

So you want to be a

“Dreaming up Careers of the Future”
Curriculum Guide 3.0




Beyond School Bells
nebraskachildren



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45m Lesson Outline



Lesson Preparation
10-30 minutes

Before each lesson there are some simple preparation steps. Please read through lesson activities, objectives, materials, and resources. Some lesson resources need to be printed out or copied (see appendix). All materials can be found in TMC Labs trailer. If you do not use TMC Labs, materials can all be found at a craft store or on Amazon.



Starter Activity
10 minutes

At the beginning of each lesson there is a short starter activity to “break the ice” and release surplus energy the kids have built up during the school day. This helps kids refocus for the main activity.



Lesson Activity
30 minutes

The main lesson activity is an engaging, hands-on experience that focuses on skill development. Each Unit has a different skill focus that the main activity approaches in an exciting way.



Activity Reflection
5 minutes

At the end of each lesson there is time set aside for a group discussion or simple reflection activity. Students will explain what they learned, what excited them, and what ideas they want to explore in the future.

U1

Curiosity

Unit Objective

Unit 1 challenges students to think across traditional occupational lines and use their creativity while learning and developing functional simple circuits through critical and interdisciplinary thinking, curiosity, and problem solving.

Relevant Skills

Critical Thinking, Problem Solving, Creativity, Assessing the Source, Asking Questions, Identifying Differences, Self-Management, and Career Identity

L1

A Tool to Inspire Curiosity



Lesson Objective

Students will understand what electricity is and how to create simple circuits.



Skills Pathways

Curiosity, Creativity, Critical Thinking, Leadership



Total Time

Total Activity Time: 45-50m
Total Activity Preparation Time: 12m



Resources

Paper Circuit Hand Out Guide
(Students can take these home to show parents)



Materials & Tools

3mm or 5mm LED, 3V Coin Battery, Scissors, Scotch Tape, Copper Tape, Paper, Markers or Colored Pencils



L1 Introduction

This lesson is focused on the importance of being curious. Students will be able to see how their curiosity can lead to amazing discoveries and ultimately lead them to new and exciting learning experiences.



Starter Activity

Nature Walk

Time

Activity Time: 10m
Activity Preparation Time: 2m

Instructions

1. Kids are prompted to go outside and look around & take note of what they see.
2. Through this activity, kids will both observe and take note of their surroundings, while thinking about why they see what they do.
3. Reflection question: What are some things humans have engineered that has been inspired by nature? (e.g. birds & airplanes, fish & flippers, aerodynamics & cars, geckos & suction cups, etc)



L1 Activity

Beginning Paper Circuits

Time

Activity Time: 30m
Activity Preparation Time: 10m

Preparation Steps

1. To prepare for this activity you will want to pre-cut the copper tape to strips of about 2.5 - 3ft.
2. You will also want to make sure that you have all the materials and resources listed and that they are ready to be passed out.

Materials

3mm or 5mm LED	3-5/Student
3V Coin Battery	1-2/Student
Scissors	1 Pair/3 Students
Scotch Tape	1 Roll/3 Students
Copper Tape	3 Ft/Student
Paper	1-3 Sheets/Student
Drawing utensils of choice	1-3
Paper Circuit Hand Out Guide	1/Student or Group

Resource

What to Say

“Curiosity is a very important skill that we will all need to have for our future careers. The greatest inventions are a result of people pursuing their curiosity. For example, does anyone know who the Wright Brothers are? {Ask for and listen to student responses} Exactly! The Wright brothers were curious to see if they could build a vehicle that could help humans fly. They were inspired by birds and insects, but they had to use their curiosity and creativity to figure out a way to structure the vehicle to allow it to fly.

Today we will learn about electricity and how to use it. Knowing about electricity may inspire your curiosity. How can you use electricity in different ways and for different projects? Specifically, we will be learning about simple circuits, using copper tape, LEDs, and batteries. At the end, if you have time, you will also apply your knowledge of circuits to some drawings to light them up.”

Instructions

Note: Having the students put together both the series and parallel circuit may not leave them time to draw and apply circuits to their drawings. You may want to instruct the students to only make a series circuit and give them the option to either start the parallel circuit or start the drawing project.

1. Pass all the materials and activity step-by-step guide to each student.
2. While your passing out the materials, ask the students to spend a few minutes exploring the materials and have them think about what the materials are and how they might be used.
3. Ensure that each student, or pair, has a “paper circuit guide” handout.
4. Instruct the students to form pairs and read the booklet together out loud, switching off for each page.
5. After the students finish reading in pairs, instruct the students that they will work individually (or in pairs) and help each other if they get stuck. The activity guide has step by step instructions and teaches them the very basics of electricity, LED’s, and circuits and describes the project to them.
6. The step-by-step guides will serve as a great take home material for the students.
7. When the students put together their series and parallel circuit, encourage them to place it directly on top of the series circuit and parallel circuit diagram in their step-by-step guide.
8. If they need more materials, ask them to let you know so you can get the materials to them. Allow the students to begin going through the activity guide.



Challenge Activity

Advanced students could try some of the following challenge activities:

- Come up with more complex drawings
- Make 3D - Pop-up drawings that they can light up
- Brainstorm and create a switch to control when the circuit is complete



L1 Reflection

Group Discussion

Time

Activity Time: 30m

Questions

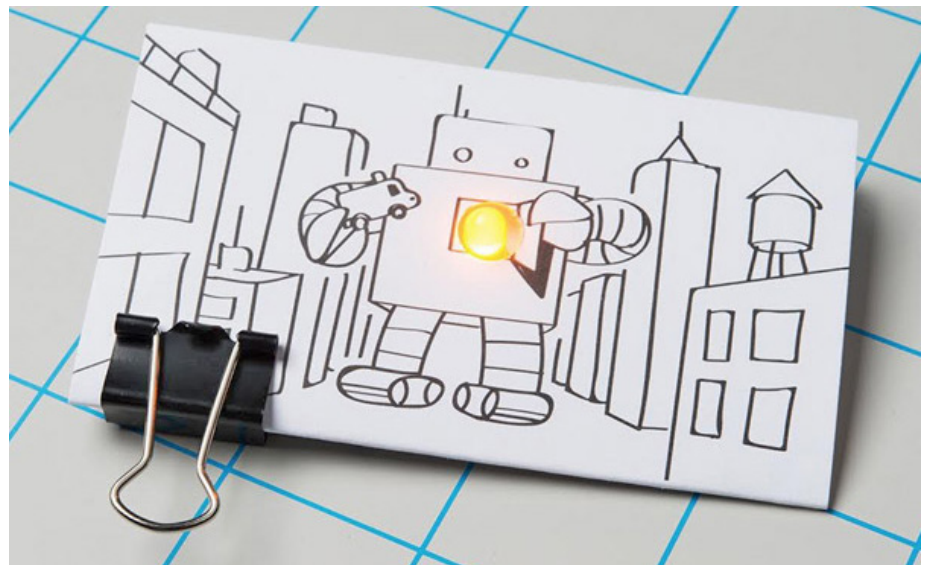
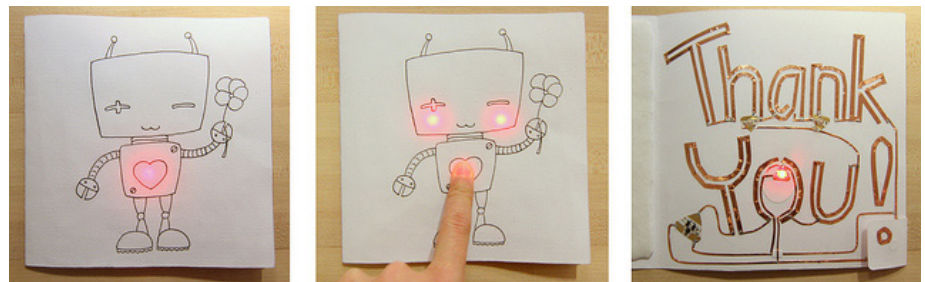
Baseline Questions:

- What was one problem with your circuits that you encountered and how did you overcome it?
- What is your favorite aspect of your design?
- What makes your design unique?

Challenge Question:

- What improvements or new ideas would you implement in designing other circuits and drawings?

Examples



L2

Assessing Source Quality



Lesson Objective

Students will understand how important electricity is to our communication systems as well as how curiosity lends itself to communicative properties.



Skills Pathways

Communication, Listening and Speaking, Creativity, Critical Thinking, Leadership



Total Time

Total Activity Time: 45m
Total Preparation Time: 12m



Resources

Paper Circuit Hand Out Guide



Materials & Tools

3mm or 5mm LED, 3V Coin Battery, Scissors, Scotch Tape, Copper Tape, Paper, Markers or Colored Pencils



L2 Introduction

This lesson is extending the learning from Lesson 1 and encouraging students to create electronic messages through art.



Starter Activity

Telephone

Time

Activity Time: 10m
Activity Preparation Time: 2m

Instructions

1. Players must sit in a circle or stand in a straight line. They need to be close enough that whispering is possible, but not so close that players can hear each other whisper.
2. The first person in the line or circle whispers a word or phrase into the ear of the person sitting or standing to their right.
3. Students can make up a prompt or be given a prompt (example prompts below).
4. Players whisper the phrase to their neighbors until it reaches the last player in line. No repeating the message.
5. The last player says the word or phrase out loud so everyone can hear how much it has changed from the first whisper at the beginning of the circle or line.

Example Phrase Prompts:

- Door knobs and door jambs with hasps and hinges
- A bunch of yellow bananas launched on a blue boat.
- Twelve tumbling purple people pulled turnips.
- The funny bunny hid the colored candy in the colored can.
- My favorite thing to do on a rainy afternoon is play go fish and drink chocolate milk.

Reflection Questions

- What things can we do to see if what we hear or read is true?
- Should we believe everything we hear on the television or everything we read on the internet?



L2 Activity

Paper Circuits Projects

Time

Activity Time: 30m
Activity Preparation Time: 10m

Preparation Steps

1. To prepare for this activity you will want to pre-cut the copper tape to strips of about 2.5 - 3ft.
2. You will also want to make sure that you have all the materials and resources listed and that they are ready to be passed out.

Materials

3mm or 5mm LED	3-5/Student
3V Coin Battery	1-2/Student
Scissors	1 Pair/3 Students
Scotch Tape	1 Roll/3 Students
Copper Tape	3 Ft/Student
Paper	1-3 Sheets/Student
Drawing utensils of choice	1-3
Paper Circuit Hand Out Guide	1/Student or Group

What to Say

“As we all know electricity plays a major role in our society. Electricity powers many of our machines and technologies. In the last paper circuits activity, you learned the basics of electricity and circuits and you were able to make LEDs light up and even make some of your artwork come to life. One way to be curious is to combine new tools in different settings and see what new ideas or products it can lead to. In today’s activity, you will use your knowledge of electricity and circuits combined with some origami to help you build a tool to pass messages to people (or to bring your origami animals to life). As you build this, be curious and try to think of other things you can build with your knowledge of circuits. At the end of the activity, you may have some time to be creative and make another 3 dimensional project of your own.

For the main project today, you will make an origami paper balloon and hide a secret message inside the balloon. You will also make a wand with a switch and an LED light at the end. Using the wand, you will be able to uncover, or decode, the hidden message in the balloon.”

[Show the students an example of the project, so they can better understand the end product.]

Instructions

1. Have the students follow the guide individually, or pairs, so they can self-pace.
2. Provide help as needed and encourage the students to help each other if others are struggling with the origami balloon or the circuit wand.
3. When students finish the guide, they should have a balloon with a secret message in it. The message can only be seen when the circuit wand shines on the inside of the balloon.
4. Encourage the students to trade balloons and use their wands to read other people's messages.
5. Alternate/Extended Activities: As an alternative or supplemental activity, students may apply simple circuits to origami animals. You will find instructions on applying simple circuits to an origami cat in the appendix. If students know how to fold other origami animals or objects, feel free to let them add paper circuits to them instead.



Challenge Activity

If students finish early they can do the following:

- Fold another origami and design a circuit to bring the origami to life. You may want to print out a couple other origami instructions and have them available.
- Draw and design a circuit for their drawing.
- Experiment and design new switches for circuits.



L2 Reflection

Group Discussion

Time

Activity Time: 5-10m

Questions

Baseline Question:

- What tools could allow you to pursue your curiosity? (Ex. knowledge of electricity, 3D printer, Biology Lab, Sewing Machine, etc).

Challenge Question:

- What are some things we can do to help us be more curious?
Example: Don't just memorize facts, always ask yourself questions about why things are the way they are.

L3

Community Connection



Lesson Objective

Students will build career identity by meeting a professional whose curiosity has been key to their success in life.



Skills Pathways

Communication, Listening and Speaking, Assessing the Source, Asking Questions, Career Identity



Total Time

Total Activity Time: 45-50m
Total Activity Preparation Time: 2m



Resources

Community Connection Document



Materials & Tools

Pencils and Paper



L3 Introduction

In the 21st century, almost any career pathway will require employees to be curious and to think outside the box. It is important for students to understand that being able to creative will help them in any career field they may choose.



Starter Activity

Questions for Speaker

Time

Activity Time: 10m

Materials

Paper	1 /Student
Pencils	1/Student

Instructions

1. Pass out pencils and paper for each student
2. Students will be informed about the speaker who is coming to talk to the group.
3. They will be asked to brainstorm how the speaker's curiosity may have led them to the career that they have pursued.
4. The students will also be asked to brainstorm other questions to ask the speaker.
5. They will have a few minutes to think and write down questions.



