Self-regulated Learning and Information Literacy within the LTK+

Teacher Guide

Kenya Edition

CSLP • CEAP
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Acknowledgments

The tools presented in this Teacher Guide build on decades of research and work carried out by a dedicated team. We would like to acknowledge the contributions and efforts of the following people and organizations:

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Our Partners and Funders
This project would never have come into existence without the support and efforts of our partners including: Concordia University, Aga Khan Academies, Aga Khan Foundation (Canada and East Africa), CAMARA, ICT4E, Kenyan Ministry of Education, Science and Technology, Kenya Institute for Curriculum Development, Shanzu Teachers Training College, Social Science and Humanities Research Council, (Canada), World Vision Kenya, World Vision Canada, University of Nairobi, along with many others.
Introduction

The Learning Toolkit+ (LTK +)

The CSLP has been involved in the design, development, validation, and dissemination of knowledge tools for teaching and learning, bundled together in the LTK+, including several that support the development of literacy and numeracy skills. The tools in the LTK+ are designed according to evidence-based principles gleaned from theory and research, including systematic reviews of research, and refined with input from practitioners. The tools are also validated in field-based, longitudinal experiments to the highest standards of methodological quality. They are available at no charge to the community.

This Guide

This Teacher Guide has been published as part of a collaborative initiative led by the Centre for the Study of Learning and Performance (CSLP) and the Aga Khan Academy in Mombasa designed to teach the foundational skills of literacy, numeracy, and information literacy to Kenyan children using technology. Cross-curricular competencies such as self regulated learning, critical thinking and digital literacy are also addressed.

Our approach is to provide ongoing professional learning support in order to develop local expertise in the use of the Learning Toolkit+ specifically, and more generally in the effective integration of technology into teaching and learning.
Welcome to ePEARL, a bilingual, electronic portfolio software. Based on sound research evidence, coupled with feedback from the field, ePEARL has been designed to encourage self-regulated learning within student centered curricula.

ePEARL is best suited for educators who wish to use electronic portfolios in a student-centred way, but who also wish to experiment with multimedia content and a collaborative approach. ePEARL’s features encourage planning, reflection, sharing and peer feedback, in addition to the creation and revision of work.

More specific support may be found within the software by clicking on the help icon next to most functions, or by accessing the Teacher Resources page.

This section will provide basic information on the ePEARL software to help get teachers started using the software in their classroom. A general overview of ePEARL’s features and structure, along with an explanation of the self-regulation process is provided. Followed by a detailed description of each level of ePEARL. In the latter instance, this is divided by:

• Features: A brief explanation of the features of the electronic portfolio.
• Structure: A description of the levels and languages of use.
• What is Self-Regulated Learning: The theory on which the design and development of ePEARL was based.
• Link to ABRACADABRA: The link to readings and extension activities in Level 1.
• TeacherModule: A look at how teachers can contribute and impact students’ learning process. Links to a variety of paper-based and multimedia resources, including lesson plans and job aids.
What is Self-Regulated Learning?

ePEARL has been designed to support and foster the self-regulation skills of students.

“Self-regulated learning is a self-initiated action that involves goal setting and regulating one’s efforts to reach the goal, self-monitoring (metacognition), time management, and physical and social environment regulation” (Zimmerman & Risemberg, 1997)

Forethought, Performance, and Self-Reflection are the three cyclical phases called Planning, Doing and Reflecting in ePEARL. Each of these larger phases incorporate smaller sets of behaviors, which support learning and encourage the student to be aware of the process s/he is engaged in. Complex tasks are easily broken down and teachers have a crucial role in scaffolding these steps through feedback. Other important components of self-regulation are: motivation, self-observation and self-experimentation.

Findings from a number of studies reveal that learners with high levels of self-regulation:

- Have good control over the attainment of their goals
- Can focus on the process of how to acquire these skills
- Are better prepared for the ‘real world’
- Feel more ownership over their learning
- Become lifelong learners

Teachers who used ePEARL reported improvements in students’ use of SRL processes including:

- Setting process goals
- Articulating task demands
- Listing strategies
- Providing constructive feedback to peers
- Using teacher & peer comments to improve work
- Evaluating their own work
**ePEARL Structure**

This section will discuss the conventions underlying ePEARL to help teachers understand why things were designed the way they were and to make it easier for teachers to use the software in their classrooms.

**Levels & Users**

Three levels have been designed for use in elementary and secondary schools:

Level 1 – Cycle One/Grades 1-2;

Level 2 – Cycles 2 & 3/Grades 3-6; and

Level 3 – Secondary/Grades 7-12.

Note that a Level 4 has been designed for adult learners however this is in a beta version

**Level 1** is geared towards beginning readers. The interface design, as well as the type of interaction, are simplified and specially suited to young learners.

**Level 2** is designed for Cycle 2 and Cycle 3 students (Grades 3-6). The design allows for additional learning opportunities as compared to Level 1. ePEARL Level 2 supports students in the portfolio process and promotes emergent self-regulation skills. Students can be guided through the learning process as they set general goals for the term, specific goals for each entry and determine strategies for achieving their goals. They are encouraged to reflect on their own work, provide meaningful feedback on their peers’ work and select important artifacts for presentation at the end of a cycle (or grade).

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**Figure 2:** A student's ePEARL portfolio - Level 2
**Level 3** is designed for secondary school students (Grades 7-12), hence it provides the opportunity to engage in deeper self-regulation. Additionally, the language and the graphic interface used throughout the software, including the Help, is more mature.

With its Toolbox, Schedule and Tagging features, Level 3 promotes a more flexible and mature environment for this population. ePEARL offers more in-depth self-regulatory language, which allows the student to drill-down on goal-setting, motivation and reflection questions. The new Toolbar offers even more ways of adding content to this multimedia portfolio!

The ability to set notifications, add posts and reply to peers’, teachers’ and parents’ comments creates the feel of a Wall, which students are accustomed to in a social networking era. Students can customize these notifications and their Home Page, which ultimately provides ownership over their portfolio and learning!

In Level 3, Students can create a Personal Orientation Program (POP) artifact, by clicking on ‘POP Exploration’.


**French**

All levels are fully bilingual. Students and teachers may toggle between French and English on any screen by clicking on the language icon in the upper right hand corner of the screen.

A French Teacher Guide is available on the Teacher Ressource page.
ePEARL Student Module

Features

Students can:

- Learn to reflect on their learning meaningfully and to comment constructively on the work of their peers.
- Track their reading and music development, or presentation skills by recording directly into the computer;
- Learn basic word processing commands through the use of a text editor;
- Archive selected artifacts within a presentation portfolio over the course of their education.

Teachers can:

- Create their own portfolios;
- Provide feedback on students’ goals, work and reflections;
- Track the development of their students’ learning over a term, a year, or a cycle;
- Model effective practices related to goal setting, reflection and conferencing.

Parents can:

- Track their child’s learning;
- Become actively involved in their child’s education through the provision of feedback on work once it is stored within their child’s portfolio.

Figure 3: ePEARL’s Level 2 View Artifact page
Level 2

ePEARL is designed to support self-regulated learning. This cyclical process promotes planning, doing and reflecting, with specific sub-processes under each of these. Self-regulated learning encourages students to be responsible for their own learning and make guided choices about what they need to work on.

This guide will go into greater detail about this process as it takes place in the portfolio later in this section.

The Portfolio Environment

In Level 2, ePEARL offers a more sophisticated portfolio space. Here, students can personalize their home page, add and edit general goals, create new work (referred to as Artifacts) and present work once it is completed. When users access the software, they are brought to the home page of their portfolio. Here, they are able to store artifacts that have been created outside of the software or create new ones directly in the portfolio by clicking on “Artifacts.” Once students are in the artifacts index, clicking on “add new artifact” will bring them to the Learning Process pages. In this environment, students may be guided through each step of planning, doing and reflecting as they work.
Personalizing the Portfolio

In Level 2, students are able to personalize their portfolios using the “Personalize” option found on the bar just below the banner.

Welcome Screen

A welcome message may be added using the text editor, an image may be uploaded and used as a banner, and an image can be displayed next to the welcome message. A To Do List is also available to help students organize their activities and plan their time.

Themes

Banners: To further personalize their ePEARL, students can create their own banners to appear across the top of the screen. ePEARL has a gallery of banners to choose from, but students can also upload static images or text (in JPEG, GIF or PNG file formats) or even simple animated text (in the form of animated GIF files). Banners should be approximately 760x75 pixels and 72 dpi. Several programs students can use to create banners, and free websites where banners can be created or downloaded are listed in the Frequently Asked Questions section.
### Themes

Students may select one of 16 background themes.

### Colour Tags

Students may designate four colour tags. These can be used to help flag items (e.g. In Progress, Completed, Responded to Feedback). The software assigns the fifth code, “My Favourite”. Artifacts can be sorted by colour tag.

### My Account

**Password:** If a teacher’s class logs in to ePEARL directly through the software, in level students may change the password that has been assigned to them by the system under the My Account tab. If the class accesses ePEARL through the school’s portal, it is not possible for students to change their ePEARL passwords.

### Nickname

Students can also choose to use a nickname rather than the given username to identify their ePEARL. This is useful when there is more than one student with the same name in a class, or if a student uses a different name than his or her given name. A nickname may be used on the Access page instead of the User ID.
Adding New Artifacts

An entry in the portfolio is called an artifact. To add a new entry, students must click on the plus icon. Each entry in the portfolio is entered into a page. Students are required to provide a title for the entry and select a folder to save it in. These can be modified later, but this will encourage students to organize their work. All other fields are optional and may be used only if the teacher or student decides to do so.

The Learning Process

In order to support students as they complete their work and to help them learn more about self-regulation, ePEARL has a Learning Process feature that guides them through the creation of an artifact. This feature supports students by walking them through the Planning-Doing-Reflecting cycle. Students are presented with small chunks of manageable tasks as well as detailed instruction about the tasks at hand.
The Learning Process emphasizes the planning and reflection stages, and incorporates motivation as well as self-prediction of achievement and degree of difficulty (see Figure 19). Bringing these aspects to the attention of students helps them realize how much they need to invest in the task at hand. These predictions can also be used as points to reflect on when the work is completed to see whether they were accurate. Why or why not? Is there a pattern to the predictions? These reflections can help students become more aware of themselves as learners.

Work that is created using the Learning Process can be saved and continued at a later date. Clicking on the multiple page icon allows students to systematically work their way through the Learning Process one step at a time, while clicking on the one-page icon displays the entire Learning Process on a single page for quick additions or changes without going through many screens. Students can easily switch between these two ways of viewing their work at any time.

**Figure 10:** Motivation and prediction

**Figure 11:** Multiple page view icon

**Figure 12:** One page icon
Adding Content

Toolbar

As a means to encourage the display of learning using multimedia. The toolbar provides the opportunity for multiple forms of content development. Each icon may be used an unlimited number of times.

Text Editor

Students may write stories directly in the text editor, which introduces them to basic word processing commands. Depending on which web browser being used, a spell check function may be available. For example, when using Mozilla’s Firefox, words spelled incorrectly will be underlined in red.

Audio Recordings

The recorder allows students to attach audio snippets to their artifacts. The maximum length of the recording is determined by the LTK administrator. Note that lengthy recordings will take a long time to save and load. In Level 1, this means that students can record samples of their reading, but recording an entire story is not recommended. In Level 2 recordings may be any oral material that the student wishes to record. These may include segments of oral presentations or music recordings, as well as reading samples.

File Attachments and Web URLs

Work created outside of ePEARL may be attached. Students can enter hyperlinks to podcasts, websites or blogs.
Reflections

Reflections may be added using the Toolbar, Rubrics and/or Learning Logs.

Rubrics

Rubrics may be used to itemize the various learning outcomes associated with a particular activity. ePEARL provides a place to link rubrics as external documents. A template for rubrics is available on the Teacher Resource page.

Learning Logs

Learning logs created outside of ePEARL can also be linked to an artifact. Logs can be used to track the strategies students use to attain their goals. For example, tally sheets can be designed to track amount of time spent studying, participating in group work, practicing reading, etc.

Focus

One feature that is designed to scaffold students is the Focus arrow, which hides all other sections when it is clicked. When editing an artifact using a one-page display, some section headings have small red arrows beside them. For example, the Content section has a focus arrow.

When clicked, all ePEARL sections will be hidden except for the Content section and the goals set for this entry. This will help students focus on writing the content while keeping the goals in mind.

The top part of the Focus page displays the active section, while the bottom part displays the task goals and strategies (if any have been entered). The section that is focusing on at the bottom of the page can be changed by clicking on any of the other ePEARL sections in the list above the current selection. This provides a good starting point for completing the task, while still maintaining sufficient flexibility to accommodate individual student and teacher practices.
Viewing and Editing Items

In View mode, the entry is in a read-only format. From this screen, the student can:

- share the entry with others,
- delete it from ePEARL,
- choose to edit it,
- or send it to the Presentations folder.

If the student wishes to print out a copy, a printer-friendly version can also be accessed from this screen.

The only active fields on this screen are the Peer and Teacher Feedback boxes, each of which can be edited only by the respective user. For example, teachers will be able to write only in the Teacher Feedback box (when viewing from the Teacher environment), and peers will be able to write only in the Peer Feedback box (if the item has been shared with that peer).

To edit the entry, students can click on the Edit button to activate the fields on the artifact screen. Students can also access the Edit screen directly from the artifacts index page by clicking on the Edit icon beside any artifact in the list.

In Edit mode, the features and fields that are available for each entry are activated. Only fields and features that are filled out in Edit mode will appear in View mode. Notice that the top navigation bar disappears in the Edit mode. This is to encourage students to focus on their current entry before navigating away to other areas of ePEARL.
Storage

Each student has been assigned a certain amount of storage space in ePEARL, which is determined at the school board (or district/division) level by the software’s administrator. A meter reflecting the amount of storage space used appears at the top of the page. Students will not be able to add new artifacts once the meter is full.

Sorting Items on the Index Page

Items are sorted alphabetically by default. Any column heading can be clicked to sort items accordingly. For example, artifacts may be organized by colour code by clicking on that column heading. Date sorting is in reverse chronological order so that the most recently added items appear at the top of the list.

Sharing in ePEARL

Individual artifacts, the contents of a folder or the entire portfolio can be shared with classmates in the same class, in another class, or in another school using the Share feature. The software automatically shares students’ portfolios with the homeroom teacher.

