

This storyboard must be included with each team's [video submission](#). Although many file types are accepted, .pdf file is preferred.

THEME: Using concepts from Force and Motion, design a sustainable solution to improve your community.

The concept banks below provide possible research topic suggestions for your team's competition video. **These concept banks are not an exhaustive list**, as many topics are not included. Your team is not required to use any of the suggestions below in your video; rather, the concept banks serve as inspiration for possible topics to explore in your video. Whatever topic you choose, whether it is from this list or not, it is your team's responsibility to connect that topic and your research to the video prompt.

Sample Banks:

Force and Motion/Scientific Fundamental Concepts: Acceleration, Air Resistance, Atom, Attractive & Repulsive Forces, Balanced Forces, Catalyst, Centripetal Force, Coulomb's Law, Conservation of Energy, Displacement, Drag, Elasticity, Elements, Energy, Friction, Force, Gravity, Gravitational Forces, Hooke's Law, Inertia, Kinetic Energy, Lift, Lever, Mass, Matter, Momentum, Newton's Laws of Motion, Potential Energy, Power, Pressure, Propulsion, Pulley, Radiation, Simple Machines, Speed, States of Matter, Temperature, Tension, Thrust, Torque, Unbalanced Forces, Vector, Velocity, Viscosity, Weight, Work

Company Industry: Aerospace, Aerial Surveying, Automotive, Aviation, Biotechnology, Chemical Distribution, Chemical Manufacturing, Civil Engineering, Communications, Construction, Education, Energy Production, Entertainment and Media, Electrical, Fashion and Retail, Finance, Heavy Machinery, Hospitality and Tourism, Housing, Information Technology, Insurance, Local and Federal Governments, Logistics and Freight Automation, Manufacturing, Maritime and Marine, Material Science, Mechanical Engineering, Mining, Oil and Gas, Pharmaceutical, Port Operations, Public Transit, Quality Assurance and Control, Recycling, Renewable Energy, Research Institute, Robotics, Sport Training & Recovery, Structural Engineering, Transportation, Urban Planning

Careers: Accountant, Analyst, App Developer, Aerospace Engineer, Automotive Engineer, Avionics Assembly Technician, Biomechanics, Chemical Engineer, Chemist, Civil Engineer, Delivery Driver, Drone Technician, Electrician, Engineer, Equipment Operator, Ergonomics Specialist, Finance Director, Graphic Designer, IT Specialist, Journalist, Lab Technician, Machine Operator, Maintenance Technician, Marketing and Communications Specialist, Mechanic, Mechanical Engineer, Mechatronics Technician, Operations Manager, Pilot, Pneumatic Systems Specialist, Police Officer, President, Project Manager, Quality Specialist, Robotics Engineer, Sales Manager, Service Technician, Social Worker, Software Developer, Structural Engineer, Therapist, Transit Systems Maintenance Tech, Transportation Planner, Warehouse Associate, Welder, Wind Turbine Service Technician

Your storyboard should guide your team's video creation process. The storyboard provides evaluators with evidence of your team's planning process for the video component of the Challenge.

Storyboard Guidelines and Requirements:

1. Use this *Storyboard Template* to guide your video's story and structure: You must submit this completed storyboard with your video submission. Each team's video should include the following components based on the Video Rules and the Video Rubric:
 - a. Opening titles – at the beginning of your video
 - b. Introduction to start-up company
 - c. Explanation of problem
 - d. Presentation of innovative solution and discussion of how sustainability is being addressed in the solution
 - e. Clear embedding of identified career/job roles that represent diverse educational backgrounds in discussions of problem and solution
 - f. Closing titles – at the end of your video

Note- With the exception of the opening and closing titles, these components do not need to follow the specific order above, but the order must make logical sense and be easy to follow for video audience.
2. For each storyboard component:

- Complete the details in each segment (please refer to the rubric)
- Outline relevant dialogue or narrative in the space provided underneath each box. **These notes do not have to be a word-for-word script** (it can be if your team wants it to be!).

This storyboard includes time recommendations for each section; however, sections within a video do **not** have to follow these suggestions. *Please note, videos that are not between 5-7 minutes total will not be scored.*

Opening Title (< 10 seconds):

Title/Company Name: _____

Theme: _____

Group/School Name: _____

Team ID: _____

Add this statement at the bottom of Title slide: This video was created as part of CEF You Be The Solution Challenge™.

Please note, videos that do not have opening and closing titles will not be scored.

Explanation of Start-Up (1-1.5 minutes):

Company Name:

Company Mission:

Description of Company Industry:

Careers and Educational Level:

*Please note, videos that do not feature a **minimum** of three careers (one of which **must have a non-degreed educational background** – such as a Career and Technical Education leading to a skilled trade) will not be scored*

Job Title

Educational Level

- | | | |
|----|-------|-------|
| 1. | _____ | _____ |
| 2. | _____ | _____ |
| 3. | _____ | _____ |

Optional :
Additional
Career

Company Details - Dialogue/Narrative *(Please use this space as a guide to create your dialogue/narrative. Your final video product can differ.)*

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Sketch of the Scene *(how many people, what does the background look like, what props do you need? Draw it out!)**



Explanation of Problem (2-2.5 minutes):

Problem Identified:

Core STEM Concepts – Force and Motion:

Impact:

Explanation of Problem - Dialogue/Narrative *(Please use this space as a guide to create your dialogue/narrative. Your final video product can differ.)*

[illegible]

Sketch of the Scene *(how many people, what does the background look like, what props do you need? Draw it out!):*

[illegible]

Innovative Solution (2-3 minutes):

Innovative Solution:

How the Solution Addresses the Problem:

Core STEM Concepts – Force and Motion:

Connection Between Solution and Fundamental Science Concepts from the Study Guide:

Addressing Sustainability:

United Nation SDG named and addressed:

Strengths and Obstacles:

Strengths

Obstacles

Connection Between Career(s) and Solution:

Visual of Solution:

Explanation of Solution - Dialogue/Narrative *(Please use this space as a guide to create your dialogue/narrative. Your final video product can differ.)*

[illegible]

Sketch of the Scene *(how many people, what does the background look like, what props do you need? Draw it out!)*:



Closing Title (< 10 seconds):

Group/School Name: _____

Group/School Address: _____

Team Members:

Member Name (first name and last initial)

Member Contribution

Please note, videos that do not have opening and closing titles will not be scored.

Remember to include a Closing slide with your Bibliography on it.

Bibliography (APA format, < 10 seconds):

A bibliography listing all sources used in researching and creating the video in APA format must be included in the end titles of the video. Please refer to [this resource created by Science Buddies®](#) for more step-by-step directions on creating an APA formatted bibliography.

1. Source list must include title, author, publisher, and copyright date
2. Bibliography must also include internet sources, interviews, images, and videos
 - a. [Directions on how to automatically format bibliographies in Microsoft Word](#)
 - b. [Directions on how to automatically format bibliographies in Google Docs](#)
 - c. Use [Grammarly's free Citation Generator](#)

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are approximately 20 lines in total, starting from the top edge and ending near the bottom edge. The lines are thin and black, providing a clean template for writing or drawing.