L3 Activity

Community Connection

Time

Activity Time: 20-25m

Resources

Community Connection Documents

Instructions

1. A local engineer (electrical, civil, mechanical, computer, etc), scientist, or researcher will speak to the students about their occupation in their career field/pathway.
2. Specifically, they should address how their curiosity led them to this field and how they have been curious and creative while being a professional in this career field.
3. They will also be asked to highlight which other skills are most relevant in their work. Students can ask questions at the end.



L3 Reflection

Think/Pair/Share

Time

Activity Time: 10m

Materials

Paper	1 /Student
Pencils	1/Student

What to Say

“How has people’s curiosity benefited society?” “What jobs and career pathways require curiosity?”

Instructions

1. Make sure students still have paper and pencils still
2. Students will now use the prompts above to try and figure out specific jobs that fall into the category curiosity. To do this, you will use Think, Pair, Share.
3. First have students THINK about these career pathways and write down as many jobs as the can possibly think of.
4. After 2 minutes of thinking, PAIR each student with a partner. Have them talk about each job and determine if it really is in this career field and if it is, which pathway is it in.
5. Lastly, have students SHARE out their findings. This whole process should not take more than 5-6 minutes. (no more than 2 minutes per concept).
6. Take some time to praise the students on their efforts. Then, spend a minute to discuss each of the career pathways and their necessity to the community the students live in.

U2

Communication

Unit Objective

Unit 2 aims to facilitate better communication between students of all ages by enhancing speaking and listening skills and social-emotional intelligence, through debate, active listening, articulation of ideas, personal expression, and identifying emotions.

Relevant Skills

Communication, Listening and Speaking, Social Emotional Learning, Self-Awareness, Social Awareness, Self-Management, Creativity, Critical Thinking, Leadership, Identifying and Appreciating Differences, Empathy, Working Together, Asking Questions, Career Identity

L1

Speaking & Listening



Lesson Objective

Students will understand the importance of both listening and speaking in communicating and working towards a common goal.



Skills Pathways

Communication, Listening and Speaking, Creativity, Critical Thinking, Leadership



Total Time

Total Activity Time: 45-50m
Total Activity Preparation Time: 12m



Resources

None



Materials & Tools

Lego's (2 groups of identical legos per student; each group should be 10-20 legos; the smaller the group, the easier the exercise)



L1 Introduction

This lesson is focused on the importance of listening and speaking to effectively communicate. In the real-world, students will need to communicate effectively in their jobs and in their daily lives, and this is not possible without developing the ability to listen to others and articulate their own ideas.



Starter Activity

Pancakes vs. Waffles

Time

Activity Time: 10m
Activity Preparation Time: 2m

Instructions

1. In this debate game, the class will be split into two teams and will debate over a given pair of foods, occupations, activities, appliances, etc. For example, one team will be designated as the “pancake team” and the other will be the “waffle team”.
2. The pancake team will propose a reason that pancakes are superior to waffles.
3. The waffle team will have to listen to that argument, repeat that argument, and then effectively counter it.
4. As the facilitator, allow the students to continue debating until they seem to run out of ideas, or you can give them a time limit to debate (one or two minutes per topic).
5. Choose a winner based on the strength of the arguments and counter arguments.
6. Assign a new pair of things to debate.
Examples: include Lumberjacks vs. Lifeguards, Skiing vs. Swimming, and Ovens vs. Microwaves.

Facilitator’s note: If the students are having a hard time debating, ask questions to prompt them. Maybe ask which breakfast food holds syrup better? Which is paired best with other breakfast foods? etc.

Questions

- Take a few minutes to ask students questions such as what things were important for them to consider while debating?
- Why is it important to listen to people with different views?
- Why is it important to be able to have respectful debates?
- Use the discussion from the starter activity to lead into the main lesson activity for today, focused on giving effective instructions and active listening.



L1 Activity

Lego Clone Wars

Time

Activity Time: 20-30m

Activity Preparation Time: 20m

Materials

Lego's

2 Groups of **identical** Lego's /Student.
Each group should contain 5-15 Lego's.

Preparation Steps

1. Depending on the number of students attending your program you will need create 2 identical groups of Lego's per student.
2. Keep it simple by using 5-8 Lego's or add more Lego's to increase the challenge level.

Note: if you do not have time to separate groups of legos beforehand, you can ask students to do this at the beginning of the activity

Instructions

1. Separate students into pairs and give each student 2 sets of identical legos (each pair of students should have a total of 4 sets of identical legos).
2. Now, ask that the partners sit back-to-back (or with a barrier between them) with one set of the legos in front of them. Ask them to set aside the second set for later in the activity.
3. Give the whole class a limited amount of time (5 to 10 minutes) to build whatever they would like with their lego set. Encourage them to get creative, but also stress that they cannot look at or talk about their creation to their partner.
4. Once the construction time is over, assign a "Partner A" and "Partner B" in each group. Ask Partner A to explain to Partner B what they created using words only. Partner B's job is to recreate Partner A's lego creation using their second set of legos (set aside at the beginning of the activity).
5. Once the time is up, allow the students to compare Partner A's original to Partner B's clone. Tell students to discuss how it went and brainstorm better ways to communicate in the next round.
6. Then ask the partners to switch roles, keeping in mind the strategy they just discussed.
7. Once the time is up, allow the partners to look at each other's creations and compare. Whoever has made the best clone of their partner's creation wins!

Add in more Lego's and/or reduce build time



Challenge Activity



L1 Reflection

Time

Activity Time: 10m

Activity Preparation Time: 2m

Questions

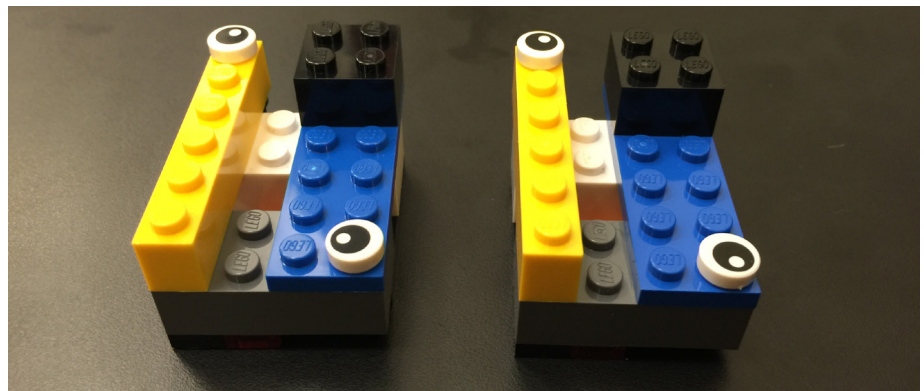
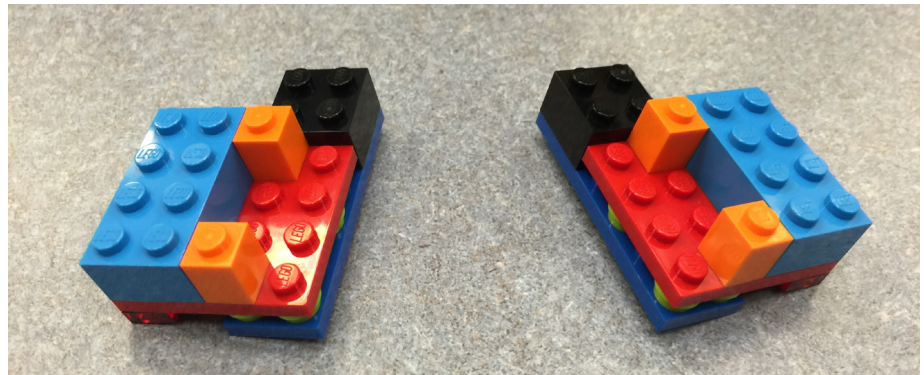
Baseline Questions:

- What was the most challenging part of this activity?
- What things went well during this activity?
- Were there moments in this activity where you felt frustrated with others or with yourself? How did you address that frustration?

Challenge Questions:

- How does this activity highlight the importance of listening and speaking?
- What places might it be important for you to listen or speak effectively (example: listening to instructions in school, listening to your friends when they need help, sharing your ideas with a group, expressing how you feel, etc.)

Examples



L2

Social Emotional Learning



Lesson Objective

Students will develop their ability to identify and name different emotions in themselves and in others and understand how those emotions are perceived by others.



Skills Pathways

Communication, Social-Emotional Learning, Self-Awareness, Social Awareness, Self-Management, Creativity, Identifying and Appreciating Differences, Empathy, Teamwork



Total Time

Total Activity Time: 45-50m
Total Activity Preparation Time: 10m



Resources

None



Materials & Tools

Any craft supplies available (may include: Paper, Markers, Pipe Cleaners, Popsicle Sticks, Feathers, Puffballs, Tape, Glue, etc.)



L1 Introduction

This lesson is focused on encouraging social-emotional learning in students. Social-emotional learning includes the following five aspects: self-awareness, responsible decision making, relationship skills, social awareness, and self-management. At the root of each of these aspects is a student's ability to identify and articulate the emotions they feel.



Starter Activity

This is Me

Time

Activity Time: 10m
Activity Preparation Time: 5m

Materials

Scissors, Paper, Glue, etc...	1/Student
Art Supplies: Pipe cleaners, Popsicle sticks, Feathers, etc..	Shared

Instructions

1. Students will be given typical craft supplies and only five minutes to make a physical representation of who they are.
2. Encourage students to think of ways to represent their strengths, likes, personality traits, etc. in their creation in creative and abstract ways.
3. After the five minutes of creation time is over, have students share in groups what they made and what each part of their creation represents about themselves.

Questions

- Then, ask them questions about their experience, such as what are some similarities and differences you saw within your group?
- What things about your creation were completely unique from other students?
- Why is it important for you to be able to identify your own skills and personality traits?



L1 Activity

Inside Out Skits

Time

Activity Time: 20-30m
Activity Preparation Time: 1-2m

Instructions

1. Put students into groups of five. Assign each student in the group to a different feeling from the movie Inside Out (Joy, Sadness, Fear, Disgust, and Anger).



Challenge Activity



L1 Reflection

Time

Questions

2. Then, give each group a different real-world scenario to act out that they have to keep a secret from the other groups.
3. Examples could include: going to the grocery store to get food for dinner, going home on the school bus, going on a camping trip, having lunch in the cafeteria, or going on a class field trip.
4. Give the groups five to ten minutes to discuss how they are going to act out their assigned skit as a group, keeping in mind that each student has to embody their assigned emotion during their skit.
5. For students who are struggling with acting ideas, encourage them to try changing their voice pitch or talking speed. Encourage them to use gestures and include props.
6. Once the groups have made a game plan, ask the groups to act out their skit for the class. Each skit should only be a few minutes long to allow time for all the groups to perform.
The class will then try to guess what the scenario was and which student was assigned to which emotion.

For students who are older or more mature, assign emotions that are more closely related to each other and harder to distinguish. For example, excitement vs. happiness.

Group Discussion

Activity Time: 5-10m

Baseline Questions:

- Which emotions were easiest to identify? Which were harder to identify? Why?
- Why is it important that you can identify how other people are feeling?
- Why is it important for you to communicate with others how you are feeling?

Challenge Questions:

- What are some things you appreciate when you feel each of these emotions?
- What are some things you do when you feel upset or flustered to help you calm down?
- Is it easier to work in a group that is feeling different emotions or a group that is all the same? How can you help get a group all on the same page?

L3

Community Connection



Lesson Objective

Students will build career identity by meeting a professional who uses the communication skills they have learned about in their everyday lives.



Skills Pathways

Communication, Listening and Speaking, Assessing the Source, Asking Questions, Career Identity



Total Time

Total Activity Time: 45-50m
Total Activity Preparation Time: 5m



Resources

Community Connection Document



Materials & Tools

None



L3 Introduction

Introduction: In the 21st century, almost any career pathway will require employees to have strong communication skills. It is important for students to understand that being able to communicate effectively will help them in any career field they may choose.



Starter Activity

Simon Says

Time

Activity Time: 10m

Instructions

1. Students will play a typical game of Simon Says, drawing on the things they learned about the importance of listening and assessing the source.



L3 Activity

Community Connection

Time

Activity Time: 25-30m
Activity Preparation Time: 1-2m

Resources

Community Connection Documents

Instructions

1. Bring in two professionals from your community to talk to your students about their jobs and how they use communication skills in their everyday lives.
2. These professionals could be business owners, managers, marketers, researchers, local news professionals, or anyone else who uses communication skills on a daily basis.
3. Encourage students to ask questions specifically about the importance of listening, speaking, and social-emotional skills.
4. Maybe have a few students share with the professionals what they have learned from their last two meetings about communication skills and ask the professionals how they feel about what they learned.
5. There is a good chance that some professionals do not know what social-emotional learning is, so encourage the students to teach the professionals about it!



L3 Reflection

Think, Pair, Share

Time

Activity Time: 10m

Instructions

1. Split students into four groups. Assign one question to each group of students (see questions below).
2. First have students THINK about their answer to the question.
3. After 2 minutes of thinking, PAIR each student with a partner.
4. Have them talk about each job and determine if it really is in this career field and if it is, which pathway is it in.
5. Lastly, have students SHARE out their findings.
This whole process should not take more than 5-6 minutes (no more than 2 minutes per concept).

Questions

Ask students some of the following questions:

- Recap, who was our guest speaker? What jobs did they have? How did they use communication skills on a daily basis?
- What did you learn from the guest speakers?
- What did you like about the job of the guest speaker and what did you not like?
- What kind of skills have you learned or developed that would make you good at the guest speakers' job? What things would you have to learn before trying to work in the guest speakers' professions?

