Tool 2.2 – Future Classroom Model Reference Guide

Level	Key feature at each level
5 – Empower **Redefining learning and schooling, innovating extensively: the future classroom exemplified** Characterised by a whole-school culture of continual questioning and reflecting and high levels of innovation and experimentation, in which teachers and learners are empowered to adopt and adapt new approaches and tools. An inspiration to other schools and teachers.	♦ The learner (according to their ability) is autonomous and empowered, deciding what, where, how and when they learn, applying critical thinking and problem-solving skills at high level. S/he is actively engaged in all areas of school life. ♦ Most teachers are well-trained (often using self-directed online courses) and supported, and fully committed to and engaged in imagining, planning and creating the future classroom. ♦ Teachers are connected, collaborative designers of engaging personalised learning activities, regularly seeking and adopting new approaches and new technologies to support continual improvement. ♦ Learning objectives are continually reviewed, supported by data, and learning analytics are used to personalise learning paths. The need for assessment data is balanced with that for developing competences less easily or not normally assessed. ♦ The school vision and strategy promote innovation (sometimes radical) and a whole-school approach to change, with visionary leadership and a digital learning culture. There is a variety of learning spaces to diversify learning and promote competence development and the school is connected to its community and other schools. ♦ The school is an autonomous, self-determining learning organisation: able to cope with rapid change, flexible, adaptive and productive, constantly creating and recreating its future, integrating cognitive science research findings about how we learn. ♦ Technology supports the school as a learning organisation, and includes tools for data analysis and open educational resources. Infrastructure is sufficient to meet needs, fit for purpose, and fully exploited, and there is adequate maintenance and support.

4 – Extend **Modifying, innovating and embedding new processes** Learning is extended with connected technology and progress data, giving learners greater control over how, what and where they learn.	♦ Digitally confident learners carry out tasks often in ways not possible without technology, sometimes independently, sometimes with others. They may often decide for themselves what, how, where and when they learn. ♦ Most teachers are digitally competent, well trained, networked and supported, and engaged in imagining, planning, creating and sharing new approaches. ♦ Collaboration among teachers within and between schools is commonplace, for example in designing projects and authentic learning activities. ♦ Teachers use a range of approaches to engage learners and bridge the gap between formal and informal learning. ♦ A range of assessment approaches are in use, supported by technology and performance data, taking into account the learner's progress and needs, allowing objectives to be set that go beyond traditional subject boundaries. ♦ School policies support the use of digital tools and resources, including Open Educational Resources. The school encourages and supports collaboration among teachers within the school and with other schools to share good practice. ♦ Sufficient investment is made in online technology and its support, so that learning can take place anywhere and anytime. Digital resources (including technologies for learners with special needs), are accessed or, when necessary, procured in accordance with the schools' education vision and strategy. ♦ Digital systems enable a range of assessment approaches and provide data to allow objectives to be set that go beyond traditional subject boundaries, taking into account individual learner progress and needs.
3 – Enhance **Augmenting and redesigning processes** The learner is able to learn more independently and be creative, supported by technology providing new	♦ Learners, including those with special needs, are involved in defining more personalised learning objectives, incorporating higher-order thinking skills and independent learning. ♦ Learners develop digital competences, creativity, collaboration, communication and entrepreneurship, often using technology. Resilience, problem-solving and initiative also come into play.

