



ISIS-21

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An Introduction to ISIS-21

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.

TIP:

Students should be introduced to each of the concepts presented within ISIS-21 prior to using the software. It is highly recommended that a class activity be conducted for each step as many of these concepts will be new for the students. Students should also be encouraged to consult the Help as required.

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).

This Guide

This guide 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.

This guide also provides an overview of the Teacher Module, including information on how to view ISIS-21 student work and provide feedback from within (see pgs. 66-68).

ISIS-21's Levels

Once developed, the full, multi-level version of ISIS-21 will have three levels to address the needs and abilities of different age groups: Level 1 – Early elementary; Level 2: Late elementary and early secondary; and Level 3 – Late secondary. To date, only Level 2 has been developed, hence this guide is geared to Level 2.

ISIS-21 Features

Figure 1:
ISIS-21 Banner
main page



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.

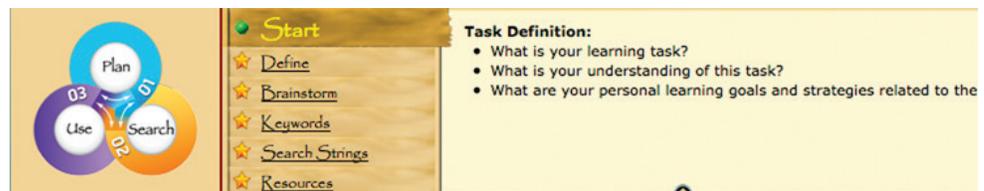
Link to LTK: This will bring students back to the LTK lobby page.

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 Graph and Menu

Figure 2:
ISIS-21's
navigation
is located at
the top of
the ISIS-21
screen.



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 3: 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.



Figure 4:
The ISIS-21 environment is divided into two: Learn and Apply.

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.

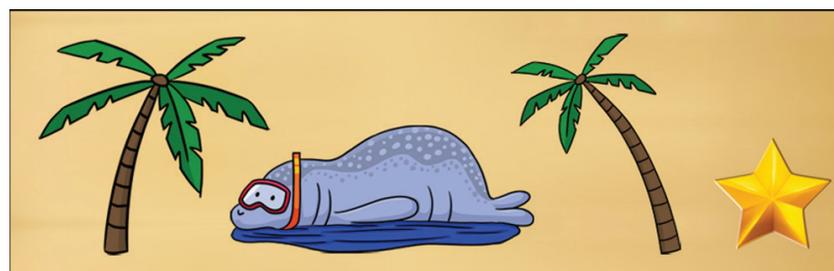


Figure 5:
Completed state

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.



Figure 6: Reflection window

TIP:

Students can modify add or delete General Goals within ISIS-21

Text that is entered into any ePEARL window is not included in the Report feature; but many can be viewed from within ePEARL.

The ISIS-21 Process of Inquiry

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



ISIS-21 Steps

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.



Start

Figure 7: 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

Farmer, L. (2007). What is the question? *IFLA Journal*, 33(1): 41–49.

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

“Literacy with ICT Across the Curriculum.” Education and Literacy. N.p., n.d. <http://www.edu.gov.mb.ca/k12/tech/lict/teachers/curriculum.html>

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

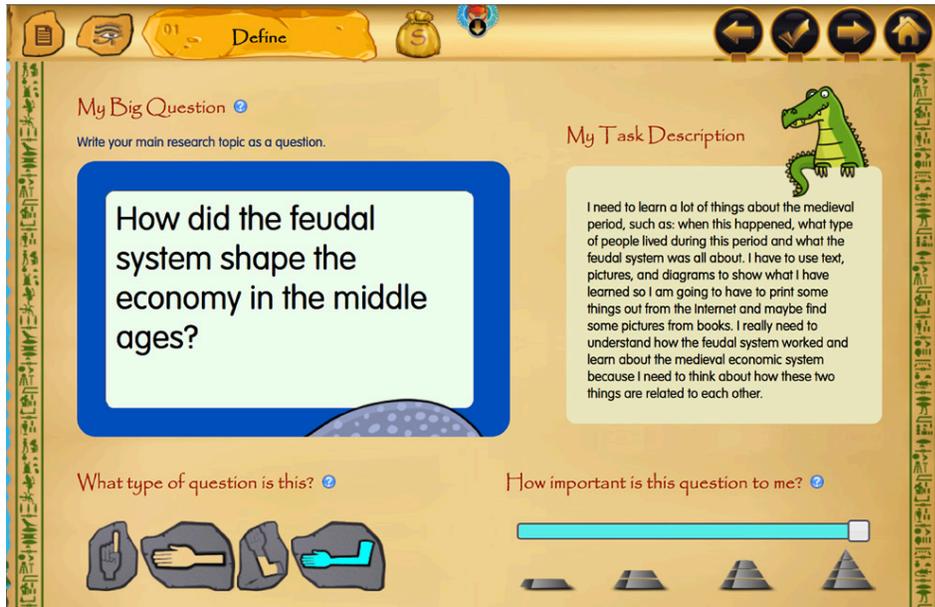


Figure 8: The Define Step

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.

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

“Cross curricular competency: Uses Information.” LEARN. N.p., n.d. http://www.learnquebec.ca/en/content/ccc_sec/ccc_1/index.html

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

“Literacy with ICT Across the Curriculum.” Education and Literacy. N.p., n.d. <http://www.edu.gov.mb.ca/k12/tech/lict/teachers/curriculum.html>

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



Step 2 : Brainstorm

Figure 9: 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 a questions will be colour-coded, especially as the synthesize step.



Additional Resources

“Cross curricular competency: Uses Information.” LEARN. N.p., n.d.
http://www.learnquebec.ca/en/content/ccc_sec/ccc_1/index.html

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

“Literacy with ICT Across the Curriculum.” Education and Literacy. N.p., n.d. <http://www.edu.gov.mb.ca/k12/tech/lict/teachers/curriculum.html>

“ReadWriteThink Webbing Tool.” readwritethink.org. N.p., n.d. Web. <http://www.readwritethink.org/classroom-resources/student-interactives/readwritethink-webbing-tool-30038.html>

Inquiry Process: Define and Brainstorm Steps Lesson Plan can be found in the **Teacher Module**, under 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:

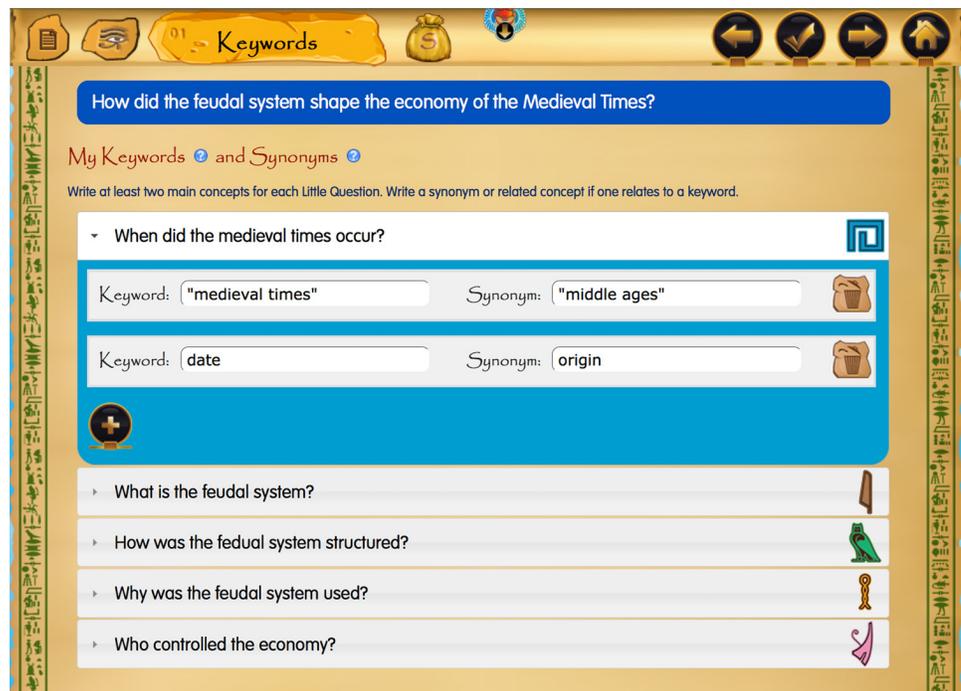
- What geographical area or location do I want to focus on?
- What person or group interests me?
- What aspects of my topic interest me?
- On which time period do I want to focus?



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 10: 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.