U3

Leadership

Unit Objective

The objective of Unit 3 is to empower students to be effective leaders and adapt to the needs of a team, building skills in working together, taking initiative, and creative problem solving.

Relevant Skills

Problem solving, Teamwork, Leadership, Team Support, Adaptability, Improvisation, Communication, Social Awareness, Asking Questions, Self Expression, Listening and Speaking.

L1

Teamwork



Lesson Objective

Students will build teamwork skills through games, activities, and hands on learning. Understand an introduction to taking initiative and leadership.



Skills Pathways

Problem solving, Teamwork, Leadership, Team Support, Adaptability, Improvisation, Communication, Social Awareness, Asking Questions, Self Expression, Listening and Speaking.



Total Time

Total Activity Time: 45-50m
Total Activity Preparation Time: 12m



Resources

Charades Cards, Improve character, Scenario, and Problem Cards



Materials & Tools

Paper, Pens or Pencils, Cardboard



L1 Introduction

This lesson is focused on encouraging students to interact with one another in a fun creative way ultimately building a strong sense of team, leadership, listening and communication skills.



Starter Activity

Crocodile River

Time

Activity Time: 10m
Activity Preparation Time: 1-2m

Materials

Cardboard	3-8 Pieces
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Instructions

1. The group is given a designated starting point and ending point (the banks of the river) and six pieces of newspaper/cardboard.
2. The goal is to get everyone across the river at the same time using only the cardboard to build a bridge.



L1 Activity

Improve & Charades

Time

Activity Time: 30m
Activity Preparation Time: 3m

Resources

Charades cards	1 Set
Improve Character, Scenario, and Problem Cards	1 Set

What to Say

“Great job getting across the crocodile river! Now that you know how to work as a team, let’s solve some problems through charades.”

Instructions

1. Students go up individually and act out what’s written on a card until every student has gone.
2. Then, students go up in teams of 2 (class of less than 10) or 3 (class of more than 10) and receive characters (i.e. policeman, teacher, and cashier) a place (the beach), and a problem (someone just lost their wallet), and get thirty seconds to discuss and then act out a scene to solve the problem as their characters.



Backup Activity

If Improve is too complex or overwhelming, Crocodile River can be expanded by trying to complete the activity in a time limit or by removing pieces of cardboard to make it more difficult. Additionally, charades can be extended instead of moving into improve.



Challenge Activity

Let students in the audience pick the characters, location, and problem for the students performing improve instead of using the cards to allow students to be more creative and adaptable!



L1 Reflection

Group Discussion

Time

Activity Time: 5m

Questions

Baseline Questions:

- What was easy/difficult about playing the game of charades?
- How important was it to work as a team to complete your charade?

Challenge Questions:

- Do you ever feel like life is like improve or charades?
- Think of a time when it was really important to work as a team and you were successful...why? How about when you were unsuccessful...why?

L2

Effective Leadership



Lesson Objective

Build on previous lesson of working together and introduce students to activities centered around leadership interactions—both as leaders and support systems.



Skills Pathways

Problem solving, Teamwork, Leadership, Team Support, Adaptability, Improvisation, Communication, Social Awareness, Asking Questions, Self Expression, Listening and Speaking.



Total Time

Total Activity Time: 45-50m
Total Activity Preparation Time: 2m



Resources

None



Materials & Tools

Blindfolds, Obstacle Course Materials (Get creative! It can be made out of anything from chairs and tables to hula hoops, cones, or a playground if you have space to go outside.) Poster Board, Markers, Colored Paper, Glue, Glitter, Stickers, Paint



L2 Introduction

Students will learn about themselves and their peers as leaders through two activities: leading each other through an obstacle course and a “who am I as a leader” poster.



Starter Activity

Obstacle Course

Time

Activity Time: 20m
Activity Preparation Time: 5m

Materials

Blindfolds	1/Pair
Obstacle course materials- get creative! It can be made out of anything from chairs and tables to hula hoops, cones, or a playground if you have space to go outside.	N/a

Instructions

1. Participants work in pairs, with one team member being blindfolded.
2. Then, without physical touch and only verbal communication, the pair have to negotiate their way around a set of obstacles, getting to the other side, without running into any of them.

The obstacle course could take longer. If students are enjoying it, consider making this activity an entire lesson. Give students a variety of challenges within the obstacle course.



L2 Activity

Personal Presentations

Time

Activity Time: 20m
Activity Preparation Time: 5m

Materials

Poster board	Dependent on Number of Students
Markers	↓
Colored paper	
Glue	
Glitter, stickers, paint etc...	

What to Say

“Remember in Unit 2 when we made crafts that represented who we are? Today we’re going to continue that! This time we’re going to make visual presentations using these craft supplies to talk about who we want to become (think about being a leader). You can talk about your future job, future family, where you want to live...the leader you want to be.

Instructions

1. Students are given craft materials and poster board to create a visual presentation about themselves (15 minutes).
2. They are then divided into groups of three, and each student has a chance to present their poster about themselves, while the other two ask questions, and then they switch.
3. This facilitates skills in being both a leader (the presenter) and support (the audience listening and asking questions) as well as skills in leading a discussion, speaking and listening, and self awareness.



Backup Activity

Divide students into groups of two and remove the reflection activity to allow for more time creating and presenting.



Challenge Activity

Have students create their own visual presentation, and then give it to another member of their group to try to present verbally. This increases the challenge of designing clear and effective visuals so that someone else can easily interpret and present the key points.



L2 Reflection

Elevator Pitch

Time

Activity Time: 5m

Instructions

1. Have students raise their hands to re-state three facts from their personal presentations that they feel are most important in 30s or less.

Examples



L3

Community Connection



Lesson Objective

Students will build career identity by meeting a professional who uses the teamwork skills they have learned about in their everyday lives.



Skills Pathways

Communication, Listening and Speaking, Assessing the Source, Asking Questions, Career Identity



Total Time

Total Activity Time: 45-50m
Total Activity Preparation Time: 2m



Resources

Community Connection Document



Materials & Tools

Blindfolds, Obstacle Course Materials, Pencils and Paper



L3 Introduction

In the 21st century, almost any career pathway will require employees to be able to work as a team. It is important for students to understand that being able to work in a team effectively will help them in any career field they may choose. The community connection allows students to see how the skills they've learned in the unit are applied in the real world, and build career identity!



Starter Activity

Questions for Speaker

Time

Activity Time: 10m

Materials

Paper	1 /Student
Pencils	1/Student

Instructions

1. Students will be informed about the speaker who is coming to talk to the group.
2. They will be asked to brainstorm how they see the person in this career using systems thinking and asked to brainstorm other questions to ask the speaker.
3. They will have a few minutes to think and write down questions.



L3 Activity

Community Connection

Time

Activity Time: 30m

Activity Preparation Time: 5m

Resources

Community Connection Document

Instructions

1. There are a number of highly relevant professions that make use of teamwork and leadership skills and finding a community connection to speak to students can span a wide range of possible careers. Possible ideas include: city council member, teacher, lawyer, project manager, CEO (ultimately any career probably relies on teamwork. Consider inviting a traditional college educated career as well as a career where college may not have been required).

Questions

Use questions in Appendix and additional suggestions below:

- How is teamwork important in your job, and what is one situation in which you needed the help of your team?
- What moments in your job have required you to step up and be a leader?
- When in your job have you had a support role, and it was important to let someone else lead?



L3 Reflection

Find a First Grader...

Time

Activity Time: 10m

Instructions

1. The purpose of this activity is to explain what students learned to a variety of different audiences.
2. Ask students to raise their hands to explain what they learned about the guest speaker's job to a first grader, a sibling, their parents, their teachers, or their grandparents.

What to Say

“How would you explain what you’ve learned today to a first grader (or... pick one of the following: sibling, parent, teacher, grandparent)?”

U4

Cultural Dexterity

Unit Objective

Cultural Dexterity is all about the ability to recognize and appreciate differences in other people. Whether you're at school, at the grocery store, or just watching tv, chances are you've encountered people who are different from you. Our differences are what make us unique and they are worth celebrating! When we work together with people who are different from us, we gain a new perspective and are able to solve complex, global problems. In addition, skills in Cultural Dexterity are very relevant to 21st century careers.

Relevant Skills

Curiosity, Communication, Leadership,
Cultural Dexterity & Problem Solving.

L1

Recognizing Differences



Lesson Objective

Allow students to explore diverse countries through their resources, artifacts, and other cultural components while working together to solve a global problem.



Skills Pathways

Curiosity, Communication, Leadership, Cultural Dexterity



Total Time

Total Activity Time: 45-50m
Total Activity Preparation Time: 15m



Resources

France, Brazil, China and Australia Country Profiles and, Resources Sheets, 4 World Leader Guide Sheets for Students, 1 “Where is the Spaceship” Sheet for the Facilitator, Lesson 1 Background Story Document



Materials & Tools

Ball



L1 Introduction

Students will develop teamwork, leadership, communication, critical thinking and cultural dexterity skills by working together within their group and with other groups.



Starter Activity

Animal Parade

Time

Activity Time: 5m

Instructions

1. Best played in an open space. If you're in a classroom, it might be best to move all the desks/tables to the walls, or instruct students to try to go around them.
2. Students are told to line up and think of an animal they want to be, but they can't tell anyone else who they are.
3. After deciding, they play in red-light green-light style. Ex: "Take a step forward if your animal runs fast!" or "Hop in a circle if your animal has stripes". Don't be afraid to get creative with the commands! Play until everyone has reached the "finish line" at the other end of the room/space. Then, students try to guess what animal everyone was, demonstrating their ability to recognize differences.



Challenge Option

Instead of animals, have students come up with movie or video game characters and use commands like "Take a step forward if your character is funny (strong, robotic, animated, etc.)"



L1 Activity

Space Invaders!

Time

Activity Time: 30m
Activity Preparation Time: 10m

Resources

Country Profiles (France, Brazil, China, Australia)	4 Total/Group
World Leader Guide Sheets	4/Group
"Where is the Spaceship"	1/Facilitator
Dice	1/Group
L1 Background Story	1/Facilitator

Preparation Steps

1. Gather Materials (copy documents in Appendix) and read through Facilitator’s “Where is the Spaceship” sheet, student’s “World Leader Guide” and a “Country Profile” to get a better idea of how the game is played.
2. Cut out pictures of resources on Resource sheets.

Instructions

1. Read background story to the students titled “Lesson 1 Background Story” in appendix.
2. Use the pictures found in the Lesson 1 Background story page in the appendix for a good visual.
3. Break the students into four groups, each group facing another group across a circle, and assign each one a country.
4. Give each country a corresponding Country Profile, Resource sheet and World Leader Guide and instruct the students to read each one thoroughly.
5. Have one person read each material out loud in each group so that everyone understands how to play.
6. Let them ask any questions they might have about how to play.



Challenge Option

Have each group elect a “President/Prime Minister”--the one who rolls the dice, an “Ambassador”--the speaker of the group. You can add more roles if desired, or the students can invent their own roles.



L1 Reflection

Koosh Ball Game

Time

Activity Time: 5m

Materials

Ball (Any kind works)

1/Group

Instructions

1. With everyone standing in a circle, students throw the ball to someone across the circle who will then answer the following questions:

Questions

- What was the most fun, easy or challenging part of the game?
- What kinds of jobs do you think are involved in distributing resources from country to country in real life? (If students run out of ideas, give examples such as the President, Prime Minister, Ambassador, or Diplomat of a country, shipping companies, manufacturers, or people who work for organizations that are not tied to any one country such as the United Nations)

L2

Appreciating Differences



Lesson Objective

Students will utilize creativity, curiosity and leadership skills as well as learn about the traditions of other countries.



Skills Pathways

Curiosity, Communication, Leadership, Cultural Dexterity



Total Time

Total Activity Time: 45-50m
Total Activity Preparation Time: 15m



Resources

Country Artifact Guides, Background Story Document



Materials & Tools

Blow-Up Globe Ball, A wide variety of Craft Materials (Ex. Construction Paper, Cardboard, String, Markers, Buttons, Glitter, Pipe Cleaners, Rubber Bands, Beads, etc.)
Tape or Glue



L2 Introduction

Students will utilize creativity, curiosity and leadership skills as well as learn about the traditions of other countries.



Starter Activity

Name Game

Time

Activity Time: 5m

Instructions

1. Have kids stand in a circle.
2. Pick a student to start and have them name a place (in the country or another country) that begins with the letter A.
3. Repeat this with every student, but have the next student start with the next letter in the alphabet.
4. Try to get around the circle and hopefully you can finish the alphabet.



L2 Activity

Souvenir Scramble

Time

Activity Time: 25m

Preparation Time: 10m

Resources

Country Artifact Guides

1/Group

Lesson 2 Background Story page

1/Facilitator

Materials

A wide variety of craft materials (Ex. construction paper, cardboard, string, markers, buttons, glitter, pipe cleaners, rubber bands, beads, etc.)

Dependent on Group Sized

Tape or glue

1/Group

Preparation Steps

1. Gather materials and read through the Artifact Guides to get a better idea of what the students will be making, and to better facilitate the reflection activity.

Instructions

1. Read background story to the students titled “Lesson 2 Background Story” in appendix.

Continued...



Challenge Option

2. Use the picture found in Lesson 2 Background Story in the appendix for a good visual.
3. Break up students into four groups and give each group a different Artifact Guide.
4. As a group, they will choose one of the artifacts to try and recreate. They should try to make it as accurate to the picture and description as possible.
5. Give students a wide variety of craft materials to make their artifacts. Create! While they work together in their groups to make their artifact, walk around the room and check on each group's progress. Ask what they chose and why.

