Grade 3 Technology

Revised UBD Curriculum
Egg Harbor Township High School
Instructional Technology Department

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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:	Grade 3	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
- Microsoft Excel
- Google Apps

Internet Resource Links:
- http://maps.google.com/
- www.pebblego.com
- www.brainpop.com
- www.jr.brainpop.com
- www.netsmartzkids.org
- www.weather.com
- www.readwritethink.org
- www.powtoon.com

GOALS AND STANDARDS

- **8.1.5.A.1.** Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.
- **8.1.5.A.2** Format a document using a word processing application to enhance text and include graphics, symbols and/ or pictures.
- **8.1.5.A.3** Use a graphic organizer to organize information about problem or issue.
- **8.1.5.A.4** Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data.
- **8.1.5A.5** Create and use a database to answer basic questions.
- **8.1.5.A.6** Export data from a database into a spreadsheet; analyze and produce a report that explains the analysis of the data.

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? How can I transfer what I know to new technological situations/experiences?

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.

STAGE TWO

PERFORMANCE TASKS- Understand and use technology systems

OTHER EVIDENCE

 Teacher observation, printed documents, student participation

STAGE THREE

LEARNING ACTIVITIES –
- **8.1.5.A.1** Document a science activity by inserting a digital image into Word and typing a brief explanation. Create a friendly letter that includes a graphic to send to the principal.
- **8.1.5.A.2** – Students will create an infographic using a word processing application about an animal of their choice. Use www.powtoon.com to create an animated cartoon about the animal.
- **8.1.5.A.3** – Students will create a table in a word processing program to organize information about an issue in their school. Use www.readwritethink.org to create an alternate graphic organizer.
- **8.1.5.A.4** – Students will graph temperatures in Excel.
- **8.1.5.A.5** – Students will enter temperature data and use the information to prepare the clothes they will wear based on the data.
- **8.1.5.A.6 -** Students will write a report about their conclusions from the data.

Unit Name: Creativity and Innovation

Author: Pam Toth, Jeffrey Dilks, Alicia Harte

Subject:	Technology	Country:	United States of America
Course/Grade:	Grade 3	State/Group:	NJ
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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 PowerPoint
- Microsoft Word
- Google Apps

Internet Resource Links:
- **www.pressofatlanticcity.com/**
- **www.shorenewstoday.com/egg_harbor_township/**
- **www.news.google.com**
- **www.mysimpleshow.com**

GOALS AND STANDARDS

- **8.1.5.B.1**. Collaborative to produce a digital story about a significant local event or issue based on first-person interviews.

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 – The use of digital tools and media-rich resources enhances creativity and the construction of 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, PowerPoint presentation, student participation

LEARNING ACTIVITIES –
- **8.1.5.B.1** Interview classmates, friends, family members, teachers and/or other adults to gather information about a recent event occurring in the school or local community and create a multimedia presentation using Powerpoint, Google slides, or other application. Use www.mysimpleshow.com to create a video blog about the issue. Use word processing to create a friendly letter to someone who may be able to help resolve the issue.

Unit Name: Creativity and Innovation

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UNIT RESOURCES
- Microsoft Word
- Microsoft Powerpoint
- Google Apps

Internet Resource Links:

- www.epals.com
- http://www.pen-pal.com
- http://edmodo.com
- http://www.skype.com
- www.voicethread.com

GOALS AND STANDARDS
- **8.1.5.C.1** Engage in online discussions with learners of other cultures to investigate a worldwide issue from multiple perspectives and sources, evaluate findings and present possible solutions, using digital tools and online resources for all steps.

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 in project

LEARNING ACTIVITIES –
- **8.1.5.C.1**– Students will collaborate with English Language Learners in their school to create a multimedia presentation. Use www.voicethread.com to record different students' opinions from different cultures about a common issue. Create a friendly letter to send to a student from another part of the world to discuss differences in approaches to common issues.

Unit Name: Digital Citizenship

Author: Pam Toth, Jeffrey Dilks. Alicia Harte

Subject:	Technology	Country:	United States of America
Course/Grade:	Grade 3	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
- Internet
- Microsoft PowerPoint
- Microsoft Word
- Google Apps

Internet Resource Links:

- http://pbskids.org/webonauts/
- http://learninglab.org/
- http://www.netsmartz.org
- http://www.cyberbee.com
- http://bullyingacademy.com/
- www.netsafeutah.org
- www.powtoon.com
- www.mysimpleshow.com
- www.voicethread.com

GOALS AND STANDARDS
- **8.1.5.D.1** Understand the need for and use of copyrights
- **8.1.5.D.2** Analyze the resource citations in online materials for proper use.
- **8.1.5.D.3** Demonstrate an understanding of the need to practice cyber safety, cyber security, and cyber ethics when using technologies and social media.
- **8.1.5.D.4** Understand digital citizenship and demonstrate an understanding of the personal consequences of inappropriate use of technology and social media.

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.
Advocate and practice safe, legal, and responsible use of information and technology.
Demonstrate personal responsibility for lifelong learning.
Exhibit leadership for digital citizenship.

OTHER EVIDENCE

Teacher observation; student participation

LEARNING ACTIVITIES –
- **8.1.5.D.1 -** Students will watch a series of short videos explaining the need of copyright and fair-use policies.
- **8.1.5.D.2 –** Students participate in a copyright lesson: www.brainpop.com & www.copyrightkids.org
- **8.1.5.D.3 –** Students create a presentation about the Acceptable Use Policy. Students re-word policy in children's terms. Use voicethread.com to have students verbalize the acceptable use policy in their own words. Students will use kahoot or some other online quiz maker to create their own quiz about digital citizenship.
- **8.1.5.D.4 -** Students will create a digital citizenship flyer or poster exposing the consequences for inappropriate online behavior. Use www.powtoon.com to create an animated cartoon stressing the importance of digital citizenship.

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:	Grade 3	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.snopes.com
- www.factcheck.org
- www.politifact.com
- www.mediamatters.org
- www.newsela.com
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GOALS AND STANDARDS
- **8.1.5.E.1 -**Use digital tools to research and evaluate the accuracy of, relevance to, and appropriateness of using print and non-print electronic information sources to complete a variety of tasks.

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; student participation, printed document, writing project, completed presentation

LEARNING ACTIVITIES –
- **8.1.5.E.1 -** Students will read and evaluate three different versions of the same news story and use appropriate internet resources to determine the accuracy and validity of the news articles. Use www.newsela.com to locate, analyze, evaluate,synthesize and ethically use information and media to determine the accuracy of the material.

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: Grade 3   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 Excel
- Microsoft Powerpoint
- Google Apps

Internet Resource Links:

- http://www.prb.org/Publications/Lesson-Plans/HumanPopulation/PopulationGrowth.aspx
- www.pebblego.com
- https://ourworldindata.org/world-population-growth/
- https://www.worldwildlife.org/species/directory
- https://a-z-animals.com/animals/endangered/
- www.newsela.com
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GOALS AND STANDARDS
- **8.1.5.F.1**- Apply digital tools to collect, organize, and analyze data that support a scientific finding.

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 –   Information accessed through the use of digital tools assists in generating solutions and making decisions

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; student participation, completed table and chart.

LEARNING ACTIVITIES –
- **8.1.5.F.1 –** Students will research an endangered animal, using www.newsela.com or www. pebblego.com to collect data about human population growth in its habitat to see if that is a contributing factor to the animal's decline.

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