Kindergarten Technology
Revised UBD Curriculum
Egg Harbor Township High School
Instructional Technology Department

Created By: Pam Toth, Alicia Harte,
and Jeffrey Dilks

Coordinated By: Dr. Carmelita Graham

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DISTRICT MISSION STATEMENT

Our mission in the Egg Harbor Township School District is to partner with the student, family, school, and community to provide a safe learning environment that addresses rigorous and relevant 21st Century standards and best practices which will develop academic scholarship, integrity, leadership, citizenship, and the unique learning style of students, while encouraging them to develop a strong work ethic and to act responsibly in their school community and everyday society.

CAREER AND TECHNICAL EDUCATION

Mission:

New Jersey's Office of Career and Technical Education seeks to prepare students for career opportunities of the 21st century, succeed as global citizens and support healthy economic growth for New Jersey. Career and Technical Education prepares students to succeed as global citizens for career opportunities for the 21st Century and to support healthy economic growth within the state.

INTRODUCTION

The most precious resource teachers have is time. Regardless of how much time a course is scheduled for, it is never enough to accomplish all that one would like. Therefore, it is imperative that teachers utilize the time they have wisely in order to maximize the potential for all students to achieve the desired learning.

High quality educational programs are characterized by clearly stated goals for student learning, teachers who are well-informed and skilled in enabling students to reach those goals, program designs that allow for continuous growth over the span of years of instruction, and ways of measuring whether students are achieving program goals.

EGG HARBOR TOWNSHIP SCHOOL DISTRICT CURRICULUM TEMPLATE

The Egg Harbor Township School District has embraced the backward-design model as the foundation for all curriculum development for the educational program. When reviewing curriculum documents and the Egg Harbor Township curriculum template, aspects of the backward-design model will be found in the stated enduring *understandings/essential questions, unit assessments,* and *instructional activities*. Familiarization with backward-design is critical to working effectively with Egg Harbor Township's curriculum guides.

GUIDING PRINCIPLES: WHAT IS BACKWARD DESIGN?

WHAT IS UNDERSTANDING BY DESIGN?

"Backward design" is an increasingly common approach to planning curriculum and instruction. As its name implies, "backward design" is based on defining clear goals, providing acceptable evidence of having achieved those goals, and then working 'backward' to identify what actions need to be taken that will ensure that the gap between the current status and the desired status is closed.

Building on the concept of backward design, Grant Wiggins and Jay McTighe (2005) have developed a structured approach to planning programs, curriculum, and instructional units. Their model asks educators to state goals; identify deep understandings, pose essential questions, and specify clear evidence that goals, understandings, and core learning have been achieved.

Program based on backward design use desired results to drive decisions. With this design, there are questions to consider, such as: What should students understand, know, and be able to do? What does it look like to meet those goals? What kind of program will result in the outcomes stated? How will we know students have achieved that result? What other kinds of evidence will tell us that we have a quality program? These questions apply regardless of whether they are goals in program planning or classroom instruction.

The backward design process involves three interrelated stages for developing an entire curriculum or a single unit of instruction. The relationship from planning to curriculum design, development, and implementation hinges upon the integration of the following three stages.

Stage I: Identifying Desired Results: Enduring understandings, essential questions, knowledge and skills need to be woven into curriculum publications, documents, standards, and scope and sequence materials. Enduring understandings identify the "big ideas" that students will grapple with during the course of the unit. Essential questions provide a unifying focus for the unit and students should be able to answer more deeply and fully these questions as they proceed through the unit. Knowledge and skills are the *"stuff"* upon which the understandings are built.

Stage II: Determining Acceptable Evidence: Varied types of evidence are specified to ensure that students demonstrate attainment of desired results. While discrete knowledge assessments (e.g.: multiple choice, fill-in-the-blank, short answer, etc…) will be utilized during an instructional unit, the overall unit assessment is performance-based and asks students to demonstrate that they have mastered the desired understandings. These culminating (summative) assessments are authentic tasks that students would likely encounter in the real-world after they leave school. They allow students to demonstrate all that they have learned and can do. To demonstrate their understandings students can explain, interpret, apply, provide critical and insightful points of view, show empathy and/or evidence self-knowledge. Models of student performance and clearly defined criteria (i.e.: rubrics) are provided to all students in advance of starting work on the unit task.