Give each group limited types of materials or in limited amounts (Ex. One group gets only construction paper and string, while another group gets only Popsicle sticks and beads).

L2 Reflection

Giftgiving Ceremony

Time

Activity Time: 10m

Instructions

1. Pick one person from each group to give a short, 2min explanation of their artifacts as if they were explaining to the space invaders, using what they learned from the Artifact Guide as well as their own creativity.
2. Optional: Display the artifacts somewhere where the students will see them often. If that's not possible, have the students take their artifacts home to show their families or display in their rooms.
3. Optional: This activity can be expanded to 30min and turned into a competition of "the best pitch" if the space invaders only have room for one souvenir on their spaceship.

Extension Activity

Many students will enjoy learning about another country. If you feel like your students enjoy this experience, consider spending one more lesson and ask the students to conduct research on another country and create a poster board with pictures and facts about their country. Students can use a variety of websites to conduct research, but National Geographic Kids is a great, free resource.

L3

Community Connection



Lesson Objective

Students will build career identity by meeting a professional who understands what cultural dexterity is and how they embrace it in their everyday lives.



Skills Pathways

Communication, Listening and Speaking, Assessing the Source, Asking Questions, Career Identity



Total Time

Total Activity Time: 45-50m
Total Activity Preparation Time: 2m



Resources

Community Connection Document



Materials & Tools

Pencils and Paper



L3 Introduction

In the 21st century, almost any career pathway will require employees to be able to work with a variety of other people who are different from them. It is important for students to understand that being able to respect and empathize with others is important in any career field they may choose.



Starter Activity

Questions for Speaker

Time

Activity Time: 5m

Materials

Paper	1 /Student
Pencils	1/Student

Instructions

1. Ask students to write down a list of 3 questions each that they want to ask today's guest speaker.
2. Optional: Instead of writing them down, they can pair up with a partner and come up with three good questions together.



L3 Activity

Community Connection

Time

Activity Time: 25-30m

Resources

Community Connections Document

Instructions

1. A language teacher or a community member who has had experience in other countries will speak to students about their job/experience and how the ability to recognize and appreciate differences in other people has benefited them and others. They will also be asked to highlight which other skills (from the curriculum) are most relevant in their work. Students will have the opportunity to ask questions.

Questions

Example Questions for Language Teacher/ other Community Member

- What do you like about teaching your language? In your opinion, why is it important to learn another language?
- How did you become a language teacher? (How many years of school did you have, did you get any scholarships or grants to study abroad, did you get a TEFL certificate, etc.)
- If you've been abroad, talk briefly about your experiences and your observations about the cultural differences between that country and the U.S. (Share a funny story about something that happened while you were abroad).
- In your experience, what are some important things to remember when talking to someone from another culture or that speaks another language?



Reflection Activity

Group Discussion

Time

Activity Time: 5m

Questions

- Why is it important for people to develop cultural dexterity?
- In your current life, how do you demonstrate cultural dexterity?
- What are ways that kids can begin to build on their own cultural dexterity?

U5

Critical Thinking

Unit Objective

This unit on critical thinking helps students practice valuable skills like problem solving and decision making through activities relating to collaboration, budgeting, future predictions and planning for uncertainties. Critical thinking sounds a like a big word, but it basically means that when we face new problems or need to make decisions, we find the right solution and make the right decision. But how do we do that?

Relevant Skills

Curiosity, Communications, Collaboration, Problem Solving, Pattern Recognition, Long Term Planning, Decision Making, Empathy

L1

Problem Solving



Lesson Objective

Students get to practice working as a team and using trial and error to solve problems.



Skills Pathways

Communication, Collaboration and Teamwork, Problem Solving and Patience



Total Time

Total Activity Time: 45-50m
Total Activity Preparation Time: 15m



Resources

Items Lists (1&2), Price Tags



Materials & Tools

Sharpies and markers



L1 Introduction

Students get to practice working as a team and using trial and error to solve problems.



Starter Activity

Human knot

Time

Activity Time: 10m

Instructions

1. Students will form groups of 8-10 and get in a circle.
2. Every student will grab a hand across from them (both hands), so that they are holding two separate hands. Every student should now have a hold of two hands.
3. The groups should now be told that they have 5 minutes to try and untangle themselves by working together.
4. They are not allowed to break hands or let go and reconnect.
5. They must work together to “untie the knot” and form a circle where they are still holding hands.



L1 Activity

What’s missing from my room?

Time

Activity Time: 30m

Preparation Time: 15 minutes

Resources

Items Lists (1&2), Price Tags	1/Group
Writing Utensil	1/Student
L1 & L2 Facilitators Guide	1/Facilitator

Preparation Steps

1. Please read through L1 & L2 Facilitators Guide found in appendix.
2. Read through items lists found in appendix and print/ copy.
3. Print/ copy price tags and cut out.
4. Gather writing utensils and paper for students.

Alternate
Instructions

1. Facilitator will create a list of items based off of what is in their room.
Note: Having physical objects will make stage II (see appendix) of this activity much easier for younger students when they are trying to apply a price tag to the objects you have chosen. They will be able to inspect the object and make better guesses.
2. Pull together a list of about 10-15 items. Facilitator will then create a pattern based off objects chosen. Examples: items starting with same letter, items are all office supplies.

What to Say

You've learned the importance of working together as a team. Now, working as groups of 5, try to see if you can solve this problem. (Hint: You will have to identify patterns in the game to get to the correct answer.) How many of you have heard of Warren Buffet? (Go around and get student's responses). He is the world's third richest person and can you guess where he's from? He's from Omaha, Nebraska. Sadly, because of a recent storm, his basement has now been flooded. Some of his items are damaged and you guys have to figure out what items were damaged. After you figure out what kinds of items were damaged, you will be given \$1000 to replace these items. Can you identify what items got damaged and how much they cost?



Backup Activity

Skip Skip Go!

Time

Activity Time: 20-30m

Instructions

1. This game is like Duck, Duck, Goose, but integrates skip counting. All students sit around in a circle.
2. Facilitator chooses starting number (2,3,4,7,9,11) and an ending number (12,15,24,30).
3. One random student is selected as 'it' and this player goes around outside the circle tapping each head/shoulder, skip counting (see example below) by number chosen.
4. When target number is reached, chosen player will chase the 'it' player around the circle, until the 'it' gets caught or they fill the chosen player's spot.
5. Facilitator chooses another start number and target number. Player resumes as new 'it'.

Example

The selected number is 3, and target number is 15. Player will tap classmates on head/shoulder counting by threes(3,6,9,12,15). Upon reaching target number(example-15), player whose head has been tapped chases 'it' player around the circle of children until they get back to the now empty spot of the tapped player. This activity can be adjusted for challenge by including addition(start number 2, skip 2 + 4, 6 + 4, 10 + 4, target would be 26) or multiplication(2×2 , 2×3 , 2×4 , 2×5 and so on).



Challenge Option

- In Stage I, the level of challenge can be adjusted for each grade. The level of complexity can be increased by making the common theme of selected items less obvious. Examples: instead of words starting with "P", the criteria could be words with only two vowels or words starting with first five letters of the alphabet.
- In Stage I, the type of challenge regarding pattern recognition can be adjusted for any subject/topic like numbers, vocabulary, science terms, environment, technology.
- In Stage II, price tags can replace any form of items that come together to solve a problem.
- Example: Stage I words selected - clouds, plants, mountains, trees, ocean, rivers Stage II assign these items to Living things and Non living things, in higher grades it could mean separating what is democracy from monarchy, or photosynthesis from digestion.



L1 Reflection

Group Discussion

Time

Activity Time: 5-10 minutes

Instructions

1. Have students share what they liked about the activity.

L2

Decision Making



Lesson Objective

Students will be able to think about future scenarios so that they can make proper decisions in the present. This builds self awareness about expenses, balancing wants versus needs, and long term planning.



Skills Pathways

Collaboration, Long Term Planning, Decision Making, Self Awareness, and Prioritization



Total Time

Total Activity Time: 45-50m
Total Activity Preparation Time: 30m



Resources

Desert Island Items List, Desert Island Question Sheet



Materials & Tools

Writing Utensils, Cardboard (and lots of it). Ideally some extra large pieces as well as small pieces, Duct Tape, Objects that will replicate Palm trees. This could be pipes/poles (trunk), big pieces of construction paper (leaves), chairs, tables, etc...



L2 Introduction

Students will be able to think about future scenarios so that they can make proper decisions in the present. This builds self awareness about expenses, balancing wants versus needs, and long term planning.



Starter Activity

Decision Making

Time

Activity Time: 10m
Preparation Time: 10m

Resources

Desert Island Items List	1/Student/Group
Desert Island Question Sheet	1/Student/Group
Writing Utensils	1/Student
L1 & L2 Facilitators Guide	1/ Facilitator

Materials

Preparation Steps

1. Find Desert Island Items List and Desert Island Question Sheet in appendix and print/ copy.
2. Read through resources mentioned above and Facilitators Guide found in appendix.
3. Gather writing utensils.

Instructions

1. Have Items List available (one sheet per group of 5 students) and let students decide what 5 things they would take to the desert island and why. Write them down on the list provided (3 minutes). Note: Feel free to use paper instead of printing out Question Sheet if you are short on time.
2. Facilitators will go around asking why they chose those specific items, or how would they solve problems that arise because of their choices. (Example: if someone doesn't choose medicine, what would they do when they have an infection?).
3. Regroup into a big circle and see if answers differed for each group. Talk about how they justified their choices.(5 minutes)

What to Say

What's the first thing you would do if you were stranded on a desert island? Did you write it on your list (listen for responses and wait for students to mention "build a shelter")? That's right, you would need to protect yourself from the elements and possible predators on the island. Also, how are you going to build the shelter (Listen for responses and wait for students to mention tools)? Did you write that on your list? If not, you will have to build your shelter using other methods. Get creative...(Continue reading instructions on the following page.)



L2 Activity

Time

Activity Time: 30m

Preparation Time: 10m

Materials

Cardboard (Large and Small Pieces = Palm Tree Leaves)	A lot!
Tape (Vines from Trees)	1 Roll/Group
Pipes, polls, long items, tables, chairs (Palm Tree Trunk)	1-2/Group

Instructions

1. Split students into large groups (ideally, no more than 3). Explain to the students what each material (mentioned above) represents. Let them know that resources are limited so they need to divide them equally.
2. Groups will be given 30 minutes to plan, design, and build a functioning shelter to be used on a deserted island.
3. The shelter must support everyone in the group. As groups are building consider shaking the shelter (mimicking wind).
4. Prompt groups to think about all kinds of situations that could occur on the island that they should prepare their shelter for (examples: mosquitoes, rain, heat etc...)



L2 Reflection

Time

Activity Time: 5-10m

Questions

- What obstacles did you and your group face when building the shelter?
- What would have made this task easier? Harder?
- You will probably never be stuck on a deserted island, having to create a shelter, but are there situations in your life today that cause you to have to think critically to solve problems?

Group Discussion

L3

Community Connection



Lesson Objective

Students will try to understand the relevance of decision making in all aspects of life. They will think about high stake decisions and low stake decisions people have to face, and understand the importance of proper decision making.



Skills Pathways

Curiosity, Communication, Leadership, Cultural Dexterity



Total Time

Total Activity Time: 45-50m
Total Activity Preparation Time: 5m



Resources

Community Connection Document



Materials & Tools

Paper and Pencils



L3 Introduction

Students will explicitly connect their understanding of systems thinking to specific career fields in their community. They will reflect on how they used multiple skills in this unit and how they can see themselves as a system.



Starter Activity

Questions for Speaker

Time

Activity Time: 5m

Materials

Paper	1 /Student
Pencils	1/Student

Instructions

1. Students will be informed about the speaker who is coming to talk to the group.
2. They will be asked to brainstorm how they see the person in this career using problem solving and decision making and be asked to brainstorm other questions to ask the speaker.
3. They will have a few minutes to think and write down questions.



L3 Activity

Community Connection

Time

Activity Time: 25-30m

Resources

Community Connection Document

Instructions

1. A manager, fundraiser, CEO, etc.. will speak to students about their job in this career field/pathway and how they use decision making and problem solving in their profession. They will also be asked to highlight which other skills (from the curriculum) are most relevant in their work. Students will have the opportunity to ask questions.



L3 Reflection

Think/Pair/Share

Time

Activity Time: 10m

Materials

Paper	1 /Student
Pencils	1/Student

Instructions

1. First have students THINK about these career pathways and write down as many jobs as they can possibly think of. 2m
2. PAIR each student with a partner. Have them talk about each job and determine if it really is in this career field and if it is, which skills pathway is it in. 2m
3. Lastly, have students SHARE out their findings. 2m
4. Finish up the lesson by once again providing praise for good effort and spend a minute reviewing each of the pathways and their necessity to the community the students live in.
5. Discussion Prompts: What kinds of problems will this person face in his/her job? How do you think their experience helps them solve problems? Can you think of a problem which is difficult to solve even for experts?

U6

Systems Thinking

Unit Objective

Unit 6 aims to foster an understanding of additive and emergent property interactions within a system through network building and design, construction of constituent parts of a system and hands-on language applications. This concept will be practiced in the activities, putting together different blocks to create Mandarin characters (shown below). Similarly, this unit will focus on integrating skills introduced throughout the curriculum.

Relevant Skills

Curiosity, Communication, Leadership, Cultural Dexterity & Critical Thinking, Mandarin, Language-learning, Appreciating Differences

L1

Individual Systems



Lesson Objective

Students will practice an understanding of systems through playing with Mandarin character blocks.