TIP:
An individual artifact can also be shared when viewing the item by clicking on the Share button.
Peer Feedback

Students are encouraged to provide feedback to their peers and to consider feedback given to them. This can be done in ePEARL through the Share feature, which can be accessed from the menu bar just below the banner. This allows students to select what they want to share—their entire portfolio, individual folders or specific entries—and with whom.

**Figure 20:** The Sharing environment

**How to Access Someone Else’s ePEARL:** Peers who have been granted access to another student’s portfolio must enter that portfolio through the Share feature. Click on the tab labeled “Shared With Me” to see a list of the folders or entries that other students have chosen to share.

**Figure 21:** Access to external students shared portfolios

Clicking on any portfolio in the list will open a new window displaying the shared parts of that portfolio. Peer Feedback boxes will become editable (active) in the appropriate places. Peers are not able to edit or upload anything to another student’s ePEARL. Peers can see other peer, teacher, parent comments made on the shared item.

Each peer has access only to previous comments he or she has made. They cannot edit other peer comments. A name and date is automatically stamped above all peer feedback.
How to Stop Sharing With a Peer: When students want to stop sharing an item with a peer, they can simply click on the My Shared Artifacts tab and unshare the desired items by clicking on the red ‘x’ (see Figure 34, below).

Figure 22: Removing shared access

TIP:
Students may share their work within classes in the same school or within schools in the same board (or district/division). Teachers must first link their class to the appropriate classes in order for sharing to be activated in the students’ environment.

Figure 23: Teacher Portfolio: Interclass sharing
Parent Mode

Students are encouraged to share their portfolios with their parents. Parents do not have separate passwords; they must access the portfolio with their child. Clicking on “Parent Mode” at the right of the bar just below the banner activates the Parent Comments boxes on the Welcome screen as well as within each individual portfolio entry. This also deactivates other features, such as editing capabilities. The rationale is that the purpose of parents navigating through the portfolio with their child is to comment on completed work and achievements. There is no need for the work to be editable while they do this.

The Presentations Folder: Archiving in Level 2

At the end of a term, school year or cycle, students should be asked to select those artifacts that best reflect their learning and send these to their Presentations folder. The Presentations folder is a cumulative storage place for artifacts organized by ePEARL level and by year. An artifact stored from any level will remain in this folder so, in theory, a student may store readings and creations from Level 1 and artifacts from Levels 2 and 3 and have an archive of their entire K-11/12 educational experience.

Figure 24: Accessing the Parent Mode

**TIP:** Teachers should instruct their students to copy artifacts over to their Presentations folder at the end of a school year or cycle and then delete the original artifacts from the portfolio using the global delete command on the Index Page. They will then start a new school year or cycle with a blank slate, having saved their most important items to the Presentations folder. This will minimize the amount of space required for the storage of student portfolios.

Figure 25: The Presentation folder
Sending to Presentations: Selecting and Reflecting

When an artifact has been shared and revised several times based on teacher and peer comments and is finally completed, a student may choose to send it to the Presentations folder. At this stage, students are encouraged to reflect on why they made this selection. Many teachers chose to engage in this selection process before a portfolio night, at the end of a term, and at the end of the school year.

In ePEARL, when students click on the present icon, a new screen prompts them to think about the different reasons why they have selected this piece for the Presentations folder, and provides the option of adding further comments.

Figure 26: Present an artifact icon

Figure 27: Reflection on why this artifact has been chosen
Level 3

ePEARL is designed to support self-regulated learning. This cyclical process promotes planning, doing and reflecting, with specific sub-processes under each. Self-regulated learning encourages students to be responsible for their own learning and make guided choices about what they need to work on.

This guide will go into greater detail about this process as it takes place in the portfolio later in this section.

The Portfolio Environment

In Level 3, ePEARL offers a more mature portfolio space. Here, students can personalize their home page, add and edit general goals, create new work (referred to as artifacts) and archive work once it is completed. When users access the software, they are brought to the Home Page of their portfolio. Here, they are able to edit their General Goals, and view General Feedback posted by peers, teachers and parents. They can store artifacts that have been created outside of the software or create new ones directly in the portfolio by clicking on “Artifacts.” Once students are in the artifacts index, clicking on “add new artifact” will bring them to the Learning Process page. In this environment, students may be guided through each step of planning, doing and reflecting as they work.
Personalizing the Portfolio

In Level 3, students are encouraged to take creative ownership over their portfolios using the “Personalize” option found on the bar just below the banner.

Welcome Screen

A welcome message may be added using the text editor, an image may be uploaded and used as a banner, and an image can be displayed next to the welcome message. A To Do List is also available to help students organize their activities and plan their time.

General Feedback

The general feedback area is designed to encourage teachers, peers and parents to write feedback to the student about their portfolio in general. Teachers can use this feature to guide students here about their General Goals.

General Goals

These are goals that the student sets for a term or an entire school year, they can be related to individual subject areas or cross curricular competencies for example.
Banners

To further personalize their ePEARL, students can create their own banners to appear across the top of the screen. ePEARL has a gallery of banners to choose from, but students can also upload static images or text (in JPEG, GIF or PNG file formats) or even simple animated text (in the form of animated GIF files). Banners should be approximately 760x75 pixels and 72 dpi. Several programs students can use to create banners, and free websites where banners can be created or downloaded are listed in the Frequently Asked Questions section.

Themes

Students may select one of 6 background themes. The Personal theme allows the student to select a personalize image and tile it as the background to their portfolio.

Colour Tags

Students may designate four colour tags. These can be used to help flag items (e.g. In Progress, Completed, Responded to Feedback). The software assigns the fifth code, “My Favourite”. Artifacts can be sorted by colour tag.
Notifications

Students may select what appears as a notification on their Home Page by checking any of the 6 options. This feature can alert them to newly posted teacher feedback, for example.

![Notifications](image)

**Figure 32:** Personalization options

My Account

**Password:** In level 3 students may change the password that has been assigned to them by the system under the My Account tab. If a teacher's class logs in to ePEARL directly through the LTK login page. If the class accesses ePEARL through the school’s portal, it is not possible for students to change their ePEARL passwords.

**Nickname:** Students can also choose to use a nickname rather than the given username to identify their ePEARL. This is useful when there is more than one student with the same name in a class, or if a student uses a different name than his or her given name. The nickname may be used to log in instead of the User ID.
Adding New Artifacts

An entry in the portfolio is called an artifact. To add a new entry, students must click on Add New Artifact from the Artifacts Index page. Each entry in the portfolio is entered into a page. Students are required to provide a title for the entry and save it. These can be modified later, but this will encourage students to organize their work.

All other fields are optional, but support the learning process, and so should be considered carefully.

**Figure 33: New Artifact page**

### TIP:
When making changes in text boxes, teachers should make sure to add to previous text rather than overwrite content unless they wish to delete that text.

Adding New Artifacts to the Portfolio

Learning Process: In order to support students as they complete their work and to help them learn more about self-regulation, ePEARL encourages the Learning Process that guides them through the creation of an artifact. Students are presented with small chunks of manageable Planning, Doing, and Reflection tasks as well as detailed instruction about the task at hand. Students can set task goals and subtask goals, use the toolbox to link to general goals, and pull from their strategy bank.

The Learning Process emphasizes the planning and reflection stages, by incorporating motivation as well as self-satisfaction of achievement and lessons learned.
Bringing these aspects to the attention of students helps them become more aware of themselves as learners. They realize how much they need to invest in the current task and how best to focus their efforts. These reflections can also be used as points to set goals for a following or upcoming project.

**System and Student Defined Tags**

Tags are designed to help students improve their organizational skills, as well as to categorize their work so that they may be easily retrieved. These can be used to assign, cross-curricular competencies, subject areas, or a tag created by the student. A user can add a tag at any time by clicking on the Add Tags button within an artifact or by checking an artifact on the Index page and clicking Add Tags.

Tags assigned to the artifact can be seen from within the artifact on the left-hand column. To see all artifacts within a particular tag or combination of tags, students can use the Filters checklist on the Index page.
Adding Content

Toolbar

As a means to encourage the display of learning using multimedia, the toolbar provides the opportunity for multiple forms of content development. Each icon may be used an unlimited number of times.

Figure 37: Toolbar-Multimedia Content

TIP:
If students wish to record and add a longer segment, they may do so by recording into generic audio software and then uploading this audio file to their artifact as an attached file.

Text Editor

Students may write essays directly in the text editor. Depending on which web browser you are using, a spell check function may be available. For example, when using Mozilla’s Firefox, words spelled incorrectly will be underlined in red.

Audio Recordings

The recorder allows students to attach audio snippets to their artifacts. The maximum length of the recording is determined by the LTK administrator. Note that lengthy recordings will take a long time to save and load. Recordings may be any oral material that the student wishes to record. These may include segments of oral presentations or music recordings, as well as reading samples.

File Attachments

Work created outside of ePEARL may be attached. Any type of file is accepted here, .doc, .xls, .ppt, etc..., opening up the infinite possibilities of materials that can be included in the portfolio.

Web URLs

Students can enter hyperlinks to podcasts, websites or blogs.
Toolbox

The Toolbox feature, which is designed to scaffold students’ learning, scaffolds learning according to the theory of self-regulation. It appears at the bottom of the screen at each of the three phases: Planning, Doing and Reflecting. Depending on the phase the student is working on, the toolbox includes different items that further support the SRL process.

Planning

The toolbox promotes better planning by featuring the following scaffolds:

• **General Goal Connections**: Provides the opportunity for students to link their Task goal(s) to their General goals(s). Helps students understand how working on a specific task moves them closer to achieving their larger objectives.

Figure 38: Toolbox - Planning

- General Goal Connections

![General Goal Connections](image)

• **Strategy Bank**: Allows students to pull from a list of strategies they have used and built over time.

Doing

Following and adjusting the plan is critical in the Doing phase. The toolbox features the following scaffolds:

• **My Plan**: Helps students keep track of their goals and strategies and to modify their plan as needed during the Doing phase.

• **Checklist**: Allows students to check off which strategies they have used and make quick notes about the effectiveness of each.

Figure 39: Toolbox - Doing

- Checklist

![Checklist](image)
• **Timer**: Helps students organize their time efficiently.

• **Journal**: Encourages student to keep track of their learning behaviours.

**Reflecting**

Looking back at the process is as important as assessing achievements.

The toolbox provides the following scaffolds:

• **Goals**: Provides the opportunity for students to rate how close they came to achieving their goals that, in turn, helped them work towards their general goals.

• **Criteria**: Provides the opportunity for students to review the criteria for the work, make sure they have met all of them, and will be evaluated fairly.

• **Strategies**: Provides the opportunity for students to rate and review their strategies, so that the next time they are doing a similar task they can pull out the most effective and useful strategies.

---

**Figure 40**: Toolbox - Reflecting
Files

Students can store a number of files of any kind in their file cabinet. Students can easily retrieve files when working from home, even if the document was started at school, simply by uploading the saved document to their file cabinet. Files can be shared amongst students by clicking on the icon and selecting who you would like to share it with. Shared files will automatically appear in the student’s file cabinet. This can be quite practical for peer editing! Teachers can also share files with students, such as criteria rubrics, and assignment description.

Figure 41: The File Cabinet

TIP:

Students can set their notifications to alert them when a new file has been shared with them.

Overview

An overview can be generated for two important SRL processes: Strategies and General Goal Connections. The overview allows the student to see how often he/she has used a strategy, rate its usefulness and make notes about it. Furthermore, students can see how often they have linked to a specific General Goal. This can help the student, as well as the teacher, to assess which goals are being neglected, and work towards them.

Figure 42: Overview
Storage

Each student has been assigned a certain amount of storage space in ePEARL, which is determined at the school board (or district/division) level by the software’s administrator. A meter reflecting the amount of storage space used appears at the top of the page. Students will not be able to add new artifacts once the meter is full.

Sorting and Filtering Items on the Index Page

Items can be sorted on the Index page, either alphabetically by clicking on the Title column heading or chronologically by clicking on the Date column. By checking any of the items and selecting ‘and’ or ‘or’ in the Filters sidebar, students can search the contents of their portfolio using Boolean logic. For example students can search for artifacts that fall under ‘POP’ and ‘To be creative’, or under ‘To work with others’ or ‘Group’, which will yield different search results.

Sharing in ePEARL

Individual artifacts or the entire portfolio can be shared with classmates in the same class, in another class, or in another school using the Share tab. The software automatically shares students’ portfolios with the homeroom teacher.

Storage meter

Figure 43: Level 3 portfolio

Column headings

Figure 44: Sharing

TIP:
An individual artifact can also be shared while creating the item in Doing.
Peer Feedback

Students are encouraged to provide feedback to their peers and to consider feedback given to them. This can be done in ePEARL through the Share tab, which can be accessed from the menu bar just below the banner. This allows students to select what they want to share—their entire portfolio or specific entries, depending on how they access Share—and with whom.

How to Access Someone Else’s ePEARL: Peers who have been granted access to another student’s portfolio must enter that portfolio through the Share feature. Click on the button labeled “Shared With Me” to see a list of the entries that other students have chosen to share.

Figure 45: The Sharing environment

Figure 46: Access to external students shared portfolios

TIP:

Students can set their notifications to alert them when a peer has shared new work with them.

Clicking on any portfolio in the list will open a new window displaying only the shared parts of that portfolio. General Feedback on the home page and Peer Feedback boxes will become editable (active) in the appropriate places. Peers are not able to edit or upload anything to another student’s ePEARL.

Each peer has access only to previous comments he or she has made. They cannot edit other peers, teacher or parent comments. A name and date is automatically stamped above all peer feedback.
How to Stop Sharing With a Peer: When students want to stop sharing an item with a peer, they simply check the person’s name on the My Shares page and click the unshare button.

Inter-class Sharing: Students may share their work within classes in the same school or within schools in the same board (or district/division). Teachers, in their own portfolios, must first link their class to the appropriate classes and allow inter-class sharing, in order for sharing to be activated in the students’ environment.
Parent Mode

Students are encouraged to share their portfolios with their parents. Parents do not have separate passwords; they must access the portfolio with their child. Clicking on “Parent Mode” at the right of the bar just below the banner activates the Parent Mode. Parents can then enter General Feedback, as well as comments within each individual artifact.

This also deactivates other features, such as editing capabilities. The rationale is that the purpose of parents navigating through the portfolio with their child is to comment on completed work and achievements. There is no need for the work to be editable while they do this.

