



**Sustainability  
Beginner**

**What happens when you run too many apps on your computer at the same time?**

**A**

Your computer only consumes energy for the program you are currently using

**B**

The computer uses more energy and slows down

**C**

It doesn't affect energy use

**If you write a program that keeps running in the background, what will happen?**

**A**

It only uses energy when you look at it

**B**

It will keep using energy even if you're not using it

**C**

It shuts down automatically to save power

**When writing a program, why should you avoid making it do unnecessary calculations?**

**A**

It saves energy by making the program more efficient

**B**

It immediately makes the code more readable

**C**

It doesn't matter because computers have unlimited power

**What is a simple way to make a program use less energy?**

**A**

Include additional features to increase program functionality

**B**

Write only the code you need and remove redundant code

**C**

Use more complex logic to improve functionality

## Why should you close your code editor when you're not using it?

**A**

It makes the screen look less cluttered

**B**

It doesn't make a difference

**C**

It saves energy and frees up computer memory

**If a program constantly checks for new updates every second, what effect does that have?**

**A**

It makes the program work better

**B**

It doesn't affect energy use

**C**

It wastes energy by using too much internet and CPU power

**Is it a good practice to save data every second, even when nothing has changed?**

**A**

Yes, It makes the computer run faster

**B**

Yes, it saves energy because the program is working hard

**C**

No, it wastes energy and storage space



## How does using fewer images in a program help save energy?

**A**

It makes the program run slower, using more power

**B**

It doesn't change energy use

**C**

It makes the program load faster and use less memory

**What is the benefit of writing simple code instead of very long and complex code?**

**A**

There is no difference in energy use

**B**

Longer code always works better

**C**

Simple code runs faster and uses less energy

## What is a negative consequence of checking for updates often?

**A**

It makes updates happen slower

**B**

It doesn't matter how often updates are checked

**C**

It increases internet use and wastes energy

**If a mobile app runs in the background all the time, what does it do?**

**A**

It drains the battery faster

**B**

It makes the app run better while it can process data all the time

**C**

It doesn't use any energy

# How can you make a website load faster and use less energy?

**A**

Use fewer large images and animations

**B**

Add more code and effects

**C**

Check every second for updates

**What happens if you leave a game running on your computer while you are not playing?**

**A**

It still uses energy

**B**

It automatically stops using power

**C**

It makes the game run better

## Why does storing too much unnecessary data in a program waste energy?

**A**

More data means more processing power is needed

**B**

It helps save energy by reducing data processing time

**C**

Storing data does not consume any energy

## How does writing clear and organized code help save energy?

**A**

It helps computers process the code faster

**B**

It only helps programmers read the code

**C**

It doesn't affect energy use



**What happens when you use a lot of animations in a mobile app?**

**A**

It drains the battery faster

**B**

It makes the phone battery last longer

**C**

It has no effect on energy use

## How does using the right data structure in a program help save energy?

**A**

It makes the program use less memory and run faster

**B**

Complex algorithm make the code harder to understand and maintain

**C**

It has no effect on how the program runs

**What happens if a website keeps refreshing itself every second?**

**A**

It uses more energy and slows down devices

**B**

It improves the performance of the website

**C**

Nothing significant happens

## Why should you close tabs in your web browser when you're not using them?

**A**

It reduces memory and CPU usage, saving energy

**B**

It makes your screen look cleaner but doesn't save energy

**C**

It has no effect on power consumption

## How can turning off auto-play videos on your websites help save energy?

**A**

It has no effect on energy usage

**B**

It stops unnecessary video processing and saves power

**C**

It makes the website load slower

**Why is it a good idea to use fewer background processes in a program?**

**A**

It makes the program use less energy but run slower

**B**

It reduces CPU usage and saves battery life

**C**

Background processes do not affect battery life

## Why should you avoid using unnecessary libraries in your code?

**A**

It makes the program look more professional

**B**

It keeps the program lightweight, reducing memory usage and energy consumption

**C**

It has no impact on energy use

## Why does using too many sound effects in an app use more energy?

**A**

Sound has no effect on energy use

**B**

Playing sounds requires processing power

**C**

More sounds make the app run faster



## How can you make a game more energy-efficient?

**A**

Keep the game running constantly in the background to reduce startup time

**B**

Reduce unnecessary animations and effects

**C**

Increase the game's background processes for richer experience

## How does compressing images help software be more sustainable?

**A**

It makes images blurry, which reduces energy usage

**B**

Smaller images load faster and use less energy

**C**

It has no effect on energy consumption

## Why does reducing the number of times a program writes to disk save energy?

**A**

More disk writes always make programs run faster

**B**

Writing to disk takes power, so doing it less saves energy

**C**

Disk operations don't use any power, only calculations

