So Close and Yet So Far:

A Fourth Grade Study of the New Jersey Pine Barrens

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Library Mission Statement

The mission of the LEAP Academy library system is to serve as a catalyst for the strong implementation of the NJ core curriculum content standards. The library will maintain a dynamic learning environment where students and teachers have flexible accessibility to a variety of print, digital and electronic resources. Students will have the opportunity to engage in the critical explorations of many subjects, either independently or through teacher-led instruction. Through collaborative guided practice opportunities, students will gain the ability to become independent thinkers that can construct meaningful questions and develop thoughtful answers.

Grade Level and Student Population

This project was developed to be used as a research-based unit for a fourth grade classroom. The student population is described as urban, with the school situated in the university district of Camden, New Jersey. The school can be described as having an "at risk" population. There are some special needs students, although no self-contained classes currently exist. The needs of the special education students are met by providing in class support; as such, the special education teacher is expected to participate in the implementation of this unit. There is also a small gifted and talented class, but the students "gifted" students only receive extra instruction 2 mornings a week. They are not placed into a separate classroom for any extended time during the day. Because all of the students are mixed into a general education classroom and the students are not tracked, the activities in the unit lesson plans are differentiated so the needs of all students are met.

The Instructional Team

Classroom Teacher

The classroom teacher will have three primary jobs. First, she will identify the topic she wants to build the unit upon. Therefore, the teacher will be responsible for making sure the unit of study aligns with the grade-level standards. For instance, a fourth grade teacher should not choose to do a unit of study on Ancient Egypt because it is not in the fourth grade curriculum. Although the librarian will also examine the standards, it is the primary responsibility of the classroom teacher to insure the topics are aligned with the curriculum. Second, the classroom teacher will deliver instruction in the background information. For example, the classroom teacher would make sure the students know the basic regions and

counties of New Jersey so they have the basic facts they need to build their analyses upon. The children need to have the facts before they can start constructing knowledge, or else their findings may seem irrelevant or isolated. Time has been built into the unit to allow the teacher to engage students in lessons that help them learn the basic facts before taking ownership of a particular area to study more in-depth. Third, the classroom teacher will truly co-teach with the librarian. She will supervise student work, engage in conversations with the students, help maintain the virtual and physical community, hold conferences and help develop the lessons.

Librarian

The librarian will be responsible for establishing the guided inquiry team and maintaining communication between the members. The librarian will pull resources and evaluate digital resources in order to compile a reference list for students to work with. The teacher will present lessons that focus on the information literacy skills the students will be practicing as they engage in their guided inquiry unit. Along with the classroom teacher, the librarian will hold conferences with the students to guide them in the learning. The primary goal of the librarian is to push the students to dig deeply into their facts and question what they have learned. The librarian will help the students transform their information into knowledge. The librarian will also establish and maintain the classroom wiki the students post their findings, questions and thoughts on. Finally, the librarian will be responsible to communicating the process and results to the greater school community in order to establish more teacher partnerships.

Special Education Teacher

The primary goal of the special education teacher is to provide her students with the additional support they may need when undertaking such a daunting assignment. The special education teacher will be responsible for differentiating the instruction to her students. For instance, the special education teacher may evaluate the materials and determine which materials are on a student's reading and comprehension level, or she may seek resources that provide the same information on an easier level. This teacher will help students use their reading strategies to ensure they understand the material they are responsible for covering. It is expected that the special education teacher will provide additional time for her students so they can have an equal opportunity to complete their projects. The special education teacher will be a part of the guided inquiry planning team so

the team can design learning tasks that can easily be differentiated on several levels, thus allowing all students to engage in the projects.

ESL Teacher

The ESL teacher will provide the same services as the Special Education teacher, but within the context of second language learners.

Administrative Team

The administrative team will be responsible for supporting the instructional team (teachers) in order to allow guided inquiry projects to be fully implemented and completed. Specifically, the administrative team will (1)allocate adequate planning time in teachers' schedules throughout the year/marking period; (2)provide the librarian with the option of using flexible scheduling to manage time; (3)communicate guided inquiry projects to larger school community; (4)support projects by visiting classrooms, library and special events throughout the year.

Student Representatives

There will be one or two student representatives per class. The purpose of having a student representative is to get some student feedback before beginning the projects. Student representatives will have the option of viewing the guided inquiry unit plan to make note of any areas they believe may be problematic (such as including a novel or book that was read in a previous year). Student representatives will also gather feedback from peers to help the instructional team make adjustments for the future. Finally, the student representatives will help the classroom teacher and librarian monitor the website.

> ### Core Curriculum Content Standards

Students will be challenged to meet the fourth grade NJ core curriculum standards in social studies, language arts, and technological literacy by engaging in this unit. Additionally, they will be meeting several of the Standards for the 21st Century Learner by participating in this unit. The specific standards this unit was developed upon are listed below.

Social Studies Standards

All students will utilize historical thinking, problem solving, and research skills to maximize their understanding of civics, history, geography, and economics.

SOC.3-4.6.1.A.1 Explain how present events are connected to the past

SOC.3-4.6.1.A.3 Locate sources for the same information (e.g., weather forecast on TV, the Internet or in a

newspaper

SOC.3-4.6.1.A.5 Distinguish between an eyewitness account and a secondary account of an event.

