

*What are the key resources you use to develop your understanding of teaching and learning in Technology (eg, assessment, indicators of progression, Technology support materials, Techlink)*

#### TEACHERS

- Subject association peers.
- Teachers in other subject areas.

#### WEBSITES

- Techlink – [www.techlink.org.nz](http://www.techlink.org.nz)
- TKI – [www.tki.org.nz](http://www.tki.org.nz)
- NCEA – [www.nzqa.govt.nz/ncea](http://www.nzqa.govt.nz/ncea)

#### CURRICULUM SUPPORT MATERIAL

- Technology curriculum support documents/explanatory papers.
- Indicators of progression – provide guidance on the level of understanding, knowledge and skill required for each year level.

#### WORK EXAMPLES

- Look at exemplary work from previous years to judge the criteria expected.
- Observe colleagues' ongoing projects – provides indications of expectation, assessment and achievement at different levels.
- Read the examiners' notes after each year's external assessments are concluded, for good tips and to find out what worked and what didn't.

#### EXPERIENCE

- Become a marker for Technology external assessment.

*What support can a first year teacher expect from an HOD?*

- Mentoring in your school's specific traditions and 'ways' of doing things.
- Ensuring that you have access to required resources to teach your subject topics.
- Appraisal and lesson observation – with review time.
- Checking grades and ensuring consistency of marking across classes.
- Department meetings where the whole department meets to discuss subject matters.
- Demonstration of new skills if required for a specific topic.
- Advice and guidance about classroom management.
- Support in dealing with classroom discipline.
- Discussion on unit and lesson plans to help judge the time, level of understanding and skill required.
- Demonstration of classroom and time management by offering teacher opportunities to observe experienced teachers in action.
- Provision of opportunities to test and trial new ideas.

*What keeps you passionate about teaching Technology?*

- The students – their passion and enjoyment of the subject, the amazing outcomes they produce, and the creativity, ideas, and humour they bring to their achievements.
- Variety – every day and every class is different, with each student bringing their own ideas, inspiration, emotions and abilities to the table.
- Development – finding new, more interesting topics each year, or putting a new spin on tested ones.
- Problem-solving – using design to work out how to make things.
- 'Light bulb' moments – seeing the lights switch on when a student 'gets it'.
- Pride – seeing how proud students are when their hard work and initiative is recognised.
- Realism – authentic teaching scenarios give relevance to projects and add value for the students, who raise their efforts to reach the real-life standards of quality required for success.
- Creativity – Technology's unique approach to teaching challenges and empowers students to do something new and different and allows them to be creative while learning the required knowledge to execute their ideas.
- Skills – Technology uses a wide range of thinking strategies and skills that can be used in school and in life beyond the classroom.

A teacher's first year in the classroom is one of the most important steps in their career, so it's important to go into that with the knowledge that there is support and help available.

Techlink asked some experienced Technology teachers to share their best ideas and tips for making that first year and upcoming years as enjoyable and successful as possible, for new teachers and their students.

## The teachers we interviewed...

**SANDIE MACLEOD-SMITH**



Sandie is the HOD Technology at St Cuthbert's College and has a graduate Diploma in Technology Education from Massey University.

Sandie's main teaching area is Biotechnology but she also teaches Food Technology "with a very scientific basis". The Technology department that Sandie established at St Cuthbert's in 1998 has become one of the most successful in the College for its NCEA results.

Sandie's achievements and contributions to Technology education were recognised this year when she received the Independent Schools Outstanding Teacher award.

**BARBARA KNIGHT**



Barbara has a strong background in Fashion Design having completed a diploma in Fashion Design and Technology at Wellington Polytechnic in 1993 as well as extensive experience within the industry working as a Designer/Pattern-maker.

Barbara has taught Technology since 1998 when she joined Kapiti College as a Materials Technology teacher and assistant HOD. She joined Queen Margaret College in 2003, and was made HoD at the beginning of 2005.

Barbara has extensive involvement in external assessment and has received awards for her outstanding work as a teacher.

**CHRIS SMYTH**



Chris has a Bachelor of Design in Visual Communication Design from Victoria University of Wellington's School of Design.

He worked for several years as a freelance technical illustrator, portrait and landscape painter before joining St Patrick's College Wellington in 2002 to teach Art, Graphics and Technology. He has since become HOD Technology at the College.

*What systems are in place in your classroom to ensure that equipment, machinery and resources are organised, and that students take care of them?*

**BE SAFE**

- Teach students to use equipment correctly and safely as early as possible.
- Explain what can go wrong.
- Ensure that all students are wearing the correct gear at all times.

