

Case study

South Fayette Township School District



STEAM leader chooses HP Revolve for 1:1 program

Industry

K-12 Education

Objective

- Develop national model of project-based learning emphasizing computational thinking and digital literacy
- Level access playing field for 1,600 middle school students
- Provide flexible device powerful enough for coding and programming
- Enable mobile access to assignments and digital textbooks

Approach

- Integrate technology into the classroom, including 1:1 program providing every middle school student with an HP EliteBook Revolve 810 Notebook
- Equip labs with powerful HP desktop devices for demanding media and CAD applications
- Provide accidental damage protection with HP 4-year Care Pack Services

IT matters

- HP EliteBook Revolve 810
- HP EliteOne 800 All-in-One Business PC
- HP Care Pack 4-year Accidental Damage Protection Service
- HP Financial Services leasing

Business matters

- Incorporate HP Revolve mobile technology to help prepare diverse students for college and future careers in global economy
- STEAM education, seamlessly supported with technology, helps students break previous barriers and understand concepts of computational thinking
- Leasing through HPFS helps the District meet budget demands and plan technology refreshes strategically
- HP Care Pack Support eases demands on District IT staff



“We are using technology to support a blend of traditional and forward-thinking instructional strategies.”

– Dr. Bille Rondinelli, Superintendent, South Fayette Township School District

The South Fayette Township School District in Southwestern Pennsylvania, a recognized leader in project-based learning, is developing a national model to teach computational thinking and digital literacy starting as early as kindergarten. Results include robust student engagement, enhanced test scores, and high academic rankings. Recently, South Fayette launched a 1:1 program providing HP EliteBook Revolve 810 Notebooks with HP Care Pack 4-year Accidental Damage Protection to all middle school students, grades 3-8. Joining HP AiO PCs in classroom labs, the HP Revolves show how South Fayette relies on HP to support its trailblazing innovations.





Superintendent Dr. Bille Rondinelli of the South Fayette Township School District walked into the District's annual elementary school science fair recently and encountered an elementary school student waiting to show her something. Having lost a tooth, the child could not pronounce the word "prototype," but he had built one out of clay and he wanted Dr. Rondinelli to see its design stages on the HP Revolve. "He can't say the word and he's missing a tooth, but boy he can sure use this computer and tell you what a prototype is," Dr. Rondinelli says. "That's incredible."

STEAM education encompasses arts

School districts nationwide are watching as the incredible becomes the everyday at South Fayette. With an influx of new residents from nearby Pittsburgh, the once-rural South Fayette is now the fastest-growing school district in Pennsylvania. With enrollment reaching 3,054, the District has been building new schools and reconfiguring existing ones to strategically integrate technology into the classroom.

South Fayette is a member of the Digital Promise League of Innovative Schools. Where some districts wait until high school to introduce computational thinking and digital literacy, South Fayette starts early, with elementary games that teach fundamentals of coding.

"Because we believe computational thinking is the new literacy, we begin with students understanding the concepts of programming from kindergarten on," says Aileen Owens, Director of Technology and Innovation. "Over the years, they learn block-based code and

robotics. They learn to program sensors and motors, and about electrical circuitry."

By the time South Fayette students graduate from high school, they've developed applications with real-world impact, collaborated in teams, filled roles such as "engineer" and "project manager," and participated in university and corporate partnerships. South Fayette's STEAM education, centered in technology-enriched studios, encompasses the arts as well as science, technology, engineering, and mathematics.

"South Fayette is known for academics, athletics, and the arts, as well as science, technology, engineering, and mathematics."

– Dr. Michael Loughead, Assistant Superintendent, South Fayette Township School District

HP EliteOne 800 All-in-One business PCs in media and technical-engineering labs, for example, run demanding movie-making and computer-aided design software. "We are giving our students unique personalized learning experiences that prepare them for the next step in their education and also in the global marketplace," Dr. Rondinelli says.

1:1 program begins with strategic visioning

South Fayette's middle school 1:1 program began with a desire to make some of the

activities taking place in district STEAM studios occur more regularly in the classroom. That would require placing a mobile device in student hands. Before purchasing a single tablet, however, South Fayette did its homework.

Staff visited school districts and colleges nationwide to see their 1:1 programs. They thought through teacher professional development needs and program rollout logistics down to the details of device features and functions.

“We are harnessing the natural energy and intellectual capacity and curiosity that students have always had, but now we are unleashing it.”

– Dr. Michael Loughead, Assistant Superintendent, South Fayette Township School District

“We spent days strategically visioning our 1:1 program,” recalls Dr. Michael Loughead, Assistant Superintendent and Project Manager for the 1:1 rollout. “What devices? What would students be doing with them? How would that support our educational mission? It came down to supporting this vision of students coding, programming, and doing project-based learning.”