SOC.3-4.6.1.A.6 Distinguish fact from fiction

SOC.3-4.6.4.B.7 Describe the population shift from the farm to the city in New Jersey

SOC.3-4.6.4.B.8.1 Discuss the value of the American national heritage including: Diverse folklore and cultural c contributions from New Jersey and other regions in the United States

SOC.3-4.6.5.B.2 Describe products and services that are developed, manufactured, or grown in New Jersey.

SOC.3-4.6.6.A.1 Use physical and political maps to identify locations and spatial relationships of places within local and nearby communities.

SOC.3-4.6.6.B. Identify the physical and human characteristics of places and regions in New Jersey and the United States (e.g., landforms, climate, vegetation, housing).

SOC.3-4.6.6.B.2 Explain changes in places and regions over time and the consequences of those changes.

SOC.3-4.6.6.B.3 Describe the geography of New Jersey.

SOC.3-4.6.6.D.2 Identify the distribution and characteristics of populations for different regions of New Jersey and the United States.

Language Arts Standards

LA.4.3.1.A.1 Identify differences of various print formats, including newspapers, magazines, books, and reference resources.

LA.4.3.1.A.3 Identify and locate features that support text meaning (e.g., maps, charts, illustrations).

LA.4.3.1.E.3   Select useful visual organizers before, during, and after reading to organize information (e.g., Venn diagrams).

LA.4.3.1.G.2   Distinguish cause and effect, fact and opinion, main idea, and supporting details in nonfiction texts (e.g., science, social studies).

LA.4.3.1.G.3   Cite evidence from text to support conclusions.

LA.4.3.1.H.1   Use library classification systems, print or electronic, to locate information.

LA.4.3.1.H.3   Read independently and research topics using a variety of materials to satisfy personal, academic, and social needs, and produce evidence of reading.

LA.4.3.2.A.10   Understand and apply elements of grade-appropriate rubrics to improve and evaluate writing.

LA.4.3.2.B.2   Write informational reports across the curriculum that frame an issue or topic, include facts and details, and draw from more than one source of information.

LA.4.3.3.B.5   Reflect and evaluate information learned as a result of the inquiry.

LA.4.3.3.B.6   Solve a problem or understand a task through group cooperation.

Technological Literacy Standards

TEC.K-4.8.1.A.6   Create and present a multimedia presentation using appropriate software.

TEC.K-4.8.1.A.4   Produce a simple finished document using word processing software.

TEC.K-4.8.1.B.6   Information Access and Research
Identify and use web browsers, search engines, and directories to obtain information to solve real world problems.

TEC.K-4.8.1.B.7   Information Access and Research
Locate specific information by searching a database.

TEC.K-4.8.1.B.9   Problem Solving
Solve problems individually and/or collaboratively using computer applications.

TEC.K-4.8.1.B.2.a   Social Aspects
Recognize and practice responsible social and ethical behaviors when using technology, and understand the consequences of inappropriate use including: Internet access

TEC.K-4.8.1.B.2.b   Social Aspects
Recognize and practice responsible social and ethical behaviors when using technology, and understand the consequences of inappropriate use including: Copyrighted materials

> *Standards for the 21st-Century Learner*

Standard 1: Inquire, think critically, and gain knowledge

1.1.1 Follow an inquiry-based process in seeking knowledge in curricular subjects, and make the real world connection for using this process in own life

1.1.2 Use prior and background knowledge as context for new learning

1.1.3 Find, evaluate, and select appropriate sources to answer questions

1.1.5 Evaluate information found in selected sources on the basis of accuracy, validity, appropriateness for needs, importance, and social and culture context

1.1.9 Collaborate with others to broaden and deepen understanding

1.2.1 Display initiative and engagement by posing questions and investigating the answers beyond the collection of superficial facts

1.2.3 Demonstrate creativity by using multiple resources and formats

1.2.4 Maintain a critical stance by questioning the validity and accuracy of all information

1.3.1 Respect copyright/intellectual property rights of creators and producers

1.3.4 Contribute to the exchange of ideas within the learning community

1.4.1 Monitor own information-seeking process for effectiveness and adapt as necessary

1.4.2 Use interaction with and feedback from teachers and peers to guide own inquiry process

1.4.3 Monitor gathered information, and assess for gaps and weakness

1.4.4 Seek appropriate help when needed

Standard 2: Draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge

2.1.2 Organize knowledge that is it is useful

2.1.3 Use strategies to draw conclusions from information and apply knowledge to curricular areas, real world situations, and further investigations

2.1.4 Use technology and other information tools to analyze and organize information

2.1.5 Collaborate with others to exchange ideas, develop new understandings, make decisions, and solve problems

2.4.3 Recognize new knowledge and understanding

Standard 3: Share knowledge and participate ethically and productively as members of our democratic society

3.1.3   Use writing and speaking skills to communicate new understandings effectively

3.2.3   Demonstrate teamwork by working productively with others

3.3.5   Contribute to the exchange of ideas within and beyond the learning community

3.4.1   Assess the processes by which learning was achieved in order to revise strategies and learn more effectively in the future

Standard 4: Pursue personal and aesthetic growth

4.1.5   Connect ideas to own interests and previous knowledge experience

4.1.6   Organize information in a way that it can be easily called upon

4.4.3   Recognize how to focus efforts in personal learning

4.4.5   Develop criteria for gauging how effectively own ideas are expressed

4.4.6   Evaluate own ability to select resources that are engaging and appropriate for personal interests and needs

Learning Goals and Essential Questions (Objectives)

The purpose of this unit is to introduce students to "historical thinking, problem solving, and research skills to maximize their understanding of civics, history, geography, and economics," with the particular context of New Jersey. Students will be asked to undertake collaborative research projects in order to gather and review information; evaluate found information to determine what is most relevant to their topics; and construct personal ideas and questions based on the found facts. Students will be asked to use their inference skills to make judgments and form opinions in order to transform the basic found facts into knowledge-based and personalized projects.