Skills Pathways

Curiosity, Communication, Leadership, Cultural Dexterity & Critical Thinking, Mandarin, Language-learning, Appreciating Differences



Total Time

Total Activity Time: 45-50m
Total Activity Preparation Time: 7m



Resources

Student Guide (optional)



Materials & Tools

Mandarin Blocks, Keys (wood or paper printouts), Paper, Colored Pencils, Art Supplies, Scissors, Paper, Glue.



L1 Introduction

This lesson is focused on thinking of an individual system, here, the example being a single Mandarin word. In the real world, students themselves are an individual system within a series of larger systems: their family, community, country and world. Through this unit we hope to help students see this connection between systems thinking and themselves.



Starter Activity

Natural Collage

Time

Activity Time: 10m
Preparation Time: 2m

Materials

Scissors, Paper, Glue, etc...	1/Student
Art Supplies	Shared

Preparation Steps

1. Gather art supplies and make sure there is enough for everyone.

Instructions

1. The instructor should organize the students to go outside for a few minutes and gather a bunch of natural materials (leaves, sticks, pine cones).
2. Then the students will return to the classroom and use them to create an art pieces (either individually or in pairs).
3. This shows students how individual components can come together to create something larger



L1 Activity

Building in Mandarin

Time

Activity Time: 30m
Preparation Time: 2m

Materials

Mandarin Blocks	N/a
Keys (Wooden or Paper Printouts)	N/a
Paper	1 /Student
Colored Pencils	1-2/Student
Student Guide (Optional)	1/Student

What to Say

After thanking everyone for their creations, it is important for the instructor to let students know the skill focus of this week...systems thinking. “Systems thinking is focused on how different parts work together. How did you use systems thinking in your art piece? ”

Instructions

1. For the first lesson the focus will be on building small words. The combination of different parts of a character, referred to as radicals, can be put together to create a word. (See Mandarin Blocks)
2. Hand out the blocks and encourage the students to play with the blocks. You can make it competitive by telling students to race to build the tallest tower or create an animal from the blocks. 5m
3. Then pass out the keys. These keys will show how specific combinations make Mandarin words. Encourage students (independently or in pairs) to use the blocks to make new words or sentences. 10m
4. Optional: Have students take a piece of paper and colored pencil. Have students make a rubbing with the key, including the English translation. Have students practice writing the character on the rubbing they have made.



Challenge Option

A more challenging option would be to go through the logic behind the puzzle pieces. “Why do you think “moon” was a part of the word “brain”? Why was “sun” a part of the word “star”? Encourage to think about other words that might include the word “sun” and explain why they think that. (Example: I think “sun” would also be a part of “rainbow” because it involves the sun.)



L1 Reflection

Group Discussion

Time

Activity Time: 5m

Materials

Ball	1/Group
------	---------

Instructions

1. The wrap up today will involve a ball. The class will be standing in a circle and students will throw the ball to another student in the class.
2. The question is “How do different people/jobs work together to create a functioning city?”
3. The student who catches the ball will answer with the following prompt: “A city needs a...(example: construction worker, plumber, teacher, etc.)” or Once the student has answered have him/her pass the ball to another student.
4. This is a short activity, but students are able to brainstorm different jobs needed in a city and get at the idea that the system [of a city], needs all of these professions to function properly.

Examples

Mandarin Blocks (Left)



Mandarin Key (Right)



Rubbing Example



L2

Complex Systems



Lesson Objective

Students will again practice an understanding of systems, this time looking at how the individual system, words, fits into a larger system, sentences.



Skills Pathways

Curiosity, Communication, Leadership, Cultural Dexterity, Critical Thinking, and Systems Thinking`



Total Time

Total Activity Time: 45-50m
Total Activity Preparation Time: 6m



Resources

Paper Printout Guides
Student Guide



Materials & Tools

Marshmallows, toothpicks, Mandarin Blocks, Keys
(Wood or paper printouts), Paper and Colored Pencils



L2 Introduction

Students will again practice an understanding of systems, this time looking at how the individual system, words, fits into a larger system, sentences.



Starter Activity

Marshmallow Build

Time

Activity Time: 10m
Preparation Time: 2m

Materials

Marshmallows	2-3 Bags
Toothpicks	4-5 Boxes

Instructions

1. Students will be given a limited amount of marshmallows & toothpicks (individually or in pairs) and given five minutes to build the tallest tower! Through the activity students begin practicing an understanding of how these materials can be combined in different ways to create something larger.
2. After the five minutes, students will stop and look at different towers. Encourage students to think about how other students approached building the tower in different ways. What strategies worked? What strategies did not work?
3. Create different incentives so that they are not just trying to build the tallest tower.



Challenge Option



L2 Activity

Building in Mandarin

Time

Activity Time: 20m
Activity Preparation Time: 5m

Materials

Mandarin Blocks	N/a
Keys (Wooden or Paper Printouts)	N/a
Paper	1 /Student
Colored Pencils	1-2/Student
Student Guide (Optional)	1/Student

What to Say

After thanking everyone for their creations, it is important for the instructor to repeat the skill focus of this this week...systems thinking. “Remember what systems thinking means?” “How did you use this skill in the marshmallow activity?”

If students do not remember what systems thinking means, follow up with “Systems Thinking is focused on how different parts work together.”

“We will practice this skill today by trying to put together sentences in Mandarin, thinking about how different words can be combined to make sentences.”

Instructions

1. Hand out the blocks and encourage the students to play with the blocks. The instructor should challenge students to use the blocks to recreate the characters without the keys! Time: 5 Minutes
2. Then pass out the ‘Lesson Two’ keys. These keys build on the ‘Lesson One’ keys, starting with the same character and showing how it is utilized in a different word. Encourage students (independently or in pairs) to use the blocks to make word(s). Time: 10 minutes
3. Optional: Have students take a piece of paper and colored pencil and make a rubbing with of the key, including the English translation. Have students practice writing the character on the rubbing they have made.



Challenge Option

If there is time and interest go through the first two parts more quickly. Then have one student come to the front of the room. They will say a word in English “computer” and students will race to be the first one to create the word/sentence with the blocks. Switch student leads if time provides. Next lead could be the first one who created the previous word.

Alternative Option

Anime comic option: Write a story/comic using the “rubblings” technique or hand writing characters. Illustrate your story and share with your partner. (Show example of comic)

Backup Activity

- Don’t be afraid to scale this activity down if needed! Students could spend the entire time playing with the blocks or making rubbings, if the activities become too complicated.
- The focus of these lessons is about how different parts can be combined to create something different, taught through a lens of Mandarin. If students are more interested in learning the basics of Mandarin through the blocks there is a TMC bin of more Mandarin blocks (and guides) that focuses on teaching the basics of Mandarin (basic sentence construction, numbers, greetings).



L2 Reflection

Group Discussion

Time

Activity Time: 5-10m

Instructions

1. Have students gather around into a circle
2. Go around the circle and have each student say one thing they learned or enjoyed during the activity.

Example

Mandarin Key (Left)



Rubbing (Right)



Inspiration for Anime Comic using Mandarin (Below)



L3

Community Connections



Lesson Objective

Students will explicitly connect their understanding of systems thinking to specific career fields in their community. They will reflect on how they used multiple skills in this unit and how they can see themselves as a system.



Skills Pathways

Curiosity, Communication, Leadership, Cultural Dexterity, Critical Thinking, and Systems Thinking



Total Time

Total Activity Time: 45-50m
Total Activity Preparation Time: 2m



Resources

Parent Take-Home Document
Community Connection Document.



Materials & Tools

Pencils & Paper



L3 Introduction

Students will explicitly connect their understanding of systems thinking to specific career fields in their community. They will reflect on how they used multiple skills in this unit and how they can see themselves as a system.



Starter Activity

Questions for Speaker

Time

Activity Time: 10m

Materials

Paper	1 /Student
Pencils	1/Student

Instructions

1. Students will be informed about the speaker who is coming to talk to the group.
2. They will be asked to brainstorm how they see the person in this career using systems thinking and asked to brainstorm other questions to ask the speaker.
3. They will have a few minutes to think and write down questions.



L3 Activity

Community Connection

Time

Activity Time: 20-25m

Resources

Community Connection Document

Instructions

1. An urban planner/architect/principal/local leader will speak to students about their job in this career field/pathway and how they use systems thinking in their profession. They will also be asked to highlight which other skills (from the curriculum) are most relevant in their work. Students will have the opportunity to ask questions.



L3 Reflection

Think/Pair/Share

Time

Activity Time: 10m

Materials

Paper	1 /Student
Pencils	1/Student

Instructions

1. “How does systems thinking apply to your community?” “What jobs utilize systems thinking?”
 2. Students will now use these prompts to try and figure out specific jobs that fall into the category systems thinking.
 3. First have students THINK about these career pathways and write down as many jobs as the can possibly think of. 2m
 4. PAIR each student with a partner. Have them talk about each job and determine if it really is in this career field and if it is, which pathway is it in. 2m
 5. Lastly, have students SHARE out their finding. 2m
- Finish up the lesson by once again providing praise for good effort and spend a minute reviewing each of the pathways and their necessity to the community the students live in.

Take Home

At the end of the unit students will have a handout which demonstrates the main themes of the unit and the activities the students did so the parents can gain greater insight into their child’s after-school learnings.



L3 Introduction

Students will explicitly connect their understanding of systems thinking to specific career fields in their community. They will reflect on how they used multiple skills in this unit and how they can see themselves as a system.



Starter Activity

Questions for Speaker

Time

Activity Time: 10m

Materials

Paper	1 /Student
Pencils	1/Student

Instructions

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L3 Activity

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Time

Activity Time: 20-25m

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Community Connection Document

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1. An urban planner/architect/principal/local leader will speak to students about their job in this career field/pathway and how they use systems thinking in their profession. They will also be asked to highlight which other skills (from the curriculum) are most relevant in their work. Students will have the opportunity to ask questions.



L3 Reflection

Think/Pair/Share

Time

Activity Time: 10m

Materials

Paper	1 /Student
Pencils	1/Student

Instructions

1. “How does systems thinking apply to your community?” “What jobs utilize systems thinking?”
 2. Students will now use these prompts to try and figure out specific jobs that fall into the category systems thinking.
 3. First have students THINK about these career pathways and write down as many jobs as the can possibly think of. 2m
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Take Home

At the end of the unit students will have a handout which demonstrates the main themes of the unit and the activities the students did so the parents can gain greater insight into their child’s after-school learnings.

Community Connections Document

Support Document

Thank you for agreeing to speak to our afterschool career education club. We appreciate you taking the time out of your schedule to help students learn more about your career field. Speaker talking points have been provided below. These points do not all need to be addressed, but provide an overview of the information that would be helpful to the students. Please use these questions as your general guide in sharing about your career. Additionally, students will be asking you a few questions. These sample questions are below.

Speaker Talking Points

- Why did you choose this career?
- What are significant tasks required with this career?
What are the working conditions (outdoor/indoor, computer, hands on, etc)?
- What type of training is required?
- What is the job outlook like in Nebraska (will there be more of these jobs in 10 years)?
- What is the salary range?
- What would be related jobs?
- Are there any specialty careers within this career (i.e.: underwater welding)?
- Did you have any idea that you would be doing this job when you were in school?
- Do you still like doing your job?
- What is one piece of advice you would give to students regarding your job?

Guest Speaker Questions

- What career did you think you would do when you were our age?
- What made you decide on your career?
- What is the best/least favorite part of your job?
- What was your favorite subject when you were in school?
- Have you had different jobs within your career?

Appendix

U1 Curiosity

Paper Circuit Hand Out Guide	1/Student	p.74
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U3 Leadership

Charades cards	1 Set	p.76
Improve Character, Scenario, and Problem Cards	1 Set	p.77

U4 Cultural Dexterity

Country Profiles (4 Countries Total) (L1)	4 Total/Group	p.80
World Leader Guide Sheets (L1)	4/Group	p.88
“Where is the Spaceship” (L1)	1/Facilitator	p.89
Lesson 1 Background Story	1/Facilitator	p.90
Country Artifact Guides (4 Countries Total) (L2)	1/Group	p.91
Lesson 2 Background Story	1/Facilitator	p.95

U5 Critical Thinking

Items List 1 & 2, Price Tags	1/Group	p.96
Desert Island Items List	1/Group	p.99
Desert Island Question Sheet	1/Group	p.100
L1 & L2 Facilitators Guide	1/ Facilitator	p.101

U6 Systems Thinking

Keys (Wooden or Paper Printouts)	N/a	p.105
Student Guide (Optional)	1/Student	p.106

Charades Prompts

Swimming	Cycling	Flying a plane	Flipping pancakes	Making tea
Making a sandwich	Writing a letter	Skiing	Watching a movie	Reading a book
Fishing	Playing soccer	Playing baseball	Playing basketball	Washing dishes
Getting dressed	Gardening	Brushing your teeth	Blowing out candles	Jumping rope

Improv Characters

Doctor in an emergency room	Princess of a small European country	Firefighter in charge of the fire hose	Policeman who's never arrested anyone	Cashier at a supermarket
Clown at a birthday party	College student taking exams	Mom with a baby	Middle School Teacher	Defense lawyer for a possible criminal
Cabinet maker with 1000 back orders	Chef at a taco truck	Truck driver travelling across the country	Dishwasher at a diner	CEO of a billion dollar company
President of a country	Writer for a magazine	Portrait painter	Saxophone player in a jazz band	Babysitter for seven children

Guiding questions:

1. What do you know about your character?
2. How do you think your character would act?
3. Imagine your character's backstory.