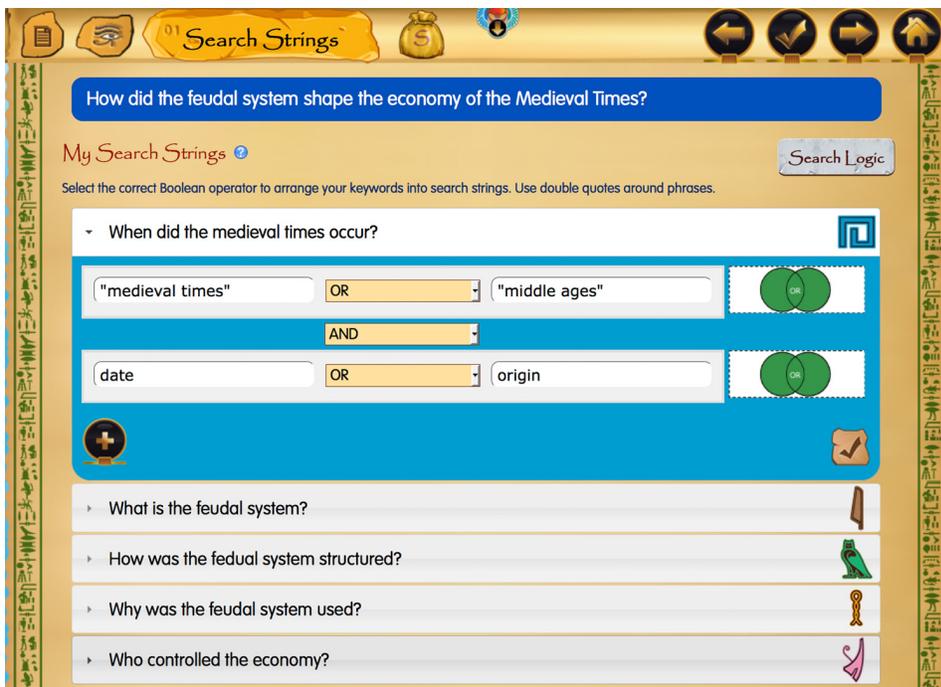


Figure 11: The Search String Step

TIP:

Inform students that when they are thinking about selecting synonyms for their Keywords, it is important they consider the context of their topic. Synonyms should be selected based on the audience and format of the material they expect to find. The purpose is to find important related terms, which if they were not searched on, would risk missing relevant information.

Additional Resources

PLML The Public Learning Media Laboratory. N.p., 3 Dec. 2012. Web. <http://www.plml.org/information-literacy-education/search-engines-boolean-logic-and-education-whats-important-for-educators-to-know>

“Venn Diagram.” readwritethink.org. N.p., n.d. Web. <http://www.readwritethink.org/classroom-resources/student-interactives/venn-diagram-30973.html>

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 12: The Resource Step

Resources

How did the feudal system shape the economy of the Medieval Times?

My Information Needs

Decide on what type of information each Little Question is asking for and which source would be the best place to find that type of information. Select only the best one or two information types needed.

When did the medieval times occur?

What is the feudal system?

How was the feudal system structured?

Why was the feudal system used?

Who controlled the economy?

Little Question: When did the medieval times occur?

To answer this question, I need...

background information on my topic

Best source to find this information...

to define a word

to find the dates that my topic occurred

Best source to find this information...

to find information about a person

to find images (maps, charts, and photographs)

to determine other facts about my topic

Locations I should use to access these sources...

School Library

Community

- * Person
- * Organizations

Internet

- * Search Engines
- * Directories

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.

ACTION PLAN

close window

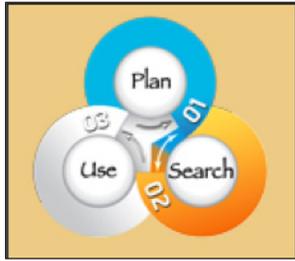
How did the feudal system shape the economy in the middle ages?

Sort the action plan by:

Little Question	Information Type	Source Type	Location
When did the medieval times occur?			
To answer this question, I need:			
<ul style="list-style-type: none"> • background information on my topic Best source: Reference Material 		School Library	
<ul style="list-style-type: none"> • to find the dates that my topic occurred Best source: Reference Material 		School Library	
What is the feudal system?			
To answer this question, I need:			
<ul style="list-style-type: none"> • background information on my topic Best source: Reference Material 		School Library	
<ul style="list-style-type: none"> • to define a word Best source: Reference Material 		School Library	
How was the feudal system structured?			
To answer this question, I need:			
<ul style="list-style-type: none"> • to determine other facts about my topic Best source: Websites 		Internet	
Why was the feudal system used?			
To answer this question, I need:			
<ul style="list-style-type: none"> • to determine other facts about my topic Best source: Books 		School Library or Internet	
Who controlled the economy?			
To answer this question, I need:			
<ul style="list-style-type: none"> • to determine other facts about my topic Best source: Websites 		Internet	

Figure 13: The Action Plan

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 14: The Explore Step

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 15: 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” features, 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.




List of Web-based Search Tools

The following list of directories, search engines, and meta-search engines has been compiled by the ISIS-21 team. We have listed our top recommendations for each category. For more options, click on the plus sign next to each type of tool to view the full list of resources we have compiled. Good luck searching!



+ Directories Click on the plus sign to view full list.

- [Fact Monster](#) Please be advised that this site has many ads.
- [KidsClick](#)
- [Kids Space](#)



+ Search Engines Click on the plus sign to view full list.

- [DuckDuckGo](#)
- [InstaGrok](#)
- [SweetSearch4me](#)



+ Meta Search Engines Click on the plus sign to view full list.

- [Yippy](#)
- [Zoo](#)



+ Custom Search Engines Click on the plus sign to view full list.

Additional Resources

“Immersion into Texts.” Literacy Today -. N.p., n.d. Web. http://www.learnquebec.ca/en/content/professional_development/media_literacy/literacy-today-reading/how-texts-work.html

“Literacy with ICT Across the Curriculum.” Education and Literacy. N.p., n.d. <http://www.edu.gov.mb.ca/k12/tech/lict/teachers/curriculum.html>

“How to Search the Internet Effectively.” MediaSmarts. N.p., n.d. Web. http://mediasmarts.ca/sites/default/files/pdfs/tipsheet/TipSheet_How_Search_Internet_Effectively.pdf

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.



Figure 16: The Select Step

TIP:

Once students are on a webpage, recommend that they use the Find feature to locate their keywords on the page. Press Control + F (PCs) or Command + F (MACs). Students type in the keyword (one at a time) and any instance where it appears on the page will be revealed to them.

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 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.

Figure 17:
Considering the
different aspect of
the final product

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.

Students should also consider the keywords that would be found in the medium or format of their intended final product. Would that format use formal language, natural language, or slang? If so, they should consider Keywords and synonyms for the type of language the medium is likely to use.



How did the feudal system shape the economy of the Medieval times?

My Sources  Mark a New Source

Found a *relevant* source? Flag sources that contain potentially useful information.

Planning Ahead

When did the medieval times occur?

What is the feudal system?

How was the feudal system structured?

Why was the feudal system used?

Who controlled the economy?

Parking Lot (Extra)

Aspects of the Product 

As you start to select sources to answer your Little Questions, it is a good idea to think about how you will present the information you find. Answer the following questions to help you select sources that are appropriate.

Who is my audience?

My Teacher My Peers My Community Younger Children

Other (specify)

The format of my product will be:

Essay Speech Multimedia Presentation

Other (specify)

What materials will I need to do my project?

		
<input checked="" type="checkbox"/> Computer <input type="checkbox"/> Printer <input type="checkbox"/> Scanner <input checked="" type="checkbox"/> Camera <input type="checkbox"/> Video recorder <input type="checkbox"/> Voice recorder <input type="checkbox"/> Timer <input type="checkbox"/> An account on a blog site/internet site	<input type="checkbox"/> Paper <input type="checkbox"/> Index/cue cards <input type="checkbox"/> Pencils/pens <input type="checkbox"/> Crayons <input type="checkbox"/> Markers <input type="checkbox"/> Highlighters <input type="checkbox"/> Paints <input type="checkbox"/> Bristol boards	<input checked="" type="checkbox"/> Photographs <input type="checkbox"/> Illustrations <input type="checkbox"/> Maps <input type="checkbox"/> Charts <input type="checkbox"/> Other (specify) <input type="text"/>

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.



close window

Evaluate Source

Pillay, Vanitha. "The Feudal System." Van Rossum & Hwang Ltd., May 21, 2012. Web. Aug. 15, 2014. <<http://www.vrhistory.com/feudal/>>.

Credibility

Does the source have an author?
 Yes No

Are they an expert on this topic? Why?
 Yes No

Do I trust this information? Why?
 Yes No

Notes:

Reliability



Figure 18:
Example
of CRACR
evaluation
criteria

Additional Resources

“Literacy with ICT Across the Curriculum.” Education and Literacy. N.p., n.d. <http://www.edu.gov.mb.ca/k12/tech/lict/teachers/curriculum.html>

“Search Engines: AND the way engines LINK TO work.” Engineering the Net. N.p., n.d. Web. <http://engineeringthenet.org/data/teach-how-search-engines-work/>

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 criteria 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 19: The Review Step



How did the feudal system shape the economy of the Medieval Times?

My Evaluations 

Evaluate each of the sources you found and determine if it is a source you want to select to use for your task.

School Library

Source	Source Type	Little Questions
 Feudal Lords and the Economy: Mercier, Robert	Periodical	<i>Parking Lot (Extra)</i>
 Medieval Times: Muir, Suzanne	Book	<ul style="list-style-type: none"> • When did the medieval times occur? • Who controlled the economy?

Internet

Source	Source Type	Little Questions
 MEDIEVAL EUROPE: Kindersley, Dorling	Webpage	<ul style="list-style-type: none"> • When did the medieval times occur? • Who controlled the economy?
 Medieval Life - Feudalism: History on the Net	Webpage	<ul style="list-style-type: none"> • How was the feudal system structured?
 Feudalism: n.d.	Webpage	<ul style="list-style-type: none"> • What is the feudal system?
 MEDIEVAL EUROPE: Kindersley, Dorling	Webpage	<ul style="list-style-type: none"> • When did the medieval times occur? • Who controlled the economy?
 The Feudal System: Rees, Scott	Webpage	<ul style="list-style-type: none"> • What is the feudal system? • How was the feudal system structured?
 Middle Ages Economy: Yao, C.	Image	<ul style="list-style-type: none"> • How was the feudal system structured?
 The Dark Ages... How Dark Were They, Really?: Crash Course World History #14: John Green	Video	<ul style="list-style-type: none"> • When did the medieval times occur? • What is the feudal system? • How was the feudal system structured?



