Safety by numbers

We all worry about keeping our children safe online.

They grow up fast and the digital world changes even more quickly than they do, so getting the balance between giving them necessary online freedom and appropriate restrictions changes depending on age.

For toddlers

While some young children may have their own tablet (the most recent Ofcom survey suggests that a quarter of 3-4 year olds do), many others will be using a parent's phone or other device.

Activating safety features at every level is appropriate for this very young age group, starting with the safety settings on your broadband. It may be easiest to set up a separate profile for your child on shared devices, complete with apps and bookmarks that are age-appropriate, and a child-friendly search site such as Kiddle or Swiggle that will protect them from seeing anything inappropriate.

In a pinch, simply enable airplane mode on any device that you hand to your toddler so he or she can play safely offline, uncontactable by strangers.

For primary school children

Parental safety features are vital on devices for primary aged children, with apps such as Google Family Link and the iPhone privacy settings giving a large measure of control, backed up with broadband safety settings.

You should also disable in-app purchasing and geo-location on all apps.

Older primary school children are likely to request games that can be played socially, such as Roblox and Fortnite.

Check the PEGI rating (like a film rating for games) as well as the recommended age range. Add a parental PIN and lock-down the chat settings so they can only chat with known friends.

Make sure they know how to mute, block and report players if things do go wrong.

For tweens

Music and video-sharing apps are fun for hyper-connected tweens. But they can be a headache for parents, who must decide whether to allow children to defy the 13-plus age restrictions on many popular sites.

Safety stipulations should include ensuring accounts are private and accessible only to friends, so that no contact can be made with strangers and they can't be tagged.

Place time restrictions on individual apps and sites as well as restricting overall screen time for this age group.

Digital tools are no substitute for keeping the channels of communication open. Regularly stress that you are available to listen if your tweens experience anything that worries them and check their browser history and messages regularly.

For teens

The whole digital world opens up for teenagers, but that doesn't mean they don't need protecting.

Private, rather than public, social media accounts are appropriate for those aged 13-plus, while understanding the pitfalls around digital reputation is key. Searching for their name regularly to check in on their digital footprint will help them to maintain good habits, while you should also check their browser history.

Regulator Ofcom says that parents of teens find it hard to control their children's screen time, but by discussing the subject of digital wellbeing and agreeing daily limits on individual apps before enforcing them on phones and tablets, your teenagers can enjoy their digital freedom healthily.

Skills lab

Here are the lessons tech-savvy parents are teaching their kids

Have you felt a little at sea when teaching your children how to navigate the digital world? Have you realised that some of your children's peers can programme robots, but you aren't quite sure how to help your kids navigate their way around the latest, age-appropriate tech tools? Welcome to Vodafone's skills lab.

We're all aware of how important tech is. Debates over the positives and pitfalls of screen time for kids can be confusing: while more time on screens is linked to lower language development, high-quality educational screen content is actually associated with better language skills. Meanwhile, a professor at NYU has developed three games proven to boost cognitive skills. "We want to show that… these kinds of technologies can improve your cognitive function and can improve your learning," said Jan L. Plass.

But how do you choose the right ways to play? Apple's App Store alone features over 75,000 apps marked as 'educational'. How is a busy parent supposed to shift the 'need to knows' from the 'nice to haves'?

Help is at hand. We've drawn up a list of the apps and programmes you need for each stage of your child's development. These are things they'll not only love, but also ways to play that will also teach them the digital skills essential for their futures. This is the way to ensure that your child doesn't just play video games, use memes, and watch music videos, but that they become expert creators of them, too.

AGE 1
Caribu

One of Time Magazine's 'best inventions of 2019', this app allows families to select a book to share over a Caribu call. Kids see Granny's face as she reads and the pages of the picture book too.

caribu.com

Free app with in-app purchases

AGE 2
Augmented Reality

Does your child want a life-sized horse to join them in the sitting room? Click, learn and laugh as you amass a menagerie in your home.

arvr.google.com/ar

Free Google search application

AGE 3
Dream Learners

Inspired by research demonstrating that learning is most effective in the 90-minutes before sleep, and developed with Robert Winston, Professor of Science and Society at Imperial College London, this clever app contains animated bedtime stories to support the curriculum for 3-9-year-olds.

dreamlearners.com

Free app with in-app purchases

> ## The positives and pitfalls of screen time for kids can be confusing.

