Intel® Skills For Innovation Initiative

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Computational Thinking
Programming & Coding
Social-Emotional Skills
Design Thinking
Simulation & Modeling
Data Science
AI & Machine Learning

Intel® **Skills for Innovation**

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Your costs and results may vary.

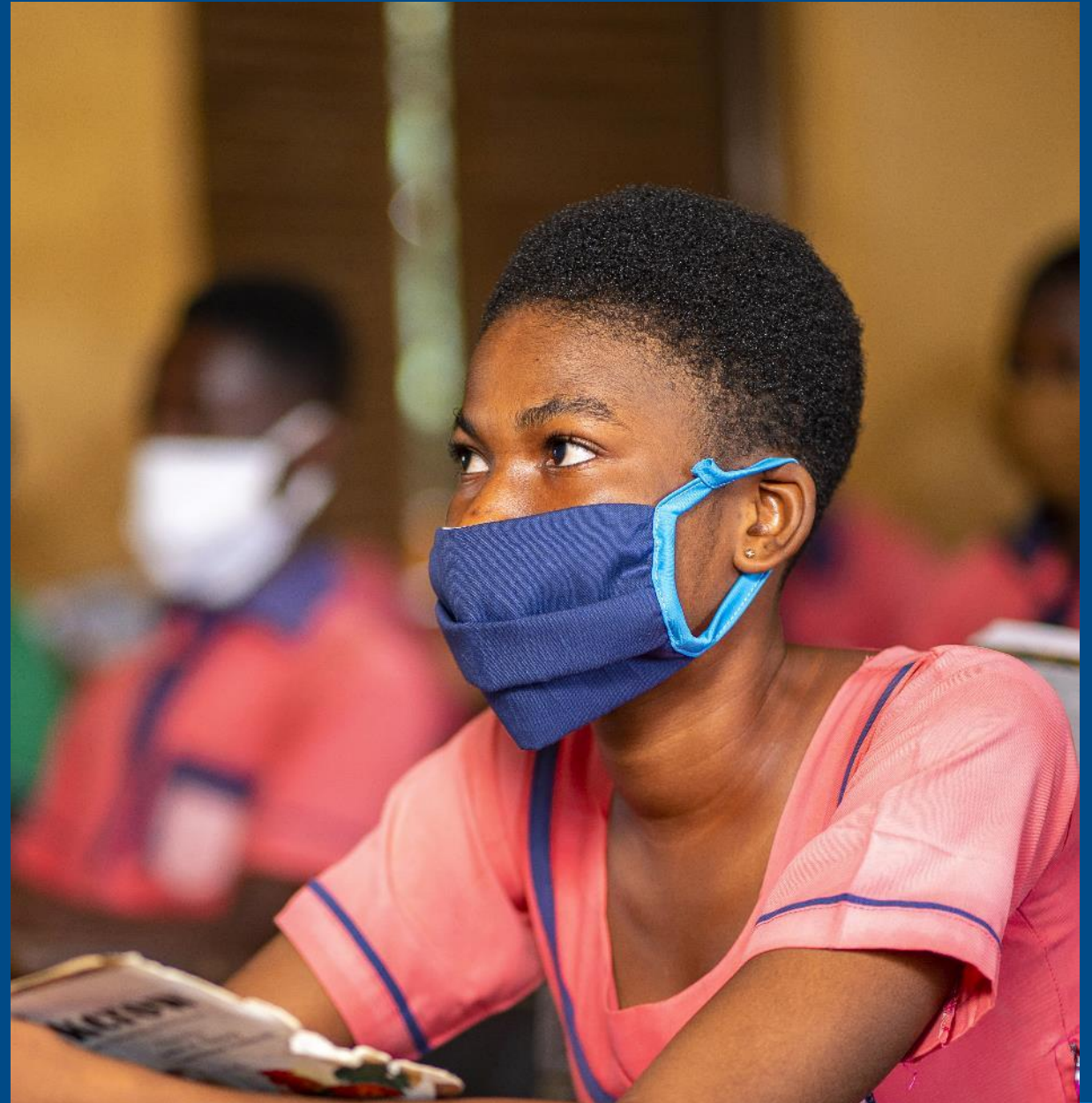No product or component can be absolutely secure.