Additional Resources:

“Cross curricular competency: Uses Information.” LEARN. N.p., n.d. http://www.learnquebec.ca/en/content/ccc_sec/ccc_1/index.html

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

“Jo Cool or Jo Fool - For Kids.” MediaSmarts. N.p., n.d. Web. <http://mediasmarts.ca/game/jo-cool-or-jo-fool/kids>

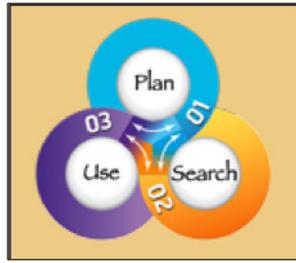
“Literacy with ICT Across the Curriculum.” Education and Literacy. N.p., n.d. <http://www.edu.gov.mb.ca/k12/tech/lict/teachers/curriculum.html>

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.



Figure 20: The Note Taking Step – *Understand* tab

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.

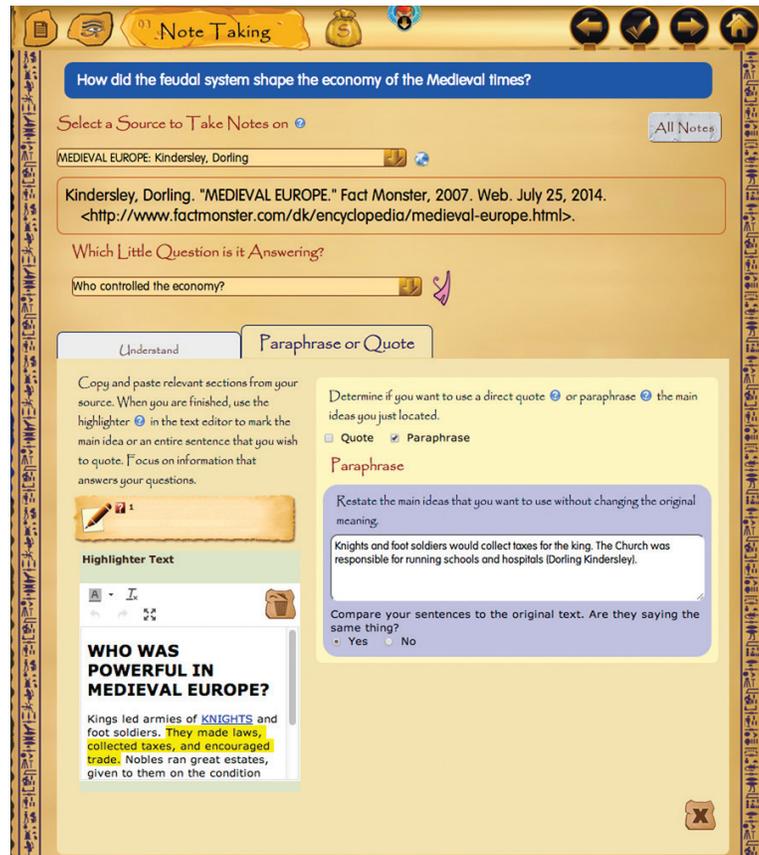


Figure 21: The Note Taking Step – *Paraphrase* or *Quote* tab

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.
- researchtutorials: <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:

“Guided Comprehension: Summarizing Using the QuIP Strategy” readwritethink.org. N.p., n.d. Web. <http://www.readwritethink.org/classroom-resources/lesson-plans/guided-comprehension-summarizing-using-231.html>

“I Used My Own Words! Paraphrasing Informational Texts.”readwritethink.org. N.p., n.d. Web. <http://www.readwritethink.org/classroom-resources/lesson-plans/used-words-paraphrasing-informational-1177.html>

“Identifying Plagiarism.” readwritethink.org. N.p., n.d. Web. http://www.readwritethink.org/files/resources/lesson_images/lesson1062/plagiarismexamples.pdf

“The Ethical Researcher: Big Ideas of Notemaking and Notetaking.”NoodleTools. N.p., n.d. Web. <http://www.noodletools.com/debbie/ethical/fourphase.html>

Inquiry Process: Note Taking Lesson Plan

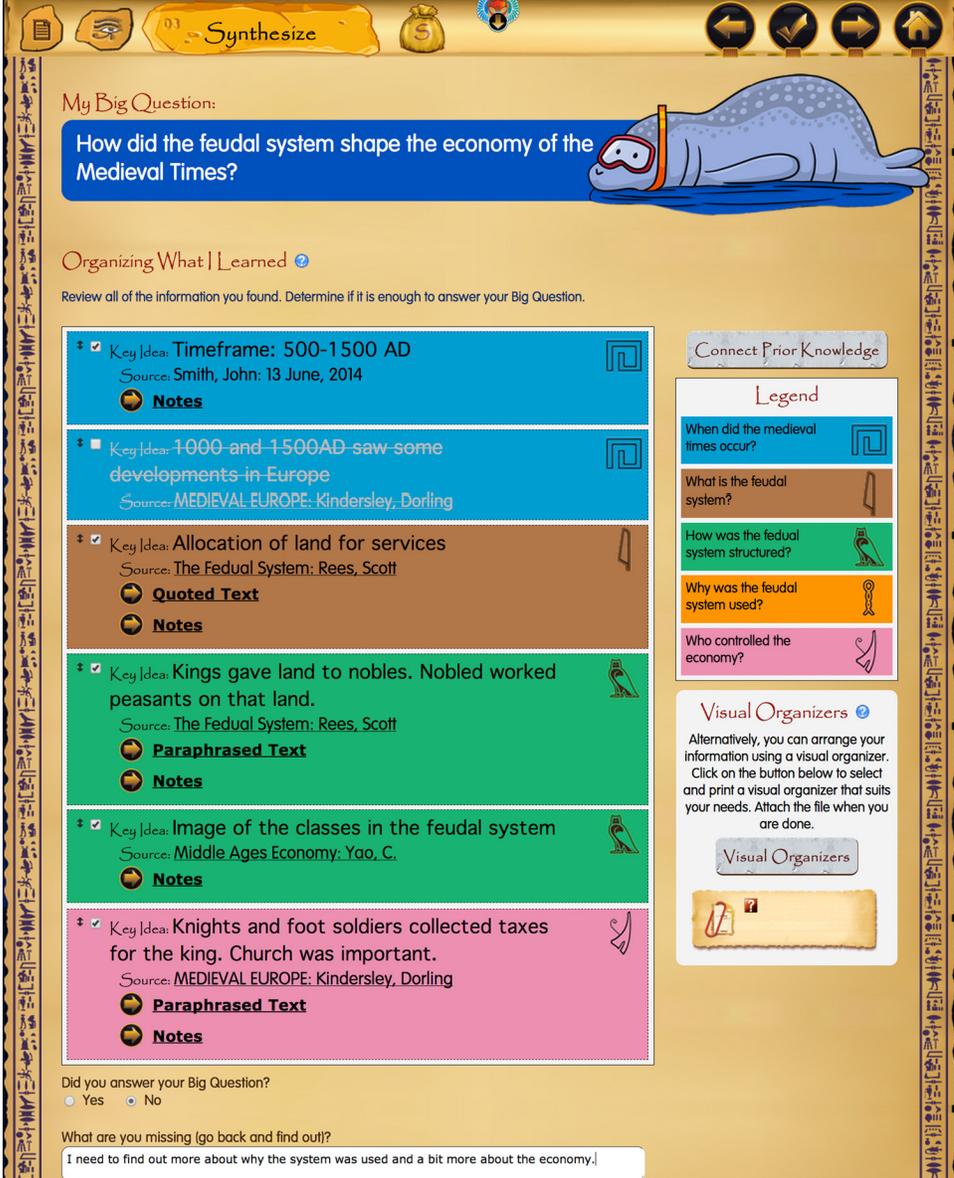
Can be found in the **Teacher Module**, under resources.



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 22: The Synthesize Step



My Big Question:
How did the feudal system shape the economy of the Medieval Times?

Organizing What I Learned
Review all of the information you found. Determine if it is enough to answer your Big Question.

- Key Idea: Timeframe: 500-1500 AD
Source: Smith, John: 13 June, 2014
Notes
- Key Idea: 1000 and 1500 AD saw some developments in Europe
Source: MEDIEVAL EUROPE: Kindersley, Dorling
Notes
- Key Idea: Allocation of land for services
Source: The Feudal System: Rees, Scott
Quoted Text
Notes
- Key Idea: Kings gave land to nobles. Nobles worked peasants on that land.
Source: The Feudal System: Rees, Scott
Paraphrased Text
Notes
- Key Idea: Image of the classes in the feudal system
Source: Middle Ages Economy: Yao, C.
Notes
- Key Idea: Knights and foot soldiers collected taxes for the king. Church was important.
Source: MEDIEVAL EUROPE: Kindersley, Dorling
Paraphrased Text
Notes

Connect Prior Knowledge

Legend

- When did the medieval times occur?
- What is the feudal system?
- How was the feudal system structured?
- Why was the feudal system used?
- Who controlled the economy?