Archiving in Level 3

At the end of a term, school year or cycle, students should be asked to select those artifacts that best reflect their learning and send these to their Archive, then delete the original artifacts from the portfolio using the global delete command on the Index Page. The Archive is a cumulative storage place for artifacts organized by ePEARL level and by year. This will minimize the amount of space required for the storage of student portfolios. They will then start a new school year or cycle with a blank slate, having saved their most important items to the Archive. An artifact stored from any level will remain in this folder, so in theory, a student may store readings and creations from Level 1 and artifacts from Levels 2 and 3 and have an archive of their entire K-11/12 educational experience.
Exporting Artifacts in ePEARL

The artifacts in Level 3 can be exported from the online environment. They can then be saved on the computer and burned on a CD or other portable memory device. This will allow students to see their work as it appears in ePEARL without internet access or having to log in to the software. This makes a nice record of accomplishments that can be taken home, given as a gift or transferred if the student is moving. Only items within the Presentations folder at that time will be exported.

The process requires only that students select the artifact they wish to export from the Artifacts Index page, or from the Archive, and then click the Export button.

Navigation and Logging Out

It is best to use the navigation buttons within the software rather than the browser’s. To log out properly, use the logout button in the top right corner. When a new window is opened (for example, when viewing someone else’s ePEARL), use the close window button located in the same place.
Teacher Module

The teacher portfolio environment is similar to the Student one, but has additional administrative features, sharing privileges and links to resources. Please see LTK Management at the end of this guide for more details.

All homeroom teachers are linked to their homeroom class. This means that teachers can view the students in their class (along with the students’ access information) and view students’ portfolio, through the LTK Manage function.

It is recommended that teachers review the set-up for their students prior to using ePEARL with a class. For example, if students are missing from the class list, they can be added or if ePEARL levels have been incorrectly assigned they can be changed.

Classroom management

ePEARL users now have access to the LTK Manage section, from the LTK Lobby page. This section allows users to easily manage their classes and students in one convenient location for all the LTK tools. Here, teachers can:

- View their students portfolios
- Provide feedback on their student’s work
- Edit student levels
- Edit their own information such as password, colour codes etc.
- Link to more classes

![Figure 54: The LTK Management homepage](image)
Check Assigned ePEARL Levels

Teachers should check that their students have been assigned the correct ePEARL level. These are the levels recommended by the CSLP:

K-2: Level 1
3-6: Level 2
7-12: Level 3

Any student’s ePEARL level can easily be changed by accessing the My Students tab in LTK Manage, clicking the pencil icon beside the student’s name and choosing the correct level from the menu.

Viewing Student Portfolios and Providing Feedback

Teachers automatically have access to their students’ portfolios, and can view them in two ways:

1) by clicking on “Share” in the navigation bar, then on “Shared with me”
2) from the LTK manage section, by clicking on the class and then the folder icon next to a student’s name.

Feedback may be provided on artifacts, a student’s general goals, task goals/strategies, reflections, or the portfolio as a whole.

In order to view a student’s portfolio in Level 2, from the Share area, click on the Student Portfolios tab and select the appropriate class (only those classes you are linked to will be displayed). Select a student name from the drop-down list. on “Artifacts” in the bar just below the banner in a student’s ePEARL, teachers can display a specific piece and provide feedback on the goals, the reflection or the artifact itself.
In Level 3, teachers may view their students’ portfolios through the LTK manage function. Teachers can provide general feedback on the home page, on the portfolio as a whole and on task goals/strategies and reflections.

**New Work**

Teachers are notified when students create new artifacts, or add goals, recordings or reflections to existing work under the New Work tab. This is a simple and efficient way for teachers to go through their students’ portfolios.

Teachers can filter students by class using the drop down menu.

Teachers may also opt to share specific artifacts or entire folders with their students.

**Sharing with Other Classes**

Teachers can allow students from their class to share with students in another class in the school. To do this, teachers can click on the Inter-Class Sharing tab in the Share section in their own portfolio. Teachers can select their class and then the school and class they would like their class to share with, then click on “Allow Sharing” to connect them.

Until this connection is severed (by clicking on the ‘x’ in the list below), students in these two classes will be able to share their artifacts with each other through the regular sharing function.
**Printing Teacher Comments**

All the comments a teacher has given a student so far can be organized and printed from a student’s portfolio, click on “Artifacts,” then on “Teacher Comments” (in red). The teacher will be able to read and print a list of their comments grouped by Artifact, by Type (feedback on task goals, on reflections, etc.) or by Date.

This feature can be used to:
- Prepare for a parent-teacher interview
- Keep track of students’ development through the year or in a particular subject area
- Help write report cards on students’ performance
- Organize! It will help teachers provide regular feedback on each student’s portfolio.

Figure 59: Level 2 - Viewing Teacher Comments from the artifact page
Support for each feature within an entry is available for students, teachers, peers and parents (where necessary). However, the support is available only when the feature is active. Therefore, support for students filling out information about an entry will be available in the Edit screen of the entry. Information for a peer, teacher or parent commenting on an entry will be available near their respective text boxes in the View screen of the entry.

**Video Support**

In addition to the embedded textual support, ePEARL also contains short video clips to model and support pivotal self-regulation steps. These videos provide just-in-time modeling for students and teachers to help integrate self-regulation theory into daily classroom practice. These videos can easily be part of the teacher’s introduction of tasks such as setting goals, meaningful reflection and providing peer feedback. Students may access them independently in class as refresher videos for concepts they have learned and practiced offline.

The videos were designed to be level-specific and support critical information with textual reinforcement. Level 2 videos include an advanced visual organizer to explain the process, a “testimonial” style exposition of the topic and then practical examples.
The videos conclude with a review of the main points using both visual and verbal cues, and finally a practical tip to get students started on the task. Videos are also offered in French. Support videos and other teacher’s materials are on the teacher resources page accessible from within ePEARL. As material is developed, it will be posted to this website so that support will grow over the year.

**Offline Integration**

Because it may be difficult to use video in the classroom, in order to facilitate incorporation of the lessons learned into classroom practice, ePEARL also provides printable worksheets that prompt students to follow the main points in the videos by writing their own answers about their task. These worksheets can be printed from the teacher resource page.
Q1. How are images or other files uploaded?

Users are able to upload a file anywhere they see a paperclip icon. To do this, click on the icon, to bring up a directory of files and folders stored on the computer. Locate the file and double-click on it. The file will appear immediately. To remove the file, click on “deselect” below to file name and the file will disappear immediately. Don’t worry if you see only the file name without the image at first. Once the artifact is saved, all attachments will appear as they should.

Q2. How large a file can be uploaded?

The maximum file size is set by your ePEARL Administrator. We recommend allowing files of up 8 MB to be uploaded; however, the actual value may be different. When uploading pictures, iPhoto or Photoshop should be used to compress the image files. Large video or audio files can be edited into two or three parts and uploaded as separate attachments if they exceed the set file size limit.

Q3. What size should a banner file be?

The banner should be saved as a 760x75 pixel JPEG, GIF or PNG file. If the banner is a different size, ePEARL will automatically center and crop the image to the correct number of pixels. Please note that users can use animated GIFs in their banner only if they are the correct size.

Q4. How can students create their own banners?

Students can use many different programs to create their banners, such as Paint, Kid Pix, Photoshop, GIMP or Tux Paint (open source). They can also go online to download or create banners for free at websites such as http://www.bannerbreak.com/, http://www.aaa-banners.com/ or http://www.graffitinett.com/. Make sure the banner has the correct dimensions (approximately 760x75 pixels), and is saved in a recognized file format (JPG, GIF or PNG). Once the banner has been created using either software or a website, it must be saved to the computer. It can then be uploaded in ePEARL in the banner section of the Customize feature.
Table 1: Images in ePEARL: Summary Table

<table>
<thead>
<tr>
<th>Type</th>
<th>Dimensions</th>
<th>File Format</th>
<th>Size Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banner</td>
<td>760x75 pixels</td>
<td>JPG, PNG, GIF, animated GIF</td>
<td>8 MB*</td>
</tr>
<tr>
<td>Welcome Image</td>
<td>200x200 pixels</td>
<td>JPG, PNG, GIF</td>
<td>8 MB*</td>
</tr>
<tr>
<td>Thumbnail in Artifact View Screen</td>
<td>100x100 pixels</td>
<td>JPG, PNG, GIF</td>
<td>8 MB*</td>
</tr>
</tbody>
</table>

* This is the recommended maximum; the actual maximum is set by the administrator.

Remember that with the exception of animated GIFs in the banner, any image with the correct aspect ratio will work just as well (for example, a long rectangular image for the banner or a square image for the Welcome screen image).

Q5. When viewing an artifact, I am unable to edit. Why is this?
In order to make a change to an artifact in the portfolio, users must click on the edit icon at the top of the page. This will activate all fields.

Q6. How can students record something in their portfolio in Levels 2 and 3?
Students can record when creating a new artifact or add a recording when editing an existing artifact. First, click on the record icon on the Toolbar. After the recorder opens in a new window, click the Record button once ready to start. Click the Stop button when finished. Once the recorder displays the message “Sound saved successfully,” the recorder may be closed.

Q7. What should students do when asked to “trust the CSLPIERI certificate” when using the recorder?
The first attempt to use the recorder may prompt a message asking the user to “trust the CSLPIERI certificate.” This may happen when starting a new browser session, or when the browser cache has been emptied. Students have to accept this certificate to continue loading the recorder. We strongly recommend that the option “Always accept this certificate” be selected.

TIP:
If the user erases a recording a number of times and attempts to re-record, this may cause the recorder to malfunction. If this happens, exit the artifact and quit the browser, then log back in and retry.
**Q8. Why isn’t the recorder working?**

There are three reasons why this may occur:
- The browser does not support the recorder.
- The sound card in the computer does not support the recorder.
- The appropriate plug-ins have not been installed on the computer.

The most likely cause is missing plug-ins. Please see the section titled End User Requirements for details on this. If the plug-ins have been installed and teachers are still experiencing problems, they must double-check that they meet all the technical requirements. It is also important that they save the recording when they are finished to avoid losing the recording.

**Q9. Can I link/unlink students to my class list?**

Yes. To do this, go to the Manage tab (on the bar just below the banner), click on “My Students” and then “Link/Unlink Students” and follow the instructions on the page. Note: If teachers wish to link a student to their class but they are not in the database, ask the sub-administrator to add this student.

**Q10. How are Level 1, Level 2 and Level 3 different?**

The differences between the levels are essentially based on age and level of schooling. Level 1 is designed for children in Grades 1 & 2, so it has a single environment in which students create, edit and save readings, writing and other work. In addition, the interface relies more heavily on icons than text and introduces students to basic goal-setting and reflection activities. Level 2 is designed for Grades 3-6, and offers more structured guidance for goal setting and reflection. Similar in structure to Level 2, Level 3 is designed for secondary school students and even adults. It offers more sophisticated guidance through the process of planning, goal setting and reflection. In addition, teachers are able to change passwords in Level 1, but can only view students’ passwords in Levels 2 and 3.

**Q11. How can I move students’ work from one level to the next?**

Teachers do not need to move work from one level to the next. Before changing a student’s level, make sure the student has moved everything he or she wants to keep into the Presentations folder. All works created in earlier levels of ePEARL are accumulated here and they may be viewed or exported from within this folder. Please note that Level 2 and Level 3 artifacts cannot be viewed from a Level 1 portfolio.
Q12. How do students move things from their portfolio to the Presentations folder?
When students want to send an artifact to their Presentations folder, they should click on the Present button. They must be in edit mode to do this. The artifact will be copied over to the Presentations folder. This is a “presentation version” of the artifact, which means they will not be able to edit it from within this folder. However, the original artifact is still available in its original folder to edit as they wish. These edits will not be reflected in the Presentations version of the artifact.

Q13. When should students clean up their portfolios?
Portfolios should be cleaned up at the end of a grade or cycle, either by the student or the teacher, although it is recommended that the students do the clean up, with a teacher’s supervision. This is important because it frees up storage room on their school board’s server. (The amount of free space remaining in a portfolio is indicated in the ePEARL meter at the top of the page.) We recommend that teachers encourage students to move their important artifacts to their Presentations folder periodically throughout the school year. At the end of a school year, students should delete all their artifacts from all other folders under the guidance of their teacher. ePEARL provides the ability to delete multiple artifacts in one step.

Q14. Where do I provide feedback to my students?
When a teacher is viewing a student’s portfolio, they will have the opportunity to provide feedback in several ways. He or she can comment on the student’s entire portfolio, general goals and artifacts in general, or they can comment on a specific artifact within the portfolio. When viewing an artifact, a teacher will be able to provide feedback on the associated goals, the work itself and the reflection. When he or she is in an area in which they can provide feedback they will see a white box with the heading “Edit Comments.” The teacher can type their feedback in the box and then click the Save button. If he/she want to review the artifact again and provide a new comment, add it to the old comment. Do not write over previous comments because this will delete them.

Q15. Can students provide feedback to each other?
Students provide feedback to each other in exactly the same way a teacher or parent provides feedback: only in designated spaces. The only difference is that the portfolio owner will need to share their portfolio or an artifact with another student using the Share feature in order for the other student to provide feedback. Students do not have access to anyone else’s portfolio unless a student has specifically shared it with them. A peer will be able to view the artifact, but will only be able to write in the designated Peer Feedback boxes.
Q16. What if students forget to save?

It is very important that saving after each entry, edit or comment becomes routine for your students. If a user logs out of his or her portfolio without saving, any changes made will be lost. However, it is impossible to leave edit mode (aside from closing the browser) without choosing the option of saving or canceling.

Q17. What is the Learning Process for, and can students work outside the portfolio?

The Learning Process guides students in the creation and editing/modification of and reflection on their work. Students can work directly with the features provided in the template (i.e. the text editor and the recorder) or work with another application outside of ePEARL, such as PowerPoint or Excel. In the latter instance, files may be uploaded as part of an artifact. When creating a new artifact using the blank template, users will be guided by its format through a process of thinking about their work. The flow of the process follows the diagram below.

```
Planning  Doing  Reflecting  Selecting  Presenting
```

Q18. How can I view a student’s work?

