Dash clearly makes the claim that she can perform a stunt “...in ten seconds flat” and then proceeds to perform the stunt in 10.0 s UT, before concluding and verifying that she performed the stunt in 10 seconds of Equestria Time (ET).^[7] These evidences validate that Equestria utilizes ISO 8601 terminologies to incrementalize time and that ET bears similarities to UT.

In summary, all aspects of the show can be measured in terms of ET which contains days made up of solar cycles. The terminologies of ISO 8601 can be applied to ET, as seen in the show. And ET and UT share accurate similarities to at least second-long intervals.

Manner of Aging in Equestria

Post-production notes given about the show demonstrate that the fictional equines of MLP:FiM physically develop in a manner based on equines of reality.^[15] Based on Ensminger *Horses and Horsemanship*, the stages of horse development are:^[14]

Age	Name
0 to less than 1	Foal
1 to less than 4	Filly/Colt
4 and older	Mare/Stallion

This data emphases that upon reaching 4 years old, horses reach adulthood, which is comparatively quick in terms of human development, as noticed by Faust.^[15] On December 5, 2010, Faust stated that the canonical age ranges of the main equines in MLP:FiM are “young adults”.^[15]

According to an article published by Equine Resources International, LLC, starting from birth, horses age 6.5 years each human year UT until puberty. Once the horse has reached state of Mare/Stallion, the rate of aging slows to 2.5 years for each year. This means that the rate of aging in horses slows after they've reached 4 years old UT. The following chart summarizes data compiled by equine veterinarians and released by Pfizer Animal Health for the intention of helping horse owners better understand how to treat health issues for horses as they experience each stave of life:^[13]

Age	Stage of Life	Human Equivalent Age	Stage of Life
1	Foal	6.5	Infancy-Child
2	Filly/Colt	13	~Puberty
3		15.5-19.5	~Puberty
4	Physical Maturity	18-22	Young Adult
5		~24.5	Adulthood
13		~3.5	Middle Aged
20	Senior	~60	Senior
30	Extreme Old Age	~85.5	Geriatric

According to this data, the *only* acceptable age for a MLP:FiM character to be physically considered a “young adult” as described by Faust is 4 years old UT (4 years ET). Since Faust's comments were taken in-between the air dates of S1E8 and S1E9, the most appropriate age for the *entire* main cast during this interval is within the range of 4.0-4.9 years old.

Show transcripts indicate that Fluttershy is “a year older” than Pinkie Pie.^[8] However, this indication later proves to only be approximate as, later in the same season, the main cast throw a surprise birthday party *only* for Pinkie Pie, on the date of her birth, despite Fluttershy's attendance. Hence there is a significantly greater likelihood that, although Fluttershy is canonically older than Pinkie Pie, they were not born exactly one year apart from each other. This means that both characters, as well as the entirety of the main cast (*who are stated to all be “young adults” ponies*) can have their birth dates canonically grouped, without contradiction, within one year of each other--and the only non-contradictory age that agrees with both canon, academic references, and production notes from the period between S1E8 to S1E9 is 4 years old UT/ET, which is approximately 18-22 years old human years.

Conclusion

Using supporting canonical evidence, aspects concerning time in MLP:FiM's fictional world of Equestria were discussed. Characters in the show utilized time-based naming conventions established by ISO 8601. Equestria Time was confirmed to pass at a rate that is identical to Universal Time to the minimal degree of seconds.

This foundation and common understanding of time was used to determine the ages of the main cast of MLP:FiM. Based on canonical evidence, post-production notes from executive producer Lauren Faust, and a comprehensive literary study including data collaborated by a equine veterinarians, Equine Resources International (LLC), Pfizer Animal Health, and Ensminger *Horses and Horsemanship*, the singular acceptable age for a young adult horse is 4 years old UT. This would render the entirety of the main cast to be 4 years old UT/ET within the time frame between episodes S1E8 and S1E9, or approximately 18-22 years old in human years.^[10-15]

Acknowledgments

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References

All Transcripts from Season 1

- ^[1] EP1, **Narrator**: “*But as time went on*, the younger sister became resentful.” (Past Event)
- ^[2] EP1, **Twilight Sparkle**: “Oh, sorry girls. *I got a lot of studying to catch up on*.” (Present Event)
- ^[3] EP1, **Twilight Sparkle**: “A powerful pony who wanted to rule Equestria, defeated by the Elements of Harmony and imprisoned in the moon. Legend has it that on the longest day of the thousandth year, the stars will aid in her escape and she will bring about nighttime eternal.” (Future Event)
- ^[4] EP1, **Twilight Sparkle**: “I'll check on the preparations as fast as I can, then get to the library and find some proof of Nightmare Moon's return.” (Future Event)
- ^[5] EP8, **Twilight**: “So, who's up for another slumber party tomorrow night? How about a week from Thursday? Oh, how about two weeks from Saturday? A month from now?”
- ^[7] EP1, **Rainbow Dash**: “Hey. I could clear the sky in ten seconds flat.”
- ^[8] EP5, **Fluttershy**: “I'm a year older than you.”
- ^[9] EP11, **Rainbow Dash**: “Three months of winter coolness...”

Additional Sources:

- [10] Universal Time. McCarthy, D. D. & Seidelmann, P. K. (2009). TIME—From Earth Rotation to Atomic Physics.
- [11] Weinheim: Wiley-VCH Verlag GmbH & Co. KGaA.
- [12] ISO 8601 Third Edition. 2004-12-01.
- [13] Equine Resources International, LLC. <http://equineresources.com/pfizer-animal-health/259-pfizer-horse-human-age-chart>
- [14] Ensminger, M. E. (1990). *Horses and Horsemanship: Animal Agricultural Series* (Sixth ed.).
- [15] Faust: “**They are young adults**, but with a maturity level of anywhere from 12 - 18. I guess I sort of justify it in my head that in real life, horses are adults by the time they are 2 or so. MLPs are horses with human brains, **so they grow up fast**, but mature slower....?” December 5, 2010. fyre-flye.deviantart.com
- [16] Definition of “Winter”: “The months of December, January, and February in the United States or of November, December and January in Great Britain.” dictionary.reference.com/browse/winter