By addressing these essential questions at some point in their research, students will be meeting several learning objectives. Students are not expected to explicitly answer these questions, but it is most likely that they will encounter these, or similar questions during their collaborative or independent research. It is expected that these questions will be addressed during the students' social studies instruction, as they are more content specific, rather than information skills specific. However, these questions are a starting point for further questions and investigations. Independent projects should be based around one of these questions, or similar "thick" questions, which will be determine during a conference period.

Essential Questions

- Explain how historical New Jersey and contemporary New Jersey are reliant on the Pine Barrens
- What factors contributed to the change that the New Jersey Pine Barrens have undergone? Why has the population so sharply declined, and is this change unique to New Jersey, or has it happened elsewhere (such as other states)?
- Using found evidence, how would you describe the Pine Barrens?
- In what ways have the Pine Barrens shaped New Jersey culture? What popular local legends can be traced back to the Pine Barrens?

Resources

The following resources will be used to guide students through their exploration:

Basic Classroom Supplies: paper, pencils, Xeroxed handouts, markers, crayons, notebooks, post-it notes, highlighters

Technology: computers, printers, digital camera, projector, laptop, recording equipment

Bibliography

The following are recommended resources for investigating the New Jersey Pine Barrens. Materials are organized into digital and print resources.

Websites

www.njpinebarrens.com

> This site contains general information, images and text about the Pine Barrens. There are also many primary sources available. Students can use this site to explore historical and contemporary maps, and read or contribute to discussion boards.

www.pineypower.com

> Piney Power contains general information about the Pine Barrens, but the focus is more on current social happenings in the area. Restaurants, festivals and stores are listed and their contact information is available. Students can use this site to gather information, but can also use the site to find places they may want to request brochures from or contact to set up an interview. Students could use this site to plan an imaginary (or real!) vacation to the Pine Barrens. A bibliography is also available.

http://www.nj.gov/index.shtml

> New Jersey's official government website provides the students with information about NJ including demographics, population, geography, etc. This site will provide current information about the Pine Barrens so students have information to contrast with their findings about the historical Pine Barrens. Students will also use this site to compare the Pine Barrens to the other regions of NJ.

http://www.nj.gov/pinelands/

> The New Jersey government site specifically regarding the NJ Pine Barrens.

www.weirdnj.com

> The website for all things weird in NJ, students can do a keyword search to generate articles that focus on the Pine Barrens. This is a "cool" online visit into the legends of the Pine Barrens.

Books/Print Materials

Birdsall, Bob. *People of the Pines*. Plexus Pub.: New Jersey, 2007.

Birdsall, Bob. *Seasons of the Pines: A Photographic Tour of the New Jersey Pine Barrens*, Plexus
    Pub.: New Jersey, 2004.

Cervetto, Jack. *Living with the Pine Barrens*, Ocean County Historical Society: New Jersey,
    2000.

Dwier, Lois Ann**,** *Wilderness wetlands in spring : a canoe trip in the pine barrens of South
    Jersey*, Edlo Books: New Jersey, 1983.

Forman, Richard T. *Pine Barrens: Ecosystem and Landscape*, Rutgers University Press: New

Jersey, 1998.

Harshberger, John W**.** The vegetation of the New Jersey pine-barrens; an ecologic

investigation**,** Dover Publications: New York, 1970 (originally published 1916).

Kobbe, Gustav, The New Jersey coast and pines : an illustrated guide-book (with road-maps),

Walking News: New Jersey, 1982 (originally published 1889).

McMahon, William. *Pine Barrens Legends, Lores and Lies*, Middle Atlantic Press: New Jersey,

1980.

Moonsammy, Rita Zorn, *Pinelands Folklife*, Rutgers University Press: New Jersey, 1987.

Peterson, Robert A. *Natural Wonders of the Jersey Pines and Shore*, Plexus Pub.: New Jersey,

2004.

Schmidt, Marilyn. *Towns Lost But Not Forgotten: In the New Jersey Pine Barrens*, Plexus Pub.:

New Jersey, 2004.

Schmidt, Marilyn. *Exploring the Pine Barrens of New Jersey: A Guide*, Barnegat Light Press.:

New Jersey, 2007.

Stull-Solem, Barbara, *Ghost Towns and Other Quirky Places in the New Jersey Pine Barrens*.

Plexus Pub. Place, 2005.

Assorted brochures from local places in the Pine Barrens

Assorted newspaper and magazine articles

Databases

http://www.camden.lib.nj.us/kids/searchasaurus.htm

> Searchasaurus is a kid-friendly database that allows students to search for full text
> articles. Students have the option to search the dictionary, encyclopedia, pictures or
> do a visual search.

PowerPoint This is the project introduction, containing images and lecture to highlight the
Pine Barrens. PowerPoint will also give brief overview of basic facts, such as geography,
current population and a map. This may be presented during regular class time or in the
library.