Click on the Share tab in the menu bar of the artifacts index page, then click on the Student Portfolios tab and use the drop down menus to select a class and then the student whose work you would like to review. Click on “Open Portfolio.” Once here, teachers will be able to view the student’s work and leave comments. To return to their own portfolio, simply click on “close window” in the top right corner of the screen (where the logout option usually is).

Q19. Can a parent modify an artifact?

No. When students share their portfolio with their parents, they should click on the Parent Mode button in the top right corner. This will ensure that parents can view all artifacts, but only comment in the designated spaces.

Q20. What if I am not connected to my classes?

If, after the beginning of a new school year, a teacher finds that they are not connected to their classes, it is possible that there was an importing problem. They should contact their administrator and ask him or her to check whether there are two portfolios under their name. If there are two portfolios under their name, ask the administrator to merge them into one account. Note: the teacher’s username and password may change after this happens.
Q21. How can I get rid of the garbage characters when I cut and paste from Word into the text editor?

Word sometimes automatically modifies text, and includes invisible characters that become visible when pasted in the text editor. This can be reduced if a student uses a simple text application (such as notepad) to compose his/her writing, or pastes from Word into notepad before pasting into the Text Editor. This can also be solved by changing certain features in Word. For example, by replacing straight quotation marks with “fancy” or “smart” quotes. These characters are problematic to work with and will generate garbage characters within the text editor. Disabling them may solve the problem.

Follow these instructions to permanently eliminate smart quotes within Word:

1. Under the Tools menu, select “AutoCorrect…”
2. When the AutoCorrect dialog box appears, click on the AutoFormat tab at the top.
3. Uncheck “Straight quotes with smart quotes.”
4. Click on the “AutoFormat As You Type” tab.
5. Uncheck “Straight quotes with smart quotes.”
6. Click on “OK” to close the dialog box.

Users can also get rid of garbage characters in your text by copying and pasting the text into Notepad or TextEdit, and then copying and pasting it from there into the text editor.
Table 2: Resources available on the ePEARL Teacher Resource Page

<table>
<thead>
<tr>
<th>Type of Resource</th>
<th>Resource Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Aid</td>
<td>Prereading Skim</td>
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<tr>
<td>Job Aid</td>
<td>Reading Fluency</td>
</tr>
<tr>
<td>Job Aid</td>
<td>Setting Task Goals</td>
</tr>
<tr>
<td>Job Aid</td>
<td>Setting General Goals for Level 1</td>
</tr>
<tr>
<td>Job Aid</td>
<td>What is Self-Regulated Learning?</td>
</tr>
<tr>
<td>Job Aid</td>
<td>Teaching Vocabulary</td>
</tr>
<tr>
<td>Job Aid</td>
<td>Creating a New Artifact</td>
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<tr>
<td>Job Aid</td>
<td>Exporting from the Presentation Folder</td>
</tr>
<tr>
<td>Job Aid</td>
<td>How to Customize Your ePEARL</td>
</tr>
<tr>
<td>Job Aid</td>
<td>LTK Management (student passwords, etc…)</td>
</tr>
<tr>
<td>Job Aid</td>
<td>Setting General and Task Goals</td>
</tr>
<tr>
<td>Job Aid</td>
<td>Using ePEARL in Your Lessons</td>
</tr>
<tr>
<td>Lesson Plans</td>
<td>Lesson 1 - Intro</td>
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<tr>
<td>Lesson Plans</td>
<td>Lesson 2 - General Goals</td>
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<td>Lesson Plans</td>
<td>Lesson 3 - Organizing</td>
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<td>Lesson 4 - Planning</td>
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<td>Lesson 5 - Doing</td>
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<td>Lesson Plans</td>
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<td>Lesson 7 - Sharing &amp; Feedback</td>
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<td>Lesson 8 - Selecting &amp; Reflecting</td>
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<td>Sequencing</td>
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<td>Lesson Plans - ABRA-ePEARL link</td>
<td>Prediction</td>
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<td>Teaching Vocabulary</td>
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<td>Segmenting - Four-sound word</td>
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<td>Planning worksheet 2 (Level 1)</td>
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<tr>
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<td>Summarizing</td>
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<tr>
<td>Lesson Plans - LTK Curriculum</td>
<td>Story Elements</td>
</tr>
<tr>
<td>Lesson Plans - LTK Curriculum</td>
<td>Story El. worksheet 1</td>
</tr>
<tr>
<td>Lesson Plans - LTK Curriculum</td>
<td>Story El. worksheet 2</td>
</tr>
<tr>
<td>Videos - Teacher PD</td>
<td>Level 1: Using ePEARL in Early Elementary Classrooms</td>
</tr>
<tr>
<td>Videos - Teacher PD</td>
<td>Level 1: The Benefits of Using ePEARL for Portfolio Assessment</td>
</tr>
<tr>
<td>Videos - Teacher PD</td>
<td>Level 2: Implementing ePEARL in Late Elementary Classrooms</td>
</tr>
<tr>
<td>Videos - Teacher PD</td>
<td>Level 3: Implementing ePEARL with Secondary Students</td>
</tr>
<tr>
<td>Videos - Teacher PD</td>
<td>Level 3: Using epEARL with POP (Personal Orientation Program) Secondary Classrooms</td>
</tr>
<tr>
<td>Videos - ABRA-ePEARL Link</td>
<td>Level 1: Integrating ABRACADABRA &amp; ePEARL in the Classroom</td>
</tr>
<tr>
<td>Videos - ABRA-ePEARL Link</td>
<td>Level 1: The Benefits of Using ABRACADABRA and ePEARL Together</td>
</tr>
<tr>
<td>Videos - student-centred</td>
<td>Leve 2: Planning - Overview</td>
</tr>
<tr>
<td>Videos - student-centred</td>
<td>Leve 2: Planning - Creating General Goals</td>
</tr>
<tr>
<td>Videos - student-centred</td>
<td>Leve 2: Planning - Creating Task Goals</td>
</tr>
<tr>
<td>Videos - student-centred</td>
<td>Leve 2: Planning - Strategies for Goals</td>
</tr>
<tr>
<td>Videos - student-centred</td>
<td>Leve 2: Doing - Overview</td>
</tr>
<tr>
<td>Videos - student-centred</td>
<td>Leve 2: Reflecting - Overview</td>
</tr>
<tr>
<td>Videos - student-centred</td>
<td>Leve 2: Reflecting - (Works in Progress)</td>
</tr>
<tr>
<td>Videos - student-centred</td>
<td>Leve 2: Reflecting - (Presentations)</td>
</tr>
<tr>
<td>Videos - student-centred</td>
<td>Leve 2: Providing Feedback</td>
</tr>
<tr>
<td>Videos - student-centred</td>
<td>Leve 3: Portfolio Process</td>
</tr>
<tr>
<td>Videos - student-centred</td>
<td>Leve 3: My General Goals</td>
</tr>
<tr>
<td>Videos - student-centred</td>
<td>Leve 3: Setting General Goals</td>
</tr>
<tr>
<td>Videos - student-centred</td>
<td>Leve 3: Peer Feedback</td>
</tr>
<tr>
<td>Videos - student-centred</td>
<td>Leve 3: Giving Feedback</td>
</tr>
<tr>
<td>Videos - student-centred</td>
<td>Leve 3: Receiving Feedback</td>
</tr>
</tbody>
</table>

Find these resources and more: http://grover.concordia.ca/epearl/resources/home_en.php
Frequently Asked Questions

Q1. How are images or other files uploaded?
Q2. How large a file can be uploaded?
Q3. What size should a banner file be?
Q4. How can students create their own banners?
Q5. When viewing an artifact, I am unable to edit. Why is this?
Q6. How can students record something in their portfolio in Levels 2 and 3?
Q7. What should students do when asked to “trust a CSLPIERI certificate” when using the recorder?
Q8. Why isn’t the recorder working?
Q9. Can I link/unlink students to my class list?
Q10. How are Level 1, Level 2 and Level 3 different?
Q11. How can I move students’ work from one level to the next?
Q12. How do students move things from their portfolio to the Presentations folder?
Q13. When should students clean up their portfolios?
Q14. Where do I provide feedback to my students?
Q15. Can students provide feedback to each other?
Q16. What if students forget to save?
Q17. What is the Learning Process for, and can students work outside the portfolio?
Q18. How can I view a student’s work?
Q19. Can a parent modify an artifact?
Q20. What if I am not connected to my classes?
Q21. How can I get rid of the garbage characters when I cut and paste from Word into the text editor?
This collaborative project titled Inquiry Strategies for the Information Society in the Twenty-First Century (ISIS-21; named after the Egyptian goddess of magic and giver of life) seeks to teach children and adolescents about the inquiry process and develop their competencies in information literacy (IL).

In 2009, with funding from Inukshuk Wireless, a prototype of ISIS-21 was developed and piloted with late elementary/early secondary students (and their teachers) and was shown to positively impact students’ abilities in information literacy. Based on what was learned through the pilot and with funding received in 2012 from the Max Bell Foundation, ISIS-21 has been significantly redesigned. ISIS-21 now has a more engaging environment, with each phase of the inquiry process (Plan, Search, Use) providing comprehensive instruction on IL sub-skills through interactive features and embedded multimedia support. As well, ISIS-21 has been linked to the CSLP-LEARN’s electronic portfolio software called ePEARL, thereby enabling students to conduct their research within an environment that supports self-regulated learning. (For further information on this link, please refer to the section entitled Self-regulated Learning Components: Links to ePEARL.). Lastly, ISIS-21 is now fully bilingual, providing both English and French environments for students to conduct their inquiry.

We want to ensure that all Canadians are adequately prepared for the knowledge society by providing them with a solid foundation in these important lifelong learning skills. To learn how ISIS-21 addresses the provincial curricular outcomes, please refer to the curriculum matrix on our Teacher Resources web page (http://grover.concordia/resources/isis/teacher/en).

We hope you enjoy using ISIS-21 and we look forward to receiving important feedback from you and your students so that we can continue to improve the software.

This section is designed to provide basic information on the ISIS-21 software. It provides a general overview of the features as experienced by the students and a detailed description of each step of the process. In the latter instance, pages are divided by:

- **Purpose**: A brief explanation of the purpose of the step.
- **Screen capture**: A screen capture of the step.
- **Teacher Tips**: Advice on how to instruct students on the particular step.
- **Additional Resources**: Links are provided for further information on the particular concept being addressed or for examples of learning evaluation situations.
What are Information Literacy Skills?

Information Literacy (IL) is the ability to articulate, locate, organize, interpret, evaluate, synthesize, and use information from a variety of sources. Traditionally, this was centered on print-based texts, often found in libraries. However, with the rise of newer technologies, the focus of IL skills has gone beyond traditional texts. To be information literate, students need to become critical consumers of information and effectively identify, gather, manage, use, and present information from a diversity of multimedia sources.

This means that students need to be able to do more than just navigate through the online, print-based, and physical resources. They need to be able to identify when they have an information need and then locate and synthesize the credible and relevant information found. Students also need to be able to filter out any information that is not useful for their particular need. Simply put, an information literate individual is one who possesses a set of competencies that will enable them to become an informed and empowered citizen of the 21st century.

How does ISIS-21 Support the Development of Information Literacy Skills?

ISIS-21 provides a bilingual constructivist inquiry-based learning environment for students. As such, it is designed to support a diversity of students’ needs, be flexible to address all learning objectives, and to provide a set of activities and resources to support learning.

ISIS-21 can be used in any discipline to cover any subject. What is fundamental however, is that students select a complex researchable question that is important to them. If they are given superficial questions to research then their experience will be likewise superficial.

In each of the steps, we have identified the skills that students need to learn and have built cognitive tools to help them develop those skills. We have provided scaffolding within the tool to help students attain the intended student outcomes and make sure that the material does not overwhelm them. We have called this environment the Guided Mode. The Flexible Mode can be used with students who are not yet ready to take on the full process or for advanced students who do not require additional scaffolding and/or wish to improve specific IL skills (please see pgs. 38-40 for more information).
ISIS-21 Student Module

Features

The Banner

Home: This will bring students back to their list of projects. From here, they can add a new project, or view, delete, or edit an existing project.

User or Task Name: The student's name will appear at the top left of the screen, followed by the name that the student titled their task in the Start step.

Space Limit: This provides an indication of how much space remains in the student's storage. It reflects any content added in all of our tools, not just within ISIS-21.

Link to LTK: This will bring students back to the LTK lobby page.

Link to ePEARL: Provides direct access to a student’s portfolio so that the student may view his or her ISIS-21 artifact.

Log out: Logs out of the student's account.

The Navigational and Graph Menu

1. Self-Regulated Navigation: The image changes as students go through the process to emphasize the cyclical nature of the process. Self-regulated learning encourages students to be responsible for their own learning and to make decisions about how their learning will unfold.

2. Completed Circles: The coloured circles in the navigation menu indicate the status of each step:

   White Circles: The step is not accessible
   Green Circles: The step is accessible
   Star Symbol: Step has been completed (indicated by student)

3. ISIS-21 Steps: The steps of the current phase will be displayed. Some steps will be inaccessible until content is entered in previous steps.
Guided Mode vs. Flexible Mode

ISIS-21 provides two different modes: a guided (step-by-step) and a flexible mode. These modes address the different IL needs of students.

The Guided Mode contains 12 linked steps. Students work through the steps in order, but it is important to encourage them to revisit previous steps when needed. This mode is ideal for any students who are new to the inquiry process and ready to develop all aspects of IL skills.

The Flexible Mode has 8 steps; some steps are combinations of distinct Guided Mode steps. The Flexible Mode contains all of the features that are found in the Guided Mode though only the core features of the tool are automatically displayed. This mode is ideal for individuals who have acquired some Information Literacy skills but require development of a specific skill. Or it may be used with younger learners as a means of introduction to a specific Information Literacy skill, such as how to prepare a search strategy for a search engine (See pgs 38-40 for more information).

Student Environment

**Figure 66: ISIS-21’s Buttons.**

The Report: At any point during the inquiry process, students may click on this icon to view all work completed so far. The ePEARL features do not appear in the Report (e.g. Goals, Strategies, Reflections), as they may be viewed within ePEARL.

Because the Report is linked to an ePEARL artifact, a teacher or student who wishes to access a Report while in ePEARL may do so by opening the relevant ISIS-21 artifact, and clicking on the Report icon in the Content section. Note: the report can only be viewed while in View mode.

