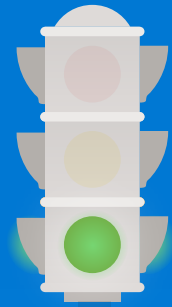# Empowering future-ready students

The fourth industrial revolution is fueling accelerated change in society and the workplace. Technology advancements, the rise of cloud, socio-economic and demographic changes are shifting expectations and placing new demands on society. While these changes hold great promise, education systems will need to respond to prepare their students for the future.

Today's students need to be empowered with access to the right tools, experiences, and learning opportunities to build the skills necessary to fuel the future. While students will still need 21st-century skills like collaboration, communication, critical thinking, creativity, and computational thinking, it's becoming increasingly important to equip students with the technology skills they'll need to thrive in a digital economy. Skills like cloud computing, artificial intelligence, machine learning, productivity, and more are already in demand in organizations around the world, yet our talent gap persists and is set to widen. More than half of today's jobs require technology skills, and in less than a decade, that number will grow to more than 77%. Together, we can make up the difference.
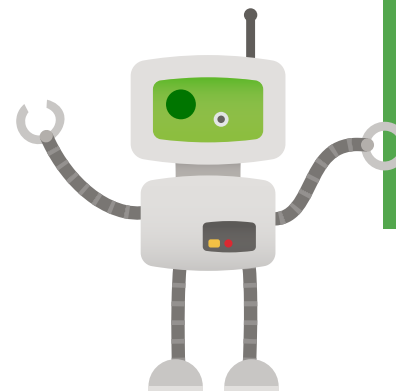
Why future-ready skills?

Microsoft's mission to empower every student on the planet to achieve more is a commitment to do more to support students, and educators from K-Career to be ready to innovate and create in an increasingly digital world.

Our focus extends to ensure we not only grow the number of students equipped with technology skills, but also do more to grow student diversity and fuel careers in technology. Microsoft offers end-to-end products, partners, content and curriculum that help educators ignite their students' interest and ready them for the future. With affordable and free products, lessons, and resources—backed by globally adopted training and support and industry recognized certifications—educators can empower every student to succeed in school, employment, and life.

To empower students to be future-ready, Microsoft supports by:

1. Supporting educators in teaching new technology concepts

2. Educating students to be future-ready with technology skills

3. Empowering institutions with curriculum and certification

4. Connecting institutions with corporations to support student employability

Microsoft's K-Career Student Pathway

1 Spark curiosity with STEM, and computer science, and give purpose to learning

2 Extend productivity skills and grow competence in emerging technology concepts

3 Drive employability with role-based, technical skilling and industry recognized certification

Spark curiosity with STEM, computer science, and give purpose to learning

Students today are eager to change the world and solve some of the planet's biggest challenges. The start of their learning journey is an important time to ensure they are inspired, engaged, and feel connected to what they are learning. As the world moves to digital, students need to be introduced to technology tools and concepts that will spark their interest in STEM and computer science. It's about engaging a diverse student population early and encouraging all students to begin their journey to learn these fundamental skills.

Minecraft: Education Edition
A collaborative game-based learning platform that engages K-12 learners in STEM and computer science, Minecraft: Education Edition helps students build 21st century skills like creativity, problem solving, and computational thinking. And with features like Immersive Reader built into Microsoft technology, educators can truly give each student an opportunity to participate.

Microsoft MakeCode

Bring computer science to life for all students with fun projects, immediate results, and both block and text editors for learners at different levels. MakeCode is a new approach to computing education that combines the magic of making with the power of code, in a way that engages students of all backgrounds in computational thinking through creative, hands-on experiences. MakeCode supports physical computing with products like the micro:bit, robotics with LEGO® MINDSTORMS®, and game development with MakeCode Arcade.

Hacking STEM

By bringing inquiry and project-based activities and lessons to life, the Hacking STEM program provides low-cost, interactive STEM lesson plans for elementary and middle school students. The lessons enable students to solve real-world problems, be curious, and creative while collecting and analyzing real-time data through the integration with data streamer in Excel.

To get started, visit: aka.ms/edustem

Extend productivity skills and grow competence in emerging technology concepts

Students today are increasingly curious about the changing world and understanding the role technology can play to make a positive impact on society and the environment. As technology starts to play a larger role in their every day life, they also become aware of the skills they need to develop and build on to keep up with the pace of change. As students' progress through their academic years, it is important that they extend learning with productivity tools that will become the foundation for much of their career, as well as expand their interest in STEM into technologies like Cloud, Artificial Intelligence, Data and other emerging technologies to come.