Pacing Calendar

The Pacing Calendar is designed to help student and instructors pace their work. This unit is designed to be a monthly unit, where students, teacher and librarian meet for approximately 1 hour, four days a week. The other day is designed to be used for classroom teacher-led in class lessons. This is flexible.

Mon	Tue	Wed	Thu	Fri
		1 Unit Intro PowerPoint shown Intro Packets Assigned/Portfolios established Initiation	2 Introduction to ISP Initiation	3 Content-Based Lesson in Classroom
6 Mini Lesson: Using bookmarked sites to answer set questions Pine Barrens Scavenger Hunt-students use websites to begin recording information about Pine Barrens through guiding questions Initiation/Selection	7 Content-Based lesson in classroom Answers to Scavenger Hunt discussed KWL sheet Selection	8 Mini Lesson: Using charts to record shared information Collaborative Group Research Questions Students attack Essential Q's and post findings on bulletin board (returned to continuously) SLIM Reflection Sheet 1 Exploration	9 Mini Lesson: Using a database to find articles Database research and independent topic selections Conferences Students post topics on wiki-read over weekend Exploration	10 Mini Lesson: Using a website to find primary resources Conferences Print Materials research Students record their findings SLIM Reflection Sheet 2 Exploration
13 Mini Lesson: Narrowing down findings to formulate a focus Students "read" findings on bulletin board to gather ideas for independent topics as a group Begin independent research to explore topics further Formulation	14 Mini Lesson: Using color coded post its to organize found information Conferences Students use variety of materials to continue gathering info about topics Student continue to record their findings	15 Mini Lesson: Using found information to create quality questions to conduct on interview Students continue research to find supporting details for their topic Collection	16 Mini Lesson: flexible, based on difficulties highlighted on Reflection Sheet 2 Students transfer listed facts to graphic organizer to organize and analyze findings/continue research/look for trends	17 Class Trip to Pine Barrens! Students meet with various guides to explore Pine Barrens and to ask questions they can include Add findings to project "notes"

	Students have defined a focus Formulation/Collection		Collection	Collection
20 Pair Share Day! Mini Lesson: evaluating a person's work by checking facts Students buddy up to share their findings and post "new" info to wiki and bulletin board Partners make suggestions Collection/Presentation	21 Mini Lesson: How to return to facts to cite sources Final evaluation of found research and ideas Begin creating presentations Collection/Presentation	22 Mini Lesson: How to transform "notes" or information into a knowledge-based project Final conferences Work on presentations Collection/Presentation	23 Mini Lesson: How to speak effectively or organize stationary information effectively during a presentation Final conferences Work on presentations Presentation	24 Mini Lesson: Final conferences Work on presentations Presentation
27 Mini Lessons: How to make connections between your research and a peer's work Mini Presentations with original groups and adjustments Presentation	28 Presentations Presentation	29 Mini Lesson: Review on how to objectively look at a peer's work (constructive criticism) Peer Assessments Assessment	30 SLIM Reflection Sheet 3 Assessment	

Description of Learning Tasks

Students will engage in a variety of learning tasks throughout the month. Through these tasks, students will gain familiarity with information literacy skills, use found content-based facts to develop further knowledge, engage in independent and group research, use written communication skills to contribute to a classroom community, and use verbal communication skills to gather information. Below is brief highlight of the tasks students will complete.

Task 1: SCAVENGER HUNT

The Pine Barrens is full of interesting things. The purpose of this task is to familiarize students with the digital and print resources they will use to find information about the Pine Barrens. In this task, students will be presented with a list of simple questions, such as identify the counties the Pine Barrens are found in. Students will work in teams to find the answers to these questions. Some questions will be more open to interpretations, but the primary goal remains the same: find the answers to these fact-based questions so students have the background information they need begin constructing knowledge with their own findings. This task will also allow the librarian to make notes on how the students engage in the research process, and what they already know about researching, so she can tailor her future lessons.

Task 2: ORGANIZING INFORMATION (ongoing)

Students will be presented with a variety of strategies and graphic organizers to organize their findings. After being introduced to the strategies, many of which are already familiar to the students, students will be expected to utilize these organizers in their work. Time will be allotted to present three levels of completed organizers: Excellent, Good, Needs Improvement. Students will identify the characteristics that define these organizers and offer suggestions for future work.

Task 3: PINE BARRENS FIELD TRIP

Students will have the opportunity to participate in a field trip to the Pine Barrens. There are three purposes to this trip: (1) explore the land they have been researching; (2)meet a resident and conduct an interview based on their gathered facts; (3)find information to include in their projects. Students will also have the opportunity to use digital cameras and recorders to capture their experiences visually. Their work will be posted on the bulletin board, virtual community and in their presentations. Of course, students are expected to have fun!

Task 4: FROM INFORMATION TO KNOWLEDGE

Students will all need to understand how to transform their found facts into a focused presentation that is knowledge-based. This will be accomplished in three ways.

   Classroom Bulletin Board Students and instructors will collaborate to create a classroom bulletin board, where students can post their findings, their questions and their conclusions. The instructor will use this board to post photographs, exemplary pieces of work, maps, brochures and other "cool" things all related to New Jersey. This will serve as a work station/learning center that students can reference during guided inquiry time or during other times of the day. Its purpose is to present found information in a visual and aesthetically pleasing way so students can make connections they may not see while reading and organizing information.