Stage III: Designing Learning Activities: Instructional tasks, activities, and experiences are aligned with stages one and two so that the desired results are obtained based on the identified evidence or assessment tasks. Instructional activities and strategies are considered only once stages one

and two have been clearly explicated. Therefore, congruence among all three stages can be ensured and teachers can make wise instructional choices.

At the curricular level, these three stages are best realized as a fusion of research, best practices, shared and sustained inquiry, consensus building, and initiative that involves all stakeholders. In this design, administrators are instructional leaders who enable the alignment between the curriculum and other key initiatives in their district or schools. These leaders demonstrate a clear purpose and direction for the curriculum within their school or district by providing support for implementation, opportunities for revision through sustained and consistent professional development, initiating action research activities, and collecting and evaluating materials to ensure alignment with the desired results. Intrinsic to the success of curriculum is to show how it aligns with the overarching goals of the district, how the document relates to district, state, or national standards, what a high quality educational program looks like, and what excellent teaching and learning looks like. Within education, success of the educational program is realized through this blend of commitment and organizational direction.

INTENT OF THE GUIDE

This guide is intended to provide teachers with course objective and possible activities, as well as assist the teacher in planning and delivering instruction in accordance with the New Jersey Core Curriculum Content Standards. The guide is not intended to restrict or limit the teacher's resources or individual instruction techniques. It is expected that the teacher will reflectively adjust and modify instruction and units during the course of normal lessons depending on the varying needs of the class, provided such modified instruction attends to the objectives and essential questions outlined below.

Unit Name: Technology Operations & Concepts

Author: Pam Toth, Jeffrey Dilks, Alicia Harte

Subject:	Technology	Country:	United States of America
Course/Grade:	Kindergarten	State/Group:	NJ
School:	Egg Harbor Twp Elementary School		

UNIT SUMMARY/Standard

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

UNIT RESOURCES
- Microsoft PowerPoint
- Old computer
- Microsoft Word
- Google Apps

Internet Resource Links:
- http://www.starfall.com/
- www.abcya.com
- www.ifixit.com
- www.pebblego.com
- www.brainpopjr.com

ENDURING UNDERSTANDINGS –   Students demonstrate a sound understanding of technology concepts, systems and operations.

ESSENTIAL QUESTIONS – In a world of constant technological change, what skills should we learn? How do I choose which technological tools to use and when is it appropriate to use them?

KNOWLEDGE AND SKILLS – All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

PERFORMANCE TASKS –

Understand and use technology systems.
Select and use applications effectively and productively.

OTHER EVIDENCE

Teacher observation, printed document, student participation

LEARNING ACTIVITIES –
- **8.1.2.A.1** – Allow students to physically handle computer parts by dismantling a computer. Have students play Computer Parts Bingo on a PowerPoint presentation to further their knowledge
- **8.1.2.A.2** – Use a word processing program to type their name using proper capitalization.
- **8.1.2.A.3** – Discuss and question the use of available applications in the school. Show students a "Which Tool?" presentation. Create a word wall and create a "T" chart to document advantages and disadvantages.
- **8.1.2.A.4** – Students will navigate to the appropriate resource needed for the lesson
- **8.1.2.A.5** – Students will type in current weather data into a spreadsheet.
- **8.1.2.A.6 -** Students will interpret information from a spreadsheet
- **8.1.2.A.7 -** Students will enter data collected regarding their favorite color

Unit Name: Creativity and Innovation

Author: Pamela Toth, Jeffrey Dilks, Alicia Harte

Subject:	Technology	Country:	United States of America
Course/Grade:	Kindergarten	State/Group:	NJ
School:	Egg Harbor Twp Elementary Schools		

UNIT SUMMARY

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

UNIT RESOURCES
- Microsoft Word,
- Microsoft PowerPoint
- Google Apps

Internet Resource Links:
- http://www.starfall.com/
- www.abcya.com
- www.ifixit.com
- www.pebblego.com
- www.brainpopjr.com

GOALS AND STANDARDS

- **8.1.2.B.1   Illustrate and communicate original ideas and stories using multiple digital tools and resources.**

ENDURING UNDERSTANDINGS –   Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology

ESSENTIAL QUESTIONS – How can digital tools be used for creating original and innovative works, ideas, and solutions?

