

## GUIDED INQUIRY DESIGN IL PLAN



(Guided Inquiry Design Process - Kuhlthau, Maniotes, & Caspari, 2012)

### Learning Outcomes/Content descriptions: (Teachers)

**GE3-1** Describes the diverse features and characteristics of places and environments.

- Bushfire Hazard

### Elements of the General Capabilities: (TLs)

#### Critical and Creative Thinking

Inquiring – identifying, exploring and organising information and ideas.

#### Information and Communication Technology

Creating with ICT.

#### Literacy Learning

Composing text through speaking, writing and creating.

### Inquiry Focus Questions:

- How do people and environments influence one another?
- How do people influence places and the management of spaces within them?
- How can the impact of bushfires on people and places be reduced?

### Assessment:

Anecdotal and formative assessment opportunities have been highlighted throughout the unit

- Inquiry Journal & Log

- Student & TL created rubric

Targeted opportunities to assess the General Capabilities have been embedded and highlighted throughout the unit as per the coloured key shown above.



# Guided Inquiry Phase #1 - OPEN

## Teaching and Learning Activities:



Teacher Librarian (TL): Display Visual Prompt 1.

Students visit [menti.com](https://www.menti.com), enter code 653081 and brainstorm words that come to mind when they view this image. Discuss results. Highlight frequently used terms appearing in larger font.

### SEE, THINK, WONDER THINKING ROUTINE:

TL: Display Visual Prompt 2.

*Explain this is purely a thinking activity – no answers will be explored at this stage. Suggest that sometimes the questions are more important than the answers.*

#### SEE

*What do you notice? (facts)*

#### THINK

*What do you think is going on? (inferences)*

#### WONDER

*What does it make you wonder? (pondering)*



Allow time to ponder and encourage contributions from all students.

Classroom Teacher (CT): Scribes student comments verbatim (on whiteboard). Take photo and upload to OneNote for later use.

#### TL:

- Introduce unit task - researching bushfires.
- Highlight that the inquiry task will be framed around collaborative learning and ask for student input to establish protocols around this – *i.e. safe environment, risk taking encouraged, respect the views of others, etc.*
- Introduce [padlet](#) with feature statement: “I enjoy researching tasks”.
- Direct students to their devices and ask them to identify their stance along a continuum of ‘strongly disagree’ to ‘strongly agree’ and provide justification for their response.

Students add a note to the padlet identifying their reaction towards engaging in research, providing justification for their answers

Regather group and analyse some of the responses.

**TL:**

Introduce Guided Inquiry Design Process (GIDP) icons and introduce each phase, providing a brief overview of what each phase includes.

- Acknowledge that this model may present feelings of anxiety and trepidation; reassure students that their learning will be supported alongside their peers and the mentorship of their teachers.
- Allay fears by drawing parallels with the activities already completed in this lesson, **questioning** and **reflecting** – key inquiring skills. Advise students that unknowingly, they have already begun the process of research.

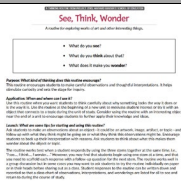
**Summary:** students journal their initial reaction to the lesson.

Consider upcoming unit and:

- describe any challenges they predict they will face
- identify things that excite them about the unit
- create two learning goals for themselves

*(Journal responses recorded in OneNote).*

**TEACHER RESOURCES:**



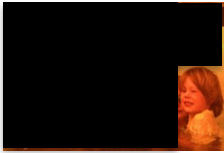
**TL LESSON REFLECTION:**

**CT LESSON REFLECTION:**



# Guided Inquiry Phase #2 - IMMERSE

## Teaching and Learning Activities:



### TL:

- Display partially concealed image; students ponder then engage in [‘Zoom In’ Thinking Routine](#).
- Draw parallels with research; looking for ‘the bigger picture’.



- Watch author Ella Halcombe reading: [‘The House on the Mountain’](#).
- Provide students with a transcript of the text, students highlight lines which resonate with them.
- Students work in groups of 4: Reflect on lines they have highlighted, **then select one line to independently construct an associated question.** *Peers may offer support if needed.*
  1. A nominated student **shares their selected line and associated question with the group.**
  2. One at a time the remaining 3 students answer the how/why question relating their answers to personal experience.
  3. Repeat steps 1 & 2 for the other 3 students in the group.
  4. The group discusses which personal connection is most memorable and why.
  5. **Record the line from the text and most memorable connection on [Microsoft Form](#)**

### TL & CT:

Circulate the room and provide assistance where necessary. As a class read responses submitted via Form.

