DIGITAL TECHNOLOGIES IN FOCUS PROJECT PROPOSAL		
School name	**South Kalgoorlie Primary School**	
School contact details	**08 9092 5800**	
School team members	**Team member**	**Role**
School team members	1. Principal 2. ICT Coordinator/Teacher 3. Teacher	
School profile	Number of students <600 Location Provincial Sector Government School type Co-educational Year range F-6 The proportion of students who are Indigenous 25% The proportion of students with disability The proportion of students who have EAL/D	
Year level(s) involved in project and reason for choice	Pre-Primary to Year 6. Whole school push on teacher involvement	
Number of students involved	490	
Number of teachers involved	~30	

INVESTIGATING AND DEFINING

Proposal details

What is your research question? (Identify the challenge generally; refine the statement; get specific and express as a question.)

Does improving teachers' Digital Technologies (DT) and ICT capacity increase student computer science knowledge and skills, particularly in the area of digital literacy?

What are your project aims? (no more than five)

- Increase staff confidence, knowledge and understanding of ICT General Capability
- Increase staff confidence, knowledge and understanding of Digital Technologies Curriculum
- Increase staff knowledge of activities (unplugged and digital) to teach ICT skills
- Integrate Literacy and Digital Technologies Curriculum
- Empower students' ownership of their digital literacy skills and further develop their awareness of digital citizenship

How will your school investigate the research question? (Consider literature review, connecting with other schools, working with members of your school's professional learning ecosystem.)

Literature Review – 'Teachers as a barrier to students' learning'

Digital literacy

- Lankshear and Knobel (2008) define digital literacy as the ability to decipher and present information using any form of media – whether written, visual or sound – that will best suit the context and audience. It is a vital skill needed for nearly every profession, current and those that are yet to be created.
- Using unplugged resources, digital literacy can be taught without the use of regular access to technology such as computers and iPads (Guo et al. 2008).
- Integration is the most effective way for students to learn to apply their digital literacy skills in authentic situations; however, the level of effectiveness is still a concern in many places (Martin & Vallance 2008). Too often teachers see ICT and digital citizenship as a standalone subject; however, it can and should be addressed across all areas of the curriculum.

Staff

- Teachers may become a barrier to a student's learning of ICT skills as they can lack the digital competence themselves that is needed to adequately "use ICT in pedagogical practice" (Krumsvik 2014, p. 271).
- Educators whose pedagogy consists of a constructivist approach are more likely to be open to use and effectively teach ICT (Martin & Vallance 2008).
- Studies have shown that teachers, while often happy to share resources with those who they regularly collaborate with, may have reservations about sharing with a wider network (Gruszczynska et al. 2013). This can lead to teachers feeling that they have

to reinvent the wheel all the time and can increase their reluctance to change their teaching practice.

- Schools need to develop a logical scope and sequence that they want teachers to follow through the years, which still allows for technological developments and change but ensures that students' educational needs are being met for their 21st-century future.
- To allow our students to become effective citizens of the 21st century in all areas of digital citizenship, teachers must overcome all barriers and explicitly teach digital literacy.

Students

- Regardless of location or socioeconomic status, students are growing up in a digital world and, as such, need to be educated to prepare for their future. As technology is dynamic and ever-changing, it is not a requirement, nor is it possible, to teach students all the 'key strokes', but rather the knowledge needed to apply the skills in various contexts and its role in society (Foulger, Graziano, Slykhuis, Schmidt-Crawford & Trust 2016; Lankshear & Knobel 2008).

Staff will be provided with professional learning to unpack the DT Curriculum. This will include after sessions, CSER MOOC, ACARA-supported sessions and support in classrooms.

Staff will be encouraged to use various methods of teaching ICT including:

- TPACK
- SAMR
- iSTAR.

They will be provided with demonstrations of these methods.

Please briefly describe your project. Include an explanation of how your project links to the Australian Curriculum: Digital Technologies and how it helps you achieve existing goals for your school. Include references to your school plan.

The goal of our project is to empower our staff to become confident ICT teachers through facilitated learning opportunities and to transfer their knowledge and understanding of the Digital Technologies Curriculum and ICT General Capability to other teachers and students. This will include differentiating between the ICT General Capability and the Digital Technologies Curriculum and developing strategies to integrate the curriculum into other learning areas.

By utilising the experiences of school staff, we will provide professional learning to ensure that all staff have a consistent and comprehensive understanding of current curriculum and teaching strategies. To benefit the diverse learning need of all students, developmentally appropriate programs which optimise opportunities to learn through interactive, student focused and practical activities will be shared through collaboration and classroom observation.

State your criteria for success.

- Staff to develop a portfolio of teaching activities and reflections of DT lessons; based on content that has been explored in PL and how they have further explored the ideas
- Staff to take an active role in the integration/use of ICT by giving, sharing and developing ideas and practices; through use of whole school PBL planning template
- Staff to feel confident to discuss strategies with colleagues on how to tailor classroom spaces/activities for digital and unplugged experiences to implement Digital Technologies
- Staff to know where to locate online resources and activities to support the implementation of the Digital Technologies curriculum; use school Connect page to share resources
- Students' increased digital literacy knowledge

GENERATING AND DESIGNING

How will your project be delivered? What actions are planned?