Visual Organizers
Alternatively, you can arrange your information using a visual organizer. Click on the button below to select and print a visual organizer that suits your needs. Attach the file when you are done.

Visual Organizers

Did you answer your Big Question?
 Yes No

What are you missing (go back and find out)?
I need to find out more about why the system was used and a bit more about the economy.

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

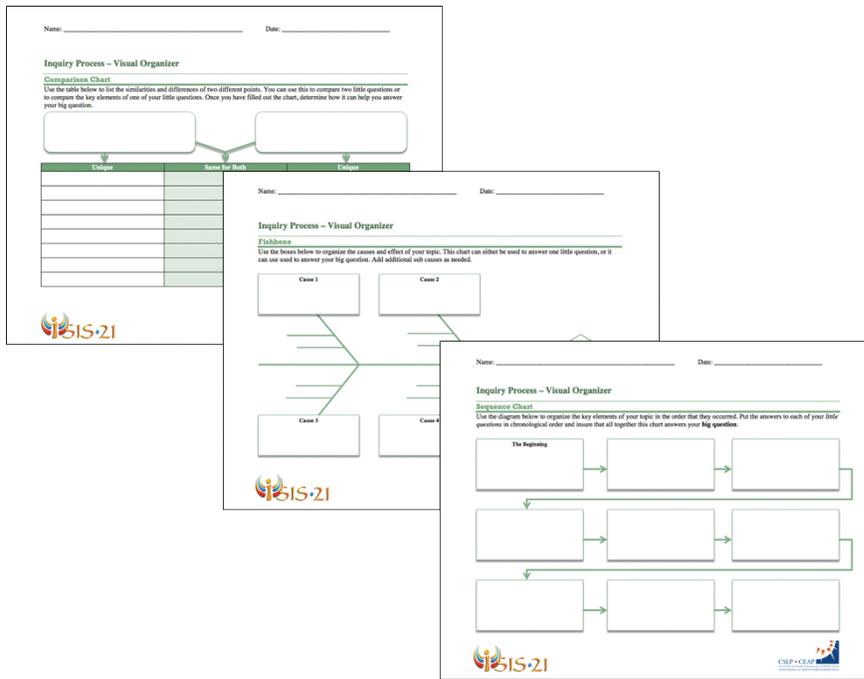


Figure 23: Visual Organizers

TIP:

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

Additional Resources:

“Classroom Resources: Graphic Organizers.” Education Place. N.p., n.d. Web. <http://www.eduplace.com/graphicorganizer/>

“Essay Map.” readwritethink.org. N.p., n.d. Web. <http://www.readwritethink.org/classroom-resources/student-interactives/essay-30063.html>

“ReadWriteThink Webbing Tool.” readwritethink.org. N.p., n.d. Web. <http://www.readwritethink.org/classroom-resources/student-interactives/readwritethink-webbing-tool-30038.html>

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

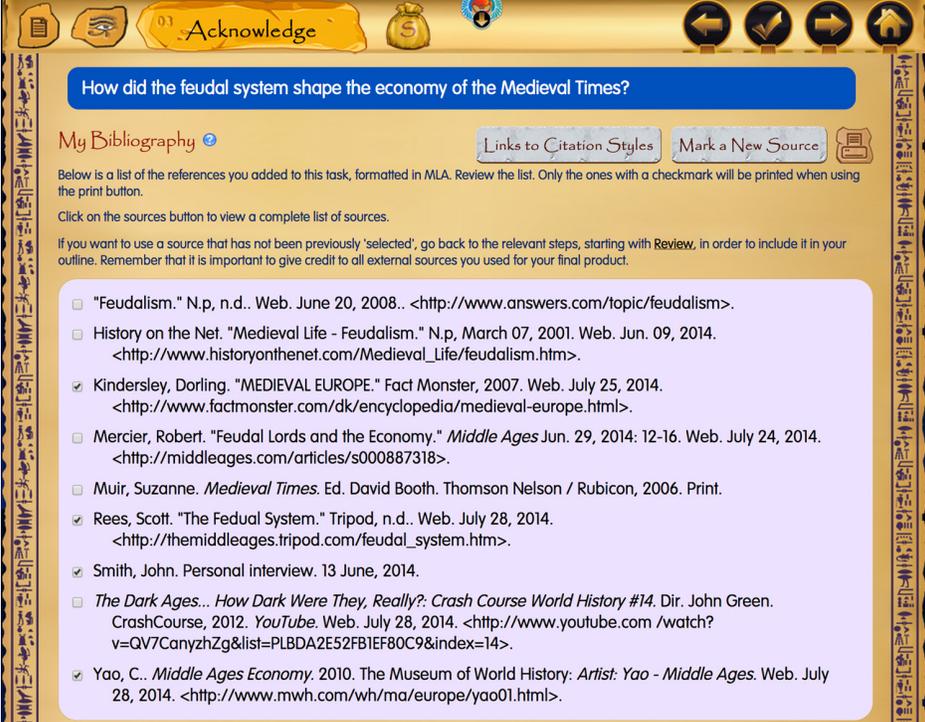
Step 11: Acknowledge

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 24: The Acknowledge Step

TIP:

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



How did the feudal system shape the economy of the Medieval Times?

My Bibliography 

Links to Citation Styles Mark a New Source 

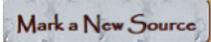
Below is a list of the references you added to this task, formatted in MLA. Review the list. Only the ones with a checkmark will be printed when using the print button.

Click on the sources button to view a complete list of sources.

If you want to use a source that has not been previously 'selected', go back to the relevant steps, starting with **Review**, in order to include it in your outline. Remember that it is important to give credit to all external sources you used for your final product.

- "Feudalism." N.p, n.d.. Web. June 20, 2008.. <<http://www.answers.com/topic/feudalism>>.
- History on the Net. "Medieval Life - Feudalism." N.p, March 07, 2001. Web. Jun. 09, 2014. <http://www.historyonthenet.com/Medieval_Life/feudalism.htm>.
- Kindersley, Dorling. "MEDIEVAL EUROPE." Fact Monster, 2007. Web. July 25, 2014. <<http://www.factmonster.com/dk/encyclopedia/medieval-europe.html>>.
- Mercier, Robert. "Feudal Lords and the Economy." *Middle Ages* Jun. 29, 2014: 12-16. Web. July 24, 2014. <<http://middleages.com/articles/s000887318>>.
- Muir, Suzanne. *Medieval Times*. Ed. David Booth. Thomson Nelson / Rubicon, 2006. Print.
- Rees, Scott. "The Fedual System." Tripod, n.d.. Web. July 28, 2014. <http://themiddleages.tripod.com/feudal_system.htm>.
- Smith, John. Personal interview. 13 June, 2014.
- The Dark Ages... How Dark Were They, Really?: Crash Course World History #14*. Dir. John Green. CrashCourse, 2012. *YouTube*. Web. July 28, 2014. <<http://www.youtube.com/watch?v=QV7CanyzhZg&list=PLBDA2E52FB1EF80C9&index=14>>.
- Yao, C.. *Middle Ages Economy*. 2010. The Museum of World History: *Artist: Yao - Middle Ages*. Web. July 28, 2014. <<http://www.mwh.com/wh/ma/europe/yao01.html>>.

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:

“Copyright and Web Content: A (real life) teachable moment.” PLML The Public Learning Media Laboratory. N.p., n.d. Web. <http://www.plml.org/information-literacy-education/copyright-and-web-content-a-real-life-teachable-moment>

“Exploring Plagiarism, Copyright, and Paraphrasing.” readwritethink.org. N.p., n.d. Web. <http://www.readwritethink.org/classroom-resources/lesson-plans/exploring-plagiarism-copyright-paraphrasing-1062.html>

“How to Discourage Plagiarism.” MediaSmarts. N.p., n.d. Web. http://mediasmarts.ca/sites/default/files/pdfs/tipsheet/TipSheet_How_Discourage_Plagiarism.pdf

“MLA Citation Worksheets.” Oregon School Library Information System. N.p., n.d. Web. <http://elementary.oslis.org/cite-sources/learn-to-research/research/citesource/mla-citation-worksheets>

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

TIP:

