Lunar Cruise Lines
UNIT OVERVIEW

The **Lunar Cruise Lines** unit is an online, project-based learning curriculum designed by CompTIA Spark. Each of the included lessons ask students to learn and actively apply digital skills to help solve real-world problems. Each lesson is connected by a shared theme: *It's 2050 and NASA has just declared that the Moon is open to tourism. As a class, students will be completing activities to create the first lunar tourism company.*

This unit is designed with a unique structure of phases that both expose students to a variety of technology, applications, careers and CTE clusters while also giving each student an opportunity to specialize and develop relative expertise (as compared to the skill level of their classmates) in the areas of most interest.

UNIT DETAILS

- Grade level: 5th-8th grade
- Length: 10 lessons (45-60 minutes each)
- Cost to implement: Free

MATERIALS

- Enough computers for 1:1 ratio during class
- Internet connection strong enough to stream videos from multiple devices at the same time
- Lunar Cruise Lines introduction slides

HIGH-LEVEL LEARNING OBJECTIVES

By the end of this unit students will:

- Learn how to use every day digital tools to stay organized, share work and complete tasks
- Be able to use a variety of applications to accomplish tasks including Tinkercad, Sheets/Excel, Canva, Scratch and PowerPoint/Slides
- Demonstrate and identify interests in a tech or career pathway
- Understand the role that data, marketing, software development and 3D modeling play in a company
- Have developed 21st century skills

STANDARDS ALIGNMENT

- ISTE (International Society for Technology in Education)

HOW THE CURRICULUM WORKS

PROJECT-BASED LEARNING IN WEB CREATIVITY AND PRODUCTIVITY APPS

- Each lesson will ask students to create a project in a popular web-based creativity or productivity app.
- Each project is designed to be highly engaging, rigorous and expose students to a variety of important tools and functions in the application.
- Projects are based on real-world work that happens within these applications.

SELF-PACED ONLINE INSTRUCTION

- Each lesson includes a series of steps and instructional videos that help students build a project from scratch.
- Students will access these help resources through the CompTIA Spark learning application where they can choose to watch and rewatch the videos at their own pace.

STUDENT CHOCIE TO BUILD A COMMUNITY OF RELATIVE EXPERTS

- Phase 2 of this unit includes a set of four lessons that are designed to be completed in any order.
- Students will choose what order to complete the lessons.
- The student choice model is designed intentionally to build a community of "relative experts", students who have more experience with an application than those they are helping. Students who have completed a lesson are an "expert" to those who haven't done the lesson yet.
- Building a community of relative experts gives students who are not typically successful an opportunity to shine, and it increases your ability as a teacher to step into the "facilitator" role (see below).

UNIT PLAN

PHASES

PHASE NAME	PURPOSE	CLASS #	LESSONS
Phase 1: Getting started	- Introduce the unit - Get students used to using the CompTIA Spark web app - Introduce the focus on 21st century skills - Build help-finding toolkit	1	Founding day: Start your company
Phase 2: Explore	- Rotate students through a series of projects that utilize real-world applications - Help students identify new or existing interests in types of technologies/work	2-7	- Design your lunar cruise ship (first class) - Design your lunar cruise ship (second class) - Headhunters: Find the best captain - Program your flight path (first class) - Program your flight path (second class) - Spread the word
Phase 3: Specialized career connections	Students will connect the interests they have developed with potential careers and identify next steps that may interest them	8	Your future beyond the moon
Phase 4: Showcase	Students will make a presentation to highlight what they created/learned and applicable careers	9-10	Show what you know!

UNIT PLAN
(Continued)

PHASES

LESSON #	LESSON NAME & DETAILS
1	**Founding day: Start your company** *Students will name their companies and design a logo in Slides/PowerPoint*
2	**Design your lunar cruise ship** *Students will create a 3D model of their cruise ship in Tinkercad*
3	**Headhunter: Find the best captain** *Students will use Sheets/Excel to manipulate a database to find the best candidate to hire*
4	**Program your flight path** *Students will use Scratch to program an autonomous flight path*
5	**Spread the word** *Students will use Canva to design a digital ad for their company*
6	**Your future beyond the moon** *Students will connect the interests they have developed with potential careers and identify next steps that may interest them*
7	**Show what you know** *Students will create a presentation to highlight what they created/learned and applicable careers*

ASSESSMENT

Each lesson has several opportunities for assessment, including:
- A short, auto-graded multiple-choice assessment after each lesson
- A reflection question after each lesson to highlight 21st century skills
- A product rubric to assess the artifact that was created with the lesson
- A process rubric to assess 21st century skills demonstrated with the lesson

DIFFERENTIATION

- Each lesson contains robust extension activities for students who finish early or need more of a challenge.
- Each lesson contains self-paced videos with closed captioning to help students who are more visual/auditory learners, and learners who may need to replay the videos more than once.
- The unit can be spread out over a longer period for students who need more time, or for students who wish to explore all the extension activities.
- Student choice is embedded throughout the unit to appeal to a variety of interests.