   Virtual Community The instructional team will create a virtual community such as a wiki for the unit. This is similar to the work center, but by making it virtual, the students can access it 24/7. Although the bulletin board and wiki are similar, they both attract different types of learners and provide different periods of access. The final objective for creating the wiki is it will archive the work originally presented on the bulletin board long after the board is dissembled.

   Pair-Share Day Pair-Share Day allows students to receive peer support while delving deeper into their research. Peers have the ability to review student work on their level; the student can provide insight the teacher may not be able to provide. Additionally, students will receive a mini lesson on how to "dig deeper" into someone's research, or how to ask a juicy questions, as opposed to a question with a simple, one word answer. Students will use the results from their peer meeting to return to their research, assess themselves and fine-tune their work.

Task 5: FINAL PRESENTATIONS   The final presentations are very open to student creativity. Students may either create a stationary presentation, such as a model, PowerPoint, website, etc. or students may create an oral presentation. All final presentations must first be cleared with the instructor in order to make sure it is logistically possible. During the final presentation stage, students are expected to clearly communicate what his/her topic was and discuss his/her findings and what he/she has learned.

Assessments

Students will be assessed several ways throughout this unit.

Project Portfolios are the central point for all students. These will to help students organize material they are presented with through conferences or lessons. The following items will be organized in the Project Portfolios. Some of the items include a sample and are elaborated on below:

- found information (notes, photocopies, articles, etc.)
- handouts
- copies of rubrics
- graphic organizers
- exit slips
- conference sheets
- working drafts of final project
- images of final project
- school-home connection page
- working and final bibliographies
- Observation form
- Information Literacy Skills/21st Century Skills Scoring Sheet

SLIM Reflection Sheets will be used to monitor students, feelings and progress throughout the unit. They are referred to in the unit lesson plans, but have not been reproduced. They can be accessed by clicking:

   http://cissl.scils.rutgers.edu/guided_inquiry/docs/SLIM_questionnaires.pdf

These sheets will be completed at three different points during the unit. The instructional team will evaluate the answers in order to best understand how to drive current and future instruction.

The ***Information Literacy Skills/21st Century Skills Scoring Sheet*** will assess how well the students have grasped the information literacy skills presented during *this* unit. The skills assessed align with the mini lessons, which in turn are drawn from the standards. Considering the skills are presented in a spiraling manner, as previously explained, student mastery is not of the utmost importance, because they will continue to see these skills *repeatedly*. Rather, the instructional team wants to see the students fully engaging with the processes and using collaborative skills to seek answers to meaningful and challenging questions.

This chart will list the information literacy skills presented and each skills will be marked as Beginning (**B**), Developing (**D**) or Secure (**S**). To get this data, the instructional team will examine the project portfolios, observation notes, and SLIM reflection sheets to determine

where the student falls. The data will then undergo an item analysis to determine what needs to be re-taught during the next unit and what was grasped. Data will also be used to

create flexible groups to help students practice information literacy skills outside of a unit of

Student Name:
Grade Level:

Information Literacy Skills/21st Century Skills	Indicate: Beginning, Developing, Secure	Additional Notes
Student can utilize the bookmarking/favorites option on an internet browser to find preselected sites or to save found sites		
Student can do a basic search on a children's database to find information pertaining to given topic		
Student can utilize charts or graphic organizers to organize information into a way they will be able to understand and make conclusions from		
Students can narrow down their found information to formulate a solid focus		
Students can adequately navigate a website		
Students can evaluate the information found on a website and determine whether it is valid or not valid		
Student can distinguish between primary and secondary sources		
Student can evaluate independent work and a classmate's work for information and accuracy		
Student can question found information to draw further conclusions that stems from the basic information		
Student has a preliminary understanding of how to cite sources OR understands that he/she must indicate where information (including images) are taken from another person's work		
Student uses effective written and oral skills when communicating to a larger audience		
Student can comfortably share ideas and take criticism and praise from others		

study.

The following chart is the scoring sheet that will be used for each student:

Rubrics are used throughout the unit. The purpose of the rubric is to guide student, set clear expectations and to serve as an assessment tool. Each rubric includes a column called "Points Earned," meaning that students will receive a certain number of points for each area covered. The rubrics will not only be guidelines for students to follow, but will also be an assessment tool used to measure particular areas of student work.

General Standards to help students understand what is expected of the **final project**, regardless of the medium the knowledge is presented through

General Standards for Final Project Rubric

	5	4	3	2	1	Points Earned
Effort	Student was focused on creating a dynamic final project for duration of project, as evidenced through posing questions and engaging conversations with peers. Involved/invited outsiders to view presentation	Student was passionate about creating a final project. Student engaged others in his/her presentation	Student made effort to create a meaningful project, but it was obviously not student's top priority. Student did not extend far beyond the regular classroom hours to work on project	Student did minimum for project. Effort was not impressive.	Student turned in an incomplete project because student did not utilize allocated time for working on project	
Research and Citations	Student used a variety of resources and engaged others in the research process. Included primary and secondary sources. Made connections between sources. All citations are correct and used when necessary. (10-12 sources)	Student used many sources, but sources may all be very similar. Used primary and secondary sources. Connections to sources may be spotty. Citations are mostly correct. (8-10 sources).	Student used sources, but was hesitant to make connections. Student relied too much on one type of source. Citations may have many errors or may not be included when necessary. (6-8 sources).	Student relied too heavily on one or two sources. Connections are not made between sources. Student did not include primary sources. Citations are not included or done completely incorrectly. (4-6 sources).	Student did not utilize source, or did so very minimally. No citations. (3 sources or less)	
Presentation	Presentation is focused, clear, neat and succinct. Student is fully engaged when presenting, or has included all materials necessary for a stationary presentation.	Presentation is clear and neat, but could be more focused. Student is engaged when presenting and has all necessary materials. Student needed to work more on making sure the focus was obvious	Presentation is somewhat messy or has some errors in it. Focus is not completely obvious and may ramble or be missing some materials. Adequate, but it is obvious that student could have done a better quality of	Presentation does not have a clear focus and is messy or unorganized. Student is missing components or materials. Student did not seem to grasp the concept of his/her project and has done below level work	Presentation is messy, unorganized, and unclear. Student is not engaged when presenting or does not turn in all components of project. Work is unacceptable for grade level	