Reflections: Embedded prompts encourage students to reflect on the task at hand to ensure they have fully completed the step. Students should be encouraged to reflect throughout the inquiry process and not just at the end. By approaching reflection in this way, students are deliberately asked to stop and think about their progress and experiences. This provides more opportunity to improve and develop their critical thinking skills and they may consider which strategies are successful.
Sources Button: This will only be available after students have inputted some sources into the system (phase 2). It will display a list of the sources that the student has connected to their task.

Learn: A quick snapshot of the purpose of each step and the actions to be taken. Some tips are also provided.

Apply: An area where students input information as they conduct their research.

Help: Each feature has in-context help geared towards students. Click on 🎓 to open a Help window. Help screens include several sections: Tell Me More (explanation), Example, How Can I Do This? (pedagogical support), and What Do I Do In ISIS? (technical support). Some screens also contain an embedded student support video that models the process.

Complete: Students should indicate that they have completed a step by clicking on ✂️. When students have indicated that they have completed a step, the image at the bottom of the screen becomes colourful and the button's state changes to become a gold star: ⭐️. Even though students feel that they have completed a step, remind them that they can always to back and revise if they are unsatisfied or they need to modify their task.

Figure 67: The ISIS-21 environment is divided into two: Learn and Apply.

Figure 68: Completed state
Self-regulation Components - Links to ePEARL

The self-regulation components of ISIS-21 are: Task Description, General Goals, Task Goals, Strategies, and Reflection.

Because creating a new project in ISIS-21 automatically creates a new artifact in ePEARL, students are prompted to select an ePEARL folder in which their new work will be stored. (If the folders are not already set up, the ePEARL default folders will be used.)

On the Start step, students can view their General Goals (set in ePEARL). They may enter some learning goals for this task and indicate how it will help them reach their general goals. They should then devise some strategies they hope to use in order to complete their task and reach their goals.

The Reflection feature is accessible at any time by clicking on the button. Our model for the inquiry process may differ from others as we do not suggest leaving reflection until the end of the process, rather we encourage it throughout. As there are many chances for reflect, students should enter the title of the step prior to the reflection.

Text that is entered into any ePEARL window is not included in the Report feature; but many can be viewed from within ePEARL.
ISIS-21 Process of Inquiry

Phase One: Plan

The Plan phase consists of six steps. The first step, **Start** consists of teachers framing the context of the task and making sure that the student has comprehended the assigned task. The other five steps are intended to help students identify their needs and map out a strategy on how to find the best information given their needs. The first phase has been called “plan” because that is essential to what they are doing at this stage; they are identifying their information need, the key ideas at the root of their subject, and determining the best resources to use to meet their needs.

Concepts within the phase:

**Big Question:** Students are asked to rephrase their main research topic into a question of interest to them. This question should be an “arm question”* – or one that requires in-depth research in order to answer.

**Little Questions:** These are researchable questions that relate to the Big Question. In order to create Little Questions, students should determine what they need to know about the topic.

**Keywords & Synonyms:** Keywords are the most important concepts in each of the Little Questions. These will be used in the Search Phase and will help students locate relevant information. They should also consider appropriate synonyms given their audience, topic, and the material they expect to find.

**Search Strings:** To create a search string, students will need to rearrange their Keywords and synonyms using logical operators between them to express exactly what they are looking for. Typically this is done with the Boolean operators “AND” and “OR”.

**Resources:** In order to answer their Little Questions, students will need to find information in a variety of sources. To find appropriate sources, students must first determine what their information need is, and then select appropriate resources that will lead them to the best information.

*TIP:
Teachers should reflect on the learning outcomes they wish students to achieve prior to assigning the task. Depending on the level of your students, it may be best to start with less complex questions as students are learning how to use ISIS-21, and then work towards more complex questions that require a more thorough investigation and synthesis of the material.

*To learn more about the arm analogy that we use to differentiate the different types of questions, please consult the help in the tool.
Figure 70: The Start Step

Purpose:
Students must start the inquiry process with some basic planning. Here they are asked to write out the assigned task or attach the assignment sheet and to describe in their own words their understanding of this task.

They are also asked to consider how this task will help them reach their overall goals. Goal setting is a feature in the CSLP’s tool Electronic Portfolio Encouraging Active Reflective Learning (ePEARL).

Additional Resources
Learning and Evaluation Situations for a variety of subject areas are also available on the LEARN site, at http://www.learnquebec.ca/en

Planning Guide for Inquiry-Based Unit
Inquiry Process: Start Step Lesson Plan
Both can be found in the Teacher Module, under resources.
Step 1: Define

**Purpose:** Students *Define* a topic to be researched. This may be considered a “Big Question”. ISIS-21 should only be used for tasks that require the researching of complex multi-dimensional questions. Students must be interested in the question and should feel ownership of it.

As students become conversant with the steps in the inquiry process, they should be encouraged to set their own question. Students should also indicate how motivated they are for the upcoming inquiry task.

**Additional Resources**


**Note:** Only accessible for registered users. You will have to create an account to access their resources.


Inquiry Process: Define and Brainstorm Steps Lesson Plan Can be found in the Teacher Module, under resources.

**TIP:**

If students are finding it difficult to start with a Big Question, suggest that they start by writing some Little Questions (the Brainstorm step). From there they can look for a common thread among them.

**TIP:**

You can use other analogies for the different types of question. For example, you can inch-foot-yard comparison:

- **Finger:** Yes/No question
- **Hand:** Inch question
- **Elbow:** Foot question
- **Arm:** Yard question

Find an analogy that works for your class.
Step 2: Brainstorm

Figure 72: The Brainstorm Step

TIP:
If students are having trouble coming up with Little Questions, it might be useful for them to brainstorm with a concept map first. They can group their ideas by themes and then develop a question based on what they have drawn in their map.

There are some visual organizer templates available on our Teacher Resources page: http://grover.concordia.ca/isis/resources

Purpose: Brainstorming helps the student think about the sub-topics related to their Big Question. This will help them when it comes time to search for information. Students reflect on their prior knowledge about their topic and make decisions about what they need to know about (Little Questions) and what they don’t need to know about.

Once students have brainstormed some Little Questions, they should determine if these questions are appropriate by determining what type of question it is using the arm analogy. Suggest that they focus mostly on the “elbow” type of Little Questions. The tool has a built-in maximum of 8 Little Questions so that students are able to focus their tasks.

Students should also assign a colour/shape to each question. This will help them organize their information throughout the process as questions will be colour-coded, especially as the synthesize step.
**Additional Resources**


**Note:** Only accessible for registered users. You will have to create an account to access their resources.


---

**TIP:**

As students are determining what they already know about a topic and what they need to find out, have them answer these questions:

- What geographical area or location do I want to focus on?
- What person or group interests me?
- What aspects of my topic interest me?
- On which time period do I want to focus?
Step 3: Keywords

Purpose: Students extract the main concepts (Keywords) from each of their Little Questions. Once they have these main concepts, they can consider whether or not there is an appropriate synonym for that Keyword. They should select these based on the context of their topic and the material that they hope to find. These Keywords will be used when searching for information and may be revised during the process. It is important that students begin this process in the Plan phase, as otherwise students have a tendency to just jump into their searches with a single keyword or a full sentence. This will not yield fruitful results.

Figure 73: The Keywords Step

TIP: Inform students that they do not need to pull out stop words such as ‘the’, ‘an’, ‘if’, or ‘but’. These words aren’t indexed by search engines so they should not be used.

Inquiry Process: Keywords Lesson Plan can be found in the Teacher Module, under resources.
**Step 4: Search Strings**

**Purpose:** Students consider how they can appropriately arrange their Keywords into logical relationships to create a *Search String*. Boolean operators can be used for this as they either narrow or expand online search results. The most commonly used logical operators are “AND” and “OR”. This is the focus of level 2. Older learners may also be introduced to a third operator, “NOT”, which is used to eliminate sources that contain a specific key word.

Venn diagrams can be used to help illustrate how these logical operators aid with searches. In this step, students create *Search Strings* to increase the relevancy of their search result.

---

**Additional Resources**


*Inquiry Process: Search Strings Lesson Plan* can be found in the Teacher Module, under resources.
Step 5: Resources

**Purpose:** Different questions require that students locate different types of information. Students consider what type of information they need to answer each Little Question. Once they know what kind of information they need, they are asked to determine the best type of resources they should use to find that type of information. ISIS-21 indicates which location they are likely to find those types of resources.

*Figure 75: The Resource Step*

*Inquiry Process: Resources Lesson Plan* can be found in the Teacher Module, under resources.
An Action Plan is automatically developed to help students as they begin the Search phase.

<table>
<thead>
<tr>
<th>Question</th>
<th>Information Type</th>
<th>Source Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>How did the feudal system shape the economy in the middle ages?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Little Question</td>
<td>Sort the action plan by:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Location</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When did the medieval times occur?</td>
<td></td>
<td>School Library</td>
</tr>
<tr>
<td>To answer this question, I need:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• background information on my topic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Best source: Reference Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to find the dates that my topic occurred</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Best source: Reference Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What is the feudal system?</td>
<td></td>
<td>School Library</td>
</tr>
<tr>
<td>To answer this question, I need:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• background information on my topic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Best source: Reference Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to define a word</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Best source: Reference Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How was the feudal system structured?</td>
<td></td>
<td>Internet</td>
</tr>
<tr>
<td>To answer this question, I need:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to determine other facts about my topic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Best source: Websites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Why was the feudal system used?</td>
<td></td>
<td>School Library or Internet</td>
</tr>
<tr>
<td>To answer this question, I need:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to determine other facts about my topic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Best source: Books</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who controlled the economy?</td>
<td></td>
<td>Internet</td>
</tr>
<tr>
<td>To answer this question, I need:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to determine other facts about my topic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Best source: Websites</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Phase Two: Search

The Search phase consists of three steps. In this phase, students follow through with the Action Plan they developed in the first phase. They do this by exploring different resources, evaluating their Action Plan, scanning and organizing the sources they are finding, evaluating the appropriateness of those sources, and finally selecting sources based on their quality and relevance.

Concepts within the phase:

**Locations:** Students are directed to consider three locations where they can find valuable resources. Their school library, the Internet, and community resources. The latter of which could be a person or a community building such as a museum.

**Planning ahead:** Students list their intended audience, format, and materials they will need for their task. This is a reminder for them to plan ahead for any materials they may need to buy or borrow. It could also be used as a reminder for students to find sources that are appropriate for their intended audience and format.

From here, students must decide which type of search tool they wish to investigate and then conduct their search. The Help buttons beside Directory, Search Engine and Meta Search Engine provide information on how to search using these tools.

Students should be encouraged to revise their Search Strings as necessary. Students may wish to include notes about each tool in their reflections.

**Mark a Source:** ISIS-21 encourages students to use different types of sources. Students can add references for books, websites, images, periodicals, videos, or interviews. Students are asked to fill in the bibliographical information into the relevant form.

**CRACR:** This acronym represents the criteria students should evaluate to determine whether or not they should use a source. CRACR stands for Credibility, Reliability, Accuracy, Currency, and Relevancy. Using these evaluation criteria, students determine the trustworthiness of the sources they are finding. Any sources they decide to Select will be pulled into the third phase.
Step 6: Explore

**Purpose:** Once students have defined their search terms and thought about the types of information they need to find, they should think about how they will go about finding this information. ISIS-21 guides them to Explore three locations: ‘School Library’, ‘Community’, and ‘Internet’.

A teacher can utilize their school library as a resource by planning a class visit and/or inviting the school librarian to come speak with students. If ISIS-21 does not have a direct link to the school board’s OPAC “not yet defined” will appear next to the OPAC window, contact the IT department.

Teachers may encourage parents to take students to a community resource such as a museum, or public library or visit with an expert on the topic. Remind parents to explore the Parent Zone for tips on how they can become involved in their child’s ISIS-21 task.

![Figure 77: The Explore Step](image)

**TIP:**

Students should copy/paste into the window the URL of the search results page that yielded the best results. This will be accessed in the Select step and save them time.
Under Internet, ISIS-21 provides a list of suggested directories, search engines, and meta search engines. Teachers will need to review the different tools with students.

**Figure 78: Search Engines**

**TIP:**
This list includes resources targeted towards youth, which are more likely to yield age-appropriate sources.

**TIP:**
If students are using a search engine that has a “related searches” feature, suggest that they take a few moments to look it over. This will show how other people have searched for their topic. It might give them ideas for alternative keywords or appropriate synonyms for the field.

### Additional Resources


**Inquiry Process: Explore Lesson Plan**
Can be found in the Teacher Module, under resources.
Step 7: Select

**Purpose:** Once students have completed their preliminary investigation, they should conduct more in-depth searches using the tools that provided the most useful information. They can revise their strategy as needed to generate precise results. They then Select (or “Mark”) some promising sources. This requires that they copy and paste or type in bibliographic information for each source. ISIS-21 uses these entries to generate a list of these sources (a working bibliography) in the MLA citation style.

It is a good idea for students to begin considering their final product early on, as this may impact the type of information that is required. ISIS-21 has students consider their audience, format, and the materials they need. Doing so at this stage in the process, not only provides them time to reflect and consider their needs, but can also help while they are searching as they target sources that will meet their needs. They can modify and expand on this in the Produce step.
TIP:
Suggest that students look up examples of the medium that they will be using for their final product. Preferably ones aimed at the same target audience. These can be used as models.

As students find relevant sources that they think may be useful for their task, they can record that source in the tool. By clicking on the “mark a source button”, a popup window will appear, which will list a number of different source types. Once they select one, they will see a form that asks for the source’s bibliographic information. ISIS-21 will use this information to format their sources in MLA citation style. They can access their working bibliography through the sources button and in the Acknowledge step.
**Additional Resources**


*Inquiry Process: Select Lesson Plan*
Can be found in the **Teacher Module**, under resources.
Step 8: Review

**Purpose:** Students must review their list of potentially useful sources by evaluating each one for Credibility, Reliability, Accuracy, Currency, and Relevancy. ISIS-21 presents this criterion through the acronym CRACR (see next pg.) to help students more easily remember it. Based on this evaluation, students determine if they want to Select the source. Selected sources will be brought into the last phase (Use).

![Figure 82: The Review Step](image-url)
**Additional Resources:**


Note: Only accessible for registered users. You will have to create an account to access their resources.


