Becta
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next generation
learning

21st century teacher

Are you ready to meet the challenge?

21st century teacher:
Are you ready to meet the challenge?

Your learners are already engaging with technology both in and out of school. Are you?

This booklet will help you discover what it takes to become a 21st century teacher.

? Do you want to improve how children and young people experience learning and bring education alive for them?

? Do you want to improve how you engage with parents?

? Do you want to save time on administration and plan more effectively?

? Do you give learners the opportunity to work in their preferred ways of learning, including using technology?

? Do you want to improve your lessons with more flexibility and choice or improved quality of delivery?

» If you answer 'yes' to any of these questions, read on and find out how you can use technology to meet these challenges.

21st century teaching and learning:
What is the challenge?

Your students are already using technology as part of their daily life and increasingly expect to use it for learning in school. But what does this mean for you as a teacher?

Technology opens up huge opportunities for you – in teaching, assessment, planning and administration and in engaging parents and the wider community.

Research now shows that technology can help to:

- motivate learners and keep them engaged in learning
- improve attainment levels and raise standards
- personalise learning and give learners a voice
- make difficult and abstract concepts easier to explore
- save you time and be more efficient
- open up dialogue with parents and extend learning
- make learners partners in their formal learning
- reach the hard-to-reach.

With everybody in education supporting the Government's aspiration of building a 21st century schools system with excellent teaching, the role of ICT in teaching and learning is very important.

As a 21st century teacher you are a learner yourself – adapting your previous technology skills and knowledge as new technologies emerge. You know when to use technology and when other strategies are more appropriate. You continually review how you use technology in your role.

Technology is taking all teachers on a journey:

- You may be at the beginning of the journey and want to explore technology more.
- You may be using technology at the moment but want to review what you do.
- You may want to develop areas in your use of technology to include in your CPD planning.

i

Wherever you are, you will find this booklet helpful in choosing the next steps to develop your professional use of technology.

21st century teaching and learning:
What teachers do?

21st century teachers ensure teaching is enhanced through the informed use of technology developing learners' ICT capability.

21st century teachers use ICT to:

- deliver greater flexibility and choice of lessons and teaching techniques

- communicate information and concepts clearly with high quality lessons and resources

- make learning exciting and engaging for all learners

- provide adaptive solutions for learners with special needs

- create a learning environment where learners feel safe and secure

- extend learning and work in partnership with parents, families and the community.

Dan Lea is a 21st century teacher at **Gearies Infant School**. As part of the Children's Research into Poetry, he developed a blog for sharing planning, questionnaires, information and findings. Not just for his pupils, but for other schools in the same network.

Pete Hoskins worked with a low ability Year 7 class on science at **Westborough High School**. Using animations and comic strip presentations enabled children to describe their investigations in a more visual way, improving pupil understanding.

Carol Weale, from **Dane Court Grammar School,** used school-based wiki pages and discussion threads to help Year 11 students study their poetry anthology. She found their understanding of the poems improved so much that the boys' GCSE grades increased by two grades from C to A.

Staff at **Startforth Church of England Primary School** used different activities to teach e-safety. Years 3 and 4 used online resources while Year 6 used role-play. This enabled staff to reinforce important messages to pupils of all abilities.

21st century teachers use technology for all administrative processes, enabling them to save time.

They use technology to help them with:

- planning teaching and learning across a broad and balanced curriculum

- reusing, adapting and sharing documents

- storing and analysing pupil data for formative and summative assessment

- identifying and addressing their professional development, including their own ICT training needs

- responding to emerging technologies and practice.

21st century teachers take account of learning outside school. They make use of this in planning for learning inside the classroom.

Teachers at **Easington Colliery Primary School** have gained more time for teaching and learning by using technology to lighten their planning workload. Time and time again, they reuse and adapt documents and use ICT tools in teaching.

Students at **All Hallows Catholic College** are realising their potential and achieving higher standards. This shows the impact of the college's CPD programme and staff culture of regularly sharing practice and skills.

Learners' creativity, independence and motivation have all improved at **Homewood School and Sixth Form Centre**. Here, professional development for staff encouraged teachers to create opportunities for students to use ICT to develop as independent learners. Students are now encouraged to choose how and when they use ICT.

ASSESSING AND REPORTING

CASE STUDIES

21st century teachers have modern assessment and reporting systems in place. These help them understand, identify and meet the needs of the learner.