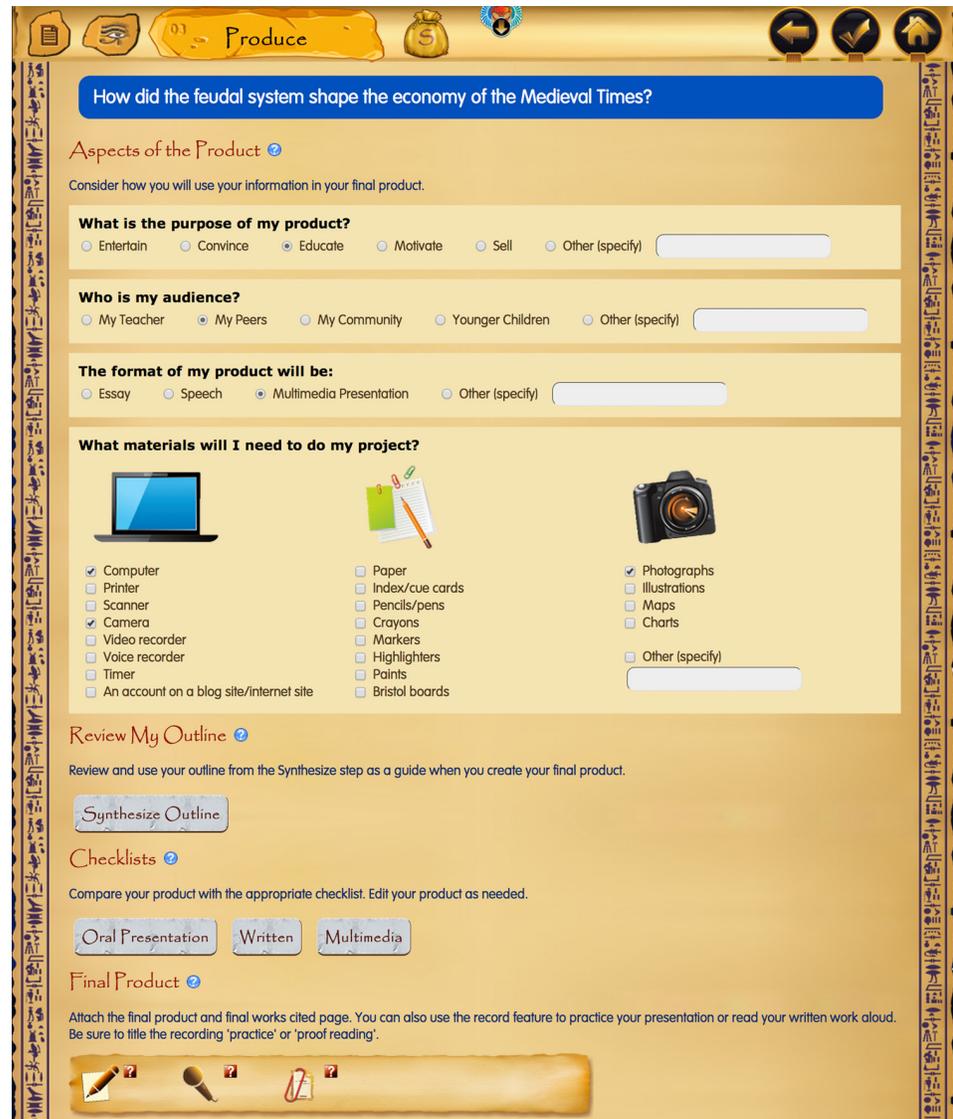
Explain to students how acknowledging sources is not only about preventing intellectual theft. Discuss how using other people’s ideas can lend credibility to their product. A well-researched product that references a variety of sources will bolster their argument.



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 25: The Produce Step



Produce

How did the feudal system shape the economy of the Medieval Times?

Aspects of the Product

Consider how you will use your information in your final product.

What is the purpose of my product?

Entertain Convince Educate Motivate Sell Other (specify) _____

Who is my audience?

My Teacher My Peers My Community Younger Children Other (specify) _____

The format of my product will be:

Essay Speech Multimedia Presentation Other (specify) _____

What materials will I need to do my project?

Computer Printer Scanner Camera Video recorder Voice recorder Timer An account on a blog site/internet site

Paper Index/cue cards Pencils/pens Crayons Markers Highlighters Paints Bristol boards

Photographs Illustrations Maps Charts Other (specify) _____

Review My Outline

Review and use your outline from the Synthesize step as a guide when you create your final product.

Synthesize Outline

Checklists

Compare your product with the appropriate checklist. Edit your product as needed.

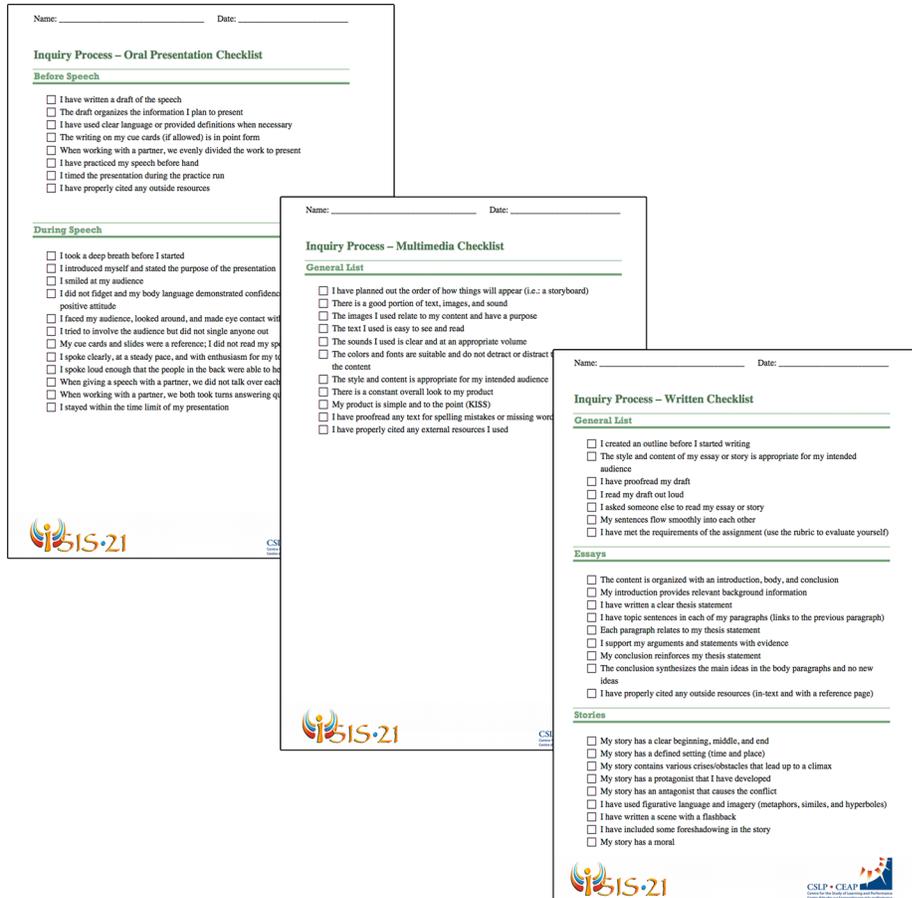
Oral Presentation Written Multimedia

Final Product

Attach the final product and final works cited page. You can also use the record feature to practice your presentation or read your written work aloud. Be sure to title the recording 'practice' or 'proof reading'.



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).



The figure shows three overlapping checklists from the ISIS-21 program. The top-left checklist is the 'Inquiry Process - Oral Presentation Checklist', which is divided into 'Before Speech' and 'During Speech' sections. The middle checklist is the 'Inquiry Process - Multimedia Checklist', which includes a 'General List' section. The bottom-right checklist is the 'Inquiry Process - Written Checklist', which includes 'General List', 'Essays', and 'Stories' sections. Each checklist has a header with 'Name:' and 'Date:' fields and a logo for ISIS-21 at the bottom.

Figure 26:
Final Product
Checklists

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/eppearl/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.

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.

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

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 27: 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 28: Index Page - Switch Mode

Title	Folder	Mode	Phases	Modified
  Clouds	Mathematics, Science & Technology	<input checked="" type="radio"/> Guided <input type="radio"/> Flexible	1 ★★★★★ 2 ●●●●● 3 ●●●●●	02/12/15 <small>Created: 09/25/14</small>
  Feudal System	Social Sciences	<input checked="" type="radio"/> Guided <input type="radio"/> Flexible	1 ★★★★★ 2 ●●●●● 3 ●●●●●	02/24/15 <small>Created: 08/18/14</small>
  Music generations	Arts	<input checked="" type="radio"/> Guided <input type="radio"/> Flexible	1 ●●●●● 2 ●●●●● 3 ●●●●●	01/05/15 <small>Created: 09/25/14</small>
  Recycling eWaste	Social Sciences	<input type="radio"/> Guided <input checked="" type="radio"/> Flexible	1 ★★★★★ 2 ●●●●● 3 ●●●●●	02/24/15 <small>Created: 02/04/15</small>
  Tropical Rainforest Ecosystem	Mathematics, Science & Technology	<input checked="" type="radio"/> Guided <input type="radio"/> Flexible	1 ★★★★★ 2 ●●●●● 3 ●●●●●	12/08/14 <small>Created: 09/25/14</small>

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.

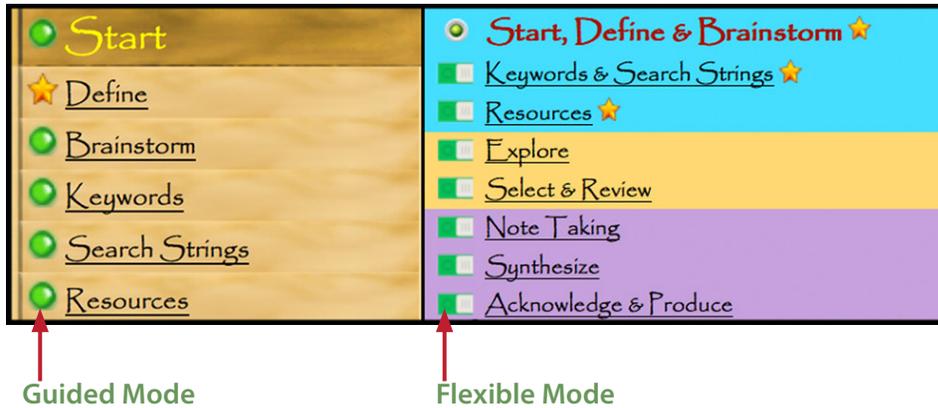


Figure 29: Steps

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.