HP Revolve provides power with touchscreen

On their benchmarking visits, District officials learned that a nearby college, which many South Fayette students attend after graduating high school, numbered among institutions successfully using HP EliteBook Revolves. The District then piloted the devices with some high school students and ultimately chose it for the middle school program, from which students will take their devices with them to high school.

The HP Revolve is a full performance PC that converts to a tablet and operates via touchscreen, keyboard, or optional pen. South Fayette likes its ultra-thin size, powerful performance, ease of use, and flexibility. The device’s touchscreen feature is already familiar to students coming from K-2 classrooms having used tablets, and the HP Revolve brings more sophisticated capabilities required in higher grades, including access to electronic textbooks and varied digital resources.

“We selected the HP Revolve because it’s one of the few devices that was as powerful as it could be for coding and programming with a hard drive that we needed,” Dr. Loughead says. “It’s also a touchscreen, and can flip around to function as a tablet for notetaking and consumption of media. We need devices that expose students to many types of evolving technology requirements with the ease-of-use that is essential these days.”

The District chose a refresh lease through HPFS to both demonstrate fiscal responsibility and minimize the impact on the budget. “We recognize how quickly technology is evolving and determined the lease option will help us provide students with the most powerful devices to fit their needs and meet our budget demands as well,” Dr. Loughead says.

HP Care Pack Support frees students from fear

The District also includes HP 810 Revolve Protective cases and HP Care Pack 4-year Accidental Damage Protection. “We are a small district with a limited support staff,” Dr. Loughead says. “It wasn’t going to be feasible for us to maintain and service that many devices ourselves.”

The damage protection also helps students feel comfortable taking the devices home and on family trips. “It frees them to use the devices actively without fear. Students pay a \$25 annual fee for the protection,” Dr. Loughead says, “and they care for the devices as if they were their own.”

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– Aileen Owens, Director of Technology and Innovation, South Fayette Township School District

“We had some concerns about how the students would take to the devices and respond to them,” Dr. Loughead explains. “It’s been unbelievable. Our students care for them and they use them all the time. And that doesn’t mean we don’t use the drop and damage because we do.”

Customer at a glance

Application

Middle school 1:1 notebook program; high school media labs

Hardware

- HP EliteBook Revolve 810 Notebook
- HP EliteOne 800 All-in-One Business PCs

Services

- HP Care Pack 4-year Accidental Damage Protection
- HP Financial Services
- Professional Development

Dr. Loughead says that the HP Revolves are very reliable. “But, accidents do happen,” he says. “They slip and they drop. We have the HP Accidental Damage Protection so the devices are quickly fixed and reissued to students. It couldn’t be easier.”

HP delivers the technology on a schedule that allows South Fayette to image the devices over the summer—an example, District officials say, of how HP has nurtured a relationship of trust.

Professional development empowers teachers

To empower teachers to transform teaching through technology integration in the classroom, South Fayette embeds professional development into the school culture. The District takes advantage of trainings offered by HP and Microsoft® Corp., fosters collaboration and knowledge transfer among teachers, and creates co-teaching opportunities between teachers and STEAM facilitators. Thus, South Fayette creates a blended learning environment combining the best of traditional approaches with technology-enriched instructional strategies.

Students learn to work in the full portfolio of Microsoft applications and function in cloud-based environments. They are challenged to expand beyond traditionally rewarded skills and engage creatively with problems that defy rote answers. Students who formerly struggled or felt left out of classroom discussions find themselves very much engaged. Girls learn to code, smashing traditional barriers to careers in science and technology. Special education students find learning modalities that reach them effectively. Students who never thought of themselves as college material think again.

“Hands-on learning changes the dynamic,” Dr. Loughead says. “Instead of having students sit still all day, it’s a more natural environment that allows learners of all kinds to blossom. We are harnessing the natural

energy and intellectual capacity and curiosity that students have always had, but now we are unleashing it.”

Improved assessment scores have made South Fayette the No. 1 ranked school in the Pittsburgh region. What’s more, the District has been asked to participate in developing next-generation assessment methods to help the nation evolve beyond high stakes multiple choice testing of content memorization. Assessments of the future, Dr. Rondinelli says, will emphasize project-based learning, critical thinking, problem solving, communication skills, and habits of mind such as persistence.

Evolving technologies support educational mission

South Fayette looks to HP to support its journey into the future with evolving technologies and a comprehensive portfolio of desktop and notebook PCs, workstations, high-resolution displays, services, and training. For application-intensive curricula, the District is reviewing HP Z Workstations and the HP Zvr Virtual Reality Display which enables immersive, real-time exploration and manipulation of 3D content, a powerful tool for students in many 3D applications.

“Before long, we will have HP devices in the hands of students from grades 3 through 12,” Superintendent Rondinelli says. “We did our homework and the HP Revolve technology is being used as it is intended,” she notes. “It is being integrated seamlessly into the educational program.”

“Through technology-enriched learning, we are helping our students excel not only in required testing but also to become more well-rounded people. Our students are great communicators. They can identify and solve problems.”

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