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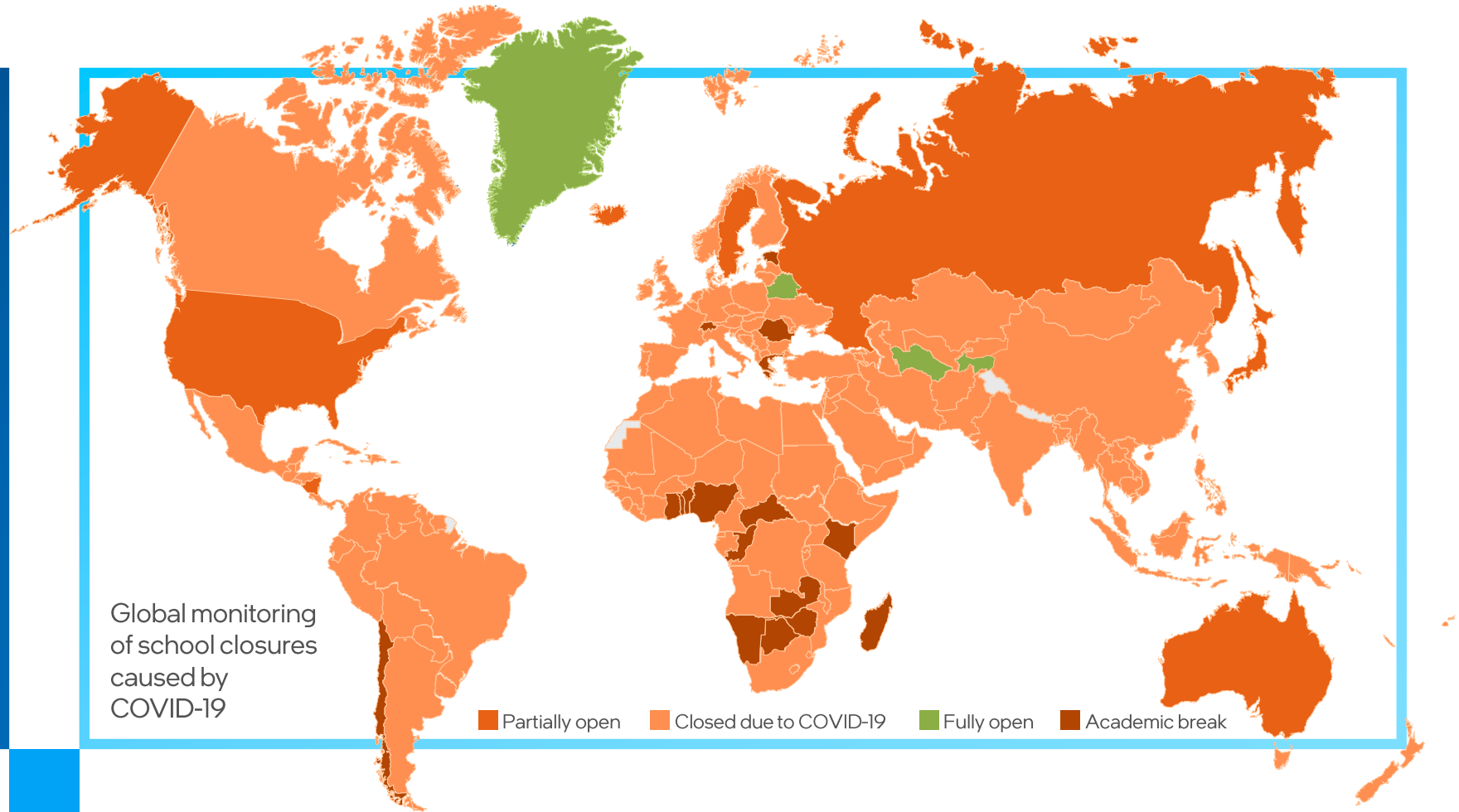Intel® Skills for Innovation

The Pandemic Impact

2020/2021: Challenging Years

1,470,000,000
affected
learners

161
country wide
closures

UNESCO

Global monitoring
of school closures
caused by
COVID-19

■ Partially open ■ Closed due to COVID-19 ■ Fully open ■ Academic break

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4

Emerging Priorities for Education Decision Makers

COVID-19 caused school closures impacted over **1.5B** students worldwide.

Approximately 463 million students, **1 in 3**, lack adequate access (digital or broadcast) for distance learning [1].