They use technology regularly and consistently to:

- support their professional judgement
- track pupil progress
- monitor learners to ensure their use of technology is safe, legal and responsible
- communicate with parents/ carers, sharing information through online reporting.

Improving the quality of discussion between parents and learners about their education makes all the difference to what learners achieve. The 21st century teacher makes sure that technology works hard to support this.

Teachers at **Blakeston Community School** communicate with parents through the school's learning platform. They inform parents about all aspects of a pupil's life in school. They also hosted ICT training for parents to support family learning, which has improved pupil outcomes considerably.

Parents are now better prepared and informed for parents evenings and meetings at **Clunbury Primary School.** The school uses its website and web technology such as blogging and podcasting to inform parents of their children's work in school.

Hodgson Comprehensive School has achieved an increase in A*-C science grades from 30 per cent to 98 per cent. Science teachers use technology to share assessment data with students. The feedback enables students to address their learning needs, resulting in higher grades.

Becta has worked with schools using technology effectively in learning, teaching and assessment, administration and planning and engagement with parents.

Based on this, we have created the following checklist for teachers to use with a colleague/mentor. This will help you review your progress in using technology and identify actions to inform your professional development plan.

The checklist will help you assess your use of technology as a teacher, and how you interact with:

- your learners
- learning beyond school
- your school.

The checklist, with additional advice and guidance, is also available at:

http://schools.becta.org.uk/21cteacher

Turn over for checklist

The checklist

1

ABOUT YOU

Consider what you do towards developing your range of professional teaching skills with technology.

	Regularly	Sometimes	Not at all
Do you use ICT to support your planning?	○	○	○
Do you embed ICT across the curriculum to enhance and extend learning?	○	○	○
Do you use ICT to communicate information and concepts in high quality lessons?	○	○	○
Do you use ICT to explore complex ideas and information?	○	○	○
Do you use ICT to assess pupils and track their progress?	○	○	○
Do you use ICT to store and analyse pupil data for formative and summative assessment?	○	○	○
Do you review your own ICT skills and effective use of ICT in learning, teaching and management?	○	○	○
Do you include clear personal targets for ICT in your performance review?	○	○	○
Do you protect your personal information and professional status online?	○	○	○

2

ABOUT YOUR LEARNERS

Consider how you expose learners to a range of technologies and develop their skills to use them within their everyday learning.

	Regularly	Sometimes	Not at all
Do you have high expectations of all learners and outcomes when using ICT?	○	○	○
Do your learners have personalised, creative and independent learning experiences using ICT?	○	○	○
Do you use ICT to provide solutions to support learners with special needs?	○	○	○
Do you assess your learners' ICT capabilities?	○	○	○
Do you use ICT to involve learners in their own assessment?	○	○	○
Do your learners have an understanding of e-safety and responsible online behaviour?	○	○	○
Do you consider the need to protect your learners' personal information? (e.g. mark sheets)	○	○	○
Do you manage ICT flexibly to ensure your learners have access to a wide range of ICT resources; in a variety of situations, when needed?	○	○	○

3

ABOUT LEARNING BEYOND SCHOOL

Consider how you and your school use technology to build dialogue and engagement with parents/carers, families and community.

	Regularly	Sometimes	Not at all
Do you contribute to the school's vision for using ICT at school and at home?	○	○	○
Do you use ICT to communicate appropriate information with parents? (homework, news, events, etc.)	○	○	○
Do you provide parents with information about their child via secure online access? (reports, attendance, etc.)	○	○	○
Do you help parents understand their e-safety responsibilities?	○	○	○
Do you share, with learners, the school's vision for using ICT at school and at home?	○	○	○
Do you use ICT to support and extend learning beyond school? (e.g. learning platform or school website)	○	○	○
Do you offer wider opportunities for learners to use ICT to continue and/or extend learning beyond school? (e.g. out of hours access to ICT facilities)	○	○	○

4

ABOUT YOUR ROLE IN YOUR SCHOOL

Consider your school plan and approaches to ICT as a whole-school issue.