Discuss author note at the end of the book, where author reveals that her mum and dad were killed in the bushfire. Halcombe chose not to include that story because ‘she knows it too well’ and instead chose to focus on movement and regrowth (Allen & Unwin, n.d.).

**Students journal whether this new perspective makes them think differently about the book.**

## TEACHER RESOURCES:



### TL LESSON REFLECTION:

### CT LESSON REFLECTION:



# Guided Inquiry Phase #3 - EXPLORE

## Teaching and Learning Activities



Students work in inquiry circles to compare image from fire-fighters from 1939 Black Friday fire with a fire fighter from the recent 2020 disaster.

- Identify what would be common between the two fire stories and what would be different.
- Compare findings with another inquiry circle.



### TL:

- Display 'Explore' icon and explain purpose of this phase.

### TL & CT:

- Introduce learning intention – students examine information from a range of sources, and note points of interest or further questions.
- Explain purpose of Question Formulation Technique. Provide students with page 1 of the scaffold (Appendix A) and demonstrate its use.
- Briefly showcase each of the learning stations and highlight variation in sources of information.
- Focus is on constructing an enquiry question – NOT gathering facts. Model skim and scan strategies
- Examine interface of Project Firestorm. Explicitly model how to navigate website and highlight features such as the filters on the 'Intel' tab. Connect importance of this refining skill to future independent research. *n.b. Project Firestorm is a highly engaging resource which demonstrates the inquiry approach perfectly, though at this stage, students should be advised to remain within levels 1 and 2 and can revisit the other steps in later phases.*

Station 1	Station 2	Station 3	Station 4	Station 5
Podcasts	Information Texts	Newspaper Articles	Picture Books	<a href="#">Project Firestorm</a>

- Provide ample time for students to engage with the information presented at each station and list their questions of interest on the scaffold.

**∞ Critical zone of intervention** (Kuhlthau et al, 2012), TL & CT conference with students either individually or in small groups to ask students what they are finding interesting, to ascertain feelings towards their progress and provide assistance where necessary.

### TEACHER RESOURCES:

TL sources a variety of materials to complement each of the stations.

### TL LESSON REFLECTION:

### CT LESSON REFLECTION:



# Guided Inquiry Phase #4 - IDENTIFY

## Teaching and Learning Activities:

### TL & CT:

- Lead students in discussion about the information they viewed during the 'explore' phase.
- Introduce 'Identify' icon and explain that students will now need to refine their own inquiry question.
- Watch [Questions are the New Answers](#) and discuss the importance of asking questions – even if you don't get an immediate response.
- Follow up with [The Power of Effective Questioning](#) and analyse the difference between open and closed questions.
- Display [Cheatsheet for Critical Thinking](#) and discuss how questions could be used to guide thinking towards developing a research question.
- Brainstorm and display 'big picture concepts' that could feed down to inquiry questions.

○ Students complete 'Question Formulation Technique Scaffold' (Appendix A), revising their question as necessary.

Select their preferred question and write it on a post-it note.

○ Gather as a group and introduce continuum as featured.

○ Students place their post it note in a position which aligns with perceived importance/relevance.

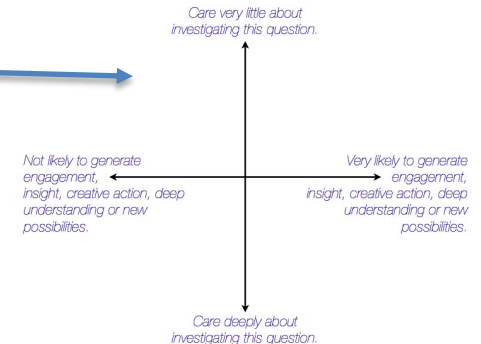
○ As a whole group, prioritise questions.

○ Students can move the notes of others, **but must provide justification as to why.**

○ Identify common characteristics and form inquiry circles.