ways to learn through collaboration.	♦ A critical mass of teachers experiment with different pedagogical approaches, for example to support more project-based learning, personalisation and key competence development. ♦ Many teachers are comfortable with new and alternative approaches to teaching and learning, use technology extensively and are familiar with how technology can enable access to learning for those with special needs. ♦ Quality feedback from a range of assessment approaches improves learners' performance. ♦ The school strategy includes pedagogical and technical technology training and support. ♦ Technology provision and connectivity are adequate and becoming mission-critical; investment focuses on resources (including open educational resources) and services to enhance learning and takes into account students' own use of technology in their daily lives.
2 – Enrich **Actively creating and changing ways of working** Some teachers use innovative approaches, making use of technology and learners are more in control of the technologies used.	♦ Learners use technology largely as directed by the teacher, but sometimes in collaborative or personalised activities. ♦ Teaching is enhanced by the use of a range of technologies but teachers may not be comfortable with introducing new tools in the classroom. ♦ Assessment evidence is used by learners to improve their performance. ♦ Learning objectives, activities and assessment encourage greater variety in active learning. ♦ The school's training and support for teachers tends to be unplanned and ad hoc; any ICT training is more technical and about using a product rather than its pedagogical application. ♦ Technology equipment, tools and services are present, but on a restricted basis, and they may be inadequate, in short supply and unreliable.
1 – Exchange **Substituting and passively consuming**	♦ Learners usually work on their own on tasks set by the teacher. ♦ The teacher chooses the format of lessons and the resources used (including digital).

Teaching and learning are isolated, classroom-based. If technology is used it is as a substitute, exchanging a traditional for a digital tool	♦ Teacher-led pedagogies predominate; teaching and learning are isolated and innovation is confined to individual teachers. ♦ Digital competence levels of teachers are generally low. ♦ Learning objectives are set by the teacher and relate to specific pieces of subject content or skills. Technology may be used occasionally for infrequent teacher-led assessment. ♦ The school management's support for innovation or digital learning is a low priority, resulting in little training or support for teachers. ♦ There is a narrow range of technologies (devices, apps, tools), possibly outdated and unreliable, in the classroom, occasionally replacing activities that can be done on paper and with textbooks, without adding value.

Levels by dimensions

Level 5 – Empower	
Learner	The learner (according to their ability) is autonomous and empowered, deciding what, where, how and when they learn, applying critical thinking and problem-solving skills at high level). S/he is actively engaged in all areas of school life. Learners communicate, collaborate and create extensively, making full and imaginative use of technology and social media. The needs of learners with special needs or learning difficulties are fully catered for and they are fully integrated in the future classroom.
Teacher	Most teachers are well trained (often using self-directed online courses) and supported, and fully committed to and engaged in imagining, planning and creating the future classroom. Teachers are connected, collaborative designers of engaging, personalised learning activities, regularly seeking and adopting new approaches and new technologies to support continual improvement.

	Teachers are connected to others (both within and beyond the school) and design and support activities that engage students in collaborative, active, authentic problem-solving (as well as learning independently), directly instructing students only when necessary.
Assessment	Learning objectives are continually reviewed, supported by data, and learning analytics are used to personalise learning paths. The need for assessment data is balanced with that for developing competences less easily or not normally assessed. Personalised learning objectives negotiated with students cover the full range of competences as well as attributes such as resilience and self-reliance. Learners receive quality feedback quickly even when engaged in collaborative activities.
School capacity for innovation	The school vision and strategy promote innovation (sometimes radical) and a whole-school approach to change, with visionary leadership and a digital learning culture. There is a variety of learning spaces to diversify learning and promote competence development and the school is connected to its community and other schools. The school is an autonomous, self-determining learning organisation: able to cope with rapid change, flexible, adaptive and productive, constantly creating and recreating its future, integrating cognitive science research findings about how we learn. The school is reimagined, developing new learning services that go beyond institutional boundaries and allow it to exploit new opportunities. The school has a clear vision and implementation strategy that address barriers to innovation and has a whole-school approach to innovation in learning and teaching.
Resources	Technology supports the school as a learning organisation, and includes tools for data analysis and open educational resources. Infrastructure is sufficient to meet needs, fit for purpose and fully exploited, and there is adequate maintenance and support. Technology procurement, deployment and replacement is planned and budgeted with cost-effectiveness and sustainability in mind.

	Ubiquitous, location-aware, seamlessly connected technologies support learner choice and personalisation beyond the classroom. Technology is widely and appropriately used. Most teachers use, create, adapt and share open educational resources. Teachers investigate, trial and use a wide range of technologies to support the schools' future vision and strategy.