Figure 30: Notification

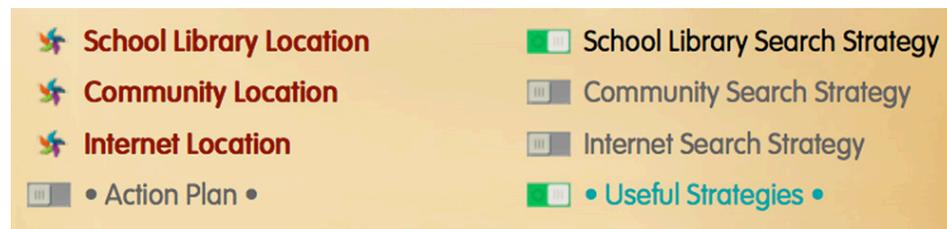
Core and Support Features

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 31:
Submenu



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.*



TIP:

Students should be introduced to each of the concepts presented within ISIS- 21 prior to using the software. It is highly recommended that a class activity, along with time set aside for individual use of the ISIS-21 game, be conducted for each step as many of these concepts will be new for the students. Students should also be encouraged to consult the Help as required.

Figure 32: 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 33:
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 34: 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?



Figure 35:
Brainstorm: little questions

Keywords

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



Figure 36:
Keywords



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 37:
Synonyms

Answers:

pharaohs - kings

buried - burial

decoration – symbols

coffin - sarcophagus

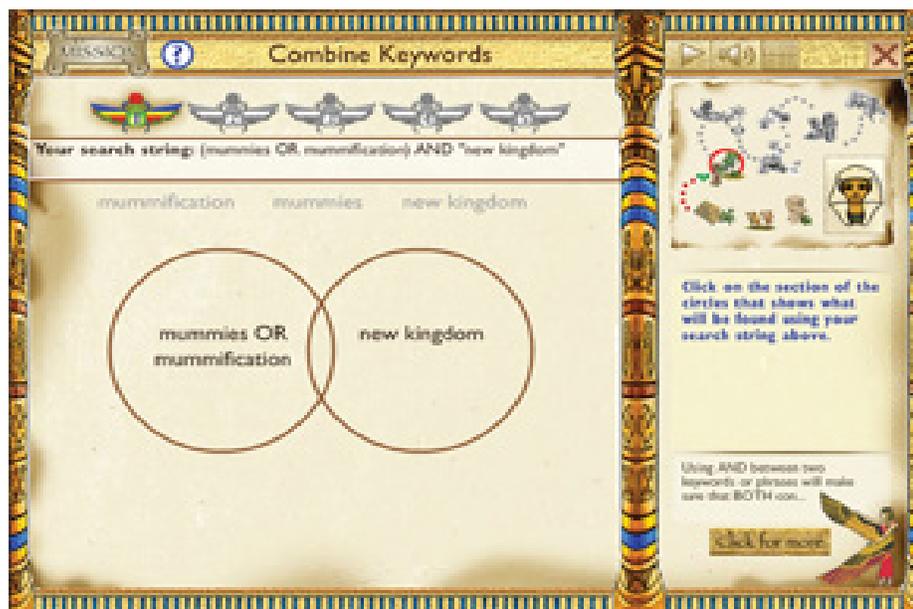
burial chamber - tomb

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 38:
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.



Figure 39:
Resources

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

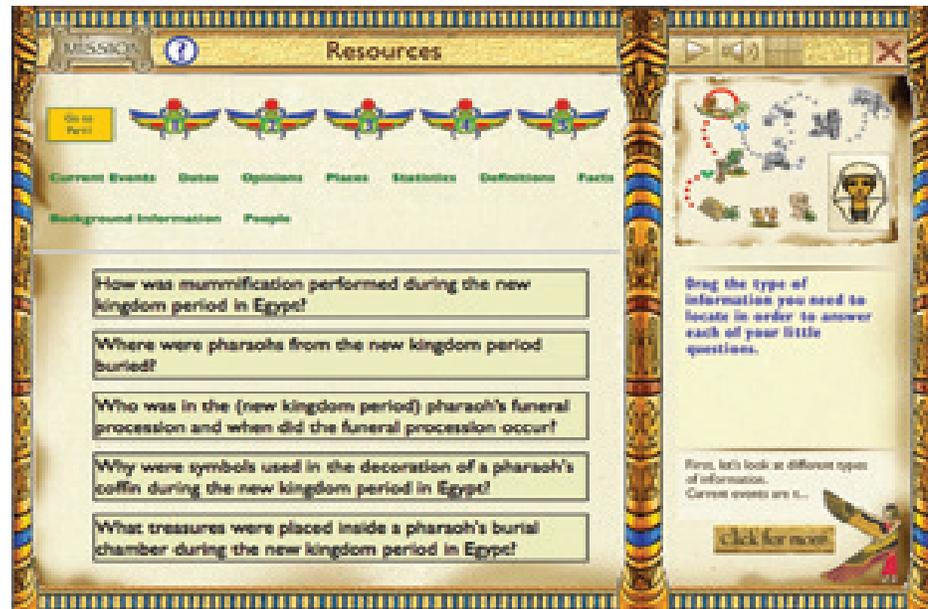
Where Sources are Located:

- 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 40:
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 41: Strategize - Directories



Figure 42: Strategize - Search engine

Figure 43:
Strategize - Meta
search engines



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.



Figure 44: Select

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 mummification 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. ...



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

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

www.getty.edu/art/gettyguide/videoDetails?cat=9&segid=4387

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 ...

www.thebanmappingproject.com/articles/article_2.3.html

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. ...

www.galenfrysinger.com/egypt_valley_of_the_kings.htm

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 ...

egyptopia.com/Death+Rituals+-+the+Funeral+Procession_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 ... text



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/egyptafterlife.html

Potential source: The title and description leads us to think this source will help answer our question. Cystalinks 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 ...
... Complete Valley of the Kings, The (Tombs and Treasures of Egypt's Greatest Pharaohs) ...

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.



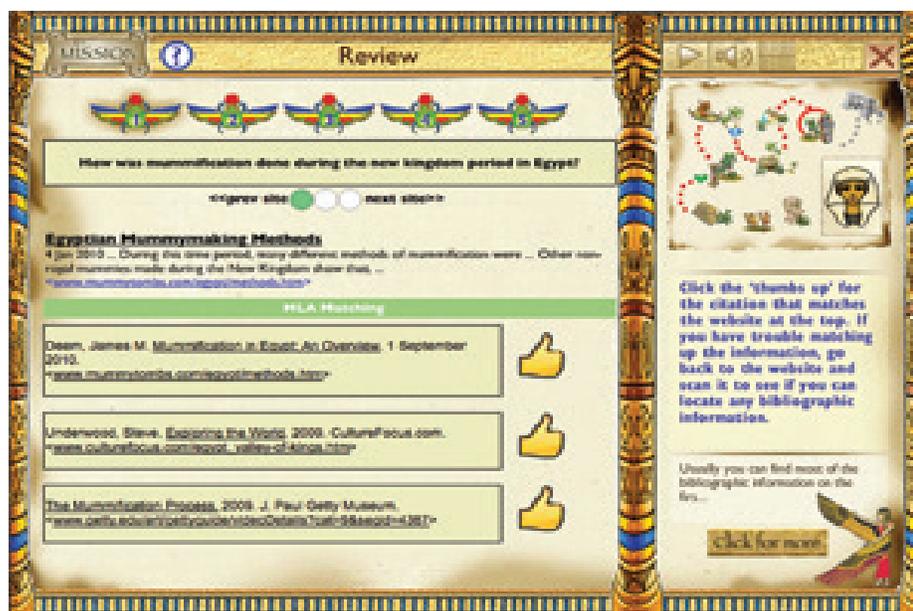
Review

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 hem to practice identifying key components of bibliographic information. The answers are provided below.

Figure 45: 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?

Deem, James M. Mummification in Egypt: An Overview. 1 September 2010. 8 October 2010. < <http://www.mummytombs.com/egypt/methods.htm> >

Underwood, Steve. Exploring the World. 2009. CultureFocus.com. 8 October 2010. < http://www.culturefocus.com/egypt_valley-of-kings.htm >



The Mummification Process. 2009. J. Paul Getty Museum. 8 October 2010.
< <http://www.getty.edu/art/gettyguide/videoDetails?cat=9&segid=4387> >

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

Historical Development of the Valley of the Kings in the New Kingdom.
2008.

last modified on: December 18, 2002. Theban Mapping Project. 8 October
2010.

< http://www.thebanmappingproject.com/articles/article_2.3.html >

Frysinger, Galen R. Valley of the Kings. 8 October 2010.