Microsoft Office Specialist Certifications

A study from IDC Research showed that Office productivity skills ranked as the third top skill after a search of more than 5.4m available jobs. Students who understand how to use core productivity tools not only become more productive, but also learn key skills like collaboration and creativity. To support students with skilling up, and validating their skills, Microsoft provides students access to Office 365 and Office 2019 exams, which have been mapped to one set of revised objective domains to reflect the skills required in today's modern workplace. Available exams include Word Associate, Excel Associate, PowerPoint Associate, Outlook Associate, Access Expert, Word Expert, and Excel Expert.

Microsoft Office Specialist (MOS) World Championship

The Microsoft Office Specialist (MOS) World Championship presented in collaboration with Certiport, Inc., is a global competition for students ages 13-22 to test skills, accuracy, and speed on Microsoft Office Word, PowerPoint, and Excel (2016 or O365/2019). Students are invited to compete and represent their respective countries at the annual World Championship. In many countries or regions, students are able to compete in a national championship and the winners of that contest move on to compete at the world finals. Through the MOS Championship — now in its 18th year — students earn international recognition in the largest competition of its kind, attracting more than 1 million exam entries each year.

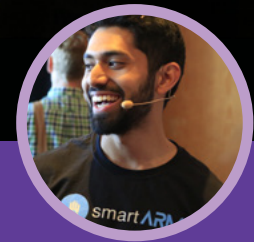Learn more at: aka.ms/moswc

Microsoft Imagine Cup

For nearly two decades, students from around the world have participated in Microsoft's global technology competition, the Imagine Cup, to bring their unique tech solutions to life. Imagine Cup is for student developers aged 16+, giving them the opportunity to build purpose-driven applications with Microsoft Azure technology to tackle some of the world's biggest social, environmental, and health challenges. Imagine Cup provides the opportunity to collaborate with other students, network with professionals, gain new skills, make a difference in the world around you, and have a chance to win travel, mentorship, and prizes.

Learn more at: www.imaginecup.com

Microsoft Imagine Cup Junior

Imagine Cup Junior is an new extension to Imagine Cup, encouraging students aged 13 to 18 to become the changemakers of tomorrow and begin their journey to learn about technology and how it can be used to change the world around them. This global challenge is focused on Artificial Intelligence, introducing students to Microsoft's AI for Good initiatives so they can come up with ideas to solve issues that matter to them. It's also a great opportunity to encourage students to develop and practice 21st century skills like communication, collaboration, critical thinking, and creativity.

Learn more at: www.imaginecup.com/junior

> "
> Imagine Cup was an incredible opportunity and definitely opened up lots of doors. I would highly recommend it for students from all over to give it a shot. You never know how far you'll go."
>
> **SAMIN KHAN FROM TEAM SMARTARM**
> *2018 World Champion*

Azure for Students

Students today are eager to get hands-on with technology and build for the future. With Azure for Students, eligible students aged 18 and over (16 in the United States) can start building apps, explore AI, and make the most of big data with access to more than 25 free Azure services plus $100 in Azure credit, renewable annually without the need for a credit card.

Learn more at: aka.ms/azureforstudents

To support younger students as they start their journey to learn cloud technologies, Azure for Student Starter is available to ensure students aged 16 and over (13 in the United States) can get access to some Azure services and developer tools.

Learn more at: aka.ms/azureforstudentsstarter

Drive employability with role-based, technical skilling and industry-recognized certification

The cloud skills gap is forecast to be the largest and most impactful of all talent shortages. Organizations around the world face the potential for roles to remain unfilled as the search for workforce-ready talent with the right skillsets becomes more difficult. Microsoft provides a number of programs designed to support and cultivate student interest in technology and support their employability.

Microsoft Learn

Microsoft Learn provides self-paced, digital learning resources as a means to prepare for in-demand jobs, re-skill, up-skill and prepare for role-based certifications. The learning resource provides step-by-step, bite-sized tutorials and engaging modules that are available online and support technology proficiency from beginners to advanced learners. The learning paths have interactive labs, sample code and free product test-drives. Students and educators can access Microsoft technology-specific skills resources via Microsoft Learn at any time, with recommended learning pathways to help them move through the role-based educational journeys.

