Sample Introduction Letter

replace with
LOGO

Street Address, City, ST ZIP Code
Telephone
Email

Date

Dear {Name of Recipient},

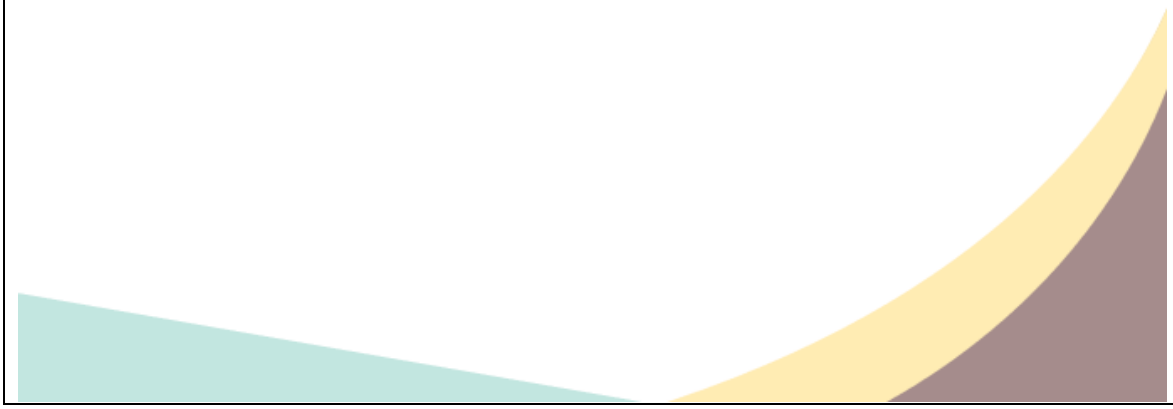
{Write the purpose of the communication and how you are introduced, whether it is through a global connection website or a personal reference. If the letter is from the administrator, they can share information about their location and programs they are proud of at their school. If it is from a teacher, they can share specific information about themselves, their class and project.}

{Share additional details about the school, location, classroom, or project. Include specific information about what you would like to achieve. Define the collaboration and what the time commitment and resource sharing will look like.}

{Close by thanking the other person or school for their consideration or interest in the collaboration. Include contact information. Try to include more than one method of communication.}

Warm regards,

Your Name
Title
Email



Your responses should be thoughtful and be one-half to one page in length.

Journal entries are based upon Oxfam's Components of Global Citizenship, World Savvy's Global Competence Matrix, and The Center for Global Education at Asia Society Four Domains of Global Competence (Klein 2018).

Table 5

Journal Prompts			
How does your own culture help you to understand the culture of others?	What have you learned about engineering and design from your global partner?	How have your opinions changed about your global partner since beginning this project?	What are ways that your global partnership could be improved?
What experiences have you had that influenced how you approach a problem? How are your experiences similar or different to that of your global partner?	Describe and example of how effective communication between yourself and your partner helped to improve your engineering design.	Why is sustainable engineering important to you? Why is in important to your global partner?	Why is it important to work with global partners when designing for environmental sustainability?
Why are diverse opinions important?	Describe a future project you would like to work on with your global partner.	What surprised you most about your global partner?	Describe a situation where your perspective was different than your global partner. Provide a reason why you think their perspective was different.
How did you communicate best with your global partner? Did your communication strategy change over the course of the project?	Choose a topic related to your global partnership to write about that you think is significant.	How can you apply what your learned about sustainability to your day to day life choices?	Complete the following statement: Global relationships are important because…

Mars Rover Global Collaborative STEM Project Specifications
Each Brazil/Houston group will collaboratively design, make, test, and modify a vehicle that has the following design features:
1. Each vehicle must be at least 20 cm long and at least 10 cm wide. 2. Each vehicle must have at least four wheels that rotate. This requirement refers to the four wheels on which the vehicle travels across the Martian surface. The group may decide to add other wheels. 3. Each vehicle must be able to travel at least one meter on a runway no wider than one meter and be self-powered. (The vehicle must be sitting stationery at the start.) 4. The vehicle must be completely edible after you show that it can travel at least one meter on its own. (Whatever you use to power the vehicle may be non-edible.) 5. Build your vehicle as a prototype for vehicles that could be used by astronauts to explore Mars. Since the Martian surface varies from place to place, just as the Earth's surface varies from place to place, you should learn about the Martian surface and decide exactly where you want the astronauts to land. Then design your vehicle to explore that location on Mars. As you design your vehicle, think about some books you may have read or movies you have seen for ideas. Consider the surface conditions of Mars? What about temperature? What about the surface? 6. You should be able to explain three design features that make it suitable for this exploration.