KNOWLEDGE AND SKILLS – All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

PERFORMANCE TASKS –

Apply existing knowledge to generate new ideas, products, or processes.

Create original works as a means of personal or group expression.

OTHER EVIDENCE

Teacher observation, printed documents, pictures, student participation

LEARNING ACTIVITIES –
- **8.1.2.B.1. -**Create a graphic organizer/concept map
- Insert an online picture into a word processing program and type a sentence about the picture.

Unit Name: Communication and Collaboration

Author: Pam Toth, Jeffrey Dilks, Alicia Harte

Subject:	Technology	Country:	United States of America
Course/Grade:	Kindergarten	State/Group:	NJ
School:	Egg Harbor Twp Elementary Schools		

UNIT SUMMARY

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

UNIT RESOURCES
- Microsoft Word,
- Microsoft PowerPoint
- Google Apps

Internet Resource Links:

- http://www.starfall.com/
- www.abcya.com
- www.ifixit.com
- www.pebblego.com
- www.brainpopjr.com

GOALS AND STANDARDS
- **8.1.2.C.1 Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using various media formats such as online collaborative tools, and social media.**

ENDURING UNDERSTANDINGS – Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

ESSENTIAL QUESTIONS –   How has the use of digital tools improved opportunities for communication and collaboration?

KNOWLEDGE AND SKILLS – Digital tools and environments support the learning process and foster collaboration in solving local or global issues and problems.

PERFORMANCE TASKS –

Interact, collaborate, and publish with peers, experts, or others by employing a variety of digital environments and media.

Communicate information and ideas to multiple audiences using a variety of media and formats.

Develop cultural understanding and global awareness by engaging with learners of other cultures.

Contribute to project teams to produce original works or solve problems.

OTHER EVIDENCE

Teacher observation, student participation

LEARNING ACTIVITIES –
- **8.1.2.C.1**– Students participate in video calls on a distance learning platform i.e Facetime, www.skype.com etc.

  Students participate in social networking through various electronic means.

Unit Name: Digital Citizenship

Author: Pam Toth, Jeffrey Dilks, Alicia Harte

Subject: Technology   Country: United States of America
Course/Grade: Kindergarten   State/Group: NJ
School: Egg Harbor Twp Elementary Schools

UNIT SUMMARY

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

UNIT RESOURCES
- Microsoft Word,
- Microsoft PowerPoint
- Google Apps

Internet Resource Links:

- www.easybib.com
- http://www.starfall.com/
- www.abcya.com
- www.ifixit.com
- www.pebblego.com
- www.brainpopjr.com
- www.netsmartzkids.org

GOALS AND STANDARDS
- **8.1.2.D.1 Develop an understanding of ownership of print and nonprint information**

ENDURING UNDERSTANDINGS   Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

ESSENTIAL QUESTIONS –   What are an individual's responsibilities for using technology? What constitutes misuse and how can it best be prevented?

KNOWLEDGE AND SKILLS – Technological advancements create societal concerns regarding the practice of safe, legal, and ethical behaviors.

PERFORMANCE TASKS –

Advocate and practice safe, legal, and responsible use of information and technology.

OTHER EVIDENCE

Teacher observation, student participation

LEARNING ACTIVITIES –

- **8.1.2.D.1**– Students will learn and understand the reasons for citing resources

Unit Name: Effective use of digital tools assists in gathering and managing information.

Author: Pam Toth, Jeffrey Dilks, Alicia Harte

Subject:	Technology	Country:	United States of America
Course/Grade:	Kindergarten	State/Group:	NJ
School:	Egg Harbor Twp Elementary Schools		

UNIT SUMMARY

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

UNIT RESOURCES
- Digital Camera
- Microsoft Word
- Microsoft PowerPoint
- Google Apps

Internet Resource Links:
- www.easybib.com
- http://www.starfall.com/
- www.abcya.com
- www.ifixit.com
- www.pebblego.com
- www.brainpopjr.com
- www.netsmartzkids.org

GOALS AND STANDARDS
- **8.1.2.E.1 Use digital tools and online resources to explore a problem or issue.**

ENDURING UNDERSTANDINGS – Students apply digital tools to gather evaluate, and use information

ESSENTIAL QUESTIONS – Why is the evaluation and appropriate use of accurate information more important than ever in the technological age?