Improv Locations

Airplane	In a swimming pool	Mailroom of a post office	Art museum after hours	Kitchen of a fancy restaurant
Medieval castle	School cafeteria table	Iceberg in Antarctica	The top of the the Eiffel Tower	The audience of a basketball game
A train going in the wrong direction	Escalator in a shopping mall	A button factory	The oval office	A deserted island
Hiking in Norway	At a pretzel festival	A field of pineapples	A treehouse in the Amazon rainforest	A boat in the middle of the Pacific Ocean

Guiding questions:

1. What do you know about the location?
2. How would your character feel at the location?
3. What would your character do at the location?

Improv Problems

There's a fire	There's an earthquake	One character lost a wallet	Buying a gift for one character's Grandmother	Trying to find a stolen diamond
Trapped in an elevator	The birthday cake is burned	Three people have to fit on one bike	Lost at dusk	The president disappeared
The bathtub is overflowing	Three people are sharing one bag of popcorn at a movie theater but there are no seats together	One character lost their little brother in the grocery store	The restaurant ran out of ketchup	The characters have to co-write a book
One character has never passed second grade	One character is stuck in a tree	The characters have a car but none of them know how to drive	The characters have a test in an hour and none of them have studied	The characters need to learn how to swim

Guiding questions:

1. How would your character respond to this problem? Would they be calm? Panicked? Rational?
2. How would your character interact with the other characters?
3. How is your character personally affected by the problem?

e. Guessed the right country and fact? Congrats you global mastermind!

FRANCE



COUNTRY PROFILE:

CONTINENT: EUROPE

SURROUNDING OCEANS:

- English Channel (North)
- Atlantic Ocean (West)
- Mediterranean Sea (South)

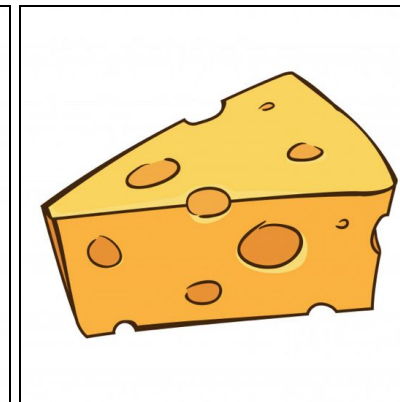
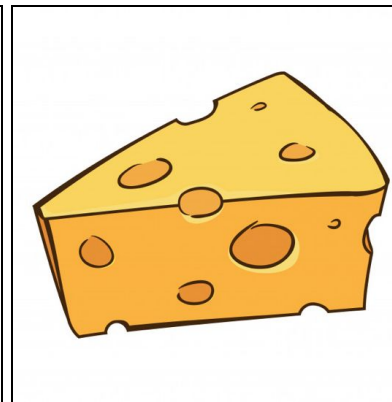
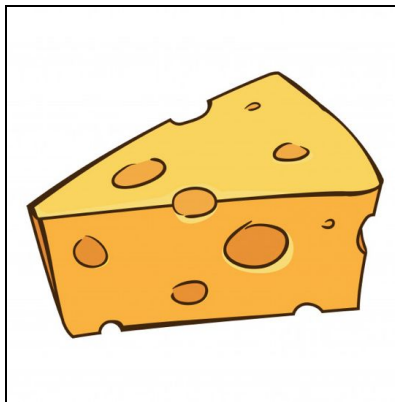
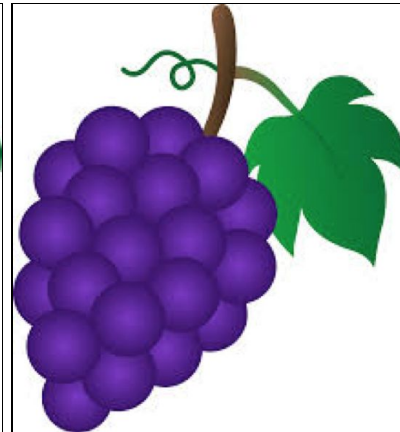
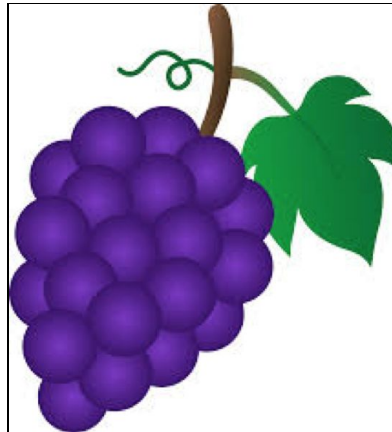
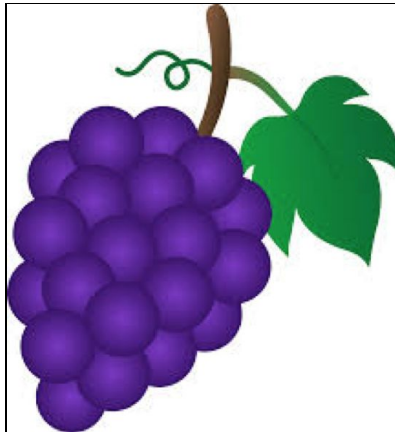
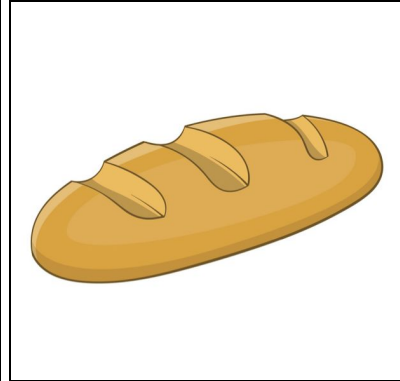
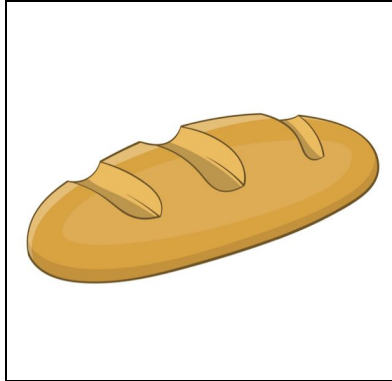
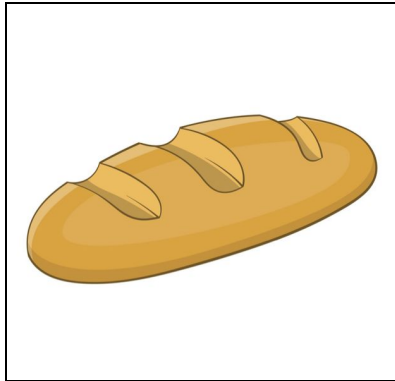


FUN FACTS:

- The capital of France is **Paris**.
- To say “hello” in French is “Bonjour”.
- The Alps mountain range on the border of France is home to France’s highest mountain, **Mont Blanc**, which stands at 4,807m high (15,771 ft).
- **The Louvre** is the most visited art museum in the world. The famous Mona Lisa painting is on display in this museum.
- The famous **Eiffel Tower** in Paris was built as the entrance point for the 1889 World Fair. It is one of the most visited monuments in the world.

Student

FRANCE RESOURCES



BRAZIL



COUNTRY PROFILE:

CONTINENT: SOUTH AMERICA

SURROUNDING OCEANS:

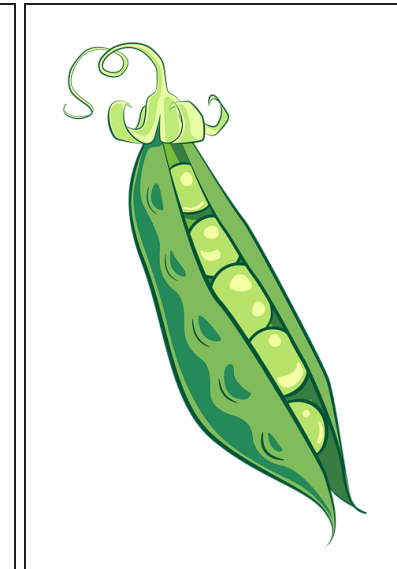
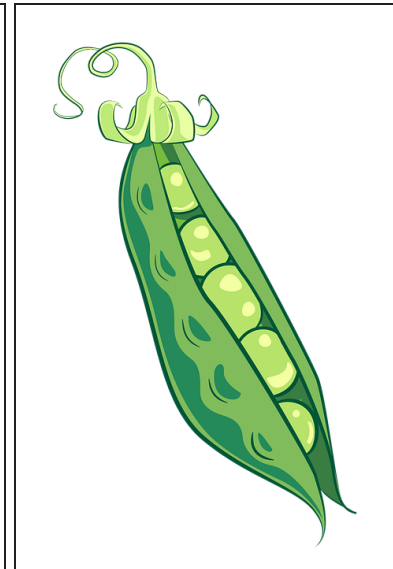
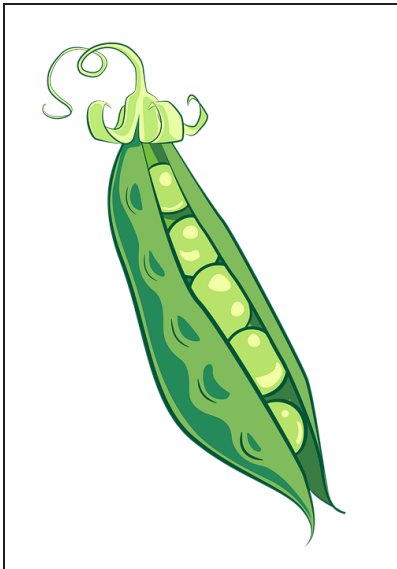
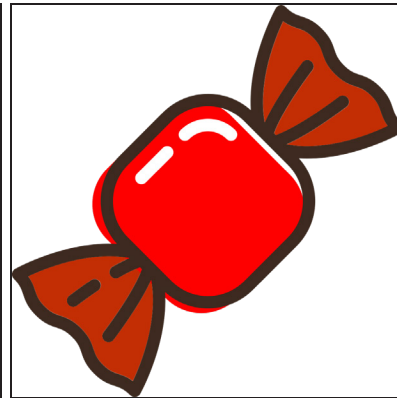
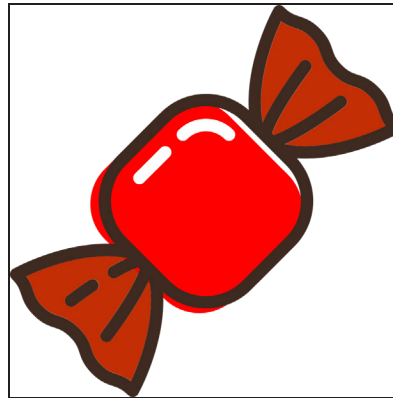
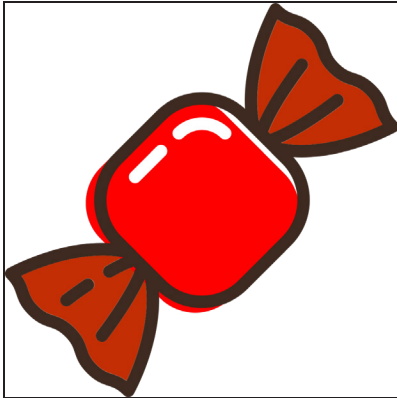
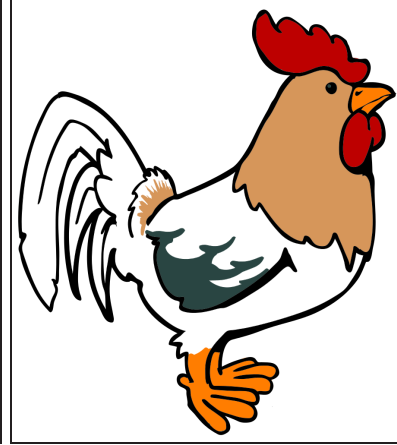
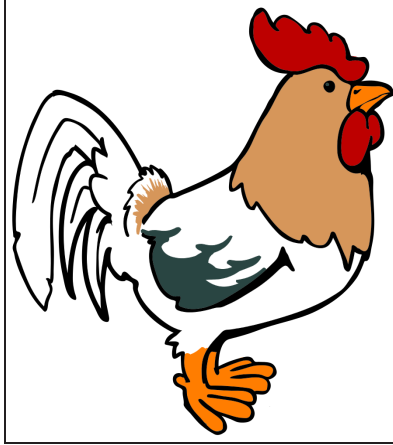
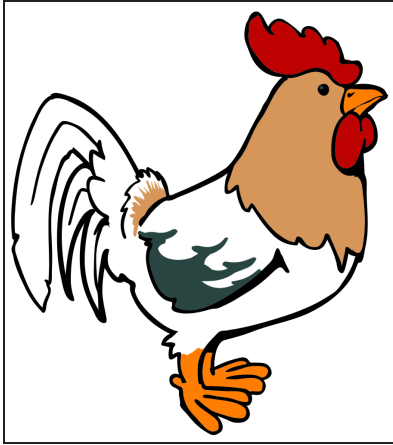
- Atlantic Ocean (East)



FUN FACTS:

- Brazil is the only country in South America that speaks **Portuguese**.
- About 60% of the **Amazon Rainforest** is in Brazil.
- Brazil is home to a wide range of animals, including armadillo, tapirs, jaguars and pumas.
- The national football (soccer) team of Brazil has won the **World Cup** a record 5 times.
- Although there are Carnivals all over the world, including Mardi Gras in New Orleans, the **Carnival** in Rio, Brazil is the biggest in the world.