Level 4 - Extend	
Learner	Digitally confident learners carry out tasks often in ways not possible without technology, sometimes independently, sometimes with others. They may often decide for themselves what, how, where and when they learn. Learners manage their own learning, independently carrying out tasks to achieve learning goals, obtaining feedback using arguments and reasoning, and appreciating different points of view. Learners can reflect on their learning style and adapt their approach to exploit opportunities and overcome obstacles, making decisions on what, how and when they learn, often in collaboration with others.
Teacher	Most teachers are digitally competent, well trained, networked and supported, and engaged in imagining, planning, creating and sharing new approaches. Collaboration among teachers within and between schools is commonplace, for example in designing projects and authentic learning activities. Teachers use a range of approaches to engage learners and bridge the gap between formal and informal learning. Teaching is less time- and place-dependent, bridging the gap between formal and informal learning. There is a shift in the role of the teacher from subject expert to learning designer, learner and researcher. The teacher uses a diversity of approaches organised and personalised around the learner.

	The teacher designs activities that engage and empower the learner and build his/her confidence, for example encouraging him/her to act as teacher, expert or team leader with planning and coordination responsibilities.
Assessment	A range of assessment approaches are in use, supported by technology and performance data, taking into account the learner's progress and needs, allowing objectives to be set that go beyond traditional subject boundaries. Systems are in place for a range of assessment approaches including self- and peer assessment, allowing objectives to be agreed by a range of stakeholders taking into account learners' experiences and preferences. Assessment goes beyond traditional subject boundaries and includes interdisciplinary skills such as collaborative problem-solving.
School capacity for innovation	School policies support the use of digital tools and resources. The school encourages and supports collaboration among teachers within the school and with other schools to share good practice. Participation in online continuous professional development and communities of practice is encouraged.
Resources	Sufficient investment is made in online technology and its support, so that learning can take place anywhere and anytime. Digital resources (including technologies for learners with special needs) are procured in accordance with the schools' education vision and strategy. Digital systems enable a range of assessment approaches and provide data to allow objectives to be set that go beyond traditional subject boundaries, taking into account individual learner progress and needs. Sufficient investment to meet demand is made in technical support and professional development. Teachers and students identify and use new technologies, resources and services and find new uses for established technologies. Learners are supported by distributed connected technology in ways which are not yet commonplace in schools Technology is used inside and outside of school to support learning. Sharing of tools and resources among teachers and students is commonplace. Technology is widely deployed, well used, usually effectively.

Level 3 - Enhance	
Learner	Learners, including those with special needs, are involved in defining more personalised learning objectives, incorporating higher-order thinking skills and independent learning. Learners develop digital competences, creativity, collaboration, communication and entrepreneurship, often using technology. Resilience, problem-solving and initiative also come into play. Learners are involved in more independent learning, collaborative problem-solving and research, and activities are rebalanced, for example between whole-class and group activities. Learners collaborate to gain information and knowledge based on self-understanding of their learning and progress. Learners can demonstrate that they are digitally confident and competent as creators of products, knowledge and new ideas. Learners choose and use appropriate digital technology and engage in online collaborative activities.
Teacher	A critical mass of teachers experiment with different approaches, for example to support more project-based learning, personalisation and key competence development. Many teachers are comfortable with new and alternative approaches to teaching and learning, use technology extensively and are familiar with how technology can enable access to learning for those with special needs. The teacher is comfortable with reorganising the classroom layout and introducing digital tools and resources into the classroom, including those suggested by students and colleagues. Teachers encourage collaboration and communication supported by technology, for real-world problem-solving and creativity (for example games creation, coding, modelling and making, e.g. creating artefacts).
Assessment	Quality feedback from a range of assessment approaches improves learners' performance.