**STORAGE**

- Have separate boxes or baskets for each class's ongoing work – this prevents it getting lost at home or between classes.
- Keep all consumables in a locked cupboard or pantry.
- Make sure all equipment has a clearly labelled designated storage area – this makes equipment accessible and encourages students to put things back themselves.
- Colour code storage for each class or subject.

**MAINTAIN YOUR GEAR**

- Educate students to look after equipment and encourage them to report any damage.
- Maintain equipment at regular intervals and record in a register to keep track – eg, sharpen scissors every six months.
- Repair equipment ASAP – a run-down workshop invites vandalism.

**DISPLAY**

- Ensure all timetables/unit plans and useful information are clearly displayed – students need to know if they can leave work out or have to put it away for the next class.
- Place clean-up lists clearly on the wall or board – have students write their name on a job for each lesson or have a weekly rotation.
- Have separate pinboards for each class/topic
- Rotate displays/resources regularly to maintain interest.

*Ensure all students wear the correct safety gear at all times.*



*Do you have any tips on how to make the classroom an efficient and creative space?*

**STUDENT WORK**

- Use good examples of student work from each unit – this is informative, recognises student achievement and creates a colourful, creative environment.
- Photograph good examples if necessary.
- Rotate displays of student work often – this keeps interest up and makes everyone feel their work is valued.
- Avoid clutter/hoarding – if it is unlikely to be used, get rid of it.

**POSTERS**

- Make large posters for each unit with relevant information photos and articles – this is a useful quick reference for students.
- Posters on the technological process, glossaries of technological terms and information on research and thinking skills should be referred to regularly for students to understand their value and use within class.

**WORKROOM LAYOUT**

- Organise the workroom to maximise efficiency and safety – ask students to help with this.

*Sandie Macleod-Smith in class – note the poster on research*



*What are the most important things for new teachers to do or set up for their first year of teaching?*

**CHALLENGE YOURSELF**

- Change your programme often
- Constantly keep an eye out for new ideas

**CHALLENGE STUDENTS**

- Give them a goal that appeals to them then push them to do more than they think is possible.
- Problem solve – students should understand that mistakes happen, it's how they deal with them that counts.
- Self-management – the older the students, the more responsibility they should have for planning and organising their resources.

**KNOW THE MATERIAL**

- Read the achievement standards and explanatory notes in the curriculum to fully understand all the requirements.
- Read the Technology support document to make sure you know the Technology curriculum, the language used and the knowledge required
- Know each subject well – stay ahead of the students but be prepared to admit that you don't know something.

**BE PREPARED**

- Plan everything – from daily and weekly through to term-by-term, annual plans and calendars.
- Have notes and equipment ready for each class.
- Don't wing it – this can be very stressful, especially in practical lessons. Preparation gives you confidence in class.
- Test activities before you try them in class – this gives insight into the possible problems the students may encounter.
- Manage your time well – things often take longer than expected so make sure you have time for

clean-up at the end of each class to maintain an efficient, stress free teaching environment.

**BE ORGANISED**

- Have an advanced organiser on the board – this will keep you on track and let the students know what to expect in the lesson.
- Sort all teaching topic resources into separate folders – ring binders are great, as you can change the order when you need to.
- Keep your office tidy and organised – this makes life a lot easier.
- Keep track of budget expenses – an Excel template is perfect for this.
- Don't take in too much at once.
- Stagger your hand-ins for marking and formative checking – it often takes longer than you think.

**COLLECT**

- Build up a resource of demonstration pieces.
- Photocopy all mark sheets given back to students and file away for reference – get students to sign the grade before its copied.
- Success breeds success – keep the best student work to demonstrate excellence for each topic.
- Laminate the best visual resources – It keeps them in better condition for revolving displays.

**TALK TO PEOPLE**

- Get support – attend advisory cluster groups, subject association group meetings or meetings of Technology teachers in your area.
- Ask for guidance and help from more experienced teachers in your school – they often have useful strategies and alternatives to share.
- Peer check grades with a colleague – this helps with accuracy and builds confidence.

*Clearly labelled storage at Queen Margaret College*

**IN CLASS**

- Enjoy yourself – show enthusiasm and passion for your subject.
- Wait for silence before you instruct – this will save time repeating yourself.
- Be aware – look and listen for students who are off task and keep moving round the class to keep everyone on track
- Think on your feet – always have an alternative lesson up your sleeve if things don't work out as planned.
- Learn from the students – if you don't know something, get them to find out.
- Use other curriculum areas when appropriate.

**AFTER CLASS**

- Revise each topic as you complete it – modifications are easier to make when it's fresh in your mind and this avoids repeating problems next year

**WORK-LIFE BALANCE**

- Remember – your social and family life is important.
- Take care of yourself; exercise but also keep a stash of chocolate in your office – you never know when you'll need it!