BRAZIL RESOURCES



CHINA



COUNTRY PROFILE:

CONTINENT: ASIA

SURROUNDING OCEANS:

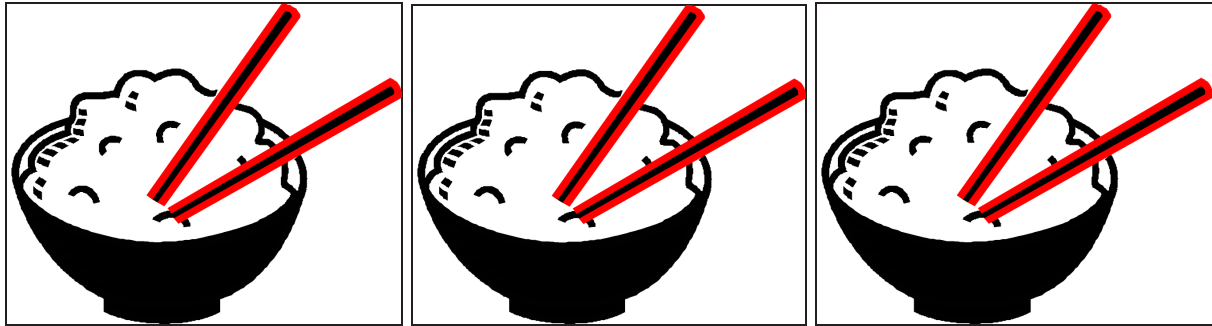
- East China Sea
- South China Sea



FUN FACTS:

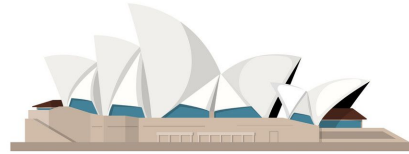
- China has the largest population in the world with over 1.3 billion people.
- **Mount Everest** is on the southern border of China.
- There are many languages spoken in China, but the most common is **Mandarin**.
- In 2003, China became the third country to successfully send a person to space.
- The **Great Wall of China** is the largest man made structure in the world, stretching an incredible 8,850 kilometres (5,500 miles)
- **Pandas** are native to China. They are also an endangered species with an estimated 2000 left in the wild.

CHINA RESOURCES



AUSTRALIA

COUNTRY PROFILE:



CONTINENT: AUSTRALIA



SURROUNDING OCEANS:

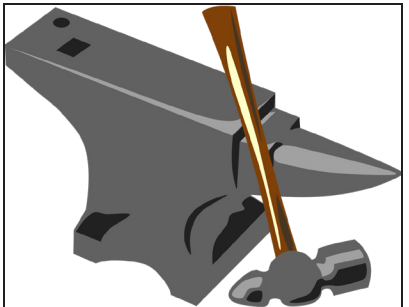
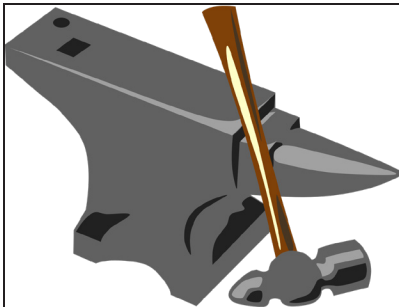
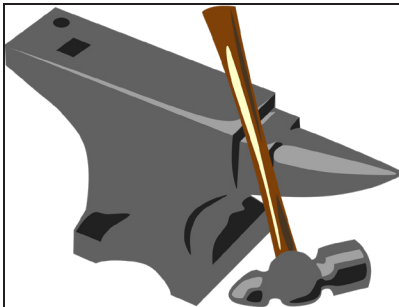
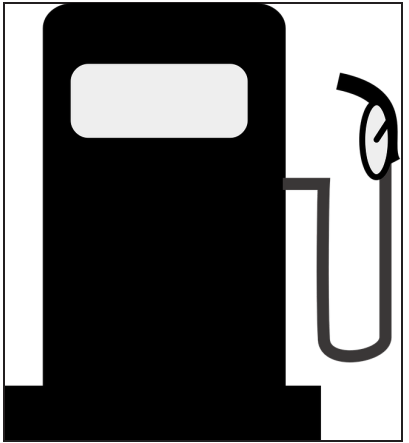
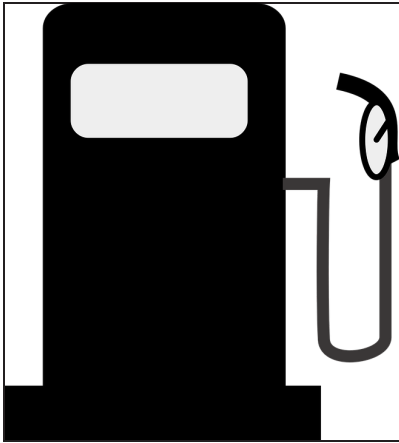
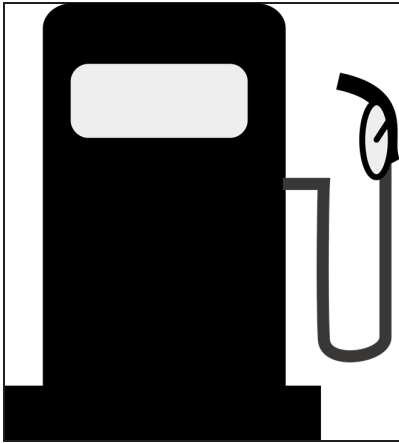
- Indian Ocean (West)
- Pacific Ocean (East)
- Southern Ocean (South)

FUN FACTS:

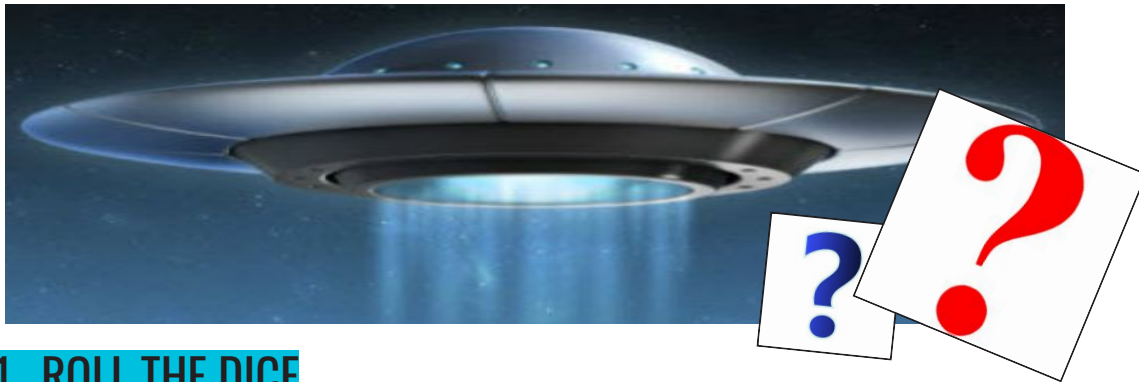
- The world's largest reef system, the **Great Barrier Reef**, is found off the north-eastern coast of Australia.
- Australia is home to a variety of unique animals, including the koala, kangaroo, emu, kookaburra and platypus. It also has more reptile species than any other country in the world.
- A desert area known as the '**outback**' covers much of the land.
- Due to its large size and isolation from the rest of the world, Australia is sometimes known as the 'island continent'.
- The **Sydney Opera House** (pictured above) is Australia's most recognizable building and was named a UNESCO World Heritage site in 2007.

Student

AUSTRALIA RESOURCES:



WORLD LEADER'S GUIDE



1. ROLL THE DICE







- Get 1 clue from your High-School Staff about where the spaceship is.
- Ask one other country for a fun fact about themselves.
- Aliens STEAL resources from a random country.
- You can steal back 1 resource from the aliens.
- GUESS what country the spaceship is in AND why you think that one.
- Same as 3.

2. WORK IT OUT

- a. Aliens stole someone's resources? Talk with the other countries and share remaining resources so that everyone has some again. **LISTEN to understand, not to reply!**
- b. Stole back some resources? You can choose to share some with a country that needs a pick-me-up, or keep them for yourself. **SHARING is caring! If one or more countries are without resources for an entire round (4 dice rolls) the game is over and the aliens win!**
- c. Learned a fun fact about another country? You can only ask them to repeat it once. **FUN facts will help you figure out where the spaceship is!**
- d. Guessed right but didn't have all the facts? Keep learning about the countries!

WHERE IS THE SPACESHIP?

1. CHOOSE WHICH COUNTRY THE SPACESHIP WILL BE "HIDDEN" IN.
2. COMPLETE THE ACTION OF THE STUDENTS' DICE ROLLS.

-  Give 1 clue about where the spaceship is (see step 3). Repeat as necessary.
-  (No action necessary)
-  Act as the aliens and steal some or all resources from a country at random.
-  Students steal back 1 type of resource from you.
-  If students guess correctly what country the spaceship is in and why, tell them that they've won the game! If not, tell them to keep playing.
-  Same as 3.

3. WHEN SOMEONE ROLLS A 1, GIVE THEM ONE CLUE FROM THAT COUNTRY IN ORDER:

a. FRANCE CLUES:

- i. The spaceship is hidden behind a really tall mountain.
- ii. The aliens also stole a famous painting from this country.
- iii. It's in the same country as the Eiffel Tower.

b. AUSTRALIA CLUES:

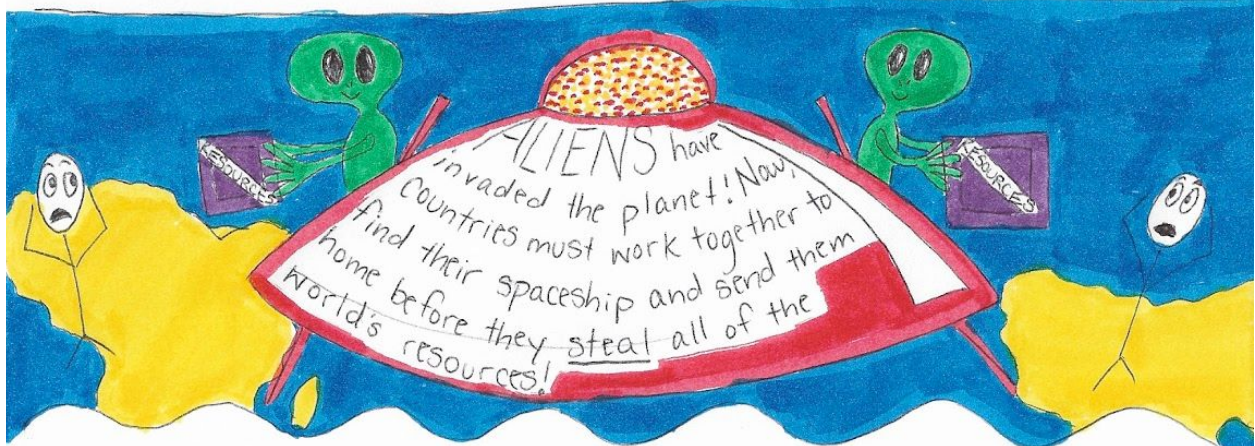
- i. The spaceship is covered with lots of snakes.
- ii. The spaceship is hidden in a desert.
- iii. It's in the same country as the Sydney Opera House.

c. BRAZIL CLUES:

- i. The spaceship is hidden under a lot of trees.
- ii. The aliens hid here because they like to party.
- iii. The aliens also stole a trophy from the World Cup from this country.

d. CHINA CLUES:

- i. The aliens had met someone from this country before because they had sent a person to space in 2003.
- ii. The aliens also stole an endangered species from this country
- iii. The spaceship is hidden behind a Great Wall.



Lesson 1 Background Story: *It was a typical day on the streets of Paris.*

People were eating their baguettes (bread), grapes and cheese on the lawn in front of the Eiffel Tower, when all of a sudden, the sky went dark...a gigantic spaceship appeared above them and hundreds of little green martians climbed out! They said, "We have come to invade your planet and steal all of your resources!" and they took all the bread, grapes and cheese from the people and flew away in their invisible spaceship! When the people turned on the news, they discovered that the same thing had happened in countries all over the world! So, the leaders of each country decided to meet and figure out what to do. They knew they needed to find the space invaders' invisible spaceship in order to get all of their resources back, keep them from stealing more, and send them back home...but how??

MOROCCO

CHOOSE ONE OF THE FOLLOWING TO RE-CREATE:



Carpet/Rug

Uses and Traditions:

These rugs have been used for many purposes in Morocco. Traditionally, they were used as bed-coverings, sleeping mats, shawls, and saddle-blankets for horses and camels. They were used in the cold mountains as well as the hot desert. Now, it has become more popular to use them as decoration. Hand-woven, the designs on the rugs are passed down from weaver to weaver.

Materials:

Most rugs are made out of wool. They're very thick, and some have little tassels attached to the ends. (see picture)



Shoes/Slippers

Uses and Traditions:

These slippers are typically worn with traditional Moroccan outfits, and sometimes for religious ceremonies.

Materials:

These shoes are made by hand using leather. First, they make the leather, clean it and dry it, then they form it into the shape of a shoe and add a decorative design.



Terbouch/Fez

Uses and Traditions:

This is a hat that goes with the traditional Moroccan outfit for men.

Materials:

The main part is usually made with red felt, and the tassel is silky string.

SPAIN

CHOOSE ONE OF THE FOLLOWING TO RE-CREATE:



CASTANETS

Uses and Traditions:

Castanets are percussion instruments. They are usually held one in each hand during a traditional Spanish dance called “Flamenco”. The hand makes a “come” gesture to make a “clacking” noise as the two wooden pieces come together.

Materials:

Each castanet is made out of two shells or round wood pieces tied together with the hollow side of each shell facing inward.



MONTÓN DE MANILA (SHAWL)

Uses and Traditions:

The montón is a shawl that is used to cover the shoulders, or to decorate the home. It is often seen during festivals or as part of the traditional outfit for Flamenco dancing (a traditional Spanish dance).