AGE 4
Loopimal

Create your own music using the sounds and cute animated creatures in the app's building kit while learning about computer sequencing and music composition too!

yatatoy.com/loopimal

£3.99 app

AGE 5
Scratch Jr

Small children can make characters move, jump, dance, and sing through this app's colourful and visual programming language, meaning they can become master coders before they've even mastered reading.

scratchjr.org

Free app

AGE 6
Toontastic 3D

Got a mini Michelangelo on your hands? This Google app allows kids to draw, animate and narrate their own 3D cartoon.

toontastic.withgoogle.com

Free app

AGE 7
Stop Motion Studio

Group sequential photos together to produce your own stop frame. Enlist toys as actors, friends to supply voice overs or soundtracks, and suddenly you have hours of self-directed fun.

cateater.com

Free app with in-app purchases

AGE 8
Minecraft: Education Edition

Last Spring, Minecraft created a new Education category in the Minecraft Marketplace. Tour the International Space Station or even the inside of a human eye. Even better, most of these worlds are entirely free.

minecraft.net/en-us/marketplace/education

Free app with most worlds free

AGE 9
Scribble

Banish boredom for good with this story-writing and illustrating app. Over 300 drawing tools, backgrounds, stickers, stamps and music, plus 35 'fill-in-the-blank' story starters are guaranteed to spark creativity.

app.scribblepress.com

£4.69 app

> ## High-quality educational screen content is actually associated with better language skills.

AGE 10
Google Cardboard

Google's cardboard viewer is the perfect, affordable gateway into virtual reality. Download the free Cardboard app, slip your phone into the viewer, and immerse yourself in landscapes from the Arctic to Paris.

arvr.google.com/cardboard

Google Cardboard Viewer: £12.30. Cardboard app: free.

AGE 11
Inshot

Perfect for mini movie-makers, this simple, colourful video editor enables kids to shoot and edit their own films, adding animated stickers and text, music and sound effects.

inshot.com

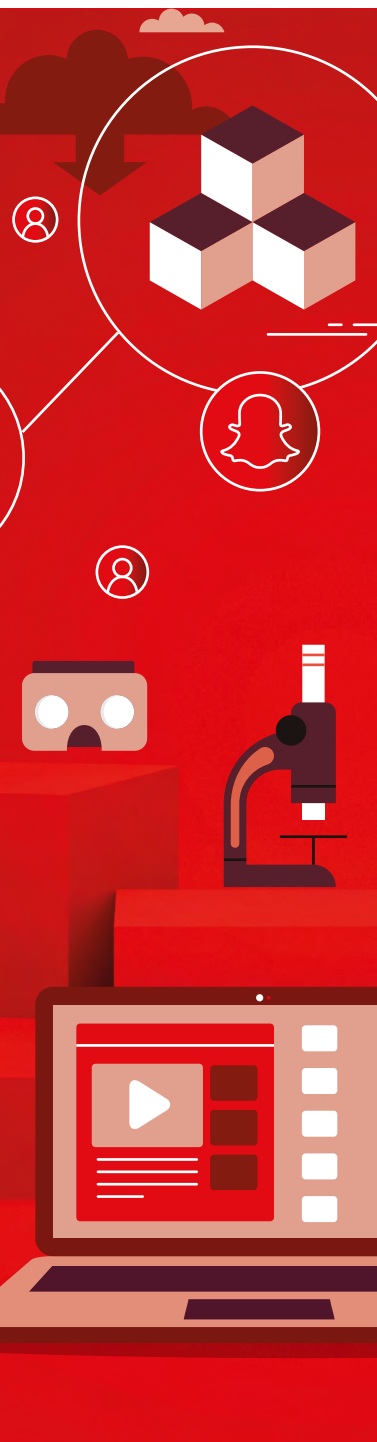Free app with in-app purchases

AGE 12
Edu

Not content to just view VR? How about building your own? CoSpaces' kid-friendly tools make it possible to build a 360-degree immersive environment, game or even interactive story. Sounds intimidating, but actually it's all drag-and-drop and there are tutorials on YouTube.

cospaces.io/edu

Free app with in-app purchases

AGE 13
Ninja Jamm

This music-making app is simple and has a serious cool factor, since it was launched by the Ninja Tune label. Remix or create new tunes using drum, bass, vocal and melody samples from artists like Bonobo and Mr Scruff.

ninjajamm.com

Free app with in-app purchases

AGE 14
UL Xplorlabs

Think science is boring? Think again. Xplorlabs is designed to get young teens inventing solutions to real-world problems. In the 'Fire Lab' module, teens work with real scientists through videos and interactive tools, to investigate the cause of a blaze.

ulxplorlabs.org/all-modules

Free online platform

AGE 15
Vidcode

Designed to appeal to teens, and especially teen girls, Vidcode gets them to code the things they love most (memes, Snapchat filters and music videos) using the tools they love most (their own photos and videos).

vidcode.com

Free online platform

AGE 16
Touchcast Studio

A wannabe TV presenter or YouTuber's dream, this app gives you a TV studio on your iPad. Get to grips with green screen technology, virtual sets, teleprompters and more.

touchcast.com/studio

Free app

AGE 17
Codea for iPad

Some successful and popular video games have already been developed using this slick, iPad-specific coding app which employs the Lua programming language. Tutorials and sample programmes help to get the ball rolling.

codea.io

App, £14.99

AGE 18
MIT App Inventor

Launched by the venerable Massachusetts Institute of Technology, there's everything here you need to build your own sophisticated and world-altering app in less than 30-minutes. No excuses, now...

appinventor.mit.edu

Free, cloud-based tool