				work			

Participation and Cooperation Rubric: These standards remind students of what collaborative work looks like and guides them through the process of sharing and respecting personal and outside opinions. Students are assessed on three areas: Participation, Cooperation, and Behavior.

Participation and Cooperation Rubric

	5	4	3	2	1	Points Earned
Participation	Student accepted responsibilities for researching and project creation. Student was engaged and on task 100% of time and participated fully in virtual community	Student accepted responsibilities for researching and project creation most of the time. Student contributed regularly to the virtual community	Student accepted some responsibility for researching and project creation, but made little overall contribution. Participation in virtual community was irregular	Student made little contribution to researching and project creation. Rare participation in virtual community.	Student did not contribute to project	
Cooperation	Student contributed to the group and accepted responsibility for assigned roles. Student agreed and disagreed respectfully with group members and teachers	Student accepts responsibility for assigned roles and invited contributions for others, but needs more practice in respectfully disagreeing	Student sits in group, but did not participate adequately. Students responds but does not volunteer for work. Does not distract others	Student is uninvolved most of the time and/or makes irrelevant or distracting comments frequently	Student is uninvolved and wanders away from group. Students makes personal attacks on others	
Behavior	Student immediately begins working on tasks at start of period. Demonstrates a respectful and considerate attitude for others. Handles materials carefully and appropriately	Student begins working on tasks quickly. Generally is respectful towards others. Handles materials respectfully but may need more practice sharing materials	Student make need practice focusing at the start of the lesson. Needs help handling and sharing materials. Behavior may be distracting or disruptive at times	Student does not work on task. Is too rough or bossy with materials. Behavior is frequently disruptive or distracting. Disrespectful towards authority or visitors	Student is frequently disruptive or rude. Uses work time to distract others or cause a disruption	

Scavenger Hunt Rubric: The scavenger hunt is designed to provide students with the chance to use websites to learn about all things Pine Barrens. Teacher will provide some basic guidelines and information she wants students to follow and acquire. Students are assessed on their findings, their tracking of information and their cooperation. This rubric was created by Read/Write/Think, an teaching resources website, and published on http://www.rubrics4teachers.com

> Click on link below to access rubric:
> http://www.readwritethink.org/lesson_images/lesson821/rubric.pdf

Conferences will serve as ongoing informal assessment during the unit. Students will meet with either the librarian or the classroom teacher to discuss their topics and progress. Students will meet for approximately 5 minutes twice during the unit (one time at the beginning, one time at the end). This will allow the instructor to best know how to help the student as they pursue their topic. These conferences are *no pressure*—just a glimpse at what is going on. All conference sheets will be examined by instruction team in order to maximize instructional time.

The sheet that follows below is the conference sheet that the instructor will record on. Students will receive a copy to keep in their Project Portfolios to refer to during the unit:

DON'T WORRY: WE'LL FIGURE IT OUT!

CONFERENCE SHEET

Student Name:

Date:

Conference 1   2 (circle)

Topic:

1. **Circle how secure you feel about your topic and research so far:**

2. **Can you show me your Project Portfolio?   I'm interested to see what you've already found!**

3. **What resources have you used? Can you show me your working bibliography?**

4. **Now I'm curious to see your school-home connection sheet.   What does your family think of this unit?**

5. **Wow, you're making a lot of progress! How can I help you? Where are you stuck?**

6. **Notes to Student:**

The *School-Home Communication Sheet* will serve as a reminder to students during their family homework time to try and do a bit of work on their projects at home. It will also help parents understand how they can assist their child in their learning.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

School-Home Communication Sheet

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Dear Families,

As you know, your student is engaging in a unit of study on the New Jersey Pine Barrens! We are very excited about this unit and looking forward to sharing our work with your family.

We are also learning how to research, which is a very difficult skill to learn. We ask that you assist your child in working on their task, but please guide them—don't do their work. It may be frustrating, but please let them practice these skills themselves. Here are some ways you can assist your student during this unit:

- Give them time on the family computer
- Read the articles and books they may bring home with them
- Ask questions about what they have learned
- Remind students to regularly visit our class wiki.

Finally, we ask that during your homework time, you indicate on the chart below if you have discussed the project with your student. A simple signature will suffice. Thank you in advance for your cooperation.

Date	Topic Discussed	Parent Signature

The *Exit Slip* is a short reflection sheet students will occasionally be assigned to complete. These are a snapshot of what was accomplished during the day, as well as an opportunity for students to reflect on what they have learned.

Exit Slip!

Before you leave for the day, please take some time to reflect on what you have learned. In the space below, write a short description of something you have learned today. It can be a fact, a connection, a cool resource, a question…anything!