Focus on building resilient education systems (end-to-end)

Widespread adoption of technology by all educators

Evolving role of teachers and new learning modalities (flipped classroom, etc.)
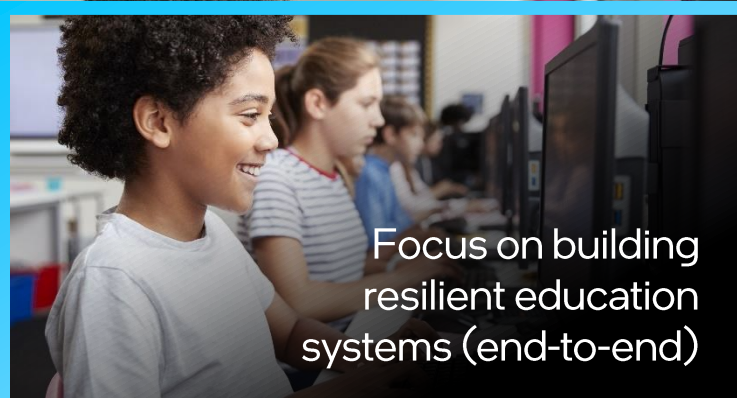
The Learning loss of 2020 will impact countries GDP by up to 1.5% for the rest of the century. [2]

Sources: 1. https://data.unicef.org/resources/remote-learning-reachability-factsheet/ 2. https://www.oecd.org/education/The-economic-impacts-of-coronavirus-covid-19-learning-losses.pdf (page 12)

Plan for
the Future ...
NOT the future
Pandemic

Economic, Technology & Societal Trends Impacting Education Now and, in the Future,

Acceleration of the Digital Economy

Covid-19 pandemic **accelerated and brought forward the digital transformation of companies** by up to

7 years

in just a few months[1]

Working from Anywhere, Competing in a Global Marketplace

More than

80%

of organizations surveyed plan to permit employees to **work remotely** at least part of the time going forward[2]

The Race for Artificial Intelligence

88%

of SMBs and

80%

of large companies say AI technology helped their company during the COVID-19 outbreak.[3]

Fourth Industrial Revolution Driving Massive Changes in Jobs & Skills Requirements

With the 4rth Industrial Revolution, labor markets are transforming[4]

85 million

Declining roles, global change by 2025

97 million

Emerging roles, global change by 2025

Need for Equity in Education

60%

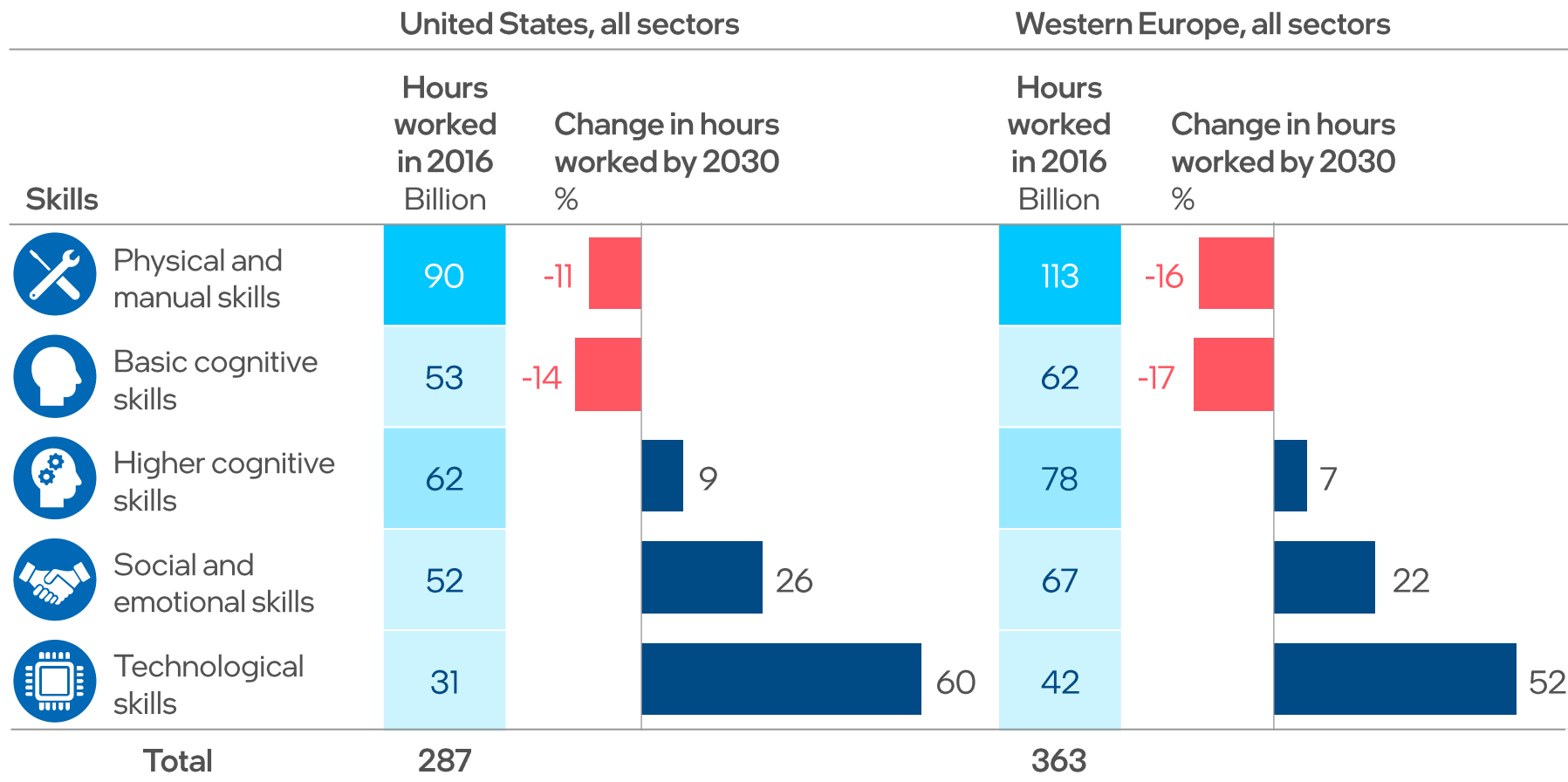of low-income students regularly log into online instruction[5] vs.