<http://www.galenfrysinger.com/egypt_valley_of_the_kings.htm>

Wikipedia contributors. "Valley of the Kings." Wikipedia, The Free
Encyclopedia. 23 Sep. 2010. 8 October 2010. <[http://en.wikipedia.org/wiki/
Valley_of_the_Kings](http://en.wikipedia.org/wiki/Valley_of_the_Kings)>

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

Life in Ancient Egypt: Teacher's Guide to the Walton Hall of Ancient
Egypt. 1990. Carnegie Museum of Natural History. Division of Education.
8 October 2010. < [http://people.dbq.edu/students/aschweihs/websites%20
for%20egyptian/Life%20in%20Ancient%20Egypt%20Life%20in%20
Ancient%20Egypt.htm](http://people.dbq.edu/students/aschweihs/websites%20for%20egyptian/Life%20in%20Ancient%20Egypt%20Life%20in%20Ancient%20Egypt.htm)>

Hendyana, S.L. Death Rituals - The Funeral Procession. 8 October
2010. < [http://egyptopia.com/Death+Rituals+-+the+Funeral+Process
ion_30_100_3_15_2545_en.html](http://egyptopia.com/Death+Rituals+-+the+Funeral+Procession_30_100_3_15_2545_en.html)>

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

Crystal, Ellie. Egyptian Afterlife Ceremonies, Sarcophagi, Burial Masks.
Crystalinks. 8 October 2010. < [http://www.crystalinks.com/egyptafterlife.
html](http://www.crystalinks.com/egyptafterlife.html)>

Monet, Jefferson. The Coffins of Ancient Egypt. 2010. 8 October 2010.. <
<http://www.touregypt.net/featurestories/coffins.htm>>

Life in Ancient Egypt: Teacher's Guide to the Walton Hall of Ancient Egypt.
1990. Carnegie Museum of Natural History. 8 October 2010. < [http://people.
dbq.edu/students/aschweihs/websites%20for%20egyptian/Life%20in%20
Ancient%20Egypt%20Life%20in%20Ancient%20Egypt.htm](http://people.dbq.edu/students/aschweihs/websites%20for%20egyptian/Life%20in%20Ancient%20Egypt%20Life%20in%20Ancient%20Egypt.htm)>



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 47: Using the Information



Figure 48: 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.

Figure 49:
Using the
Information



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):

TIP:

While the game ends here, teachers are encouraged to wrap up the game with one of the recommended extension activities.

Crystal, Ellie. Egyptian Afterlife Ceremonies, Sarcophagi, Burial Masks. Crystalinks. 8 October 2010. < <http://www.crystalinks.com/egyptafterlife.html>>

Deem, James M. Mummification in Egypt: An Overview. 1 September 2010. 8 October 2010. < <http://www.mummytombs.com/egypt/methods.htm>>

Frysinger, Galen R. Valley of the Kings. 8 October 2010. <http://www.galenfrysinger.com/egypt_valley_of_the_kings.htm>

Hawass, Zahi. Video: King Tut’s Treasure. 8 October 2010. < <http://www.drhawass.com/blog/video-king-tut%E2%80%99s-treasure>>

Hendyana, S.L. Death Rituals - The Funeral Procession. 8 October 2010. < http://egyptopia.com/Death+Rituals+-+the+Funeral+Procession_30_100_3_15_2545_en.html>



Historical Development of the Valley of the Kings in the New Kingdom. 2008. last modified on: December 18, 2002. Theban Mapping Project. 8 October 2010. < http://www.theban-mappingproject.com/articles/article_2.3.html >

Life in Ancient Egypt: Teacher's Guide to the Walton Hall of Ancient Egypt. 1990. Carnegie Museum of Natural History. 8 October 2010. < <http://people.dbq.edu/students/asch-weihs/websites%20for%20egyptian/Life%20in%20Ancient%20Egypt%20Life%20in%20Ancient%20Egypt.htm>>

Middle East: The New Kingdom on the Matrix. November 2000. 8 October 2010. < <http://www.on-the-matrix.com/mideast/NewKingdom.asp>>

Monet, Jefferson. The Coffins of Ancient Egypt. 2010. 8 October 2010.. < <http://www.touregypt.net/featurestories/coffins.htm>>

The Mummification Process. 2009. J. Paul Getty Museum. 8 October 2010. < <http://www.getty.edu/art/gettyguide/videoDetails?cat=9&segid=4387> >

Wikipedia contributors. "List of burials in the Valley of the Kings." Wikipedia, The Free Encyclopedia. 24 May. 2010. 8 October 2010. <http://en.wikipedia.org/wiki/List_of_burials_in_the_Valley_of_the_Kings>

Wikipedia contributors. "Valley of the Kings." Wikipedia, The Free Encyclopedia. 23 Sep. 2010. 8 October 2010. <http://en.wikipedia.org/wiki/Valley_of_the_Kings>

Underwood, Steve. Exploring the World. 2009. CultureFocus.com. 8 October 2010. < http://www.culturefocus.com/egypt_valley-of-kings.htm >

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) Whatever 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)

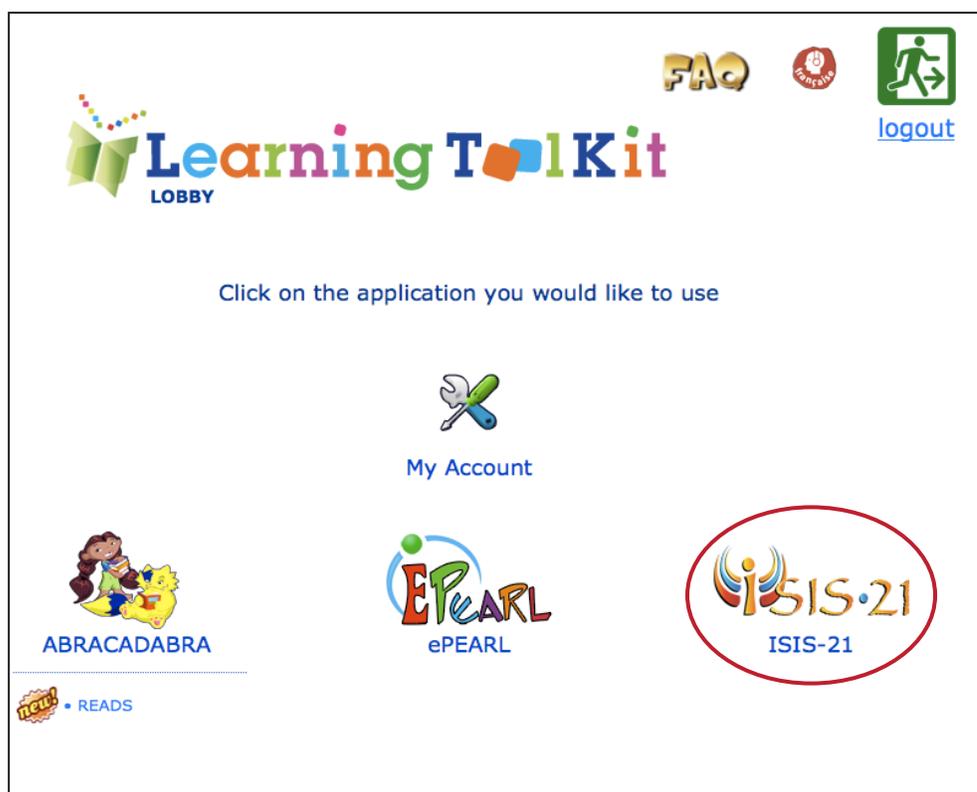
Given students are asked to select a pharaoh at the beginning of the game, they may be asked to complete further research on the chosen pharaoh. The information that is learned about this pharaoh may be used to further tailor their presentation.



Using ISIS-21 as a Teacher

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.

Figure 50: 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.

Teacher Environment

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.



Figure 51: The LTK Lobby for Level 2

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.

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.

Figure 52: The LTK Management Homepage



Viewing Your Students' ISIS-21 Task=s

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.

List of Students **Link / Unlink** **New Work**

- To edit student click pencil icon next to the student's name.
- To limit your view select class.
- To link student to class click the Link/Unlink Students tab.

All My Classes

+ Filters

10 records

Name: First Last	Nickname	Username	Password	ePEARL	
Ahuja, Bobby		ahujab	2020	Level 2	<input type="checkbox"/>
Chiasson, Daniel		chiassond	2020	Level 2	<input type="checkbox"/>
Comaskey, Erin		comaskeye	2020	Level 2	<input type="checkbox"/>
Fishman, Maura		fishmanm	2020	Level 2	<input type="checkbox"/>
Fugere, Justin		fugerej	2020	Level 2	<input type="checkbox"/>
Head, Jennifer		headj	2020	Level 2	<input type="checkbox"/>
Idan, Einat		idane	2020	Level 2	<input type="checkbox"/>
Jakymec, Natalia		jakymecn	2020	Level 2	<input type="checkbox"/>
Kalli, Alvin		kallia	2020	Level 2	<input type="checkbox"/>
Pillay, Vanitha		pillayv	2020	Level 2	<input type="checkbox"/>

10 records

Figure 53:
The My Students page

Student's ISIS Tasks

Student's ePEARL

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 poage for further explanation).

TIP:

for ePEARL Users:
In order to provide feedback on an ISIS-21 project, a teacher may access the student's ePEARL by clicking on the portfolio icon .

Figure 54:
Example of an
ISIS-21 Report

Student: Jenn

ISIS-21 REPORT

Project: Feudal System
Folder: Social Sciences

Phase 1: Plan

Start

My Task

My Task Description

I need to learn a lot of things about the medieval period, such as: when this happened, what type of people lived during this period and what the feudal system was all about. I have to use text, pictures, and diagrams to show what I have learned so I am going to have to print some things out from the Internet and maybe find some pictures from books. I really need to understand how the feudal system worked and learn about the medieval economic system because I need to think about how these two things are related to each other.

Define ★

My Big Question

How did the feudal system shape the economy of the Medieval times?

