SPECIAL REPORT

THINKING ABOUT BUYING A 3D PRINTER FOR YOUR SCHOOL?

DON'T MAKE THESE 5 COMMON MISTAKES!

We see it happen all too often.

A teacher or principal learns about the amazing educational benefits of 3D printing and is determined to bring this technology to their school. They search and search for the 'best' 3D printer on the market, drop thousands of dollars on a printer and then expect to see student learning at their school magically transform.

Unfortunately, this rarely works.

While purchasing a quality and reliable 3D printer is important, it is only a small piece of what is required to see the educational benefits of 3D design and printing technology. Don't make the mistake of focusing solely on buying a 3D printer and forgetting about the other essential considerations and investments required to make 3D technology a success at your school.

Ensure your success and make sure you consider these five important things BEFORE purchasing a 3D printer for your school.

1. Software: how are your students going to design in 3D?

At the industry level, designers use complicated CAD software to design in 3D. This software is unsuitable for all but the most advanced high school level students.

There are some more entry level programs available via the web, but even these applications can be somewhat difficult and tedious to use in a classroom context, with multiple student accounts to manage.

Makers Empire has created the world's easiest to use 3D design software for grades K-8 – it is simple and engaging for students to use. Plus, it encourages students to create original designs and develop a growth mindset through game-based challenges and leveling up features.

2. Curriculum: how are you going to use 3D technology to meet learning outcomes?

3D printing is amazing, and by several accounts it is the future of manufacturing. But how are you going to harness this technology to enhance student learning?

Merely having your students design and print a name tag or key-chain dœsn't do much to improve their learning. The potential educational applications of 3D design and printing are so much bigger than that!

3D design and printing is a great way to teach students the design thinking process and allow rapid prototyping. It encourages collaboration and development of 21st century thinking.

But it's even more than that. 3D technology can add another layer of creation and engagement to all areas of classroom learning when it becomes another tool for teachers to use.

3. Professional Development: how will the teachers at your school learn 3D design and printing?

Many teachers are unfamiliar with 3D printing technology. Before they can effectively teach their students 3D design and printing they have to learn both themselves.

This is an often overlooked step in a school's 3D printing journey. Effective professional development (PD) is essential to integrate 3D printing into your school.

Investing in PD that exposes teachers to 3D technology and gives them the confidence to bring it into the classroom is a better use of your money than buying a top of the line 3D printer. If your teachers aren't sure how to use 3D printing as a true teaching tool you may have just bought yourself an expensive dust collector.

4. Usage: how will you manage the usage of your 3D printer?

3D printing is a slow process and the printer will require periodic maintenance and troubleshooting. Establishing a system for the use of your school's 3D printer will avoid conflict and confusion about when each teacher gets to use 3D printer.

Will your students use the 3D printer during their technology class? Will you rotate monthly which grade level gets to use the 3D printer? Will there be a lead teacher for each grade? These, and other questions specific to your school, should be considered before implementing 3D technology.

5. Maintenance: how will you manage the maintenance of your 3D printer?

For schools, the biggest question is often a practical one: who will be responsible for fixing the printer when there is a problem? Do you have a champion for 3D printing at your school willing to take on this role?

That's great! But what if that person leaves the school? Then what?

It's important to have a few people at your school share the responsibility of caring for your 3D printer. This makes everyone's job a little easier by allowing separation of tasks and ensures that even if one teacher leaves your school, your school's 3D printing activity can continue unaffected.

MAKERS EMPIRE SOLUTIONS

At Makers Empire we don't want to see you make the mistake of only investing in a 3D printer and forgetting about the other essentials!

Makers Empire has developed two pioneering solutions to suit any school or school district:

3D Learning Program
4 hours online professional development. Learn how to integrate 3D printing and design across the curriculum.

Learning by Design Course
20 hours blended professional development. Learn how to apply design thinking principles to improve student learning outcomes.

Both courses include:

- **Over 100 curriculum aligned lesson plans**

- **Makers empire 3D, the world's easiest to use 3D software**

- **Teacher's dashboard for easy student management**

- **Analytics for monitoring and evaluation**

- **Updates, maintenance and support**

KEEN TO EFFECTIVELY AND EFFICIENTLY INTEGRATE 3D PRINTING INTO YOUR TEACHING PRACTISE?

Learn why **2,700+ K-8 teachers** in Australia, America, Asia and Europe choose Makers Empire's 3D printing learning program to transform the way **160,000+ students** learn.

Jeanette McConnell is a passionate educator with a strong scientific background. She earned a Bachelors degree in Biochemistry at San Diego State University and went on to earn a doctoral degree in Chemistry at the University of New South Wales. Throughout her academic studies she tutored and formally taught her fellow students, growing her passion for education. Her experience presenting engaging hands-on science shows and workshops to children demonstrated the immense value of hands on education. She believes Makers Empire is the way to make learning hands on and harness the power of 3D printing technology in education.