Learn more at: aka.ms/learn

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Microsoft Fundamental and Role-Based Certifications

Microsoft certifications help validate knowledge and ability required to perform current and future industry job-roles in a modern digital environment. Microsoft has developed entry-level Fundamental Certifications along with Role-Based Certifications to support students in getting certified for the technical skills needed to be successful across a variety of careers. These exams are regularly updated to reflect the pace of change and set the path for continuous learning opportunities once certified.

Learn more at: aka.ms/learncert

AI Business School

The Microsoft AI Business School is a series of learning paths for non-technical audiences that share insights and practical guidance from top executives in the industry on how to strategically apply AI in an organization. Course materials include written case studies and guides, plus videos of lectures, perspectives, and talks that students can access as a complementary part of their course. The AI Business School is a great resource for students to learn about applying AI to industry, along with considerations for sales, marketing, culture, and responsible AI application across industries like manufacturing, healthcare, finance, government, retail, and education.

Learn more at: aka.ms/aibs

GitHub

GitHub Education helps students, teachers, and schools access the tools and events they need to shape the next generation of software development. With programs such as the GitHub Student Developer Pack, GitHub Campus Program, GitHub Classroom, and other resources, students and educators can take advantage of solutions that will meet their needs.

Learn more at: https://education.github.com/

Institutional Offerings

While there are many opportunities for students to engage in their own learning, Microsoft also provides institutions and schools access to offerings to support scalable programs, curriculum and tools to enhance skill development.

Microsoft Certifications

Microsoft provides academic pricing and bulk procurement of Microsoft Certifications via volume licensing. Available in multi-exam packs to allow institutions to self-serve and choose different types of certifications to make available for members of their entire school community (students, educators, staff—also parents in K-12), the volume license SKUs provide a great way to procure exam vouchers in bulk and take advantage of convenient, flexible, discount pricing features of volume licensing for exams.

Learn more at: aka.ms/learncert

Microsoft Educator Center

Through the Microsoft Educator Center (MEC), educators can access learning paths and online modules to learn about the latest technologies and their application in learning environments. The MEC also provides knowledge checks to showcase proficiency in skills from teaching with technology to 21st century learning design. From learning about Teams, OneNote, Office 365, AI and more, the MEC is a helpful guide for educators to skill up and incorporate new ideas into classroom curriculum.

Learn more at: www.education.microsoft.com

Microsoft Imagine Academy

Microsoft Imagine Academy (MSIA) provides students and educators with industry-aligned curriculum and certifications to build competencies and validate skills for high-demand technologies. Students gain valuable skills for college and careers that will help them succeed in a tech-driven economy. Microsoft Imagine Academy offers educator guides, lesson plans, and student materials all contained in an easy-to-access OneNote pack. The curriculum also helps educators skill up on teaching new technologies, like Cloud, Data, and AI, in addition to Microsoft's Office 365 suite. Much of the curriculum has also been mapped to some of the most popular education standards to help educators easily understand applicability and inclusion into their existing coursework. MSIA is available through Microsoft's academic volume licensing.

Learn more at: aka.ms/imagineacademy

Azure Dev Tools for Teaching

Azure Dev Tools for Teaching is a subscription-based program which provides access to tools commonly used in STEM programs, including professional developer and designer tools available to both faculty members and students. In addition to these tools, users also have access to beta releases, new releases, and technical support. Azure Dev Tools for Teaching is available to institutions via volume license agreements or directly online.

Learn more at: aka.ms/adt4t

Azure Lab Services

Azure Lab Services is a tool to easily enable educators to set up and provide on-demand access to preconfigured virtual machines (VMs) to support classroom scenarios in Higher Education. Through these Virtual Classrooms they can teach a class, train professionals, run a hackathon or a hands-on lab, and more.

Learn more at: aka.ms/azlabs

LinkedIn Learning

LinkedIn Learning is an online learning platform that combines the industry-leading content from Lynda.com with LinkedIn's professional data and network. With over 14,000 courses taught by industry experts, LinkedIn Learning provides online training to supplement an institution's existing curriculum and help create more career-ready students across multiple different disciplines. Leveraging the Linkedin platform in such a way also helps students build their online resume and provides added interest for students looking to institutions who are innovating with new learning modalities. LinkedIn Learning may also be a key element for a school or campus professional development initiative providing both technical and non-technical course subjects and titles for learners across the teaching and administrative staff.

Learn more at: https://www.linkedin.com/learning

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2 Educating students to be future-ready with technology skills

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