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*Inquiry Process: Review Lesson Plan*

Can be found in the Teacher Module, under resources.
Phase Three: Use

The Use phase consists of four steps. In this phase, students learn how to take notes on the sources they determined were appropriate to use. Then they synthesize all of the information that they found from their various sources and organize that information into a cohesive outline that answers their Big Question. ISIS-21 provides the structure to help students utilize the information they found in their sources and to rework it into their own products. Students learn to treat the information they find in an ethical manner by quoting or paraphrasing and documenting the bibliographic information in the MLA citation style. Finally, they present their finished product.

Concepts within the phase:

**Highlighting:** Students review the original text and highlight ideas that help answer their Little Questions.

**Paraphrase:** Students determine if they want to rephrase the author’s words into their own. If they do, students are prompted to ensure the meaning is the same as the original.

**Quote:** Students determine if they want to directly quote the author’s words. They are encouraged to do this if the author used technical words, or if they want to illustrate a particular character trait (for example, the author is very charismatic).

**Outline:** Students arrange the key ideas they have learned for each Little Questions in a logical order. They may also incorporate their Prior Knowledge in the Outline.

**Visual Organizers:** Students can rearrange their main ideas in the outline that is provided on the Synthesize step. Alternatively, they can print out a particular visual organizer that is appropriate for their task.

**Works Cited:** ISIS-21 compiles the bibliographic information that students entered on their sources into a reference page. This is done in the MLA citation style.
Step 9: Note Taking

**Purpose:** After students have chosen the appropriate sources to answer their Little Questions, they will have to develop strategies to process and document the main ideas in those sources. This step has students locate and extract important information relevant to their Little Questions. They demonstrate their comprehension by writing notes and then paraphrasing or quoting that information.

At a minimum, one Key Idea must be extracted from each source. This will be brought forward to the Synthesize Step, and will help organize their main arguments. Any notes that are taken on each source can be consulted at the next step, to help in the synthesis of what has been learned.
TIP:

Use the following websites to review MLA in-text citation and develop some examples:

- Owl Purdue Essay example: http://owl.english.purdue.edu/owl/resource/563/03/
  This site is intended for an older audience, but teachers can use it as a personal reference.
- Research tutorials: http://www.youtube.com/ A video that reviews the proper way to format in-text citations. It can be shown to students.

Student can paraphrase and/or quote each of their sources. It is generally better for students to paraphrase their sources, though they will need guidance to learn how to take the author’s idea and state it in their own words. Encourage them to use quotes if they want to make a point about the author’s perspective using the author’s own words or if the text is using very technical language. Whether paraphrasing or quoting, students should credit the original source.
Additional Resources:


Inquiry Process: Note Taking Lesson Plan
Can be found in the Teacher Module, under resources.
Step 10: Synthesize

Purpose: Students will interpret and reorganize the information they gathered from their sources. They will use these sources to form conclusions about their Big Question. The Synthesize step automatically organizes the main points that students found in their sources into an outline, which students should review and reorganize. ISIS-21 also provides a variety of visual organizers. Encourage students to use whichever method best aids them to process and distill the information and answer their Big Question.

Figure 85: The Synthesize Step

The colours that were assigned to each Little Question in The Brainstorm Step are used here to help students organize their arguments. All key ideas are assigned the same colour as the Little Question that they were linked to.
Students are able to drag and drop Key ideas within the outline. Students may also print out a visual organizer in PDF format to help organize their information.

**Additional Resources:**


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**Figure 86: Visual Organizers**

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**TIP:**

Guide students to consider any potential conflicting opinions in their sources. By addressing the opposite side, they can make their arguments stronger.

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**Inquiry Process: Synthesize Lesson Plan**

Can be found in the *Teacher Module*, under resources.
Step 11: Acknowledge

**Purpose:** This step contains a working bibliography of the sources that students have found and connected to each of their Little Questions. Students are expected to review this list and confirm the sources that will be used in their final product. They can then print a list of those sources by clicking on . ISIS-21 automatically displays sources in the MLA citation style, but additional styles may be consulted.

![Figure 87: The Acknowledge Step](image)

**TIP:** If students want to edit their works cited page, they should use the Print command to save as a text file.

This is also an opportunity for students to review any gaps in their understanding and go back to locate additional sources by using the button.
**Additional Resources:**


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**Inquiry Process: Acknowledge Lesson Plan**

Can be found in the **Teacher Module**, under resources.

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**TIP:**

Explain to students how acknowledging sources is not only about preventing intellectual theft. Discuss how using other people’s ideas can lend credibility to their product. A well-researched product that references a variety of sources will bolster their argument.
Step 12: Produce

**Purpose:** The final step of the inquiry process has students creatively communicate their understanding (their answer to the Big Question) to a given audience. Students should consider the purpose of the final product. Before completing their final product, students are encouraged to review the appropriate checklists.

*Figure 88: The Produce Step*
Students should be encouraged to use ePEARL to help them create their final product. Once their product is completed, students can attach a copy of it to their ISIS-21 task as well as their final Bibliography (or References).

Using ePEARL

Products may be created within ePEARL under the Doing Phase. Written or oral reports may be entered using the text editor or built-in recorder. If media products have been created using other software, they can be attached. The advantage of using ePEARL at this stage is that the ISIS-21 artifact may be shared with classmates or team members to solicit feedback.

Figure 89: Final Product Checklists

Inquiry Process: Produce Lesson Plan
Can be found in the Teacher Module, under resources.

TIP:
This is a good opportunity for peer feedback. Prior to the presentations, provide students with a peer-evaluation rubric. Use the one located on the Teacher Resources page <http://grover.concordia.ca/epearl/resources/home_en.php>. They will evaluate each group as they present and they should leave some comments for each group. Compile these comments and share them with the groups.
Flexible Mode

The Flexible Mode is an alternative way to use ISIS-21. It is intended for younger learners ready for a particular Information Literacy skill, and for advanced users who have some IL skills but want to develop a specific skill in more depth. The Flexible Mode contains the same content as the Guided Mode, but it is presented in a different manner.

Selecting the Mode

Creating a Flexible Mode Task is as simple as selecting it before you start a new Task.

Figure 90: Flexible Mode - Create New Task

One can also change the mode of a Task from the index page. In the "Mode" column in the table, use the radio buttons to change the mode of a Task.

Figure 91: Index Page - Switch Mode
Steps

Unlike the Guided Mode, which asks learners to progress in a linear fashion and return to previous steps as needed, the Flexible Mode allows users to navigate to any step. As you can see in figure 39, the Guided Mode lists only the steps of the phase the learner is working on. In contrast, the Flexible Mode lists all steps and it is up to the learner to select which ones they want to work on. They can turn on and off all steps aside from the first one.

The Flexible Mode combines some of the Guided Mode’s steps. There are 8 steps in the Flexible Mode. This serves to make the process shorter while keeping the natural link between certain steps.

In the Flexible Mode, there are no technical restrictions keeping learners from navigating to any step. However some steps do use content from a previous step. If the learner navigates to a step that pulls content from a previous step, they will get a notification that some aspects of that step require more information.
Core and Support Features

When learners navigate to a Flexible Mode step, only the core features of that step are initially displayed. A sub-menu is provided that lists the support features of the step. The support features provide scaffolding and additional explanations relevant to the step.

The pinwheel icon indicates that the feature is a core feature of the step. The on/off toggle represents the support features in the sub-menu. When turned on, that feature will appear in the student work area. Any content added to these features is saved even if it is later turned off.

Support features with black text in the submenu indicate that there is content the learners should input. The support features with teal text and enclosed in dots represents items that do not require the learner to enter content but may help the learner understand and build the IL skills.

Figure 94: Submenu

- School Library Location
- Community Location
- Internet Location
- Action Plan
- School Library Search Strategy
- Community Search Strategy
- Internet Search Strategy
- Useful Strategies
ISIS-21 Online Interactive Activity

Students may obtain access to the ISIS-21 online interactive activity at any stage of the ISIS-21 process, by clicking on the activity button located on the ISIS-21’s lobby page. Clicking on this icon will bring the user to a web-based interactive activity that provides instruction, along with an activity, for each step of the process. The online interactive activity has been designed to provide further pedagogical support on each step of the inquiry process. Because the steps are linked, students must progress through the game sequentially, starting with the selection of a pharaoh. Users are brought to the last step of the game that has been completed.

Teachers may choose to use the game as an introductory activity to the topic of the inquiry process. They may use the game in its entirety as a fun context for learning about the inquiry process and then have the students use ISIS-21 for their project that will be related to the curriculum. The students may see the value of going back to the game while they are doing their curriculum-related project for help with the steps. Having already worked through the steps, they will be better able to see the anchors/help points. This way they work through the big picture and its component steps.

Mission & Pharaoh Selection

The following task is assigned: You own a funeral and mummification business in Thebes, Egypt. You learn that a pharaoh is making plans for his/her funeral and wants to hire a company to plan a traditional funeral. You will be meeting with this pharaoh and you want to convince him to choose your company. In your meeting you will talk about the burial process and mummification process, the design of the coffin and the decoration of the tomb.

Figure 95: ISIS-21 online interactivity activity mission
Students are required to select one of four pharaohs after having performed background reading in an online encyclopedia on each pharaoh. This screen is intended to generate interest in the activity and introduce students to searching online.

**Figure 96:** Pharaoh selection

**Define - Big Question**

The first step in the inquiry process is Define. Figure 34 demonstrates the pre-set options students have and they must determine which of these would make an appropriate Big Question given their task. The answer is provided below.

**Figure 97:** Define - big question
**Brainstorm - Little Questions**

The next step is Brainstorm. Students will have to match the who, what, where, why and how stems to the appropriate question to create Little Questions. The answers are provided below.

**Answers:**

- How was mummification done during the new kingdom period in Egypt?
- Who was in the (new kingdom period) pharaoh’s funeral procession and when did the funeral procession happen?
- What treasures were placed inside a pharaoh’s burial chamber during the new kingdom period?
- Why were symbols used in the decoration of a pharaoh’s coffin during the new kingdom period?
- Where are pharaohs from the new kingdom period buried?

**Keywords**

The online interactive activity provides students the opportunity to practice identifying keywords. Using the Little Questions from the previous step, students are asked to pick out the main ideas. The answers are provided below.
Answers:

1. How was mummification done during the new kingdom period in Egypt?
   mummification “new kingdom”

2. Where are pharaohs from the new kingdom period buried?
   pharaohs “new kingdom” buried

3. Who was in the (new kingdom period) pharaoh’s funeral procession and when did the funeral procession happen?
   pharaohs “new kingdom” “funeral procession”

4. Why were symbols used in the decoration of a pharaoh’s coffin during the new kingdom period?
   pharaohs decoration coffin “new kingdom”

5. What treasures were placed inside a pharaoh’s burial chamber during the new kingdom period?
   pharaohs burial chamber treasures “new kingdom”
Figure 100:
Synonyms

Answers:
pharaohs - kings
buried - burial
decoration – symbols
coffin - sarcophagus
burial chamber - tomb
mummification - mummies
Search Strings

Once students have identified their keywords and synonyms, they practice creating search strings using Venn diagrams. They place their keywords/synonyms in the circles, as seen in figure 38. The search string reflects their choices (at the top of the screen). The answers are provided below.

Figure 101:
Combine keywords

Answers:

1. How was mummification done during the new kingdom period in Egypt?
   (mummification OR mummies) AND “new kingdom”

2. Where were pharaohs from the new kingdom period buried?
   (pharaohs OR kings) AND (buried OR burial) AND “new kingdom”

3. Who was in the (new kingdom period) pharaoh’s funeral procession and when does the funeral procession happen?
   (pharaohs OR kings) AND “new kingdom” AND “funeral procession”

4. Why were symbols used in the decoration of a pharaoh’s coffin during the new kingdom period in Egypt?
   (pharaohs OR kings) AND (decoration OR symbols) AND (coffin OR sarcophagus) AND “new kingdom”

5. What treasures were placed inside a pharaoh’s burial chamber during the new kingdom period in Egypt?
   (pharaohs OR kings) AND (burial chamber OR tomb) AND treasures AND “new kingdom”
Resources

This step allows students to practice identifying the types of sources available for a particular information need. They then sort these types of sources into locations where the sources can be found. The answers are provided below.

Answers:

Types of Sources:

- Books: Background, Facts, Opinions, People, Places
- Experts: Current events, Facts, Opinions, People, Places
- Mass Media: Current events, Dates, Facts, Opinions, People, Places
- Reference: Background, Dates, Definitions, Facts, People, Places, Statistics
- Scholarly: Facts, Statistics
- Websites: Dates, Facts, Opinions, People, Places, Statistics

Where Sources are Located:

- Classroom: Books, Reference books
- Home: Books, Mass Media, Reference
- Internet: Books, Experts, Mass Media, Reference, Scholarly, Websites
- Library: Books, Mass Media, Reference, Scholarly
- Organizations: Experts, Scholarly
The second portion of this step is to connect their Little Questions to a particular information need so that they can identify which sources and locations would be appropriate. The answers are provided below.

**Figure 103:**
Resources

**Answers:**

1. How was mummification done during the new kingdom period in Egypt? **Facts**

2. Where were pharaohs from the new kingdom period buried? **Places**

3. Who was in the (new kingdom period) pharaoh’s funeral procession and when does the funeral procession happen? **Facts**

4. Why were symbols used in the decoration of a pharaoh’s coffin during the new kingdom period in Egypt? **Facts**

5. What treasures were placed inside a pharaoh’s burial chamber during the new kingdom period in Egypt? **Facts**
Explore

Once students have created their search strings, and identified locations and sources, they are ready to begin their exploration. The online interactive activity focuses on Internet resources. This step introduces students to online directories (figure 43), search engines (figure 44), and meta search engines (figure 45). This step is intended to introduce students to the tools and the type of results those tools generate. Note that this step is designed to teach students about each of the different Internet search tools and it is exploratory. Search results are scanned only, and no sites are selected and saved.

The answers are provided below.

Figure 104: Strategize
- Directories

Figure 105: Strategize
- Search engine
Answers:

1. Where are the pharaohs from the new kingdom period buried?
   Fourth site by – General site on ancient Egypt – reading level good – worth taking a look

2. Who was in the (new kingdom period) pharaoh’s funeral procession and when does the funeral procession happen?
   Fifth site is about death rituals and has some relevant facts on the funeral procession.

3. How was mummification done during the new kingdom period in ancient Egypt?
   Fifth site – Encyclopedia Smithsonian has some general information on the mummification process.