	Regularly	Sometimes	Not at all
Do you use ICT to communicate with colleagues?	○	○	○
Do you share your practice in ICT with colleagues?	○	○	○
Do your targets for ICT development inform whole school CPD planning?	○	○	○
Do you contribute to your school's self-review of its use of technology?	○	○	○
Do you share your school's vision for ICT, at school and at home, with stakeholders, including governors, and parents?	○	○	○
Do you support your school's public commitment to improving through technology? (e.g. Next Generation Learning Charter)	○	○	○

21st century teaching and learning: Reviewing your checklist

☺

MAINLY TICKS IN THE 'REGULARLY' BOXES

- Are there any actions that match your PDR targets?
- Have you thought about sharing your practice with colleagues in your school?
- Are there any new actions you might find interesting or regular actions which require consolidation?

😐

MAINLY TICKS IN THE 'SOMETIMES' BOXES

- Are there any actions that match your PDR targets?
- Are there colleagues in your school who you could work with to develop your practice using technology?
- Are there any actions that you feel you should be undertaking more routinely in your practice?

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MAINLY TICKS IN THE 'NOT AT ALL' BOXES

- Are there any actions that match your PDR targets?
- Are there colleagues in your school who you could work with to develop your practice?
- Are there any actions which you feel you could tackle with some support from a colleague?

When you have completed the checklist, review your answers and use the above to help you consider your next steps.

Once you have decided on your personal development, it is worth considering how you ensure it is effective.

You may have an uneven pattern of ticks across the questions and will want to consider a range of the actions above. Further ideas for exploring the background to the questions and any issues they raise can be found online at:

http://schools.becta.org.uk/ 21cteacher

21st century teaching and learning: Next steps for action

Having identified areas for action, here are some ideas to help you address issues. They will also help you work towards acquiring the skills and knowledge needed for 21st century learning and teaching.

1

Find out about good practice in using technology and set your own personal targets with ICT:

- Be inspired by Becta's award-winning teachers who are using technology in creative ways with their learners.
- Review your own practice and identify areas for development in your CPD planning.
- Work with other teachers in your school who use technology in interesting ways with their learners.
- Join online communities and become active in discussing practice.

2

Review how you provide access to technology for all your learners:

- Provide an opportunity for learners to express how they would prefer to learn with technology.
- Widen your use of technologies, for example learning platforms, games consoles and email.
- Review your school's advice on e-safety and discuss this with your learners.

3

Consider how you can use technology to extend learning and communicate with parents:

- Consider how you can use your learning platform to set homework and communicate with parents.
- Provide information to parents on how to keep their children safe online when they are using technology in the home.

81%
of teachers agree that ICT makes learning more effective.

4th/16
Students ranked 'using computers' fourth out of 16 when asked their favourite ways to learn.

The top three choices were 'learning in groups', 'doing practical things' and 'learning with friends'.

More than
66%
of parents would like schools to use technologies such as text messaging and the internet to communicate more frequently. However, only eight per cent of parents were kept informed using these methods.
Becta survey: Poll of parents 2008

21st century teaching and learning: What is good CPD?

DEVELOPMENT IN PRACTICE

The TDA states that CPD activities are likely to be effective if:

- they are directly relevant to participants
- intended outcomes are clearly identified
- previous knowledge and expertise is taken into account
- they model effective teaching and learning strategies
- impact evaluation is planned from the outset .

CASE STUDY

Neil Webster from **St Christopher's Catholic Primary School** is well on his way to becoming a 21st century teacher. He describes himself as 'quite advanced with ICT' but didn't have a great knowledge of games-based learning.

Supported in his professional development by his headteacher, Neil was given release time to visit **Oakdale Junior School** and observe Dawn Hallybone. Dawn uses games-based learning in class and has been sharing the benefits with Neil.

After just two weeks, Neil is using games-based learning with his class. And, he is keen to share his new knowledge with colleagues at his school.

Case study courtesy of Teachers TV. Watch 'Better Learning with ICT – Computer Games in the Classroom' online at:

www.teachers.tv/video/37337

HELP ON CPD AND CPD OPPORTUNITIES:

Training and Development Agency for schools (TDA) CPD. A wide range of advice and guidance on CPD from the TDA:
www.tda.gov.uk/teachers

The TDA's National CPD database. Find opportunities for professional development:
https://cpdsearch.tda.gov.uk

Teachers TV secondary; CPD. Secondary CPD Hub, links to a range of support for professional development:
www.teachers.tv/my-school-life/secondary/CPD

Teachers TV primary; CPD. Primary CPD Hub, links to a range of support for professional development:
www.teachers.tv/my-school-life/primary/CPD

21st century teaching and learning The professional standards

The professional attributes, skills, knowledge and understanding you need to become a 21st century teacher are defined by the professional standards.

