November 30-December 18, 2015 - B, C, A Rotation

Overview

DIY Independent Study: Holiday Hacker (+Typing Agent/Digital Citizenship for Grades 3-5)

Target Grade Levels: K-5

Big Ideas:

In winter, Holiday Hackers gather together to make things. Our mission is to build a magical world at home, school and around our town.

A successful maker has qualities that contribute to his/her success.

A good Digital Citizen knows how to type so he/she can communicate. (Grades 3-5)

Unit Summary:

In learning centers, students work to earn a class HOLIDAY HACKER patch by completing 6 of the following challenges:

Make a Gift

Perform a Holiday Song

Craft a Gift Card

Make a Wreath

Wrap a Gift

Forage for Natural Decorations

Decorate the School

Volunteer or Donate

Good Digital Citizens know how to be leaders online, including communicating correctly (Grades 3-5).

Essential Questions:

How can I use my Maker/DIY skills to create holiday magic?

How does a Holiday Hacker use STEAM disciplines to create?

What value does imaginative and fearless thinking add to something I create or something I do?

How can I learn to communicate effectively online? (Grades 3-5 via Typing Agent)

Standards Addressed

Technology/21st **Century Skills:** Creativity and Innovation, Critical Thinking, Problem Solving and Decision Making, Typing/Digital Citizenship **Engineering:**

K-2,3-5-ETS1-1. – Define a simple design problem reflecting a need or want that includes specified criteria for success and constraints on materials, time, or cost.

K-2,3-5-ETS1-2. — Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

Arts:

AH-I-SA-U-2 – Understand the principles of design and the elements of visual arts.

AH-I-SA-U-4 – Understand that existing and emerging technologies can inspire new applications of structural components.

Math:

^{*}Lesson plans subject to change.

^{**}Accommodations/Modifications – for student specific accommodations, see Confidential Folder in wall tray.

CCSS.Math.Practice.MP2 – Reason abstractly and quantitatively.

CCSS.Math.Practice.MP4 – Model with mathematics.

CCSS.Math.Practice.MP5 – Use appropriate tools strategically.

Learning Targets	Learning Activities/Instructional Strategies	Evaluation/Assessment
I CAN work effectively in a group. demonstrate understanding of STEAM disciplines. work towards completing a badge demonstrating my ability to think creatively and showing my prowess as a problem solver and maker. use the home row keys – ASDFGHJK; - and correct finger placement to type at 92% accuracy and at least 25 words per minutes (Grades 3-5)	Daily Structure: Superhero STEAM Townhall (5 minutes, whole group, direct instruction) Badge Work (45 minutes, independent, small group practice) Reflection (5 minutes, whole group, independent reflection) In six DIY design teams students work towards earning patches within a certain discipline. The focus of this rotation is Holiday Hacker. Students select challenges from the Holiday Hacker patch. Students must complete patches as a design team. After completing a Learning Contract, students design and plan their projects start to finish – create deadlines and set the pace – gather materials and resources.	 Anecdotal notes Teacher observation Discovery Journal Daily Student Reflections Self-Assessment DIY Projects DIY Products Authentic Integration Assessment Rubric Concepts, Skills, Structure, Development, Application, Presentation
Makerspace LittleBits Makey Makey Home Row (Grades 3-5) Word Processing (Grades 3-5) Accommodations/Modifications** Technology Visual Timer Redirection Corrective Feedback Preferential Seating Model targeted skills/direction Structured transition w/advanced warning	SPECIAL NOTES: Rotation B – November 30-December 4 Lewis (Grade 2) – Finish Bridge project (see 2 nd Grade plans from 11/16-24) Intermediate (Grades 3-5) – Must complete at least 20 minutes of Typing Agent Rotation C – December 7-11 Rucker (Grade 2) – Finish Bridge project (see 2 nd Grade plans from 11/16-24) Intermediate (Grades 3-5) – Must complete at least 20 minutes of Typing Agent Rotation A – December 14-18 Intermediate (Grade 3-5) – Must complete at least 20 minutes of Typing Agent McPhee (Grade 4) – Continue Maker Challenges (see special Lesson Plan posted by December 11, 2015) NO HOMEWORK – students may continue to explore www.diy.org at home, but	Questioning Techniques How have today's experiences inspired me? What was my biggest success today? What was my biggest failure today? How would I reteach what I learned? How is what I created for the Holiday Hacker patchBeautiful? Meaningful? Thoughtful? Sophisticated? Shareable? Moving? Enduring?

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Frequent and positive feedback		are discouraged from creating a personal account as it will not count towards STEAM credit.					
Teacher Reflection/Notes							
Higher Order Thinking	Scaffolding		21 st C. Skills	Learning Styles	Student Reflection		Project-based
Student Choice	Global Perspective		Interdisciplinary	Student-Centered	Critical Thinking		Differentiation

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