Any one of these search tools could be used to help answer the various little questions.
Select

Once students are familiar with the different web-based search tools, they can choose one that meets the information need of their Little Question and conduct their search in earnest. The online interactive activity provides some search results and students are asked to determine if they should select to use those sites. The answers are provided below.

Answers:

1. How was mummification done during the new kingdom period in Egypt?

Egyptian Mummymaking Methods

4 Jan 2010 ... During this time period, many different methods of mummi-fication were ... Other non-royal mummies made during the New Kingdom show that, ...

www.mummytombs.com/egypt/methods.htm

Potential: Although it is a .com, the URL has the word “mummy” in it, which leads us to think this whole site is about mummies so it should have lots of useful information. The filename “methods.htm” is another good sign because we want to learn how mummies were made. Finally the date tells us it is current information.

CULTUREFOCUS: Ancient Egypt. Valley of the Kings, pictures and ...

For a New Kingdom pharaoh, the mummification process is thought to have taken seventy days. The brain was usually extracted through the nose and discarded. ...
Potential: We are unsure of who the organization, Culture Focus is and the fact it is a .com is not good, but the description leads us to think this could be an informative site and so it is worth looking at further.

The Mummification Process (Getty Museum)
Follow the steps of the mummification process in this short animation about the Getty Museum’s Romano-Egyptian mummy Herakleides.

Potential source: Although this video shows the mummification of Herakleides it may provide a good illustration of the process.

2. Where were pharaohs from the new kingdom period buried?

Historical Development of the Valley of the Kings in the New ...
18 Dec 2002 ... The founders of Dynasty 18 apparently continued the burial ... The reasons New Kingdom kings chose the East Valley of the Kings for their ...

Potential source: The title of tells us this source will have a lot of information on the Valley of the Kings, which we assume is where the pharaohs were buried. The word “project” in the URL also tells us this whole site is about some sort of project, hopefully related to Ancient Egypt. The domain name .com is some cause for concern.

Valley of the Kings, Luxor, Egypt - Travel Photos by Galen R ...
The Valley of the Kings, in Thebes, is the burial place of the pharaohs of the New Kingdom, 18th, 19th, and 20th Dynasties. ... V (1147—1143 BC) and continued] by Ramses VI (1143—1136 BC), with both pharaohs apparently buried here. ...

Potential source: Although the subtitle ”Travel photos” is worrisome, the description looks like it is right on our topic as does the filename. The domain name .com is some cause for concern.

Valley of the Kings - Wikipedia, the free encyclopedia
At the start of the Eighteenth Dynasty, only the kings were buried within the ..... Royal Wadi and tombs – Burial place of Akhenaten and his royal
family. ... a b c d e “Historical Development of the Valley of the Kings in the New Kingdom”. ... Valley of the Sun Kings: New Explorations in the Tombs of the Pharaohs. ...

en.wikipedia.org/wiki/Valley_of_the_Kings
Potential source: This is an encyclopedia article and so it will have some summary information about the Valley of the Kings. However given the popularity of this subject, there are probably other sources that have more detailed information about the topic.

3. Who was in the (new kingdom period) pharaoh’s funeral procession and when does the funeral procession happen?

Life in Ancient Egypt: Life in Ancient Egypt
2750-2250 B.C.), when it was available only to kings, to the New Kingdom (ca. ... Pharaohs built the finest tombs, collected the most elaborate funerary equipment, ... that were probably used in his funeral procession. ...

www.carnegiemnh.org/exhibitions/egypt/guide.htm
Potential source: The title and description lead us to think that this source might have some useful information. The URL is for an organization which is also a good sign. We will need to learn who this organization is.

Death Rituals - the Funeral Procession Egypt
Death Rituals - the Funeral Procession The Funeral procession was an element of ... In the New Kingdom , the tekenu is shown as an entirely wrapped bundle ... a few subsequent pharaohs had them carved on the walls of their pyramids . ... The sarcophagus of Meremptah & Siptah at his tombs in the Valley of the Kings ...

eyptopia.com/Death+Rituals++the+Funeral+Process
ion_30_100_3_15_2545_en.html
Potential source: the title and description lead us to think this source will contain lots of information on our topic. Also the URL tells us this is from a site that is entirely about Egypt. The domain name .com is some cause for concern.

4. Why were symbols used in the decoration of a pharaoh’s coffin during the new kingdom period in Egypt?

Egyptian Afterlife Ceremonies, Sarcophagi, Burial Masks - Crystalinks
By the New Kingdom, the ancient Egyptians had perfected the art of ... He holds the symbols of Egyptian kingship in his hands: the shepherd’s crook to ...
was initially carved on the exterior of the deceased person's sarcophagus, .... The elaborate decoration on Nes-mut-aat-neru's coffin fits her status as a ...

www.crystalinks.com/egytafterlife.html

Potential source: The title and description leads us to think this source will help answer our question. Crystalinks is the name of a company that seems a little strange so we’ll need to find out more about this company.

The Coffins of Ancient Egypt | featurestories

A sarcophagus was also usually provided to hold the coffin in the tomb. .... During the New Kingdom, most of the wealthy acquired multiple coffins for ... The multicolored, varnished decoration on a white or yellow background ...

www.touregypt.net/featurestories/coffins.htm

Potential source: The title and description tell us that this source looks like it is right on our topic. The URL leads us to think this might be a travel site because of the word “Touregypt” so we are unsure about whether this will be a trusted source. The “featurestory” directory points to the fact that this should have detailed information about the topic. Also the sentence “A sarcophagus was also usually provided to hold the coffin in the tomb” tells us there is a difference between a coffin and a sarcophagus. So we need to read more about this.

Life in Ancient Egypt: Life in Ancient Egypt

Gods and Symbols of Ancient Egypt: An Illustrated Dictionary. .... After the mummy was put in a coffin and then in a sarcophagus, it was placed in the burial chamber. ... and, for many kings up to the time of the New Kingdom, pyramids. ... Pharaohs built the finest tombs, collected the most elaborate funerary ...

www.carnegiemnh.org/exhibitions/egypt/guide.htm

Potential source: We have already marked this site as being potentially useful so we should make sure to read the paragraph that talks about “symbols”.

5. What treasures were placed inside a pharaoh’s burial chamber during the new kingdom period in Egypt?

Middle East on the Matrix: Egypt, The New Kingdom

During New Kingdom (c. 1550-1069 BCE), the pharaohs began having their mummies buried in what they ... be secure underground vaults in the Valley
of the Kings on the west bank of the Nile River at Thebes. ... His tomb yielded vast treasures and artifacts, the most famous of which is his solid gold burial mask. ...

www.on-the-matrix.com/mideast/NewKingdom.asp

Potential source: Although the title is not very informative, this site’s description looks good. It also looks to be written in clear language for a younger audience. The URL is a .com and the company name is on-the-matrix which we will have to learn more about.

List of burials in the Valley of the Kings - Wikipedia, the free ...

WV25 – This tomb may have been started as the Theban burial of Akhenaten, ... WVA – This was a storage chamber for Amenhotep III’s tomb which was located ...

en.wikipedia.org/wiki/List_of_burials_in_the_Valley_of_the_Kings

Potential source: The title of this Wikipedia article suggests that we may be able to get information on each of the pharaohs’ tombs within the Valley of the Kings.

CULTUREFOCUS: Ancient Egypt. Valley of the Kings, pictures and ...

Pictures of spectacular tombs built for New Kingdom pharaohs ... Beautiful images of Egyptian gods and goddesses adorn tomb walls in the Valley of ... of the soul of the great sun god Re, in the burial chamber of Queen Twosret. ... Unimaginable treasures were entombed with the pharaohs in the Valley of the Kings. ...

www.culturefocus.com/egypt_valley-of-kings.htm

Potential source: We have already marked this site. We should make sure to read about the treasures that were buried in the tombs.

VIDEO: King Tut’s Treasure | drhawass.com - Zahi Hawass

VIDEO: King Tut’s Treasure. There are many beautiful objects in the Cairo Museum, and some of my favorites are in the collection of King Tutankhamun. ... Howard Carter found 7 coffins in the tomb, and he brought 6 of them to the museum in Cairo and left the innermost coffin in the tomb with the mummy.

www.drhawass.com/blog/video-king-tut’s-treasure

Potential source: The description of this video on King Tut’s treasures will be of use if you are researching King Tutankhamun. The URL tells us that this video is stored on Dr. Hawass’ website so we will have to learn more about this person to see if they are a trusted source.
Review

Note that at a minimum, students must conduct Steps 3-8 for the first two Little Questions. They are, however, encouraged to go back to Step 3 at any time during the game to complete the steps for the remaining questions. The more questions that are answered, the better their presentation to the pharaoh will be.

There are 2 parts to the Review step.

As seen in figure 45, students are asked to match the source listed with the proper MLA citation from the options given. This allows them to practice identifying key components of bibliographic information. The answers are provided below.

**Figure 108: Review - matching**

**Answers:**

Note that there are no incorrect answers in Part 2 of this exercise. Users should be able to justify why they made their selections of sources.

1. How was mummification done during the new kingdom period in Egypt?


2. Where were pharaohs from the new kingdom period buried?


3. Who was in the (new kingdom period) pharaoh’s funeral procession and when does the funeral procession happen?


4. Why were symbols used in the decoration of a pharaoh’s coffin during the new kingdom period in Egypt?


5. What treasures were placed inside a pharaoh’s burial chamber during the new kingdom period in Egypt?

< http://www.on-the-matrix.com/mideast/NewKingdom.asp>


The second part of the Review step in the online interactive activity, is for students to evaluate the source using the CRACRS criteria.

Figure 109: Review - evaluate
Using the Information

The third phase of ISIS-21 has been combined into this last step of the online interactive activity. Students drag and drop graphics onto a hieroglyph that represent answers to each Little Question that has been answered. Each group member can do this and then the group can decide which one they think is best and present that one to the pharaoh. It is time to reorganize and use the information that they found in order to answer their Big Question. Students are asked to complete the hieroglyph in order to have a convincing presentation. The answers/completed hieroglyph is provided in figure 50.

**Figure 110: Using the Information**

**Figure 111: Using the Information - Complete**
By clicking on the “click for more” button [insert button], students can see the bibliography list. They can save the list.

At the end students are able to print out the following items:

- Individual pictures (in jpg format) of the answers to each of the Little Questions.
- A list of sources (in .txt format) that were used (at least two of the following):
  
  
  
  
  


Note that students should be encouraged to retrieve the file in Word for further formatting.
Extension Activity

The following are some suggested activities that may be used to complete the inquiry process outside of the software. In all instances, students should be encouraged to:

• Establish the purpose of the communication and identify the audience. E.g. What do the students have to say in their presentation, to whom and why?

• Select the medium or form of representation for presenting their knowledge about burial traditions that they deem is most appropriate, keeping in mind the original mission of the game. Explain this selection. What type of document should they create?: PPT, printed pamphlet, poster, diorama, reenactment etc. Why do they think this type of document is better suited to their purpose?

• Observe the appropriate conventions and codes for the mode of communication that is used (e.g. how to conduct an effective presentation, how to prepare a report) What- ever type of document they choose – the class should create a list or a checklist of what makes a good PPT, pamphlet etc.

• Determine the logistical considerations that they need to consider for the form of representation that they have selected. Once they decide what type of document they will create, what will they need in order to accomplish this?

• Refer to the sources that were used to inform their understanding of the topic. Justify why they believe these to be credible, valid and useful sources.
**Individual work**

As an owner of a funeral and mummification business in Thebes, Egypt, complete one of the following:

- Creation of a pamphlet that will be presented at the meeting with the pharaoh. The pamphlet should list all of the various funerary items and services offered by the company.
- Design of a multimedia presentation (PPT or video) that uses each of the illustrations (in jpg format) that were saved.
- Preparation of a written itemized list that looks like a bill or invoice to the pharaoh, outlining the relevant funerary items and services offered by the company.

**Collaborative Group Work**

As employees of a funeral and mummification business in Thebes, Egypt, complete one of the following:

- Prepare a script for a skit of a meeting with the pharaoh. Each student in the group should be assigned a role to play.
- Create a painting or mural that illustrates a process in the burial traditions of the New Kingdom period. Students should be prepared to explain the sections and elements of the drawing.
- Create a diorama that illustrates the burial traditions of the New Kingdom period. Students should be prepared to explain the sections and elements of the diorama.

**Additional Research (optional)**

Given students are asked to select a pharaoh at the beginning of the game, they may be asked to complete further research on the chosen pharaoh. The information that is learned about this pharaoh may be used to further tailor their presentation.
Teacher Module

The Teacher Module is designed to support teachers’ use of ISIS-21. Teachers may utilize it in order to gain an understanding of the tool and to access classroom resources such as lesson plans that may be used in conjunction with the software. There are two components to this module:

1. The Teacher Resources web page: http://grover.concordia/resources/isis/teacher/en provides a complete list of resources that have been prepared by the ISIS-21 team with input from teachers.

2. The Parent Module (http://grover.concordia.ca/resources/isis/parent) provides a similar resource targeted towards parents and guardians. Parents should be encouraged to access this resource to learn how to support use of ISIS-21 at home.

Teachers are able to create, edit, and delete their own ISIS-21 projects by clicking on the ISIS-21 graphic on the Lobby page. All of the commands that are available within the student environment are available in the teacher environment.

Classroom management

Users now have access to the LTK Manage section, from the LTK Lobby page. This section allows users to easily manage their classes and students in one convenient location for all the LTK tools. Here, teachers can:

- View their students portfolios
- Provide feedback on their student’s work
- Edit student levels
- Edit their own information such as password, colour codes etc.
- Link to more classes

Figure 113: The LTK Lobby

Tip:
It is a great way to model each of the ISIS-21 steps for your students by going through the inquiry process yourself.
Figure 114: The My Students page

Viewing Your Students’ ISIS-21 Tasks

Teachers are able to view the reports for their students’ ISIS-21 projects under My Students. Clicking on this option will display a list of students for the homeroom class. Click on the ISIS-21 icon to the left of a student’s name. This will show all the projects that the student is currently working on. Click on the report icon to display a “view only” report of the student’s task to date.