90%

of high-income students[5]

1. mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever; 2. hrdive.com/news/gartner-over-80-of-company-leaders-plan-to-permit-remote-work-after-pande/581744; 3. info.kpmg.us/news-perspectives/technology-innovation/thriving-in-an-ai-world/ai-adoption-accelerated-during-pandemic.html; 4. Saadia Zahidi et al. The Future of Jobs Report 2020 (World Economic Forum, 2020) www3.weforum.org/docs/WEF_Future_of_Jobs_2020.pdf
5. mckinsey.com/industries/public-and-social-sector/our-insights/covid-19-and-student-learning-in-the-united-states-the-hurt-could-last-a-lifetime

The Future Demands a New Set of Skills

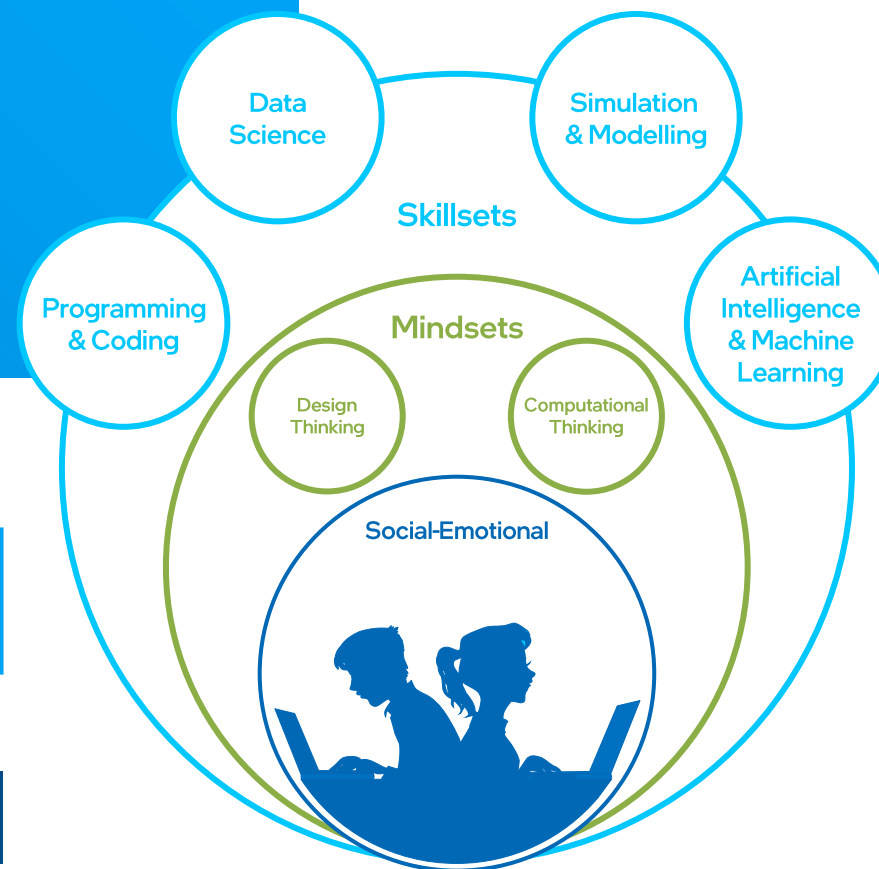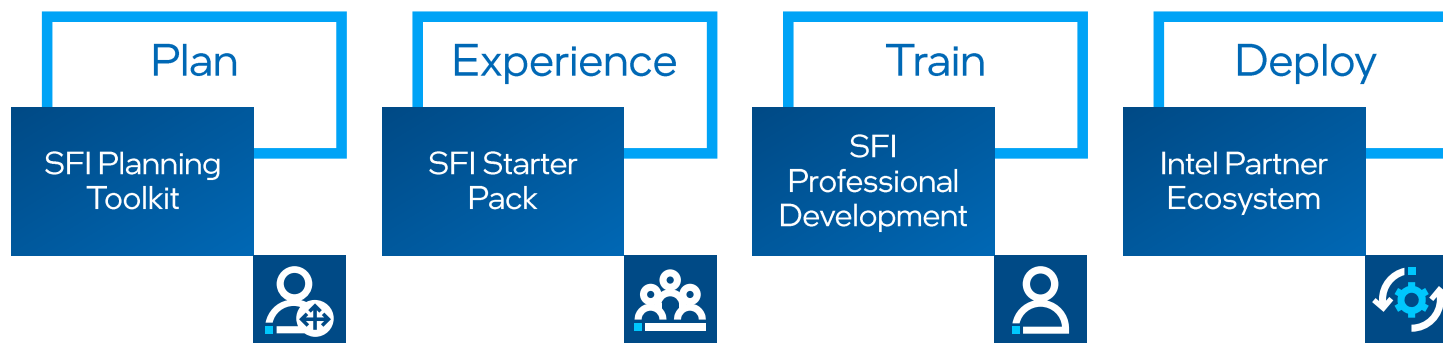| Skills	United States, all sectors		Western Europe, all sectors	
	Hours worked in 2016 Billion	Change in hours worked by 2030 %	Hours worked in 2016 Billion	Change in hours worked by 2030 %
Physical and manual skills	90	-11	113	-16
Basic cognitive skills	53	-14	62	-17
Higher cognitive skills	62	9	78	7
Social and emotional skills	52	26	67	22
Technological skills	31	60	42	52
Total	**287**		**363**	

Intel® Skills for Innovation Initiative

Reinventing Technology's Role in Education to Empower Students to Become the Next Generation of Innovators

Intel® SFI goals:

- Reinvent the role of technology to improve education system resilience
- Use technology to foster students' higher-order thinking and skills development
- Use technology to apply curriculum concepts and tie to real-world problem solving

Adoption Framework & Programs

Plan	Experience	Train	Deploy
SFI Planning Toolkit	SFI Starter Pack	SFI Professional Development	Intel Partner Ecosystem

Skillsets
- Data Science
- Simulation & Modelling
- Programming & Coding
- Artificial Intelligence & Machine Learning

Mindsets
- Design Thinking
- Computational Thinking
- Social-Emotional

Targeted Mindsets & Skillsets

Intel® SFI Planning Toolkit
For Decision Makers

1

Designed to equip decision makers with the tools to understand the near-term, medium-term, and long-term trends impacting education so that they can plan for a more resilient education system.