	The learner is involved in defining key learning objectives which are more personalised. Progress through a task is tracked to assess process skills alongside knowledge and understanding. Often using technology, this tracking provides quality feedback from a range of assessment approaches – including self- and peer assessment, formal and informal – to improve performance and redefine learning objectives. Objectives include higher-order thinking and key subject specific process skills such as enquiry skills in science or presentational skills in languages.
School capacity for innovation	The school strategy includes pedagogical and technical technology training and support. The school encourages teachers to experiment and take risks with new approaches to learning and teaching, particularly approaches that support personalisation, learners' responsibility for their own learning and engagement with peers, leading to improved learning outcomes (backed up with evidence). The school strategy includes innovative approaches to teaching and learning. Teachers receive appropriate training to achieve this, and technical and pedagogical support is provided.
Resources	Technology provision and connectivity are adequate and becoming mission-critical; investment focuses on tools and services to enhance learning and takes into account students' own use of technology in their daily lives. Technology is used in school to support learning, but use for learning outside school may not be fully integrated. Learning is supported by appropriate digital resources and services that may also give feedback on performance, guiding decision-making. Technologies are used for collaboration, communication, to solve real-world problems and creativity (authoring tools, creating games, modelling and making).

Level 2 - Enrich	
Learner	Learners use technology largely as directed by the teacher, but sometimes in collaborative or personalised activities. Learners sometimes collaborate with others and in some lessons use technology in activities directed by the teacher. Learners use a limited range of technologies in a few subjects.
Teacher	Teaching is enhanced by the use of a range of technologies but teachers may not be comfortable with introducing new tools in the classroom. Existing approaches to teaching are enriched, for example made quicker, more engaging or more efficient by using technologies and some variety of resources matched to different learners' needs. A majority of teachers have some digital competence and are willing to try new approaches but are not always at ease with ICT in the classroom (although they may use it extensively in preparing lessons).
Assessment	Assessment evidence is used by learners to improve their performance. Learning objectives, activities and assessment encourage greater variety in active learning. Technology may be used occasionally for assessment. There is a close relationship between learning objectives (agreed between several teachers), learning activities and assessment (possibly using technology). This encourages different types of active learning: enquiry, discussion, practice and production. The learner has opportunities to make use of feedback and assessment evidence to improve their performance. The evidence may be stored digitally.
School capacity for innovation	The school's training and support for teachers tends to be unplanned and ad hoc; any ICT training is more technical and about using a product rather than its pedagogical application. The school tends to react to change rather than be proactive, for example acquiring technology without a clear vision or understanding of how it might improve learning and teaching.

Resources	Technology equipment, tools and services are present, but on a restricted basis, and they may be inadequate, in short supply and unreliable. There is some sharing of useful apps and tools between teachers. Technology tends to be used infrequently and not in a planned way. It sometimes does little more than replace more traditional approaches for learning and teaching. There is little awareness or use of apps and equipment to support learners with special needs.

Level 1 - Exchange	
Learner	Learners usually work on their own on tasks set by the teacher. Learners only occasionally use digital resources. Basic digital competence is required for students to use the digital resources.
Teacher	The teacher chooses the format of lessons and the resources used (including digital). Teacher-led pedagogies predominate; teaching and learning are isolated and innovation is confined to individual teachers. Digital competence levels of teachers are generally low. Teachers set the approach and resources that learners are expected to use. Technology sometimes replaces more traditional approaches, substituting a digital tool (e.g. word processing) for an analogue one (a pen). When using technology, the task set is not changed in order to exploit the opportunities it offers.
Assessment	Learning objectives are set by the teacher and relate to specific pieces of subject content or skills. Technology may be used occasionally for infrequent teacher-led assessment. Assessment is undertaken by the teacher usually on the 'end of unit' model, using traditional assessment approaches, rarely using technology.

School capacity for innovation	The school management's support for innovation or digital learning is a low priority, resulting in little training or support for teachers. Innovation is confined to individual teachers and is not considered a management priority. There is little encouragement, training or support for teachers in using digital pedagogies.
Resources	There is a narrow range of technologies (devices, apps, tools) possibly outdated and unreliable, in the classroom, occasionally replacing activities that can be done on paper and with textbooks, without adding value. Technology use tends to be unplanned, exceptional and not always beneficial. Technology, when used, is a replacement and mainly provides and displays information and resources to the learner.