Brainstorm ★

<p>What I Know</p> <ul style="list-style-type: none"> The medieval times is the same thing as the middle ages The medieval times has to do with Europe It has something to do with kings and castles and land <p>What I Need to Know</p> <p> When did the medieval times occur?</p> <p> What is the feudal system?</p> <p> How was the feudal system structured?</p> <p> Why was the feudal system used?</p>	<p>What I do not Need to Know</p> <ul style="list-style-type: none"> What the houses looked like What the people wore
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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.

Figure 55:
Feedback Window

Feedback

Teacher Feedback ?

Edit Feedback ?

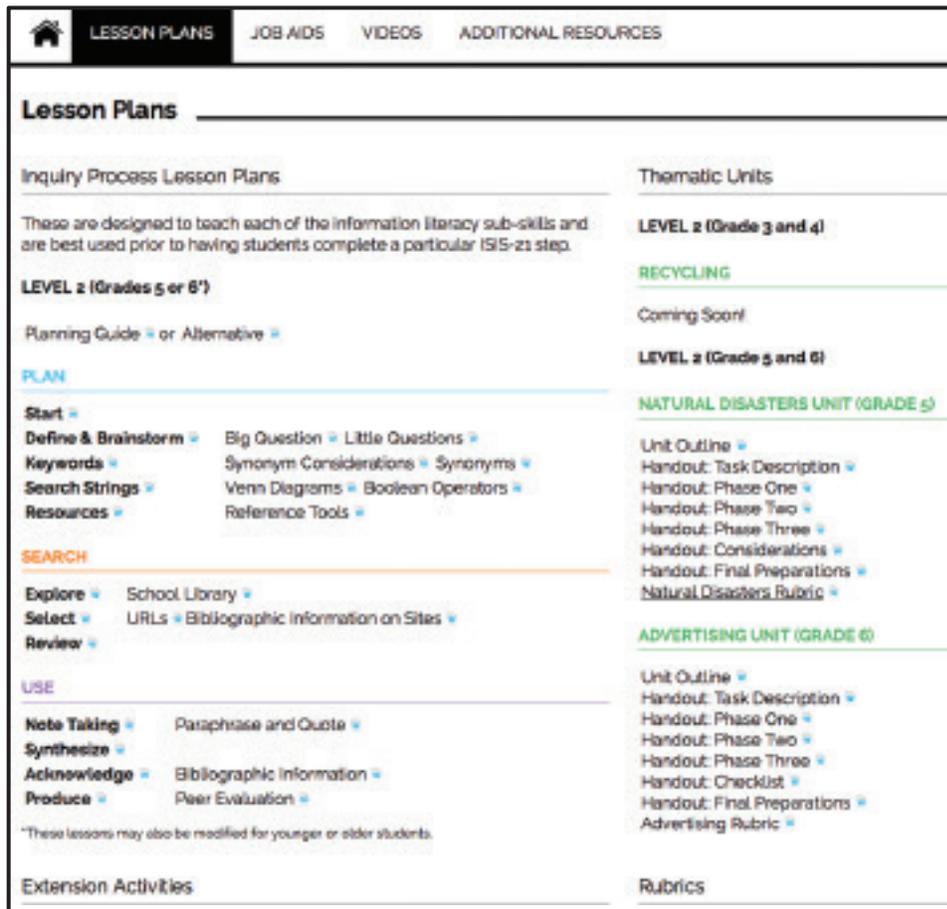
Great work Meg! You worked hard on this project. Many good ideas and questions stemming from it.



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.



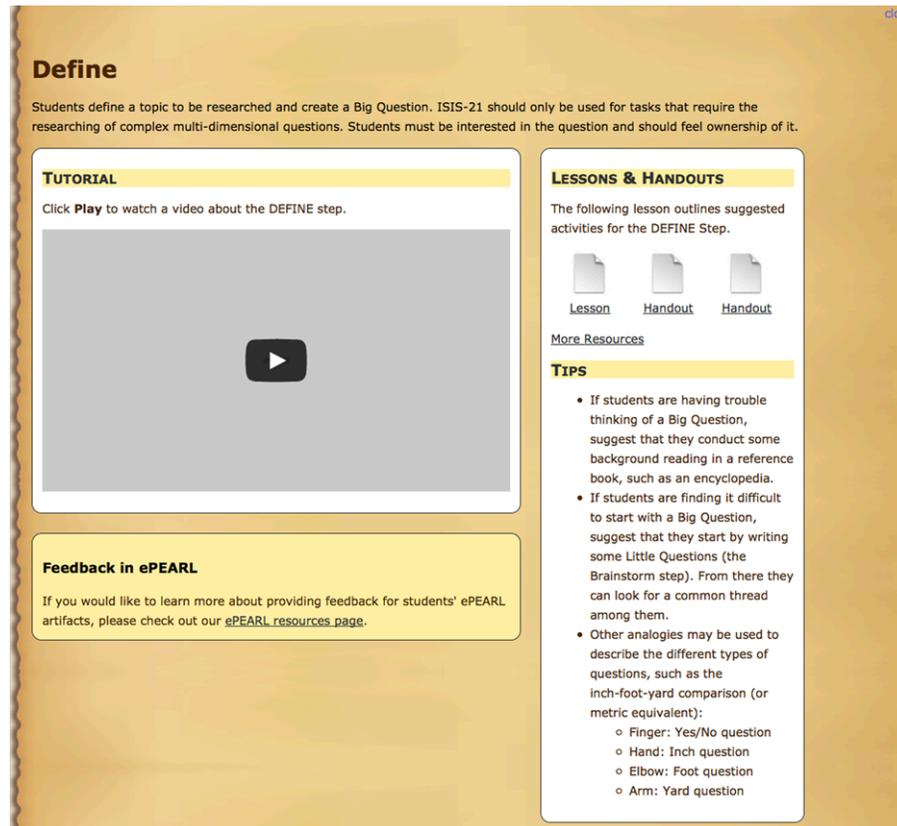
The screenshot displays a web interface for the Teacher Resources page. At the top, there is a navigation bar with a home icon and four menu items: LESSON PLANS, JOB AIDS, VIDEOS, and ADDITIONAL RESOURCES. The main content area is titled "Lesson Plans" and is divided into two columns. The left column is titled "Inquiry Process Lesson Plans" and includes a description: "These are designed to teach each of the information literacy sub-skills and are best used prior to having students complete a particular ISIS-21 step." Below this, there is a section for "LEVEL 2 (Grades 5 or 6)" with a "Planning Guide" or "Alternative" link. A "PLAN" section follows, listing various activities like "Start", "Define & Brainstorm", "Keywords", "Search Strings", and "Resources". A "SEARCH" section includes "Explore", "Select", and "Review" options. A "USE" section lists "Note Taking", "Synthesize", "Acknowledge", and "Produce" activities. At the bottom of the left column, there is a note: "*These lessons may also be modified for younger or older students." and a link for "Extension Activities". The right column is titled "Thematic Units" and lists three units: "LEVEL 2 (Grade 3 and 4) RECYCLING" (with a "Coming Soon!" note), "LEVEL 2 (Grade 5 and 6) NATURAL DISASTERS UNIT (GRADE 5)", and "ADVERTISING UNIT (GRADE 6)". Each unit has a "Unit Outline" link and several "Handout" links for different phases and a "Rubric" link. At the bottom of the right column, there is a link for "Rubrics".

Figure 56:
The Teacher Resources page



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 57:
Teacher Help
Window



Define

Students define a topic to be researched and create 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.

TUTORIAL

Click **Play** to watch a video about the DEFINE step.

LESSONS & HANDOUTS

The following lesson outlines suggested activities for the DEFINE Step.

[Lesson](#) [Handout](#) [Handout](#)

[More Resources](#)

TIPS

- If students are having trouble thinking of a Big Question, suggest that they conduct some background reading in a reference book, such as an encyclopedia.
- 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.
- Other analogies may be used to describe the different types of questions, such as the inch-foot-yard comparison (or metric equivalent):
 - Finger: Yes/No question
 - Hand: Inch question
 - Elbow: Foot question
 - Arm: Yard question

Feedback in ePEARL

If you would like to learn more about providing feedback for students' ePEARL artifacts, please check out our [ePEARL resources page](#).

Parent Module

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.



Figure 58: 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

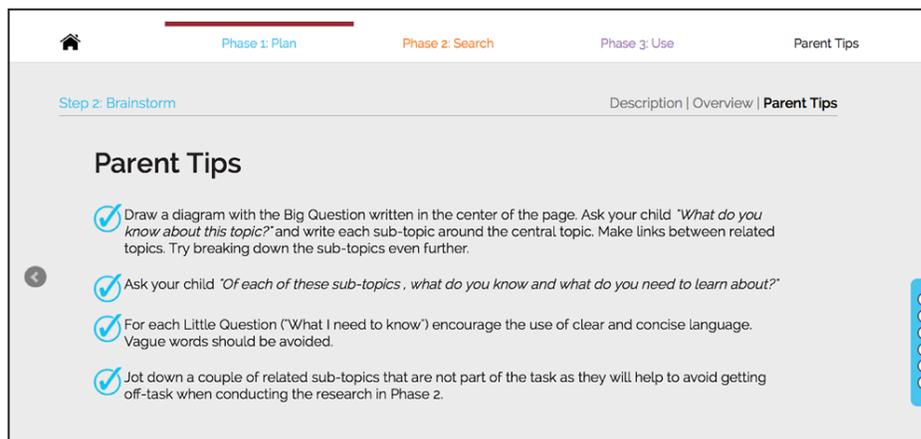


Figure 59: Parent Tips