Planning Workbook

The Intel SFI Planning Toolkit includes a workbook that is continuously being updated and expanded. Currently the planning workbook consists of five chapters:

Chapter 1: The Future of Education

Chapter 2: Adopting A New Vision for Education

Chapter 3: Enhancing Education System Resilience

Chapter 4: Bridging the Industry Skills Gap

Chapter 5: Developing an Action Plan

Facilitated Workshops/Webinars

One-to-three-hour workshops are available, either in person or virtually, by experts to facilitate the planning process and customize the contents to fit your needs

Exercise 1: Trends Identification & Selection

Exercise 2: Futures Triangle/SMART Goals

Exercise 3: Resilience Self-Assessment

Exercise 4: Technology for Skill Building

Exercise 5: Creating an Action Plan

## Anticipate, Prepare, Respond, and Adapt to Future Changes

Intel® SFI Starter Pack
For Educators & Students

2

Lead digital learning experiences and facilitate future skill-building

A growing library of pre-designed, technology-infused activities covering a wide range of grades and subjects. These activities—currently 70, providing 140 hours of content—cover STEM, language, and humanities, and gradually increase in complexity to build students' mindsets and skills as they move to higher grades.
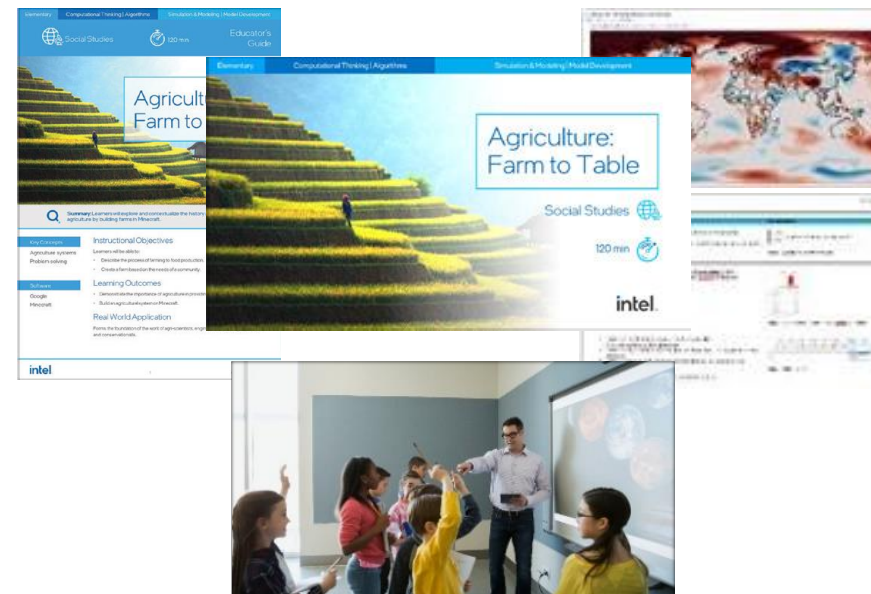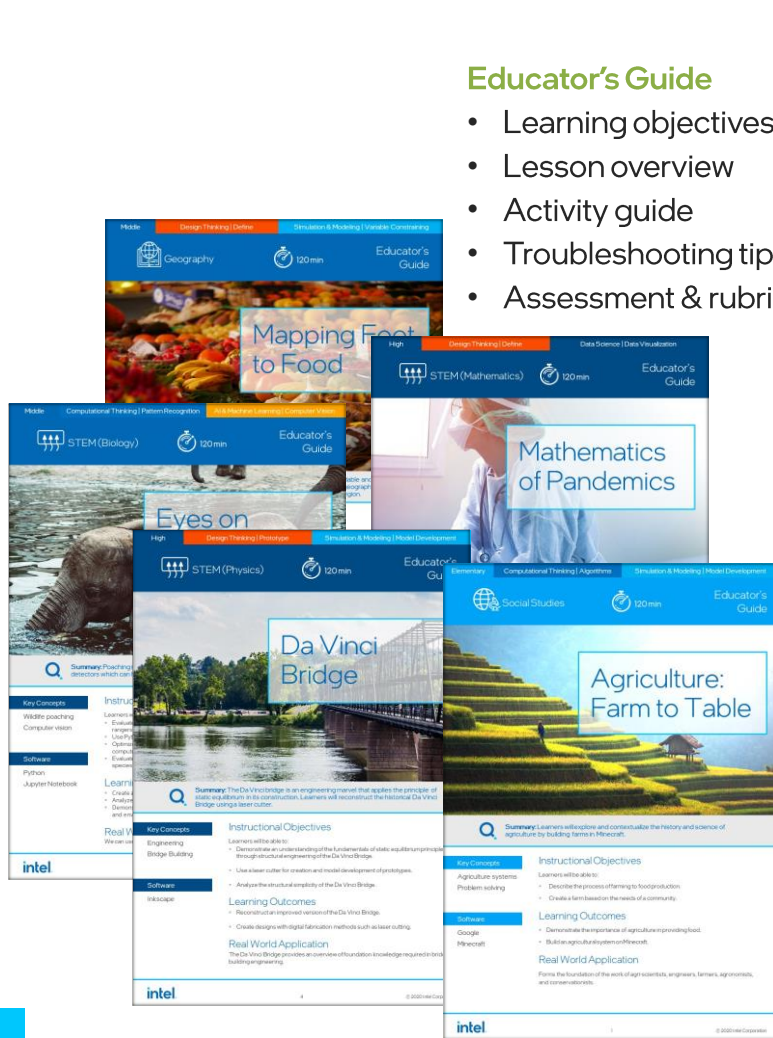