_____

_____

_____

_____

_____

The *Observation Form for Guided Inquiry* (Kulhthau, 2007) will serve as the evaluation form teachers will use during the informal observation process. This data will be used to drive current and future instruction. Unlike the rubrics, which assess similar areas, it is meant to be seen only by the instructional team.

Student	**Content**	*Information Literacy*	*Learning HOW to Learn*	*Literacy Competence*	*Social Skills*
What student is doing					
What student seems to be thinking					
What student is feeling					

Lesson Plans

Lesson plans will be developed for every period the students work on their guided inquiry projects, although some periods will be more open. The beginning lessons will seek to familiarize students with the information literacy skills they will need for this project and future projects. The goal is to teach one small skill a day and allow them with the opportunity to practice that particular skill. Ideally, by the end of the unit, students will be introduced to and have practiced approximately 12-15 information literacy skills. The skills will spiral, meaning that throughout their education, the students will be repeatedly introduced to these skills and build upon those skills through the years. Mastery of the skills may take several years, but eventually they will have acquired the information literacy knowledge they need to be thoughtful and independent researchers and learners.

The five lessons presented below will highlight the information literacy skills taught in the *mini lessons*, and an overview of the entire unit is presented in the pacing calendar. An attempt has been made to choose one lesson from each stage of ISP.

Lesson 1

Objective(s): SWBAT
1. Navigate bookmarked sites to find information about a given topic

2. Use the bookmarking feature to save a site that is not already bookmarked

3. Use the internet as a tool for locating information

4. Cite internet site where an answer is taken from

5. Collaborate with peers to find answers to a series of questions

ISP Stage: Initiation/Selection—students are beginning to use resources to discover the information that is available about the broad topic, "NJ Pine Barrens." Students will use this found information to begin selecting individual topics for their projects

Vocabulary: bookmarking

Focus Skills: Internet navigation, organizing websites, locating information from a series of set resources, citing information

Materials: computers (1/child), pencils, paper, activity sheet, project portfolios, projector, screen, laptop

Mini Lesson:

1. Librarian will introduce today's challenge: Engage in a digital scavenger hunt to find the answers to a series of questions about the Pine Barrens.
2. Librarian will point to a sample question, such as "What counties are the Pine Barrens located in?"
3. Librarian will inform students that she has already bookmarked several sites that *will* contain the answers to the posed questions. Librarian will model how to use the bookmarking feature, select a site and navigate the site to find the answer. Librarian will model writing down the answer in her own words, and indicating what site the answer was taken from.
4. Questions? Librarian will announce teams and move them to their work spaces.

Independent Practice:

1. Students will work in groups to find answers to a series of questions about the Pine Barrens.

2. Each group is responsible for recording their information accurately and indicating where it is found

Closing: Share one answer you found on your scavenger hunt. Answers will be shared as a kick-off activity in tomorrow's lesson

Group Members:

Date:

Directions: Use the bookmarked sites to find the answers to these questions. Some of the questions can be interpreted a few ways, or have a few answers. Remember to discuss your answers with your group before submitting your work!

1. What counties are the Pine Barrens in?

2. What color is the water in the Pine Barrens rivers? Why?

3. Name 3 animals that live in the Pine Barrens.

4. Name three types of plants that live in the Pine Barrens

5. Name 3 "lost towns" of the Pine Barrens.

6. Name two main (food) exports of the Pine Barrens.

7. What are some popular recreational activities in the Pine Barrens?

8. Give the name of a popular Pine Barrens legend.

9. What is the largest river in the Pine Barrens?

10. What is the current population of the Pine Barrens?

11. What was the population of the Pine Barrens 100 years ago?

12. BONUS: Why does your group think the population of the Pine Barrens shifted so dramatically?

Lesson 2

Objective(s): SWBAT

1. Collaboratively share ideas with groups

2. Use a child-friendly database to locate information on the NJ Pine Barrens

3. Use searching strategies to succinctly answer a list of questions

4. Organize found information using a graphic organizer and thoughtfully question how the found information will prompt further research

ISP Stage: Exploration-students begin exploring topics to determine what they are most interested in pursuing independently, begin preparing to *Formulate* a focus

Vocabulary: database

Focus Skills: utilizing an online database to find basic information

Materials: projector, screen, laptops, pencils, recording sheets, KFLUN sheet, groups on chart paper, sample search on chart paper

Mini Lesson:
1. Librarian will introduce the concept of database as a storage system that holds articles, and add "database" to the library word wall.
2. Librarian will open Searchasaurus on the laptop so it can be projected onto the screen and give students a short overview of its functions
3. Librarian will highlight a sample search topic that is posted on the chart paper. The sample search will be focused on the question "Why are there so many forest fires in the NJ Pine Barrens?" Librarian will tell students that together we will find an article that focuses on this question.
4. Librarian will prompt students to list possible keywords (forest fires, New Jersey fires, Smokey the Bear, forest fires + New Jersey, etc.). Together, librarian and students will evaluate the list and pick the top three most likely to get good results.

5. Librarian will search the top three choices and minimize the relevant results.

6. Students and Librarian will not be focused on reading results, but on the process of how to get a good article.

7. Questions?

Independent Practice:
1. Students will collaboratively use Searchasaurus to find articles that are relevant to their topics. Students will store their articles on their USB drives. They will read most of the

articles during reading class—reading class will be focusing on informational reading this unit.

