

Welcome to *TEKTOK*
January 9, 2017

*Experience is the hardest teacher.
It gives you the test first and lesson afterwards.*
~Anonymous

Web Sites

[Goddard Space Flight Center: Speed of Earth's Rotation](#)

[Archived Content] [Archived Content] Presents an informative answer to the question "What is the speed of the turning of the Earth?"

https://web.archive.org/web/20120120031452/http://imagine.gsfc.nasa.gov/docs/ask_astro/answers/970401c.html

[NASA: Ask the Space Scientist- Earth](#)

Site from NASA contains a collection of 91 questions pertaining to the Earth's atmosphere, magnetic field, ionosphere, rotation and origin of life.

<http://image.gsfc.nasa.gov/poetry/ask/aearth.html>

[Science Buddies: A Matter of Degrees: Tilt of Earth's Axis Affects the Seasons](#)

In this science fair project, use a globe and a heat lamp to investigate how the angle of the Sun affects global warming. This project includes the objective, background questions, a list of all the materials you'll need, and the procedure to follow for the experiment.

http://www.sciencebuddies.org/science-fair-projects/project_ideas/EnvSci_p051.shtml

Hardware/Software

[How to Disable System Haptics on iPhone](#)

The new iPhone models offer subtle system haptic feedback when performing various actions in iOS. This physical haptic feedback is performed through the Taptic Engine built into iPhone, and you'll notice it throughout iOS when activating different features, toggles, buttons, and functions.

You'll find system haptic feedback when opening Notification Center, Control Center, toggling UI switches, opening Spotlight, using onscreen zoom, when scrolling through date and number pickers, refreshing Mail, activating the arrange app icon or delete apps feature, and more.

Some users may not like the system haptics on iPhone however, and may prefer to turn this feature off.

Disabling System Haptic Feedback on iPhone

1. Open the Settings app on iPhone and go to “Sound & Haptics”
2. Scroll to the very bottom and toggle the switch for “System Haptics” to the OFF position

You’ll immediately feel the haptic feedback has been disabled because flipping the OFF switch will no longer offer a little physical sensation.

If you don’t see the setting option to toggle system haptics on and off, it’s likely because you do not have an iPhone 7 or better.

The system haptics feedback feature is generally quite nice and most users like the sensation of physical feedback when adjusting various onscreen elements, but for those who don’t or aren’t quite sure, it’s easy to toggle the setting off (and back on again if you choose to re-enable haptics again in the future).

It’s fairly likely that haptic feedback will come to other iOS devices in the future as well, including iPad and maybe even the Mac Touch Bar, but for now it’s predominantly an iPhone and Apple Watch sensation.

Hints/Tips

Data Storage Capacities 101

The terms used to measure digital storage can be very mysterious. Most people have heard of kilobytes, megabytes, or gigabytes but it takes a deep understanding to easily associate these terms with understandable amounts of information. When people hear “6 feet” they understand it as “about the length of a person” or understand “40 miles” as “about the distance from L.A. to Anaheim.” However, most people have no idea how much a kilobyte or a megabyte actually is. Today, I will try to help you gain a deeper understanding of these terms.

The prefixes (kilo, mega, etc) for the terms are taken from the metric system, and are also used to measure things like weight and distance. If you are familiar with measuring large quantities in the metric system, you already understand how to measure, data even if you don’t know it yet.

- 1 bit: A single 0 or 1, in the form of a magnetic signal or a stored electrical

charge.

- 1 byte: Eight 0s or 1s.
- 1 kilobyte: 1,024 bytes.
- 1 megabyte: 1024 kilobytes.
- 1 gigabyte: 1,024 megabytes.
- 1 terabyte: 1,024 gigabytes.
- 1 petabyte: 1,024 terabytes.
- 1 exabyte: 1,024 petabytes.
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Now some reference points for you to use:

