

A young girl with a red headband and pink polka-dot shirt is looking thoughtful, with her hand near her mouth. In the background, a teacher in a blue shirt is pointing at a whiteboard. The scene is set in a classroom.

“A school building
isn't just a collection
of bricks and mortar;
it's a dynamic learning
environment...”

Promethean Education Strategy Group
Curriculum Development





Case Study: Twickenham Academy, UK | 740 students

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Building a new school?

Nick Jones, principal, Twickenham Academy, gives education writer George Cole his top ten tips on how to build a new school. George Cole, a former teacher, is a freelance journalist and author. He can be contacted at George@thelastmiles.com



The opportunity to become involved in the building of a new school is both exciting and challenging. Exciting, because it's not often that teachers get the chance to influence the design of their school and shape their teaching and learning environment. But there's a real challenge in striking the right balance between being visionary and realistic, imaginative and practical and embracing the future, while holding onto the things that work well today. It's also a huge responsibility, because the decisions you make will affect both existing and future generations of teachers and students.

I've been involved in several school building projects, including a major rebuild currently taking place at my school, Twickenham Academy, in the London Borough of Richmond upon Thames. Our school – which has around 740 students and 55 teaching staff – is being rebuilt from the ground up, and when the project is completed in 2014, there will be a new and radically-designed school building on our existing site. But we're not being radical for the sake of it; the new school will help us deliver an innovative 'stepped curriculum,' in which students plan a more individualised programme,

by working through the steps at their own pace. This personalised curriculum arises from our partnership with our sponsors: the Swedish schools company Kunskapsskolan and our local authority.

A school building isn't just a collection of bricks and mortar; it's a dynamic learning environment, and your school's design should facilitate this process. There's no such thing as a universal blueprint for building a new school, but from my experience, here are ten things you should consider during the planning and design process.

Look at how your new school will help you deliver your educational objectives

In our case, this means having a building that is flexible enough to accommodate a variety of teaching situations, from small group workshops to traditional classroom lessons to lecture-style presentations. Students will also be able to choose the places where they learn best. Some like to work individually, while others make faster progress when working as part of a small team. A traditional school building often doesn't allow students to make these kinds of choices. We will also need to make extensive use of new technology, as our curriculum is supported by an online 'learning portal', so our new school building is purposely designed to accommodate it. This isn't just about having enough power points, but ensuring that the building's design and architecture support the use of IT, whatever the location.

Look at what you've got already and see how you can use existing space creatively

For example, we've converted an old gym into a learning space by using some clever furniture solutions and adaptable IT, like portable interactive whiteboards. This approach has many advantages, including being cost effective – you don't necessarily need a brand

new school building to build a new school. We're also using the new learning space as a change management tool, where teachers can experiment with new forms of pedagogy. By doing this, you can subtly adapt your school's culture; from a traditional school building with a traditional curriculum, into one with different types of learning spaces and a more personalised curriculum. It means that when staff and students finally enter the new school building, a cultural shift has already occurred.

Involve the stakeholders in the design process

Our staff and students have been involved in numerous debates and discussions about the new school, and this has influenced its design. Students have also been involved in testing various furniture solutions, and influenced the choice of colour schemes. If your school is being completely rebuilt, you will need to work with an architect and it's important that you select the right practice. Your architect should be someone who listens to you; whom you can trust and who will come up with ideas and concepts you haven't considered. Incidentally, the best architect isn't always the one with lots of experience in the education sector – an architect from outside education can sometimes offer better solutions, as they may be less constrained by the concept of a traditional school, or introduce concepts from other building sectors.

Get to know your suppliers

A good working relationship with your suppliers will ensure that you get the right equipment in the right place at the right time. I am in regular contact with Isis who supplies our furniture, and Promethean, supplier of all our interactive technology.

Make your school more personal

Secondary schools can be large, impersonal institutions, and a new school gives you the opportunity to break down this impersonal element. Our new school is designed so that it effectively becomes three mini-schools or colleges, creating a more 'human scale' environment.

Think about how you can use space creatively in your new building

It's estimated that around a quarter of the floor space in a typical British secondary school is devoted to simply getting people from one place to another. We've designed

our new school so that less than five percent of the floor area is corridor space.

Build in some flexibility

Even with the most thorough planning process, there's a good chance that sometime in the future, you'll want to make changes to your school building, so it's a good idea to build-in some flexibility. For instance, the walls of the new school will have few services (like electricity, water, IT cabling) built into them. By putting most services into floors and ceilings, the process of moving a wall (say, to expand a learning area) becomes much easier.

Use the opportunity to create a more logical environment

In many schools, subject areas and departments have evolved in a haphazard fashion, but a new school gives you the chance to group departments in a more logical manner, for example, art and design can be next to design and technology, or music technology. We're putting the food technology department next to the school kitchens, which will give us the opportunity to combine the curriculum with vocational experience.

Consider how the school building itself can be used as a learning space

In my old school, part of the building's steel frame was exposed, and this was used in discussions about structure during science and technology lessons. In our new school, we'll use the colour of the flooring and walls for lessons on complementary and contrasting colours.

Think about your school's environment and its environmental impact

How can heating and lighting be used efficiently? How can you maximise the safety and security of your staff and students? And don't forget about the acoustics. It's very easy to design a school building that looks great, but because of poor planning, is terribly noisy. There are many potential pitfalls in designing a new school, but there's also the opportunity to redefine your vision for education, and to create a new and vibrant learning environment; now what teacher hasn't dreamt of that?

“Promethean believes that education is the fuel that drives economic growth and social progress. Effective teaching is the key to successful, collaborative and personalised learning—which in turn creates better prepared students, more prosperous nations, more secure societies, and more engaged global citizens.”



Promethean’s Education Strategy Group explores and facilitates technology’s role in realising the promise of more effective educational systems locally and around the world. Through combining leading-edge research, pedagogical expertise, policy and practical insights, our approach demonstrates the impact of the long- and short-term return on investment in education technology—a theme central to the realities of 21st Century Learning.

The group focuses its efforts around six Educational Themes that are key to achieving global education success:

The Themes That Matter

Teacher Effectiveness— examines how technology can help teachers in every aspect of their work.

Curriculum Development— surveys the way the face of learning is changing, especially in critical areas such as science, technology and mathematics.

Curriculum & Assessment Assets— considers how technology can enable shifting curricula to be linked with learning assessment.

Data Driven Decision Making— pursues insights into how educators can use data to improve individual and system-wide performance.

Student Achievement— studies how technology best facilitates personalisation and collaboration in teacher/student and student/student interactions.

Education Continuum— explores how technology supports learning system success throughout schooling and into the workplace.