2. Students will begin recording their information using the KWL sheet.

3. Twenty minutes into Independent Practice, students will walk to a partner at another table and share one thing they have learned.

Closing: share, and students will have 10 minutes to complete SLIM reflection sheet 1.

Lesson 3

Objectives: SWBAT

1. Use informational reading skills to draw connections between found materials
2. Narrow down broad topics into a more specific topic
3. Recognize how to focus their work so it makes the most sense to them
4. Use personal interest to drive independent research
5. Use technology skills to post their topics to the class wiki

ISP Stage: Formulation—students will begin to narrow down the "big picture" into a more specific topic

Vocabulary:

Focus Skills: reading for information

Materials: index cards, 1 sentence strip/child, pencils, project portfolios, Idea Organizer (laminated piece of construction paper with a pocket to insert topic at top and 6 library pocket cards to put index cards into—reusable)

Mini Lesson:

1. Librarian will direct students' attentions to the class bulletin board, which has been accumulating information the students have found
2. Librarian will have students who have posted to the bulletin board read aloud/share what they've contributed
3. Librarian will tell students that today they will be examining their materials to determine what they think they want to focus their projects on
4. Librarian will set out a set of sample information and demonstrate for students how to choose a specific topic and then organize their findings into supporting details. Librarian will model how to create and fill in the Idea Organizer (see end of lesson)

Independent Practice:

1. Students will take at least 15 minutes to revisit and read the information they have already found.
2. Students will use sentence strip to write their topic (for instance, topic may be Forest Fires in the Pine Barrens)
3. Students will use the index cards to write facts that support their topics. On the front is the fact, on the back will be space for the citation. Each card will be entered into the pocket card, so it can be rearranged or removed as it becomes more or less relevant.

Closing: Students will do a Pair-Share. Students turn to a partner and show their Idea Organizers

Follow-Up: Students complete an Exit Slip and post their preliminary topics to the wiki

The "Idea Organizer"

Topic "Sentence

Here"

Supporting Details on these 6 cards—The boxes represent the pocket card that the index cards will be inserted into

Lesson 4

Objectives: SWBAT

1. Return to their facts to cite information
2. Recognize that using another's work means credit must be given
3. Begin to brainstorm possible ways to present their findings

ISP Stage: Collection—students will continue to gather information and will return to their information to make sure they have cited it. Students will feel a sense of pride and accomplishment as they realize how they have created connections between work that has been previously done and added their own ideas

Vocabulary:

 Focus Skills: reading for information

Materials: pencils, project portfolios, individual Idea Organizers from previous lesson, computers

Mini Lesson:

1. Librarian will show several Idea Organizers and highlight how they support the main topic
2. Librarian will turn the cards over and say, "These are really great facts, but I think a lot of these ideas came from a source—which means it's someone else's idea. Our job today is to make sure that those people get credit!"
3. Librarian will model how to return to sources to cite the work
4. Librarian will post a simple sample bibliography (author, title, year)
5. Librarian will have a confident student complete one of their cards in front of the class

Independent Practice:

1. Students will choose a partner and examine each other's Idea Organizers
2. Students will work together to return to their sources and include the bibliographic information on their cards
3. Students will cite information as librarian and instruction team run conferences
4. Students that complete citations may continue to find more information and begin to think about how they may want to present their findings

Closing: share

Evaluation

The instructional team will use the *project portfolios* to judge the success of the unit because the project portfolios capture the process the students underwent to create their final projects.

Members of the instructional team will meet to discuss the strengths and weaknesses of the unit in order to "fix" the weak areas.

Additionally, the survey presented below will be given to students to complete. Results will be analyzed by the instructional team:

We're Finished!

Please complete the questions below.

Name: *Date:*

1. After completing this unit, do you think your researching skills have:
   Improved Greatly   Improved a Little   Stayed the Same

2. Are you more confident: (circle all that apply)
   Using Databases   Using Websites
   Completing Graphic Organizers   Recording Information
   Evaluating Your Own Work   Evaluating a Partner's Work
   Choosing a Topic to Study   Reading to Find Information
   Making Conclusions   Expressing Your Own Ideas
   Contributing to the Wiki   Citing Information
   Creating a Bibliography   Creating a Final Project

3. What was the most interesting part of this unit?

4. What was the greatest challenge during this unit?

5. What would you change about this unit if you could?

6. Was this a valuable learning experience for you? Why or why not?

Evidence

The instructional team fully expects this project to be successful. The team aims to make the process and final projects created during the unit public to the school community. The instructional team, in combination with some students, will create a newsletter that documents the process, procedures and projects undertaken during the unit of study. Photographs, student work samples, opinions, interviews and other snapshots of the unit will be included. This newsletter will be blasted out via the school email system, and in addition, hard copies will be available in the main office and at school events such as conferences and back to school nights. The newsletter will also include a link to the wiki that was maintained during the unit.

The student presentations will be open to the school community (students, parents, faculty and administration), and they will be invited to attend. The school community will have the opportunity to discuss with students their projects.

The instructional team will also present an overview of guided inquiry to the faculty at a professional development meeting. The goal of the professional development will be to showcase the process the students undertook and what their final results looked like. There will be practical working time available for grade-level teams to meet and start examining their curriculum and choosing areas they may want to base a unit of study on. The members of the instructional team will float to the different teams to answer questions and to offer advice about how to make guided inquiry a part of all classrooms.