Mission to Mars

Global Collaboration Communication Log

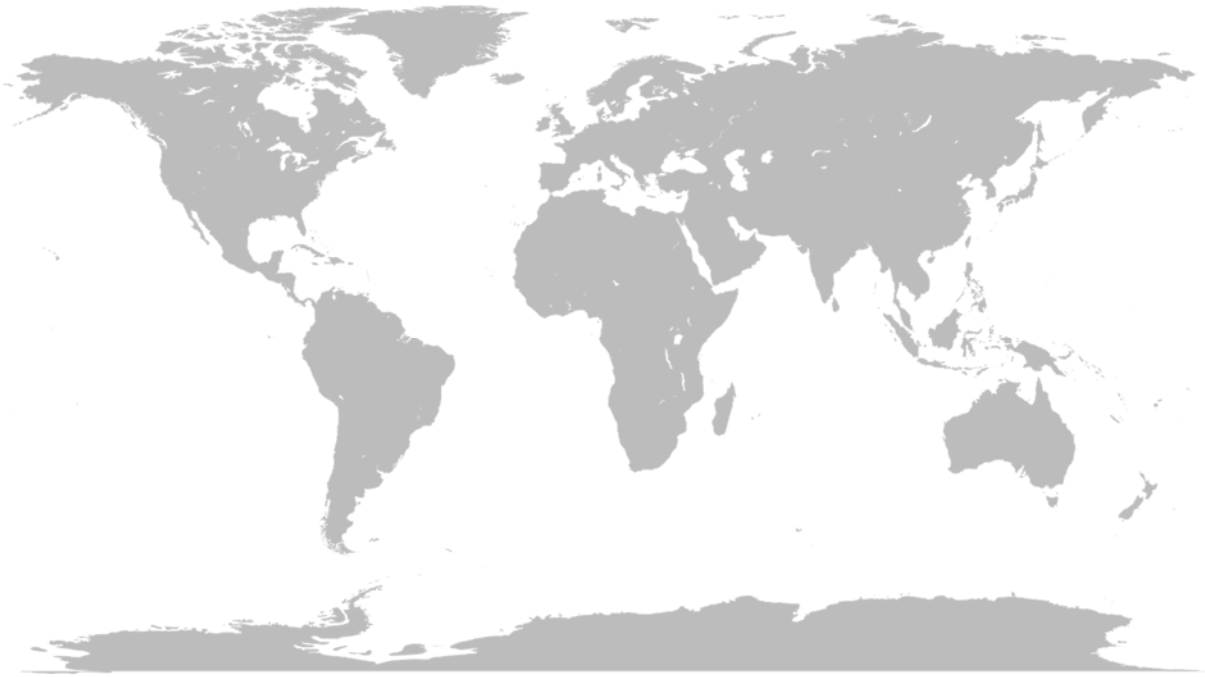
Congratulations you have just been selected as a member of an elite international team of engineers. Your mission is to design and build a prototype rover to be launched into space and transverse the surface of Mars. The prototype must be constructed of **recycled materials** (with the exception of the propulsion mechanism) and travel at least **one meter** without an outside force acting upon it.

Day 1: Global Preparation

Geography

The International Director of Space Operations has assigned you to a team made up of engineers from Houston, Texas USA and Sao Paulo, Brazil. Prior to meeting with your team, find out more about your partner country.

On the map below place a red dot near your home, and a blue dot near the location of your international partner.



Crates / CC BY-SA (https://creativecommons.org/licenses/by-sa/4.0)

When working with international partners it is important to use common forms of measurement. The international system of units utilizes meters as the measurement for distance. Use https://www.airmilescalculator.com/ to find the distance in **meters** between Houston, Texas USA, and Sao Paulo Brazil? (hint: maps measure distance in kilometers, 1 kilometer = 1000 meters).

Time Zones

The Earth rotates on its axis creating night and day. The Earth spins counterclockwise (as seen from the North Pole) so Sao Paulo experiences sunrise almost three hours prior to Houston, this creates the need for time zones. As your work with your international team, it is important to schedule meetings when it is convenient for both groups. Use https://www.thetimezoneconverter.com/ to complete the chart below for today's date (Note: Brazil does not observe daylight savings time, so depending on the time of year there may be a 2 or 3 hour difference).

Houston, Texas USA	Sao Paulo, Brazil
8:30 am	
	3:00 pm
	1:15 am
12:00 pm	
	3:45 pm

Linguistics

The official language of Brazil is Portuguese. The US does not have an official language, but the most common language spoken in the US is English. Complete the sentences below using https://translate.google.com/ translate them to Portuguese.

1. Hello my name is _____. I live in Houston, Texas, and I am in the 5th grade.
2. My favorite food is _____, and my favorite color is _____.
3. On the weekends I like to _____ for fun.

In Portuguese:

Before Your First Meeting:

Visit https://kids.nationalgeographic.com/explore/countries/brazil/ and read about Brazil. In the space below list three things you learned about Brazil.