**What happens if a mobile app constantly sends notifications?**

**A**

It makes the app faster

**B**

It drains battery faster

**C**

It doesn't use any energy

## What is the effect of reducing font styles on a webpage?

**A**

More fonts always make websites run faster

**B**

It makes the page load faster and use less processing power

**C**

It has no effect on webpage speed or energy usage

## What is the consequence of caching?

**A**

It significantly slows down the software

**B**

It saves data temporarily so it doesn't have to be loaded repeatedly

**C**

The program uses more energy

**Why is it better to use a single efficient function instead of repeating code?**

**A**

It makes no difference in performance

**B**

More code always runs better

**C**

It reduces processing power needed, saving energy

## Why does a dark mode option in apps and websites save energy on some screens?

**A**

Dark mode only uses less power on OLED and AMOLED screens

**B**

Dark mode doesn't affect power usage

**C**

Dark mode saves power on all screens



**What happens if a program keeps checking for internet connection every second?**

**A**

It doesn't use any extra energy

**B**

It helps the internet work faster

**C**

It drains battery and increases power usage

# Why is it important to keep your code efficient when working on large software projects?

**A**

Efficient code is easier to maintain, but has not other benefit

**B**

Efficiency doesn't matter as long as the program works

**C**

Efficient code uses fewer system resources, which helps save energy

## How does reducing the number of colors in an image help with energy efficiency?

**A**

Less colors mean less pixels are used on your screen, which reduces energy consumption

**B**

Image colors don't affect energy usage

**C**

It makes the image file smaller, reducing processing and storage needs

## What happens when a mobile app is poorly optimized?

**A**

The phone will be colder and slower, which reduces energy consumption

**B**

It doesn't affect battery life

**C**

It drains battery faster

## How does loading only the necessary parts of a webpage (lazy loading) save energy?

**A**

It prevents unnecessary data from loading, reducing processing power needed

**B**

It makes the website slower, and slower webpages use less energy

**C**

It has no effect on energy use

## Why does turning off automatic background syncing save battery life?

A

It prevents unnecessary data transfers that consume power

B

You won't get any updates from any app, which means you use the device less

C

Syncing doesn't use any power

## Why should you avoid using very large files in software?

**A**

Large files take more time and energy to load

**B**

File size has no effect on energy use

**C**

You shouldn't worry about this, computers are fast enough that you won't notice any significant downsides

**What effect does reducing screen refresh rate have on battery life?**

**A**

A lower refresh rate reduces energy use

**B**

A higher refresh rate always saves energy

**C**

Refresh rate has no effect on battery life



## How does reducing animation effects in a user interface help with sustainability?

**A**

It makes the software run slower, which automatically saves energy

**B**

It lowers CPU and GPU usage, saving energy

**C**

Animations don't use any power

**What happens if a software program loads everything at once instead of when needed?**

**A**

It makes the program more efficient and faster

**B**

It uses more memory and CPU, consuming more energy

**C**

It has no effect on energy consumption

# Why is it important to optimize database queries in software?

**A**

Complex queries use all available resources, making it more efficient

**B**

Efficient queries use less computing power and energy

**C**

Databases don't affect energy usage

## How does reducing background notifications help mobile battery life?

**A**

More notifications help the battery last longer

**B**

Fewer notifications mean less CPU and network usage

**C**

Notifications don't use any energy

## What is a good practice when making a website?

**A**

Include a large number of high-resolution images and scripts to enhance the user experience

**B**

Use efficient code and minimize resource-heavy elements

**C**

Make the website check for updates every second to keep the content fresh

## How does compressing files in software help?

**A**

Compression does not have any significant advantage

**B**

Compressed files are always harder to hack

**C**

Smaller files require less storage and processing power

## Why does running too many browser extensions increase energy use?

**A**

More extensions always make the browser more efficient, reducing energy

**B**

Extensions don't affect energy use

**C**

More extensions mean more background tasks using CPU power

## How does reducing the frequency of software updates help sustainability?

**A**

More updates always save energy, while software updates always improve the energy efficiency

**B**

Updates don't affect energy use

**C**

Fewer updates mean less data usage and processing power needed



## Why does limiting the number of times a mobile app accesses GPS help save battery?

**A**

GPS uses a lot of power, so using it less extends battery life

**B**

GPS doesn't affect battery life

**C**

Your phone rarely uses GPS, so it doesn't consume a lot of energy

## How does reducing cloud storage usage help sustainability?

**A**

Less data storage reduces energy used by data centers

**B**

Cloud storage doesn't use any power

**C**

More cloud storage always makes files load faster, and a faster program uses less energy

# Why should software developers focus on energy efficiency?

**A**

It helps reduce power consumption and environmental impact

**B**

It makes the software slower but more powerful

**C**

Energy efficiency doesn't matter in software, only speed!!!