- 1 byte: A single character of unformatted text.
- 1–100 KB (kilobyte): A text document anywhere from a few sentences to a few pages. Also, very small images, mainly used for previews.
- 100 KB–1 MB (megabyte): A “normal” sized image, about 5–10 square inches.
- 1.44 MB: Storage capacity of a 3.5–inch floppy disk.
- 1–10 MB: A high resolution image, or audio files of about 2–5 minutes.
- 10–100 MB: About 2–15 minutes of 480p “normal quality” video. Most simpler applications for computers or mobile devices.
- 700 MB: Storage capacity of a CD.
- 100 MB–1 GB (gigabyte): About 15–150 minutes of 480p “normal quality video” or about 3–30 minutes of 1080p high definition video. More complex software applications.
- 1–2 GB: Advanced software applications such as Final Cut Pro, Logic Pro, Adobe Photoshop, etc.
- 2–4 GB: The approximate size of 1 full–length compressed, high definition movie.
- 4.7 GB: Storage capacity of the most common type of DVD.
- 1–10 GB: Older or less advanced video games.
- 10–30 GB: Modern, advanced video games.
- 16–256 GB: Storage capacity for most modern smartphones.
- 100 GB – 1 TB (terabyte): Storage capacity for most modern laptop computers.
- 1 TB – 3 TB: Storage capacity for most modern desktop computers.
- After a few terabytes, we start to talk about very large amounts of data, much more than most people will ever need to deal with. If someone refers to 10+ terabytes of data, they are most likely talking about a library of data that is stored for by an organization, not an individual person. To give a sense of scale for the larger terms, I will include some examples of these as well. For these, the data is not publicly available, so the information is from estimates over the last few years from various

sources.

- 3 PB (petabyte): Estimated video available to stream on Netflix.
- 20 PB: Estimated total size of Google Maps.
- 24 PB: Estimated total video uploaded to YouTube per day.
- 357 PB: Estimated total photos stored by Facebook (estimated at 960 billion photos).
- 10 EB (exabyte): Estimated total storage of Google.
- 12 EB: Estimated storage of the NSA's Utah Data Center.
- I hope this information helps you to become more familiar with measurements of data!

Riddles You Can Tell in Class

1 – He has married many women, but has never been married. Who is he?

2 – How many bricks does it take to complete a building made of brick?

3 – How much dirt is in a hole 4 feet deep and 2 feet wide?

1 – A priest.

2 – Only one – the "last" one.

3– There is no dirt in a hole.

This Day in History

Birthdates which occurred on January 10:

1738 Ethan Allen Revolutionary War fighter (led the Green Mountain Boys)

1864 George Washington Carver agricultural scientist (estimate date – actual birthdate unknown)

1904 Ray Bolger Dorchester MA, actor/dancer (Wizard of Oz)

1930 Roy E Disney CEO (Disney)

1938 Willie "Stretch" McCovey 1st baseman (San Francisco Giant #44)

1939 Bill Toomey Philadelphia PA, decathlon champ (Olympics–gold–1968)

1939 Sal Mineo New York City NY, actor (Exodus, Rebel Without a Cause)

1943 Jim Croce Philadelphia PA, singer/songwriter (Time in a Bottle, Bad Bad Leroy Brown)

1949 George Foreman Marshall TX, world heavyweight boxing champ (1973–74, 95)

1953 Bobby Rahal Indy–car racer (over 15 wins)

1953 Pat Benatar [Andrezejewski], Brooklyn NY, singer (Hit Me With Your Best Shot)

1969 Doug E Doug rapper/comedian (Operation Dumbo Drop, Jungle Fever)

On This Day:

0049 –BC– Julius Cesar crosses the Rubicon, invades Italy
1776 "Common Sense" by Thomas Paine, published
1845 Poets Elizabeth Barrett & Robert Browning begin corresponding
1861 Florida becomes 3rd state to secede from US
1870 John D Rockefeller incorporates Standard Oil
1911 1st photo in US taken from an airplane, San Diego
1932 "Mickey Mouse" & "Silly Symphony" comics syndicated
1935 Actress Mary Pickford marries actor Douglas Fairbanks
1943 1st US President to visit a foreign country in wartime–FDR leaves for Casablanca, Morocco
1947 "Finian's Rainbow" opens at 46th St Theater New York City NY for 725 performances
1949 RCA introduces 45 RPM record
1951 1st jet passenger trip made
1951 UN headquarters opens in Manhattan NY
1958 Jerry Lee Lewis' "Great Balls of Fire" reaches #1 on the country and r&b charts, #2 on the pop chart
1966 Julian Bond denied seat in Georgia legislature for opposing Vietnam War
1966 India & Pakistan sign peace accord
1967 Edward Brooke, takes (Senator–R–MA) seat as 1st popular elected black
1972 Los Angeles Lakers 33 straight win streak snapped, losing to Bucks 120–104
1980 Last broadcast of "Rockford Files" on NBC
1984 Luis Aparicio, Harmon Killebrew, & D Drysdale elected to Hall of Fame
1984 US establishes full diplomatic relations with Vatican after 117 years
1991 US Congress begins debate on Persian Gulf crisis
1995 "Late Late Show" with Tom Snyder premieres on CBS at 12 30 AM
1996 Jimmy Johnson announced as new coach of Miami Dolphins

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