What is one question you still have about Brazil?

About You

What is one thing you would like to share about yourself with your Brazilian partners? Write it in the space below, then translate it to Portuguese using https://translate.google.com/.

Day 2: Team Meeting

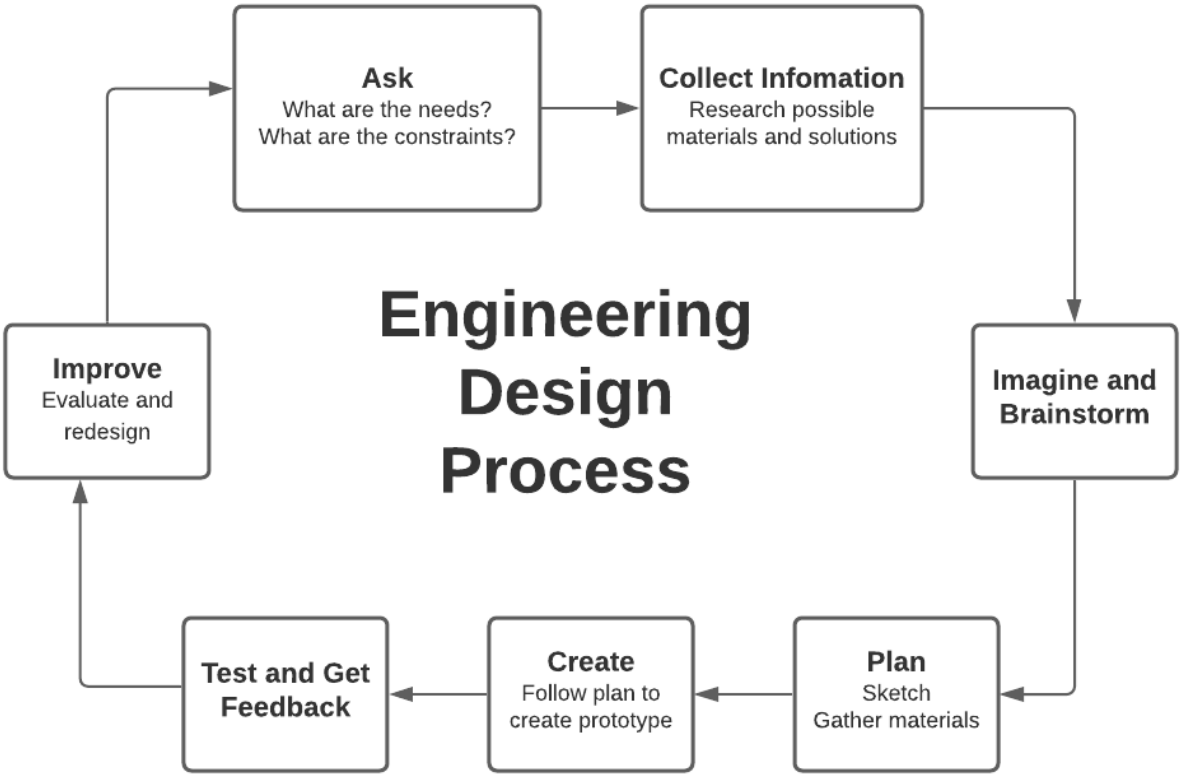
Today is the day you meet your international team of experts. Each group has been provided with a unique code. To access your group meeting enter the code at https://meet.google.com/. You can use the chat box to communicate if verbal communication is difficult. Remember you can always access to google translate https://translate.google.com/ to assist you.

Begin by sharing your name and one thing about yourself. To assist your teammates, ensure that your name in on your screen and provide a short statement in the group chat. Take turns so that every team member has an opportunity to contribute. Write the names of your team members and something memorable about them in the space below.

Team Member	Country	About

Day 3: Engineering

Today you start your rover. With your teammates use the Engineering Design Process depicted below to guide your thinking. Your goal is to create two identical rovers, one in the US and one in Brazil using recycled materials that can travel 1 meter without being acted upon by an outside force. The propulsion mechanism does not have to be edible.



ASK:

Needs	Constraints

Day 4-5: Collect Information

Look for examples of various propulsion mechanisms and rover designs. Gather ideas, websites, videos, and other resources and record them in the table below. **Using the email address provided by the director, exchange ideas with your Brazilian partners.**

American Partners	Brazilian Partners

Day 6-7: Imagine and Brainstorm

What materials would you like to use? Are the materials available in the US and Brazil? How large will your rover be? How will you make it to move? Think of any other details that will be relevant to the design of your rover. **Exchange ideas and web resources with your international partners using the email address provided by the director.**

American Partners	Brazilian Partners

Day 8: International Check Point

Check in with your international partners. Each group has been provided with a unique code. To access your group meeting enter the code at https://meet.google.com/. You can use the chat box to communicate if verbal communication is difficult. Remember you can always access to google translate https://translate.google.com/ to assist you. Discuss the information you exchanged in your emails to sketch a plan and develop a materials list. The sketch and the materials should be identical for both the US and Brazilian partners. You must collaborate and agree on your rover plan.