Viewing ISIS-21 works from within ePEARL

Projects are referred to as artifacts in ePEARL. When students create a new ISIS-21 task, an artifact is also created in ePEARL. These are listed separately from regular ePEARL artifacts so that they are quickly identifiable. As a teacher, you may click on a title to display the ePEARL artifact of an ISIS-21 task. If a student has used certain ePEARL features (Task description, Task goals, Strategies or Reflections), these will be displayed within the ePEARL artifact. To view the ISIS-21 task content, click on the Report icon. The report displays all content from the steps the student has performed within ISIS-21. At any point during this process teachers are able to provide feedback, within the Teacher Feedback box at the bottom of the artifact (see next page for further explanation).
Providing Feedback

Active feedback boxes are available for Goals, Reflections, or on the student’s ISIS-21 task as a whole. Teachers may review a student’s ISIS-21 report at any time during the inquiry process and provide formative assessment.
2. Each ISIS-21 step has a Teacher Help button that provides specific support for that step. It contains a tutorial, tips, and a lesson plan for that step.

![Figure 117: Teacher Help Window](image-url)
Teacher Aid: ISIS-21 Steps

ISIS-21 has been designed such that information literacy skills are taught within the inquiry (or research) process. This process has been divided into three phases. Students are initially expected to work through each of the steps within a phase in a linear fashion, however they may proceed to the next step without having completed a step. At any time they may re-visit a step to modify work that has been done or to finish the step.

The 12 steps of ISIS-21’s inquiry process are as follows:

**Phase One: Plan**

**Start:** Establish the task and understanding of the task

**Step 1:** **Define:** Determine big question

**Step 2:** **Brainstorm:** Identify what is known, what isn’t known (little questions), and what doesn’t need to be known

**Step 3:** **Keywords:** Extract key concepts from each Little Question

**Step 4:** **Search Strings:** Establish relationships between Keywords and related words

**Step 5:** **Resources:** Review what type of information is needed to answer each Little question and create an Action Plan

**Phase Two: Search**

**Step 6:** **Explore:** Investigate and decide on appropriate retrieval sources, using the Action Plan

**Step 7:** **Select:** Conduct searches and mark potentially useful web sites (create working bibliography)

**Step 8:** **Review:** Read sources and evaluate the quality and relevance of each

**Phase Three: Use**

**Step 9:** **Note taking:** Process and record information found using proper note-taking methods

**Step 10:** **Synthesize:** Interpret information, organize ideas, and form conclusions

**Step 11:** **Acknowledge:** Establish final list of sources (bibliography) to be used

**Step 12:** **Produce:** Communicate findings creatively for a given audience
Parent Module

**Figure 118: The Parent Module**

**TIP:** Send a newsletter home to inform parents about the ISIS-21 project you’re assigning.

Tips are provided for each phase and for each step.

**Figure 118: Parent Tips**

**Parent Tips**

- Draw a diagram with the Big Question written in the center of the page. Ask your child “What do you know about this topic?” and write each sub-topic around the central topic. Make links between related topics. Try breaking down the sub-topics even further.
- Ask your child “Of each of these sub-topics, what do you know and what do you need to learn about?”
- For each Little Question (“What I need to know”) encourage the use of clear and concise language. Vague words should be avoided.
- Jot down a couple of related sub-topics that are not part of the task as they will help to avoid getting off-task when conducting the research in Phase 2.
Sub-administrator Module

There may be instances in which teachers would like to add a new teacher (e.g. a student teacher or substitute teacher) or student to the school if they were not included in the database at the start of the school year. Sub-administrator accounts have been set up to allow for the management of classes, teachers, and students. There is usually one person in each school with Sub-administrator privileges. It may be the principal, the computer teacher, or a consultant at the board/district/division level. In Quebec, the local RECIT will know who has been assigned this role within their board.

It is recommended that teachers review the set-up for their students prior to using ePEARL with a class. For example, if students are missing from the class list, they can be added or if ePEARL levels have been incorrectly assigned they can be changed.

Schools, Classes, Teachers and Students

The Schools, Classes, Students and Teachers section contains the information necessary to add, edit, delete and generally manage these four items. Administrators and Sub-administrators can both manage all these items but the sub-administrator cannot add or delete schools. If a large number of users is being imported (more than 50) then, it is recommended that the administrator or sub-administrators import the data from an Excel spreadsheet, rather than enter this data manually. The Excel Import feature is available from the Import tab in the Classes, Students and Teachers sections.

Please refer to the Importing from Excel Files section later in this document for detailed instructions.

Figure 119: The LTK Sub-administrator’s Homepage
Schools

The Schools screen presents the list of schools managed by the sub-administrator. Clicking on the Pencil icon will open up the edit window for a particular school.

![Figure 120: The List of Schools screen](image)

The Edit window contains the functions necessary to activate the links to LTK+ tools. Greyed out fields cannot be changed, as they have already been set by the GPI database. To update school information which has been imported from a database, click the “Update School from Database” button.

![Figure 121: The Edit School window](image)
Classes

The Classes screen contains the information necessary to add, edit, delete and generally manage classes.

List of Classes

The List Classes tab provides an overview of existing Classes for the schools managed by the sub-administrator. The list can be filtered by School and, subsequently, by Teacher. The search field can be used to look for a specific class. List headings can be clicked on to sort the list by Class Name, by Class Nickname, or Date Added. To delete one or multiple class records, use the checkboxes on the right and then click the red x above the checkboxes.

Clicking on the View Students icon will take you to List of Students for this class.

Clicking on the Pencil icon will open up the edit window for this class (see next page). Greyed out fields cannot be changed. Class Nicknames are set by the teacher.

If the data has been entered manually, the Class Code can be set manually, or you can let the LTK+ choose it. Letting the LTK+ manage the Class code is perfectly acceptable. Please note that the Class Code must be unique across every class in the LTK+.
To delete a single class from the list, click the red x on the left of the class name.

Add Classes

To create a new class, click on the + icon, on the right of the screen. The creation screen will appear, in which all the required information can be entered.
**Import Classes**

The Import Classes tab provides sub-administrators with functions to import data from an Excel file. Instructions are provided on the tab, as well as a link for a downloadable Excel template to use for the import.

![Figure 125: Import Classes screen](image)

**Import Class Links**

The Import Class Links tab provides administrators and sub-administrators with functions to import links of teachers/students to classes from an Excel file. Instructions are provided on the tab, as well as a link for a downloadable Excel template to use for the import.
Teachers

The Teachers screen contains the information necessary to add, edit, delete and generally manage the teachers.

List of Teachers

The List of Teachers tab provides an overview of the existing teachers within the school. The list can be filtered by Class. The search field can be used to look for a specific teacher. Column headings can be clicked on to sort the list by First or Last Name, Nickname, Username, Password, Level or Date Added.

To update one or multiple teacher records, use the checkboxes on the right of the list and then click the pencil icon above the checkboxes. To delete one or multiple teacher records, use the checkboxes on the right and then click the red x above the checkboxes.

Add Teachers

To create a new teacher, click on the + icon, on the right of the screen. The creation screen will appear, in which all the required information can be entered.

In the list of teachers, click on the printer icon to open a printable version of the list. This printable list can also be sorted.
In the list of teachers, clicking on the Pencil icon will open up the edit window for this teacher. Teacher Nicknames are chosen by the teacher.

**Note**: For teachers entered manually or imported from Excel, the User Code can be set manually, or you can let the LTK+ choose it. (See below)

Letting the LTK+ manage the User Code is perfectly acceptable. Please note that the User Code must be unique across every teacher and student in every school within the LTK+.

**Note**: Teacher’s can modify their own information (including their level) from within the Teacher environment.

To delete a single teacher from the list, click the x on the left of the name. If you delete a teacher that has been imported from GPI, re-importing will restore the teacher.
Link / Unlink Teachers

The Link / Unlink tab has the same sorting and searching functions as the List of Teachers. To see which teachers are linked to which classes, select a School and a class from the drop down menus. The list is then updated and teachers linked to the chosen class are highlighted in yellow. To link or unlink a teacher form this class, click on the link icon on the left of the screen. Teachers can be linked to multiple classes.

Figure 129: Link/Unlink Teachers

[Image of Link/Unlink Teachers interface]

Note: Teachers may also link themselves to classes within the Teacher environment. As well, teachers can link other teachers to their own classes from within the Teacher environment.

Import Teachers

The Import Teachers tab provides sub-administrators with functions to import data from an Excel file. Instructions are provided on the tab, as well as a link for a downloadable Excel template to use for the import.

Figure 130: The Import Teachers screen

[Image of Import Teachers interface]
Students

The Students screen contains the information necessary to add, edit, delete and generally manage the students.

List of Students

The List of Students tab provides an overview of the existing students within the board or district. The list can be filtered by School and, subsequently, by Class. The search field can be used to look for a specific student. List headings can be clicked on to sort the list by First or Last Name, Nickname, Username, Password, Level or Date Added. To update one or multiple student records, use the checkboxes on the right of the list and then click the pencil icon above the checkboxes. To delete one or multiple student records, use the checkboxes on the right and then click the red x above the checkboxes.

Click on the printer icon to open a printable version of the list. This printable list can also be sorted.
In the list of students, clicking on the Pencil icon will open up the edit window for this student. The User Code can be set manually, or you can let the LTK+ choose it. Letting the LTK+ manage the User Code is perfectly acceptable. Please note that the User Code must be unique across every teacher and student in every school within the LTK+.

Note: Student can modify their nickname from within the Student environment.

To delete a single student from the list, click the red x on the left of the name. If you delete a student that has been imported from GPI, re-importing will restore the student.

Figure 133: The edit Students window
**Add Students**

To create a new student, click on the + icon, on the right of the screen. The creation screen will appear, in which all the required information can be entered.

![Figure 134: Creating a New Student](image)

**Link / Unlink Students**

The Link / Unlink tab has the same sorting and searching functions as the List of Students. To see which students are linked to which classes, select a School and a Class from the drop down menus. The list is then updated and students linked to the chosen class are highlighted in yellow. To link or unlink a student from this class, click on the link icon on the left of the screen. Students can be linked to multiple classes.
Note: Teachers may also link his/her students to his/her classes within the Teacher environment.

Import Students

The Import Students tab provides sub-administrators with functions to import data from an Excel file. Instructions are provided on the tab, as well as a link for a downloadable Excel template to use for the import.
The above screenshot corresponds to the standard import excel template for students (epearl_students.xls) that goes along with the others for schools, classes, teachers, and class links. However, clicking on the link where it says “To import students to an existing school, click here” will bring up an alternate student import screen as shown below.

**Tip for Small Scale Imports**

This alternate import excel template for students (epearl_school_students.xls) is a new template that has been added in order to address the need for some administrators to have an easy way to do small-scale student imports into an existing school and/or existing classes. For large-scale imports, it is recommended to stick with the standard method.
Managing Classes and Students

Accessing the LTK as a teacher will open up the LTK Lobby page. There are two main options on this page: LTK Management (for the management of classes and students) or accessing the tools offered within the LTK. A shortcut to the Teacher Resources page for each tool has also been provided on this screen.

**LTK Management**

This section allows teachers to easily manage their classes and students in one convenient location for all the LTK tools.

Here, teachers can:

- Edit teacher information such as password, colour tags etc.
- Link themselves to multiple classes
- Link students to their homeroom class

For more on how to manage your classroom using the LTK Management feature, please see the LTK Management Teacher Guide, available for download on our website.

**TIP:**

ISIS-21 is only accessible to Level 2 users of the LTK. Please make sure to change your level under My Account if you do not see the ISIS-21 icon on Lobby page.
**Resources**

Teachers are encouraged to consult the Resources tab as the CSLP team continues to develop bilingual job aids and supplemental materials to help support the use of ePEARL in classrooms. All of the embedded video support and virtual tutorials can be accessed from this page as well. Materials will be added to this page on a continuous basis.

*Figure 139*: Link to the Teacher Resources page
**My Account**

In My Account, you can change your nickname, password, ePEARL level and define your teacher colour codes in ePEARL (only for those teachers who have ePEARL activated in their account).

![Figure 140: My Account](image)

**My Classes**

A list of your classes – the classes you are linked to – will be displayed. Teachers are automatically linked to their homeroom class.

![Figure 141: My Classes](image)

- The pencil icon allows you to change the class name and nickname.
- The class list icon opens up the list of students who are in the class. See the My Students section of this guide for more information about what can be done using this list.
- The ABRACADABRA icon is active when the class has been using ABRA. It will open up the Class Assessment data within ABRACADABRA.
There may be instances in which a teacher wishes to link himself / herself to other classes, for example, if he or she teaches two homeroom classes or is a resource, music or technology teacher who works with many classes. This function can also be accessed in LTK Management.

Click on Link Myself To More Classes to add or remove a class from your list.

**Figure 142:** Linking to classes

![Image of a user interface showing 'Link Myself To More Classes' button.]

**Figure 143:** Selecting classes

![Image of a user interface showing a list of classes with linked and unlinked statuses.]

The chain is connected and the background is yellow when a class is linked to the teacher. When unlinked, the chain is broken and the background is white. Once linked, you will be able to see the class in the My Classes tab.
Linking Other Teachers to Your Own Class:

From “My Classes”, teachers may also link other teachers to their own
class by clicking on the Link/Unlink Teachers tab.

**Figure 144:** Linking other teachers

*TIP:*

If the teacher does not appear in the list, he or she must be added
to the database by the LTK sub-administrator
for the school. This may be the principal, the
computer teacher, or a technology consultant
at the board/district/division level. Find
out who the sub-administrator is at your school.
My Students

Teachers may view and edit student information within a specific class by clicking on the pencil icon beside the name of a specific student.

Note: You must be linked to the class the student is in, in order to view the details.

Figure 145: My Students

TIP:

If there are students who are not linked to your class but should be, you may link them by clicking on the Link/Unlink tab to display a list of students who attend your school. Please see the sub-administrator at your school if the student does not appear on that list, as he or she must be added to the database.

From here, the student password can be changed for individual students, as well as the ePEARL level for those students who are using that tool. Note that usernames may not be changed as these are set by the software when the student list is entered into the LTK database. Nicknames are defined by the student and also may not be changed by the teacher.

Figure 146: Edit Students’ Information
From the main student list, teachers can also access any tool that an individual student is using.

If the student is using ePEARL, the teacher can access it by clicking on the Portfolio icon.

If the student is using ISIS-21, clicking on the ISIS icon will allow teachers to see the student’s main projects in ISIS.

Clicking the ABRACADABRA icon near a student’s name will allow teachers to view that student’s assessment data in ABRACADABRA.

See Figure 145 for the icon placement on screen.