○ Students journal their experiences thus far, detailing any challenges they have faced in developing a research question.

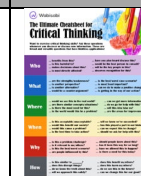
Image from <https://sonyaterborg.com/2013/03/17/questioning-conceptually/>



### TEACHER RESOURCES



### VISUAL DISPLAYS:



### TL LESSON REFLECTION:

### CT LESSON REFLECTION:





# Guided Inquiry Phase #5 - GATHER

## Teaching and Learning Activities:

### TL & CT:

- Display 'Gather' icon and discuss requirements of this phase.
- Watch [ABC Education video on fire](#). Lead students through '[+1 Thinking routine](#)'.
- Discuss importance of 'active' research and subsequent note taking.

### Explicit Teaching of skills:

- Model steps involved in locating and selecting information.
- Revise effective search terms and use of Boolean operators. (Highlight link between key terms and mentimeter activity in introductory lesson).
- Watch video on [evaluating resources](#) & revise steps - Credibility, Relevance, Accuracy, Authority, Purpose.
- Revise skills of [paraphrasing and summarising](#)
- Review referencing and how to complete a bibliography.
- Model effective research habits (e.g. read, close the book; visualise, illustrate concepts, take notes etc.

*Upload all materials into students OneNote for student reference*

Students access a variety of sources and make notes on the information they find using an inquiry log (using OneNote).

Students work independently within inquiry circles formed around areas of similar interest. Encourage resource sharing and working collaboratively to problem solve.

### TL & CT:

- Discuss ways of knowing when students have collected enough information.
- Midway through the unit, jointly construct a marking rubric, clearly outlining expectations of the task.
- **Hold individual conferences with students to ensure focus remains upon their inquiry question.**

## TEACHER RESOURCES



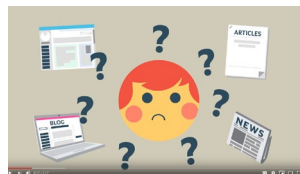
**+1 Routine**  
A routine for the identifying important ideas worth remembering.

After reading a text, watching a movie, listening to a lecture, or being presented with new information or ideas in some manner, a group of learners does the following:

**Recall** In 2-3 minutes and working individually, each learner presents a list of key ideas that he or she recalls from the presentation that he/she feels is important to hang onto. Learners do this in memory or either share-recalling or write.

**ADD+1** Learners pass their papers to the right. Taking 1-2 minutes, each student reads through the list of ideas of his/her and adds one more thing to the list. The addition might be an elaboration (adding a detail, a viewpoint (adding something that was missing), or a connection (adding a relationship between ideas, RUCIP). This process at least two times.

**Act** Return the papers back to the original owner. Learners read through and review all the additions that have been made on their sheets. At the same time they may add any ideas they have picked up from reading other's sheets that they thought were worthwhile.



## VISUAL DISPLAYS:

**How Do You Paraphrase?**

Put the text in your own words. Use your own words to explain the main idea. Use your own words to explain the main idea.

**Paraphrasing**  
Read carefully what you read. Rewrite it in your own words. Use your own words to explain the main idea.

Are you sure? The following questions can help you check your paraphrase:  
"I used the same words as the original."  
"I just changed a few words."  
"I copied the original sentence."  
"I wrote it in my own words."  
"I used my own words to explain the main idea."

**How Do You Summarize?**

Write the main idea in your own words. Include the main points.

**Summarizing**  
Read carefully what you read. Write the main idea in your own words. Include the main points.

**Summarizing**  
Write the main idea in your own words. Include the main points.

## TL LESSON REFLECTION:

## CT LESSON REFLECTION:



## Guided Inquiry Phase #6 - CREATE

### Teaching and Learning Activities:

#### TL & CT:

- Display 'Create' icon and discuss requirements of this phase. Explain that this is the time to synthesise their ideas.
- Students revisit their inquiry log to **make connections and begin to organise information into sub-headings.**
- Suggest use of mind-mapping: experiment and **move information around as necessary.**
- Students envisage the information to be shared and **how they plan to communicate this to their viewer.**
- Direct students towards visual scaffolds as necessary: e.g. comparison graphs, flow charts, venn diagrams etc.
- Examine presentation tools available for use (limit to 3 options) and **encourage students to self-select a format which best suits the needs of their task.**
- Revise publishing protocols of a 'professional document'
- **Students collate their material onto their chosen presentation tool** **chosen after consideration of their audience.**
- Students conference with a peer to obtain feedback on their presentation.
- Revisit student rubric and have them self-assess their presentation prior to submission. Edit any 'rethinks' where necessary.

