



New effort embeds music into math, science lessons



Greg Toppo, USATODAY 3:41 p.m. EDT April 27, 2016



Jazz pianists Vijay Iyer, left, and Herbie Hancock share a laugh before unveiling of new music, math and science curriculum at the U.S. Department of Education in Washington on Tuesday.

(Photo: Greg Toppo, USA TODAY)

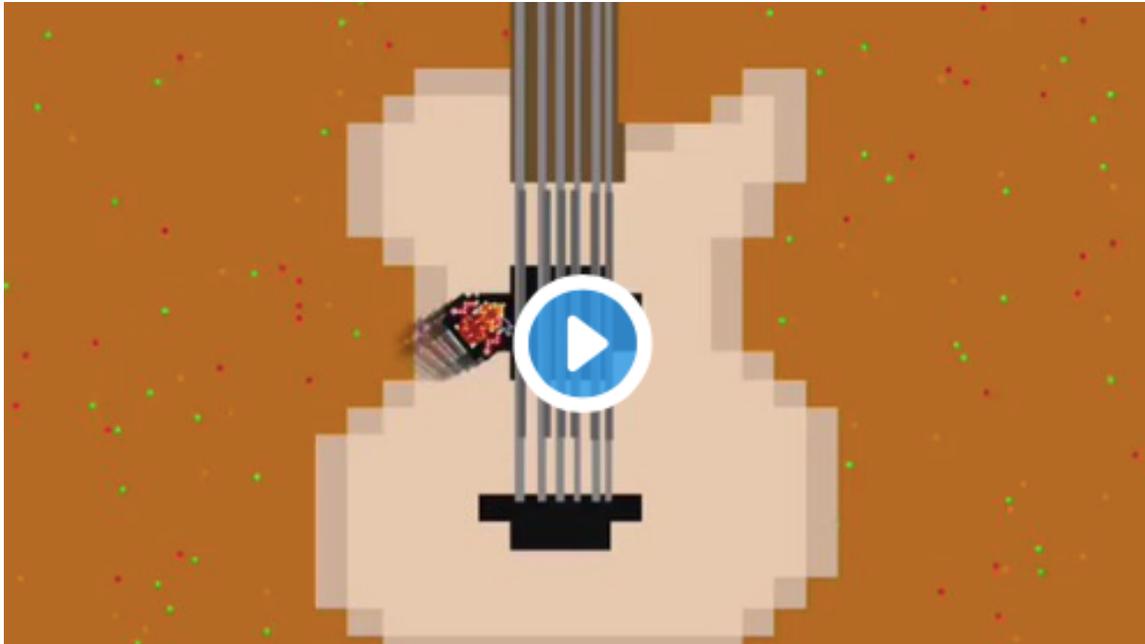
WASHINGTON — U.S. Education Secretary John King on Tuesday doubled down on his effort to support a well-rounded education for the USA's schoolchildren, unveiling [a curriculum that embeds music](#) into math and science lessons for millions of kids.

The curriculum was designed by the [Thelonious Monk Institute of Jazz](#), with an interactive online tool built by New York University's [Music Experience Design Lab](#).

To preside over the unveiling, King brought in a large group of science, math and music educators, as well as legendary jazz pianist and composer Herbie Hancock, who said young people live in “a world that now, more than ever, needs more creativity and innovation and less anger and hostility to help solve the challenges that we have to deal with every single day — and those that we will be facing in the future.”

The curriculum, available online, follows King’s admission in speeches earlier this month that No Child Left Behind (NCLB), the federal education law aimed at improving students’ math and reading skills, has, in many instances, robbed kids of a full, rich, well-rounded education.

Critics of NCLB have for years pointed out that it often resulted less a commitment to better instruction than a rush to routine test prep and a narrowing of schools’ once-broad curricula. One study found that as



Scratch Team
@scratch



Celebrate [@IntlJazzDay](#) (4/30) by creating music projects with [#Scratch!](#) scratch.mit.edu/studios/199978...

1:36 PM - 22 Apr 2016

↩️ ↺️ 33 ❤️ 38

early as 2004, about one in four school districts nationwide had reduced instructional time in social studies to make more room for reading and math lessons. One in five said it was cutting back on science, art or music.

On Tuesday, King said an education steeped in the arts “helps to develop whole people.”

“I think we have to acknowledge that at times, particularly over the last few years, the conversation about English and math, and closing the gaps in English and math, has led some to make the mistaken conclusion that what we need to do to close those gaps is to do less science, less social studies, less of the arts, socio-emotional learning, less time on world languages — and that’s exactly backwards,” he said.

Students who have strong experiences in the arts, King said, “are going to do better as readers. They’re going to do better in math, they’re going to do better across the disciplines.”

The curriculum looks at music through a different lens, pushing students to consider its mathematical properties.

“When you’re keeping time, you’re doing math,” said University of California-Berkeley researcher Jeanne Bamberger.

Jazz pianist Vijay Iyer, who teaches at Harvard and has led a group of researchers studying music and cognition, said he’s fascinated by what happens in both listeners’ and musicians’ brains when people are making music. He recalled a conversation with fellow pianist Randy Weston, who got him thinking about questions such as, “Why do we have music?”

Iyer added: “I think this is something that every artist is interested in. You want to know what it is that you’re doing. Why is it that you can blow into a tube and make someone cry? It’s kind of amazing, isn’t it?”

Hancock said technology must help us re-examine how we teach young people and find a new way to get the job done.

“The 21st century is not anything like the other ones,” he said. “This is very different, and we’re seeing a new kind of human being bringing themselves into the world.”

Follow Greg Toppo on Twitter: [@gtoppo](https://twitter.com/gtoppo)