Taking the headings from the professional standards for teachers developed by the Training and Development Agency for Schools (TDA), this section highlights what it means for a teacher demonstrating effective practice using technology.

SKILLS AND PRACTICE

- Has a vision for technology in learning and teaching.
- Appreciates the role of technology within the learner's wider context.
- Has high expectations of all learners when using technology, understanding issues around equality and diversity.
- Reviews and evaluates the role of technology within learning and teaching.
- Develops professional understanding of and capability with ICT.

KNOWLEDGE AND UNDERSTANDING

- Demonstrates capability in using ICT within the professional context.
- Understands the role of technology within effective learning and teaching.
- Has appropriate specialist knowledge of ICT.
- Understands how to identify and develop learners' ICT capability.
- Understands professional responsibilities for safeguarding learners and their data.

VALUES AND ATTRIBUTES

- Designs activities using technology to enhance and extend learning.
- Teaches effectively with technology.
- Manages learners' use of technology appropriately to promote engagement and learning.
- Monitors learning where technology is used, makes judgments about impact and reports on progress.
- Manages physical and virtual learning environments safely and effectively.
- Uses technology for communication and collaboration.

21st century teaching and learning:
Helping you on your journey

For further help and ideas on how to turn your checklist
into actions, try reviewing some of these resources.

ADVICE ON AUDITING YOUR ICT SKILLS:

@ICT audit tool: Essex LA primary ICT audit
including video clips on why and how to use the
technology.
👉 www.e-ictaudit.org

ICT audit for teachers: One local authority's
version of an ICT skills audit.
👉 www.ngfl.ac.uk/ictaudit.htm

ADVICE ON E-SAFETY:

Becta's safeguarding advice on the use of digital
technology.
👉 www.becta.org.uk/safeguarding.php

Advice and guidance from the Child Exploitation
and Online Protection (CEOP) website.
👉 www.thinkuknow.co.uk

Resources for parents and carers, secondary
schools, primary schools and trainee teachers
from childnet.
👉 www.childnet-int.org/kia/

ADVICE ON HOW TO USE ICT IN YOUR TEACHING:

Becta's subject entitlement documents:
Documents which point to areas of the curriculum
that can be enriched and enhanced through the
use of technology.
👉 http://schools.becta.org.uk/index.
php?section=cu&catcode=ss_cu_ent_02

Becta curriculum: How teachers have embedded
technology into the curriculum for the benefit
of learning.
👉 http://schools.becta.org.uk/index.
php?section=cu

Teachers TV, Hard to Teach using ICT: A series of
programmes showing how technology can help
with hard to teach topics in English, maths and
science.
👉 www.teachers.tv/series/hard-to-teach

Becta's award winners: See how award winning
teachers use ICT in learning and teaching.
👉 http://awards.becta.org.uk/

UNDERSTANDING CURRENT EXPECTATIONS OF LEARNERS' USE OF ICT:

Becta's schools: Becta's advice for schools on
all matters relating to technology and its use
in learning and teaching.
👉 http://schools.becta.org.uk/

Primary curriculum review: Information on the
proposed primary curriculum.
👉 www.dcsf.gov.uk/primarycurriculumreview

Secondary ICT: ICT section of the secondary
strategy website.
👉 www.nationalstrategies.standards.dcsf.gov.uk/
secondary/ict

GETTING STARTED WITH USING ICT FOR PARENTAL ENGAGEMENT:

Becta's advice on parental engagement:
Advice for schools on how technology can be
used to engage parents and learners about
their education.
👉 www.becta.org.uk/engaging.php

DEVELOPING A VISION FOR ICT IN YOUR SCHOOL:

Self-review framework: Becta's self-review
framework for assessing and improving your
school's use of ICT, the online tool is free to use
and is linked to the national standards for ICT.
👉 https://selfreview.becta.org.uk/

Next generation learning: A simple way for schools
to publicly show commitment and progress towards
best use of technology for teaching and learning.
👉 www.nextgenerationlearning.org.uk

Becta's schools: Advice for schools on all matters
relating to technology and its use in schools.
👉 http://schools.becta.org.uk/

DCSF, 21st century schools system:
The Government's vision for education in
the 21st century.
👉 www.dcsf.gov.uk/21stcenturyschoolssystem/

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