#### TL LESSON REFLECTION:

#### CT LESSON REFLECTION:





## Guided Inquiry Phase #7 - SHARE

### Teaching and Learning Activities:

#### **TL & CT:**

- Display 'Share' icon and discuss requirements of this phase.
- Students work in inquiry circles (mixed research topics) to present their research.
- Students take notes on each other's presentations and provide constructive feedback.
- Inquiry circle analyses each member's presentation and collaboratively selects one as an exemplar to be presented to the whole class.
- Upload all student presentations onto a shared drive or wiki for interested parties to access.

#### **TL LESSON REFLECTION:**

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#### **CT LESSON REFLECTION:**

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# Guided Inquiry Phase #8 - EVALUATE

## Teaching and Learning Activities:

### TL & CT:

- Display 'Evaluate' icon and discuss requirements of this phase.
- Students final journal – evaluation of unit, their participation in group work and their development as a learner.
- Students submit their inquiry log, journal and rubric to teacher for consideration and assessment.....

### TL LESSON REFLECTION:

### CT LESSON REFLECTION:

### Evidence of achievement of General Capabilities – rubric, or paragraph:

In addition to the rubric below, targeted opportunities to assess student achievement of the general capabilities have been embedded throughout the unit.

Reflections from both the TL & the CT will be documented upon the conclusion of each lesson. These brief notes can be used to adapt upcoming lessons and to inform implementation of the unit in future years; identifying what worked well and what needs to be amended or substituted.

This simplified rubric both informs the teacher as acts as a benchmark against which students can monitor their progress. It is presented once the inquiry process is in place and students have a reasonable understanding of the expectation of the task. Students and the TL work collaboratively to establish the 'Must Have' requirements of the task. As the unit progresses, the rubric is revisited and evidence of advanced thinking or strategies are added to the 'Amazing' column. Equally, students and TL conference on what would be unacceptable standards and require a 'Rethink' e.g. incomplete, spelling errors etc. Providing students with the opportunity to determine how they are assessed encourages them to accept accountability of their learning and is a powerful way to build understanding of what quality work entails (Frierson et al., 2015).

RETHINK	MUST HAVE	AMAZING

Adapted from Bondie & Zusho (2008).



**Step 3:** Improve your questions.


Consider Open and Closed questions:

CLOSED	OPEN
<ul style="list-style-type: none"><li>• have only one answer</li></ul>	<ul style="list-style-type: none"><li>• are “open-ended” questions and cannot be answered with a yes or a no or a small phrase.</li></ul>
<ul style="list-style-type: none"><li>• may have a yes or no answer</li></ul>	<ul style="list-style-type: none"><li>• require multiple resources to be answered.</li></ul>
<ul style="list-style-type: none"><li>• the answers are easily found.</li></ul>	<ul style="list-style-type: none"><li>• need to be interesting to you.</li></ul>
	<ul style="list-style-type: none"><li>• may begin with “How”, “Why”, “Explain”, “To what extent”, “Account for”.</li></ul>
	<ul style="list-style-type: none"><li>• Not obvious or easily answered</li></ul>
	<ul style="list-style-type: none"><li>• Leads to multiple perspectives</li></ul>
	<ul style="list-style-type: none"><li>• Keeps you thinking/thought provoking</li></ul>
	<ul style="list-style-type: none"><li>• Could lead to controversy/debate</li></ul>

Go down your list of questions and label each with a “C” for **closed-ended** or “O” for **open-ended**.

In your OneNote, change one question on your list from **closed** to **open**, and one from **open** to **closed**.

**Step 4:** Strategise. Pick your best questions and decide how you will use them.

Look at your list and choose your 3 most important questions. Draw a  next to the ones you chose.



What were your reasons for selecting those three?

**Adaptation of materials found on *The Right Question Institute* and *Guided Inquiry in Australia***