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| **Year 4 Technologies and Library Collaborative Inquiry Learning Unit****From Field to Feast⎯Bread****By Marika Simon** |
| **Key Question:** How do different technologies, occupations and processes contribute to the bread people eat?**Unit Focus**Students will use Kuhlthau et al. (2012)’s GID/ISP Information Literacy model to create and implement their own inquiries into the production of bread. Through sharing results of individual research questions, the whole class will aim to answer the Key Question.**Duration:** One Term⎯10 weeks10 x 30 minute library sessions (45 min – 15 for transitions and borrowing books)5 x fortnightly 50 minute RFF sessions (1 hour – transition time) | **Assessment Overview:**The Teacher Librarian (TL) will assess information literacy according to General Capabilities elements using student journals and bibliographies and SLIM Toolkit questionnaires.The Science and Technology Teacher (STT) will assess student creations and Key Question Assessments according to the Technologies content descriptors. |
| **Australian Curriculum Content Descriptors and General Capabilities (GC) Elements covered:**(ACTDEK012) Investigate food and fibre production and food technologies used in modern and traditional societies.(ACTDEK010) Recognise the role of people in design and technologies occupations and explore factors, including sustainability that impact on the design of products, services and environments to meet community needs.(ACTDIP009) Collect, access and present different types of data using simple software to create information and solve problems.(ICT-1) Information and Communication Technologies (ICT) Capability: Investigating with ICT.(ICT-2) ICT Capability: Applying social and ethical protocols and practices when using ICT.(CCT-1) Critical and Creative Thinking (CCT) Capability: Inquiring⎯identifying, exploring and organising information and ideas. |

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| **Lesson: Inquiry Phase****Facilitator**  | **Teaching, learning and assessment overview** | **Notes** |
| 1: OpenTL  | * Lunchbox guessing game (10 min)
* IL Model explanation (20 min)
* Word, phrase or picture reflection (2 min)
 | * See initial lesson plan for more detail.
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| 2: Open/ImmerseTL  | * TL: briefly review GID stages, introduce Nottingham’s (2018) Learning Pit (3 min).
* Students: write “Think” statements for Think-Puzzle-Explore (5 min).
* TL: read *Everybody Bakes Bread* (Dooley & Thornton, 2010) (15 min).
* Students: think-pair-share and generate questions for “Puzzle” stage of Think-Puzzle-Explore⎯add to poster. Send poster to STT (5 min).
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| 3: ImmerseSTT  | * STT: read out “Puzzle” questions from the library session. Discuss (5 min).
* View: Aboriginal bread⎯audio file and photos (Brewin, 2013) (10 min).
* Students: think-pair-share, create “Puzzle” questions (5 min).
* View: video on bread production (Morris, 2011, October 7) (8 min).
* Students:
	+ think-pair-share, create “Puzzle” questions (5 min).
	+ SLIM Toolkit initial questionnaire (15 min).
 | * <http://www.abc.net.au/local/photos/2013/07/11/3801235.htm>
* <https://www.youtube.com/watch?v=63YGhFPI6CE>
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| 4 - 5: ExploreTL  | * TL:
	+ introduce Explore phase, review expectations for emotions using Learning Pit image (5 min).
	+ introduce Inquiry Journals (IJs), Inquiry Logs (ILogs) (5 min).
* Students:
	+ explore prepared resource stations, record sources on ILogs (15 min).
	+ complete Head–Heart–Hands reflection in IJs (5 min).
 | * Resource stations: print and digital resources and pathfinders on key topics
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| * TL: assign students to initial Inquiry Circles (ICs) (5 min).
* Students:
	+ explore using resource stations and other library resources (20 minutes).
	+ share ILogs in ICs (5 min).
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| 6: Immerse/IdentifySTT  | * STT: remind students that the process can return to earlier stages⎯this week Immerse and Explore (2 min).
* Watch: video “Headlie’s Header” (Lee, 2014)⎯discuss connection to topic (wheat harvester⎯wheat is main grain used to make bread) (17 min).
* STT:
	+ review Identify, discuss good inquiry questions qualities (6 min).
	+ introduce Focus Questions, explain how students can reflect on information in ILogs and IJs to complete (2 min).
* Students: work in ICs⎯complete Focus Questions in IJs (20 min).
* Discussion⎯reflect on progress⎯what was easy, difficult, complete, incomplete (3 min)?
 | * <http://www.abc.net.au/tv/programs/landline/old-site/content/2013/s3945639.htm>
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| 7: IdentifyTL  | * TL: describe process of making Inquiry Charts (ICharts) (5 min).
* Students:
	+ create ICharts (20 min).
	+ write completed question on “Explore” chart when prepared.
	+ debrief in ICs (5 min).
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| 8: GatherTL  | * TL: review Gather stage. Model internet search and note-taking strategies (5-10 min).
* Students: gather information, using IJs (15 -20 min).
* TL: create new ICs based on question similarity (5 min).
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| 9: ImmerseSTT  | * Hands-on experience stations (45 min):
	+ grinding grain to flour
	+ proving yeast
	+ combining and kneading dough
* Students: take notes in IJs, Head – Heart – Hands (5 – 10 min).
* Students: debrief in ICs (5-10 min).
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| 10: GatherTL  | * TL: mini-lesson on Go Deep exercise (5 min).
* Students: find source and Go Deep (15 min).
* Students: share results in ICs (10 min).
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| 11 - 13: Create TL | * TL: present options for presentation products (digital/non-digital, text/visual/dramatic, all need bibliographies) (10 min).
* TL: mini-lesson on bibliographies (10 min).
* Students:
	+ plan for create (10 min).
	+ word, phrase or picture reflection in IJs (2 min).
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| STT | * Students:
	+ create (50 min).
	+ Head-Heart-Hands in ICs (10 min).
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| TL  | * Students:
	+ finish creations (25 min).
	+ debrief in ICs (5 min).
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| 14: ShareTL  | * Students: share creations (30 min).
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| 15: Share / EvaluateSTT  | * Students:
	+ share creations (30 min).
	+ assessment⎯answer Key Question (15 min).
	+ SLIM toolkit final questionnaire (15 min).
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| GC AssessmentJournals:ICT-1/CCT-1: Gives (**no, minimal, some, many, consistently thoughtful and thorough**) explanations of how and why specific data was located and selected from digital sources for use in inquiry.CCT-1: (**Never, Rarely, Sometimes, Mostly, Consistently and accurately**) identifies the main idea of a source and takes (**no, minimal, some, many, thorough and accurate**) notes relevant to topic.Is able to pose a rich inquiry question (**not at all**, **with significant help**, **with some assistance, with minimal assistance, independently**).Bibliographies:ICT-2: Demonstrates (**no, emerging, developing, some, consistent**)recognition of intellectual property by:(**never, rarely, occasionally, usually, always**) providing references for sources and images used in own work.citing (**no, one, two or three, four or five, more than five**) sources using (**no, minimal, some, complete, complete and accurately formatted**) bibliographic information as demonstrated. |