Enable Educators to effectively integrate Technology in Education to build their students future-ready mindsets and skillsets

Intel® SFI Starter Pack Components

Educator's Guide

- Learning objectives
- Lesson overview
- Activity guide
- Troubleshooting tips
- Assessment & rubrics

Teaching Deck

- Introduction to topic
- Hands-on activities
- Guided learning
- Discussion topics
- Reflection

Working Files

- Worksheets
- Installation guides
- Applications
- Source files or codes
- Data sets

3 Intel® SFI Professional Development

For educators

Goal

Achieve student readiness for the 4th Industrial Revolution and beyond.

Mentor 4

Mentor Upgraded Mindsets

Introduce educators to the upgraded mindsets that are essential for students to thrive in the 4th Industrial Revolution and successfully navigate unknowns of tomorrow.

Catalyst 3

Catalyst of Creative Confidence

Enable educators to reimagine learning experiences with technology to empower students to become confident innovators.

Owner 2

Leader of Learning Experiences

Help educators transition from being content experts to becoming effective owners and leaders of learning experiences in anywhere learning scenarios.

Adapter 1

Adapter of Technology

Support educators who are new to technology in building a strong foundation for basic digital fluency through a mix of F2F and supervised, online modules.

New Professional Development Suite

Intel® SFI Professional Development provides more than 80 hours of e-learning and in-person workshops and uses a model consisting of four levels that transition educators from adapters of technology to mentors of innovation.

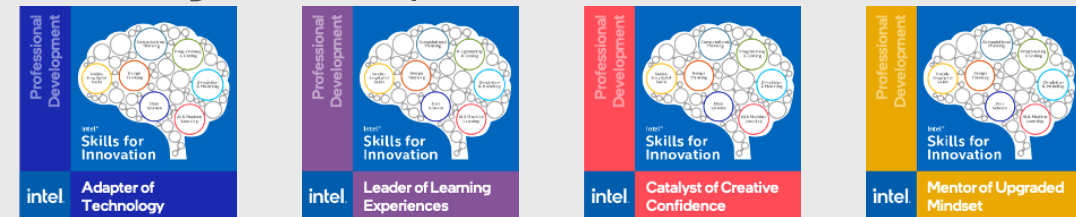## Get Educators Ready for the Future of Education

Intel SFI Educator Certification

- A Course Certificate of Completion is awarded to educators who complete each course. To complete each course, educators will have to complete all courselets and tasks assigned.

- A Level Certificate of Completion is awarded to educators who complete all courses within a level.

- Badges are also awarded to educators who complete courses and levels. These badges can be shared on social media and digital portfolios.

Skills for Innovation Certificate of Completion

Firstname Lastname
School Name

Adaptor of Technology Level 1 Completed

Skills for Innovation Certificate of Completion

Firstname Lastname
School Name

Catalysts of Creative Confidence Level 3 Completed

space for date

Skills for Innovation Certificate of Completion

Firstname Lastname
School Name

Leaders of Learning Experiences Level 2 Completed

space for date

intel.

Skills for Innovation Certificate of Completion

Firstname Lastname
School Name

Mentors of Upgraded Mindsets Level 4 Completed

space for date

intel.

Level Badges – On completion of each level

Adapter of Technology

Leader of Learning Experiences

Catalyst of Creative Confidence

Mentor of Upgraded Mindset

* Each course contains 3 courselets

Thank You