Plan:

Provide a sketch of your Rover design

Materials Needed:

Day 9-12: Create

Using the sketch and materials collected from your plan, construct a prototype of your team's Mars Rover. As you are engineering your rover, take detailed notes of any challenges you encounter and possible solutions or improvements you propose. Share a photo of your prototype as well as challenges and proposed changes with your international partners via email.

Design Challenges	Design Changes

Day 13: International Check Point

Check in with your international partners. Each group has been provided with a unique code. To access your group meeting enter the code at https://meet.google.com/. You can use the chat box to communicate if verbal communication is difficult. Remember you can always access to google translate https://translate.google.com/ to assist you. Discuss the photos, challenges, and changes you proposed in your previously exchanged email.

Test and Get Feedback:
Based on your emails and discussions with your international partners describe any design changes you have agreed on in the space below.

Day 14: Improve and Evaluate:

Sketch your improved design. Should any problems that require further redesign occur, share those changes with your international partners.

Day 15: Construct the Final Rover

Construct your final rover, the American and Brazilian rovers should be identical. Take photographs of each rover and record a video of the rover completing the 1-meter trek. Share your photos and videos with your international team and submit them to the Director of Space Operations.

Day 16: International Celebration

All international teams will meet collectively to share and celebrate the accomplishments. Every international member will receive the same meeting code. To access the large group meeting enter the code at https://meet.google.com/. You can use the chat box to communicate if verbal communication is difficult. Remember you can always access to google translate https://translate.google.com/ to assist you. The Directors of Space Operations will present the pre-recorded videos of each rover and award certificates for outstanding projects.

Mission to Mars				
Criteria	No Response (0 points)	Partial Response (3 points)	Complete thoughtful response (6 points)	Points Received
Located Houston and Sao Paulo on the world map				
Calculated the distance in meters between Sao Paulo and Houston				
Determined the difference in time between Houston and Sao Paulo				
Translated sentences from English to Portuguese				
Collected background information about Brazil prior to meeting global partners				
Constructed a sentence in Portuguese to introduce yourself to your global partners				
Created a team list to included partners from both countries and wrote one thing about each of them				
Identified the needs and constraints for developing an edible Mars Rover				
Collected ideas for constructing your rover and exchanged them with your international partner.				
Brainstormed ideas and exchanged them with your international partner.				
Provided a detailed initial sketch and plan for your Rover.				
Exchanged ideas with your global partner to improve upon your initial design				
Test design and exchanged feedback with your partner.				
Create a final sketch of your rover and present you final design.				
Global Competencies (see adjoining rubric)				
Empathy Score				
Humility				
Resilience				
Final Score				/ 100

Global Partnership Look For/Listen for Rubric to be Utilized During Virtual Meetings

Adapted from Klein (2018 p. 159)

Competency: Empathy					
Look-Fors			Listen-Fors		
	Did not Observe (0)	Observed (1-3)		Did not Observe (0)	Observed (1-3)
Understanding actions such as verbally comforting a peer, giving pats on the back, hugging an upset student.			Understanding words such as "I know how your feel" or "I'm sorry you are feeling bad."		
Helpful actions such as helping a peer with a task			Encouraging words such as "You can do it!"		
Supportive body language such as smiles or nods			Supportive language such as "I can tell you worked hard."		
					Empathy Score ___/6
Competency: Humility					
Look-Fors			Listen-Fors		
	Did not Observe (0)	Observed (1-3)		Did not Observe (0)	Observed (1-3)
Draws peers in for their perspectives			Questions rather than makes assertions		
Is receptive when new learning negates existing opinions or knowledge			Uses language that suggests flexibility with knowledge such as "I think I know" and "I wonder"		
Plays well as a team member; encourages and focuses on having all views considered			Compliments about others' ideas, even when they conflict with their own		
					Humility Score _____/6
Competency: Resilience					
Look-Fors			Listen-Fors		
	Did not Observe (0)	Observed (1-3)		Did not Observe (0)	Observed (1-3)
Takes setbacks well; bounces back quickly			Uses flexible language such as "How might I approach this differently?" when encountering setbacks		
Hears feedback well; can adapt as a result			Uses receptive language such as		

			"That's really helpful" in response to feedback.		
Demonstrates a growth mindset; keeps working at something until successful			Shows improvement and problem-solving language such as "I wonder if I might try…"		
Looks for alternative routes or solutions					
					Resilience Score _____/7