K-12 BLUEPRINT

The Right Chromebook for Virtual Learning	Commissioned by Intel®	**intel**
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The Right Chromebook for Virtual Learning

How processor performance affects teaching and the demands of online learning

Executive Summary

Accomodating the needs of all stakeholders for meaningful virtual, online, and hybrid teaching and learning experiences presents many challenges. In order to reduce equity gaps by equipping students and educators with the tools they need to be successful, many school districts have selected Chromebooks* as their preferred device. However, given the ever-increasing number of devices and configuration options available, selecting the right Chromebook for students and educators can be tough. This study explores how Chromebooks with processors powered by Intel® technology save important teaching and learning time.

Using authentic examples of curricular and instructional practices that rely on Android* applications to complete complex tasks, this study provides specific test results and recommendations for school and district leaders to help them make informed decisions to meet the needs of students and educators. By exploring Intel®-powered Chromebooks and typical applications used in K-12

education through realistically modeled scenarios, we discovered compelling data around the effects processor speed has on the amount of learning time saved while multitasking.

Educators Professional Development	**Virtual Reality Professional Development** Learning skills addressed: Graphic Design, Digital Content Creation, Digital Communication and Collaboration
Middle School	**3D Design and Print** Learning skills addressed: Simulation and Modeling, Design Thinking, Digital Content Creation, Digital Communication and Collaboration
High School	**Digital Publication Project** Learning skills addressed: Design Thinking, Graphic Design, Video Production, Digital Content Creation, Digital Communication and Collaboration

Read the Full Report
Download the full report online at the **K-12 Blueprint** website

Key Findings

1

Devices powered by Intel® technology allow students and educators to complete complex learning tasks using educational Android* applications faster than devices with MediaTek* or AMD* processors.

2

Processors powered by Intel® technology save important teaching and learning time by reducing delays and allowing students and educators to spend less time waiting for the processor to keep up with learning that requires multitasking.
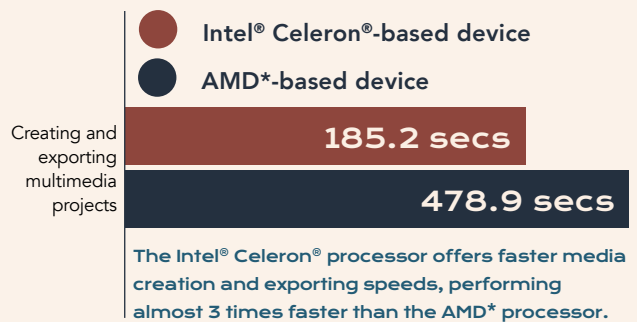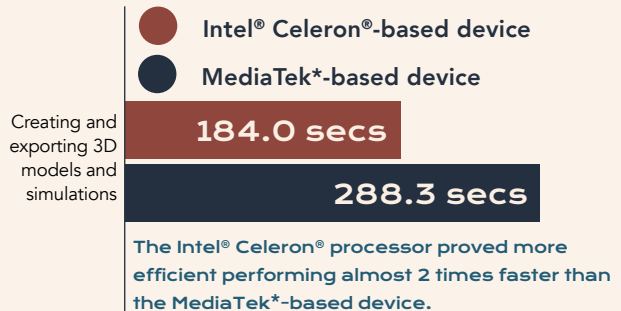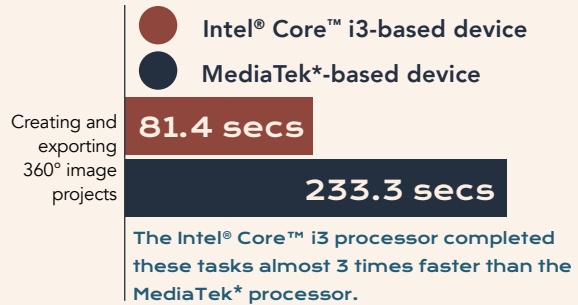
3

When testing the processing time for using Android* applications to complete learning tasks, we discovered significant differences in processor speeds, with the Intel® Core™ i3-based device performing in some cases two to three times faster than devices with MediaTek* or AMD* processors.

4

During the four-year life of a device, those powered by Intel® technology save, on average, $1900 and approximately 40 hours of learning time over devices powered by MediaTek* or AMD* processors.

5

For multitasking and completing more complex tasks like creating and exporting 360° image projects and building and exporting 3D models and simulations, the Intel® Core™ i3-based device offers faster processing and a more efficient and seamless user experience.

● Intel® Core™ i3-based device
● MediaTek*-based device

Creating and exporting 360° image projects

81.4 secs

233.3 secs

The Intel® Core™ i3 processor completed these tasks almost 3 times faster than the MediaTek* processor.

● Intel® Celeron®-based device
● MediaTek*-based device

Creating and exporting 3D models and simulations

184.0 secs

288.3 secs

The Intel® Celeron® processor proved more efficient performing almost 2 times faster than the MediaTek*-based device.

● Intel® Celeron®-based device
● AMD*-based device

Creating and exporting multimedia projects

185.2 secs

478.9 secs

The Intel® Celeron® processor offers faster media creation and exporting speeds, performing almost 3 times faster than the AMD* processor.

Choosing the Right Device for Virtual Learning

Planning for Virtual Learning

The Right Windows* Device for Virtual Learning

intel.