- Timetabled additional support into Junior Primary classes for Semester One
- Timetabled additional support into Senior Primary classes for Semester Two
- Whole school unplugged Computational Thinking Activity challenge – similar to Bebras Challenge. Staff to be supplied with activities for first two terms; they will then be offered a selection to choose from in Term 3 and design their own activity in Term 4
- As many staff as possible to complete the CSER MOOCs. Staff to be offered after-school sessions in computer lab if they wish to work with others to complete
- Partner coaching – staff to work in collaborative phases to program units of work together
- Increase library/computer lab time for all Pre-Primary to Year 6 classes to 1 hour
- Develop a DT Curriculum Scope & Sequence

Whole school staff meetings to include a 10–15 minute focus on Digital Technologies Curriculum/ICT General Capability – staff to bring school-provided iPads		
ICT General Capability	*Term 1*	
Digital Technologies Curriculum Overview	*Term 1*	
Vocabulary	*Term 1*	
Resources	*Term 1*	
Assessment and Judging Standards	*Term 2*	
Knowledge and Understanding – Digital Systems	*Term 2*	
Knowledge and Understanding – Representation of Data	*Term 2*	
Processes and Production Skills – Collecting, Managing and Analysing Data	*Term 3*	
Processes and Production Skills – Digital Implementation	*Term 3*	
Processes and Production Skills – Creating Digital Solutions	*Term 3*	

Are you collecting data? How do you plan to do this?

- Develop student assessments (checklists) of ICT skills achieved
- ACARA Student Survey
- Student and staff reflections
- Photos and footage of lessons centred on DT

- Staff to complete 'Digital Technologies Teacher Self-Assessment Matrix' at the start, middle and end of the project
- Minutes of Sharing sessions at staff meeting
- Discussion of how staff are meeting the DT project expectations in Performance Management/Review/Collab meetings
- NAP-ICT Digital Literacy Assessment – Selection of Year 6 students to complete November 2017

COLLABORATING AND MANAGING

Identify the resources you will need for the implementation of the project. (Include your key stakeholders/how ACARA can offer assistance/what will impact your capacity to deliver.)

- Teachers & Education Assistants
- Admin
- Students
- Timetabled time for support
- Unplugged activities
- Computers/iPads
- Curriculum resources by SCSA SCASA
- CSER MOOC
- Quality professional learning – as supported by ACARA

Identify the potential risks your project may face. (Include risks such as lack of resources; lack of interest by teachers, students, community)

- Limited number of resources to be shared between classes
- Confusion between Digital Technologies Curriculum and ICT General Capability

Consider the deliverables and timelines for this project (progress reports, webinars, podcasts, final report). What are the milestones for your school's project?

Activity	Who	Complete
Introductory workshop	Nicole	22 August 2017
Teacher surveys	All teachers	4 September 2017
Develop a project proposal	Project Team	
Teacher matrix	All teachers	
Refine the project proposal	Project Team	
Develop an after-school professional learning timetable for 2018 – including MOOC	Project Team	December 2018
Develop a timetable for support into classrooms	Project Team	February 2017
At least 8 teachers to sign up and commence online CSER MOOC	Teachers	February 2017

Plan a whole school Unplugged Computational Thinking Activity session for Term 1	Whole school	March 2017
Reassess support timetable	Project Team	April 2018
Whole school Unplugged Computational Thinking Activity session – Term 2	Whole school	June 2018
Teacher surveys	All teachers	July 2018
Whole school scope and sequence	Project Team	July 2018
Whole school Unplugged Computational Thinking Activity session – Term 3	Whole school	September 2018
Teacher surveys	All teachers	November 2018
Student assessment	All teachers	November 2018
Whole school Unplugged Computational Thinking Activity session – Term 4	Whole school	December 2018

PRODUCING AND IMPLEMENTING

Describe how Digital Technologies will be implemented in your school.

During 2017, Digital Technologies was implemented as a specialist subject for classes in P–6. This will continue for 2018. Classes that do not have this as a specialist subject will be taught the curriculum in their class by their classroom teacher for a minimum of one semester throughout the year.

Professional learning will be offered to all staff.

While the end goal is to have DT integrated into curriculum, implementation will begin as a standalone subject until staff feel confident with the content.

EVALUATING

ACARA will be assessing students at the beginning and end of the project in terms of ICT literacy and computational thinking skills.

What additional evidence will you need to collect in relation to your school's specific action research question? You may like to consider:

- collecting student work samples
- Staff portfolios of teaching activities and reflections of DT lessons; based on content that has been explored in PL and how they have further explored the ideas

ACARA will be surveying teachers at the beginning and end of the project in terms of their ICT literacy and their confidence in teaching Digital Technologies knowledge, understanding and skills. **What additional evidence will you need to collect in relation to your school's specific action research question?** • Staff feedback • Staff pre & post self-reflection using AITSL standards
Please add any other comments about your project that you would like to make.

Thank you for your time and commitment to the Digital Technologies in focus project.