KNOWLEDGE AND SKILLS – Effective use of digital tools assists in gathering and managing information.

PERFORMANCE TASKS –
Plan strategies to guide inquiry
Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
Evaluate and select information sources and digital tools based on the appropriateness for specific tasks.

OTHER EVIDENCE

Teacher observation; participation, printed document

LEARNING ACTIVITIES –

- **8.1.2.E.1**
  Brainstorm and discuss problems within their school environment (i.e. littering, playground equipment)

  Brainstorm and discuss solutions within their school environment (i.e littering, playground equipment)
  Create a class document using digital images and insert these photos into a Word, PowerPoint, or Google App document.

Unit Name: Critical Thinking, Problem Solving, and Decision-Making

Author: Pam Toth, Jeffrey Dilks, Alicia Harte

Subject:	Technology	Country:	United States of America
Course/Grade:	Kindergarten	State/Group:	NJ
School:	Egg Harbor Twp Elementary Schools		

UNIT SUMMARY

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

UNIT RESOURCES
- Microsoft Word
- Microsoft PowerPoint
- Google Apps

Internet Resource Links:

- http://maps.google.com/
- http://www.starfall.com/
- www.abcya.com
- www.ifixit.com
- www.pebblego.com
- www.brainpopjr.com
- www.netsmartzkids.org

GOALS AND STANDARDS
- **8.1.2.F.1   Use geographic mapping tools to plan and solve problems.**

ENDURING UNDERSTANDINGS –Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

ESSENTIAL QUESTIONS - How do I choose which technological tools to use and when it is appropriate to use them? How can I transfer what I know to new technological situations/experiences?

KNOWLEDGE AND SKILLS – Effective use of digital tools assists in gathering and managing information.

PERFORMANCE TASKS –

Identify and define authentic problems and significant questions for investigation.
Plan and manage activities to develop a solution or complete a project.
Collect and analyze data to identify solutions and/or make informed decisions.
Use multiple processes and diverse perspectives to explore alternative solutions.

OTHER EVIDENCE

Teacher observation; participation, printed document

LEARNING ACTIVITIES –
- **8.1.2.F.1 –** Brainstorm and discuss places to walk to within your town (i.e. police station, firehouse, library, etc.) using Google maps, or other online mapping service.

Curriculum Resources - Differentiated Instruction

Special Education Interventions in General Education

Visual Supports
Extended time to complete tests and assignments
Graphic Organizers
Mnemonic tricks to improve memory
Study guides
Use agenda book for assignments
Provide a posted daily schedule
Use of classroom behavior management system
Use prompts and model directions
Use task analysis to break down activities and lessons into each individual step needed to complete the task
Use concrete examples to teach concepts
Have student repeat/rephrase written directions
Heterogeneous grouping

Resources:

Do to Learn:
http://www.do2learn.com/

Sen Teacher:
http://www.senteacher.org/

Intervention Central:
http://www.interventioncentral.org/

Learning Ally:
https://www.learningally.org/

English Language Learners Interventions in Regular Education
Resources:

FABRIC - Learning Paradigm for ELLs (NJDOE)
www.nj.gov/education/bilingual/pd/**fabric**/**fabric**.pdf

Guide to Teaching ELL Students
http://www.colorincolorado.org/new-teaching-ells

Edutopia - Supporting English Language Learners
https://www.edutopia.org/blog/strategies-and-resources-supporting-ell-todd-finley

Reading Rockets
http://www.readingrockets.org/reading-topics/english-language-learners

Gifted and Talented Interventions in Regular Education
Resources:

Who are Gifted and Talented Students
http://www.npr.org/sections/ed/2015/09/28/443193523/who-are-the-gifted-and-talented-and-what-do-they-need

Hoagies Gifted Education Page
http://www.hoagiesgifted.org/programs.htm

21st Century Learning
Resources:

Partnership for 21st Century Learning
http://www.p21.org/

Career Ready Practices (NJDOE)
http://www.nj.gov/education/cte/hl/CRP.pdf