Materials:

The shawl is in a square shape and is made with silky yarns and decorated with long fringes. Usually, there are lots of beautiful flowers embroidered on top.



MULETA (RED FLAG)

Uses and Traditions:

The muleta is used by the bullfighter (or matador) during a bullfight to lead the bull where he wants it to go. The red color actually doesn’t affect the bull at all, but the muleta is always red because it’s tradition!

Materials:

A muleta is a stick with a red cloth hanging from it.

PERU

CHOOSE ONE OF THE FOLLOWING TO RE-CREATE:



CHULLO HAT

Uses and Traditions:

“Chullo” is a word in Quecha, the language of the ancient Inca people who lived in Peru. They are used to keep your head warm, because up in the Andes Mountains, things can get pretty cold.

Materials:

Originally, these were all hand-woven and usually made from llama or alpaca wool. They can be plain-colored, or multi-colored. Sometimes they include symbols that represent the hat-maker’s town, social status, marital status, or even mood! They also sometimes include pom-poms, braids, or straps at the ends of the ear-flaps or on top of the hat.



PAN FLUTE

Uses and Traditions:

The pan flute originated during the Incan empire and is now used to play folk music. It is a musical instrument using multiple pipes of increasing lengths. The longer pipes make lower sounds, while the shorter pipes make higher sounds.

Materials:

The pipes are usually made from bamboo, giant cane or local reeds. They are sometimes decorated with string made from alpaca or llama wool and pom-poms.



CARVED GOURDS

Uses and Traditions:

For 4,000 years, Peruvians have used the art form of gourd-carving to tell stories. They can be stories of cultural events (celebrations, myths and legends), or stories of everyday life.

Materials: Artists have to skin the gourd, clean it, and dry it before adding their designs with small tools.

THAILAND

CHOOSE ONE OF THE FOLLOWING TO RE-CREATE



COCONUT SHELL BOWL

Uses and Traditions:

The coconut is very important to the way of life in Thailand, and the people there use every part of the coconut tree from building their houses, to cooking their food. When everything else is used from the inside of the coconut, they sometimes use the shell to make beautiful bowls like this.

Materials:

A coconut shell and some paint is all that's needed!



SKY LANTERN

Uses and Traditions:

Thai people have a lantern festival on the full moon of every 12th month of the traditional Thai lunar calendar (November) when they release a lantern into the sky with a small prayer, or good wishes from the person who released it. Many Thai people also believe it is a symbol of bad luck or worries floating away.

Materials:

The Lantern is traditionally made from oiled rice paper on a bamboo frame.



UMBRELLA

Uses and Traditions:

Thai women use these decorative umbrellas to protect their skin from the sun on particularly sunny days. In Thailand, people prefer to have whiter skin rather than tan, so that's why they use umbrellas to shade themselves.

Materials: Thai umbrellas were traditionally made with bamboo for the frame and cotton for the covering.



Lesson 2 Background Story: *It was a great day for planet earth. It had been invaded by creatures from space, but when the world leaders successfully located their spaceship, they realized that they weren't really that bad after all. The space invaders were just hungry and out of resources, so that's why they came to earth looking for more. They apologized for what they had done and hoped that they could still be friends. The world leaders gladly accepted their apology and even allowed them to take some resources home with them. With all the world leaders gathered around the entrance to the spaceship waiting to wave goodbye, the space invaders gave one last request: they wanted some souvenirs to take home with them to remember their time on earth. Each of the world leaders wanted their countries to be remembered by these invaders-turned-friends, but they didn't have any of their cultural artifacts with them! The best they could do was make replicas of their cultural artifacts and explain them in a way that they would understand...*

List of Items I



Pans(Non-stick)

Bulbs

Cutting Knives

Vacuum Cleaner

Carpet

Trash Can

Pillows

First Aid Kit

Burner

Toilet Paper (pack of 12)

Washing Machine

Flowers

Locks(Bike)

Gloves(Winter)

Bed

Phone

Fireplace

Puzzle

TV

Cables (for internet)

Shelves

Cups(plastic)

General Silverware

Alarm Clock

Spatula(wooden)

Windows

Pants(formal)

Art collection

Chair(Dining)

Iron(with steam function)

Air Freshener

Mattress

Curtain

List of Items II



Pencil
Sharpener

Highlighters

Medicine
Cabinet

Toolbox

Eraser

Printer

Notebooks

Lawnmower

Insurance
Documents

Paper
Shredder

Nails and
Screws

Shelves(metal)

Atlas

Umbrella

Scissors

DustPan

Glue

Hammer

Oven

Garden
Hose

Wooden
Desk

Computer

Bandaids

Basketball

Alarm Clock

Ladder

Aquarium

\$5 - \$15

\$15 - \$45

\$50 - \$500

\$10 - \$30

\$20 - \$40

\$15 - \$100

\$30 - \$80

ESSENTIAL MODERN SURVIVAL KIT

WATER

Portable water in suitable containers for immediate drink-ability, and a water filter for purifying after you run out of bottled water



MEDICATIONS

There should be at least an even-day supply of any prescription and non-prescription medications used by family members

FOOD

High calorie foods such as high calorie energy bars or MRE (meals-ready-to-eat) are vital to maintain sufficient energy to keep going



MATCHES

Keeping a lighter and a fire starter in addition to matches are a good idea

EXTRA CLOTHING

Even if it's warm outside, if you get in trouble without extra clothes, hypothermia becomes a risk.



POCKET KNIFE

A multi-purpose tool with a knife is ideal

BODY WARMERS

Bring reflective "aluminized" space blanket or survival blanket to retain body heat, catalytic heater and bottled gas fuel



MAP

Simply having a good map of the region you're in could get you out of trouble

SHELTER

Small tent, tarp with grommets, large plastic trash bag as poncho or expedient shelter roof



COMPASS

Is ideal for establishing bearings while used in conjunction with a map

SUNGLASSES

There are some grate sunglasses out there that will enhance your vision, provide polarization for water or snow, and will prevent eye fatigue



FLASHLIGHT

And extra batteries. A LED flashlight, preferably a head-mounted style, is the best choice

SANITATION

Toilet paper, hygiene products, soap, hand-towel and any other body care products you may need



PERSONAL DOCS

Important personal documents like proof of address, insurance policies, birth certificates and passports should be stored together in an area with easy access in case of a natural disaster

FIRST AID KIT

Keep at least the basics: band aids, sterile, gauze, disinfectant, first aid manual, medical tape, medical scissors, disposable gloves, tweezers, cotton swabs and a thermometer



WEATHER RADIO

A small weather radio will keep you informed of the conditions outside and where to seek shelter or emergency personnel during and after a natural disaster

EXTRA CASH

Extra cash will enable you to purchase the supplies you did not include and other necessary items



CELL PHONE

The towers may be down following a natural disaster, but emergency personnel will get them repaired fast for communication



WILL YOU SURVIVE?

DECISION MAKING

DESERT ISLAND

If you were to choose 5 items to take to a desert island, what would you choose? Discuss as a group and write them down on the list below.

Why did you choose these items?

Table of contents

Main Activity: Problem solving

Starter Activity: Desert Island

Unit 5 Critical thinking

Main Activity: Problem solving

Required Materials for Activity:

Quantity	Material
1 paper per group	White Paper
1 for each student	Pen/Pencil/Sharpie

Preparation for activity(15 minutes):

- Print out [List of Items I](#) and [List of Items II](#)
- Print [Price tags](#) and cut out the tags
- Go through Instructions on how to play
- Play the game with someone beforehand if interested

How to Play

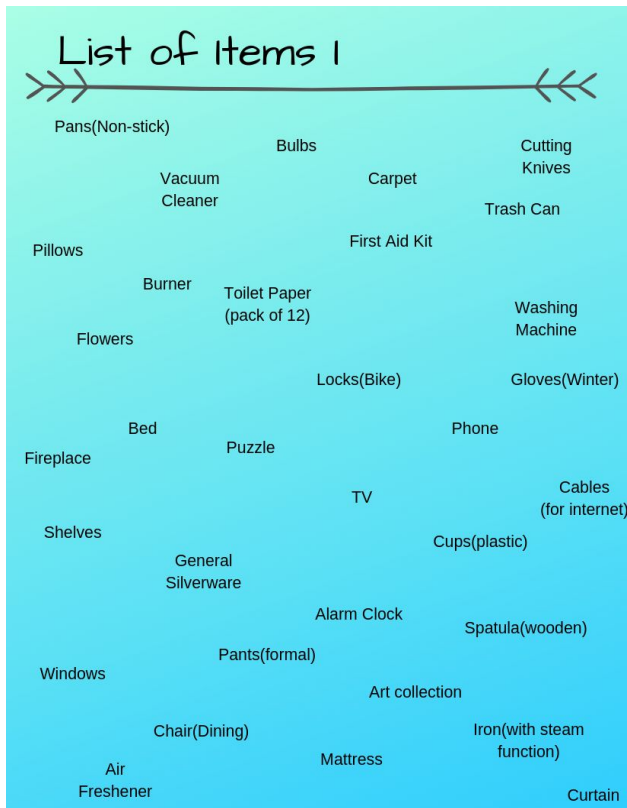
This game requires a facilitator to be a part of the game; if there is only one facilitator, bring students in a big group and play the game with the big group. The game is completed in two stages: Stage I and Stage II.

Stage I:

- Depending on number of facilitator available, divide students into groups.
- The objective of the game is for students to find patterns within selected word. The criteria for selecting a word will depend on the level of difficulty chosen.
- Once you choose the level of difficulty, the facilitator draws a circle in an empty sheet.
- Facilitator then allows students to see the List of Items and guess what words will be selected.

- e. If the words students guess meets the criteria, facilitator writes words inside the circle, otherwise the word is written outside the circle.
- f. Facilitator allows students to guess as many times as they want, until they get it right.
- g. Facilitators can move on to List of Items II and III, depending on how much time is remaining. Same list of items can be used to come up with different criterias for different rounds.

Example:

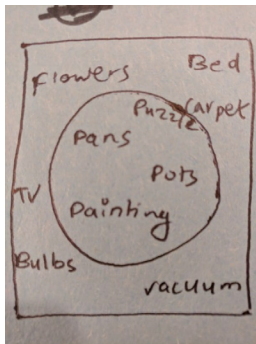


Draw a circle on piece of paper. Decide on criterias, depending on difficulty level to select items. Let students guess the word. Example:

Difficulty Level ★☆☆☆

Criteria to select words: Items that start with P

If some student says Pots, it goes inside the circle. If some student says Cables, it goes outside the circle. Let students make as many guesses as they want. At the end it would look something like:



Stage II

After students have guessed the items, the game moves on to Stage II where students try to assign items to specific price ranges. This activity is to help students discuss and make realistic assumptions about items and their prices.

- Bring out the Price Tags that you've already cut out.
- Give tags to the students and let them discuss how much items selected in the circle from Stage I costs. If you played with multiple circles, choose any one to play.
- The items do not have quantity or quality, this is on purpose. Example: If Pot was selected earlier, when assigning cost, it does not indicate how many pots or what type/quality of pot. This is not the goal of the activity, let them guess what the reasonable range should be.
- When the students have discussed as a group, let them write the name of items under the price tag they think is reasonable.
- Facilitator will check whether the items are within reasonable price range (totally upto facilitator to decide what price range is appropriate for what item). There are no right or wrong answers, just some answers are more appropriate than others.
- Intervene only to correct the price ranges for items as deemed necessary.

The criterias listed below can be used for both List of Items I and II.

Difficulty Level ★☆☆☆

Criteria to select items: Items that start with A, Items that start with, Items that go in a bedroom, Items that usually take to school, items doctors use

Difficulty Level ★★☆☆

Criteria to select items: Items run on electricity, Items made of wood, Items made of metal

Difficulty Level ★★★☆

Criteria to select items: Items that fit in a backpack, Items that are super heavy

Difficulty Level ★★★★★

Criteria to select items: Items starting with vowel, Items with reflecting surface, Items that you use in cold weather, Items starting with consonants, Items ending in 's', Items with two vowels in the word

Starter Activity: Desert Island

Required Materials for Activity:

Quantity	Material
1 per student or per student group	Pen/Pencil/Sharpie

Preparation for activity(15 minutes):

- Print out [Survival Kit](#) and [Answer Sheet](#)
- Go through instructions on How to Play
- Play the game with someone beforehand if interested

How to Play

- Divide the students into groups of 5. Give each group one copy of Survival Kit document and one copy of Answer Sheet document.
- Tell students that they are only allowed to take 5 items from the list when they will be dropped off on an desert island.
- Tell students to discuss what items they would take, as a group.
- After they've decided, let them write the 5 items down and think of why they chose those items.
- Facilitator can go around asking prompting questions like "Why did you not choose item 'x'?" or "If you don't bring the medications, what will you do in case of an allergy?".
- Form a big circle and compare the items students decided to take. What were people willing to risk and what were they safe against? Discuss.

UNIT: SYSTEMS THINKING

NAME:

TAKE-HOME LEAFLET

DATE:

This unit is about how parts and pieces fit together, a concept which can be applied in a range of areas. This unit is last because the activity will focus on applying the concept of **thinking in systems**, but also so that the students can think of themselves as a system. How can they best use and integrate these new skills they have learned in the lesson activity?

LESSON 1

日 SUN	月 MOON
星 STAR	脑 BRAIN

CURIOSITY
COMMUNICATION
LEADERSHIP
CULTURAL DEXTERITY
CRITICAL THINKING

LESSON 2

日 SUN	月 MOON
明星 CELEBRITY	电脑 COMPUTER



SYSTEM