Become Your Own Emoticon!

Time Needed: 2 Hours
Skill Level: Basic
Number of Youth: 12
Deployment Segment: Pre-Deployment
Internet Required: Yes

Life Skill Objectives:

- **Communication:** Develop an understanding of emotions and the different ways to express emotions and share the experience with your Service Member, Family and community
- **Decision Making:** Make positive choices about how to express your emotions
- **Self-responsibility:** Share your emotions and understand the impact of your emotions on your Service Member, Family and community

Resilience Skill Objectives:

- **Emotional:** Identify emotions as they happen throughout the day and find opportunities to regulate negative emotions while nurturing positive emotions
- **Social:** Respond to others' emotions with authentic, active and constructive interest

Science and Technology Objectives:

- Understand the basic components of portrait photography

Activity Overview:
Youth will explore their emotions, learn how to take basic portrait photographs and make decisions about how to express themselves.

Shout Out to Youth!
When you text or chat with your friends, do you ever use those goofy smiley faces to convey what you're feeling? Come and create your very own personalized emoticons to help share your emotions with your Family!

Prerequisites: None

Breakdown of Activities:

Icebreaker	Super Names	(15 Minutes)
Activity 1:	Understanding Emotions	(20 Minutes)
Activity 2:	Ways to Express Your Emotions	(10 Minutes)
Activity 3:	Taking a Portrait	(5 Minutes)
Activity 4:	Expressing Your Emotions	(50 Minutes)
Talk It Over		(10 Minutes)
Closing & Cleanup		(10 Minutes)

Budget Range for Activity: $1.50/youth

Space Needed:
Room with tables, chairs and open space. Wireless Internet access is required for the activity.

Before the Event

Get Ready:

Tasks for Lead Volunteer

- Do Volunteer Training with the additional OMK Tech Discovery training (found at: http://www.4-hmilitarypartnerships.org/p.aspx?tabid=187)
- Review the activity, all materials and handouts

Do Ahead:

In coordination with the Military Point of Contact:

1. Schedule use of the OMK Tech Discovery Tool Kit. (If you anticipate a large group of youth, schedule additional OMK Tech Discovery Tool Kits. 1 Kit=12 youth.)
2. Schedule use of Mobile Technology Lab.
3. Ensure wireless Internet access.
4. Schedule Uniformed Service Member and at least 1 volunteer per 6 youth to participate in the activity.
5. Schedule a Military Family Life Consultant (MFLC).
6. Recruit a Tech volunteer (for device, laptop and Internet support).
7. Borrow or buy supplies.
8. Create a set of "Emotion Pictionary Cards" by writing one emotion (from the list in Activity 1) per index card.
9. Contact volunteers and go through online training (to learn more about OMK and OMK Tech Discovery).

Copy:

- Sign-in sheet (OMK Tech Discovery Tool Kit)
- Parent letter (1 per youth = 12 copies)

Get from OMK Tech Discovery Tool Kit:

- Laminated Life/Resilience Skill signs to post around the room (Communication, Decision Making, Self-responsibility, Emotional and Social)
- Sign-in sheet
- Nametags
- 4 iPad 2 devices, which have the following apps downloaded:
  - My Photo Story
  - PrintCentral Pro
- iPad Camera Connection Kit
- Writing utensils
- Paper
- Tape

Get from Mobile Technology Lab:

- Wireless router with Internet connection (necessary to be able to make the printer connection)
- Flip Camera
- Video camera
- Digital camera
- Wireless printer
- Laptop (necessary to be able to make the printer connection)

Buy or Borrow Supplies

Icebreaker: Super Names

- Nametags for all youth, volunteers and anyone else who will be present (OMK Tech Discovery Tool Kit)
- Table for sign-in sheet
- Sign-in sheet (OMK Tech Discovery Tool Kit)
- Writing utensils (OMK Tech Discovery Tool Kit)

Activity 1: Understanding Emotions

- Large flip chart
- 4 markers
- Tape (OMK Tech Discovery Tool Kit)
- Emotion Pictionary Cards (created in advance on index cards as per the instructions under "Do Ahead")

Activity 2: Ways to Express Your Emotions

- Large flip chart
- Marker

Activity 3: Taking a Portrait

- None

Activity 4: Expressing Your Emotions

- 4 iPad 2 devices with the following apps (OMK Tech Discovery Tool Kit):
  - My Photo Story (double-check to make sure it is already downloaded)
  - PrintCentral Pro (double-check to make sure it is already downloaded)
- Flip camera (Mobile Technology Lab)
- Digital camera (Mobile Technology Lab)
- Video camera (Mobile Technology Lab)
- iPad Camera Connection Kit (OMK Tech Discovery Tool Kit)
- Wireless printer (Mobile Technology Lab)
- Laptop (Mobile Technology Lab)
- Wireless router with Internet connection (Mobile Technology Lab)
- Writing utensils (OMK Tech Discovery Tool Kit)
- Paper (OMK Tech Discovery Tool Kit)
- Photo paper (1 sheet per youth plus a few additional sheets for errors)

Day of the Event

Roles for Uniformed Service Member:

- Help youth identify and form a positive connection with another Service Member
- Encourage youth to ask questions about the Deployment Cycle
- Talk about emotions they experienced during their Deployment Cycle
- Share their personal stories about positive emotions before, during and after deployment

Roles for Volunteers:

- Help youth with all activities and form a positive connection with the youth
- Provide positive support for youth throughout the activities
- Assist youth in setting positive goals
- Model problem-solving strategies
- Facilitate problem solving and use teamwork when youth become frustrated or have questions
- Assist with setup and cleanup

Before the Youth Arrive….

1. Orient your group of volunteers to the activity (make sure they all have nametags and introduce themselves to each other before you get started)
2. Have Tech volunteer make sure Internet access is working and set up printing capabilities for the iPad 2 devices.
3. **Activity Orientation for All Volunteers** (before the beginning of the event):
    - Review each activity
    - Cue volunteers where to look for the Life/Resilience Skill objectives in the directions and remind them of the importance of discussing them during the activity; remind them how these will help youth manage deployment and reintegration issues and adjustments
    - Have volunteers help set up for the event

Set up Your Space:

Space: Tables, chairs and an open space. Wireless Internet access is required.

1. Post **Life/Resilience Skill signs** around the room.
2. Set up a greeting table with a sign-in sheet.

WHAT TO DO **Become Your Own Emoticon!**

As the Youth Arrive….

- Have youth and accompanying adult fill out the sign-in sheet and have participant(s) put on a nametag
- Introduce yourself and your team of volunteers, the Uniformed Service Member and others that might be in the room, along with their roles

Icebreaker: **Super Names (15 Minutes)**

1. Have youth gather into one big circle (unless the group has more than 15 participants, in which case you could break them into smaller groups of 6 to 10).
2. Tell them that you have just discovered you have a room full of superheroes in the making.
3. Tell them you want to know what makes each of them super. Are they super nice? Super fast? Super strong?
4. Have players go around the circle and introduce themselves one at a time by stating their first names and one way that they are super. The first player might say, "I'm Chloe, and I try to be super helpful." Continue around the circle.
5. At the end, players should say everyone's names and what makes them super.
6. For older youth, ask them to add a motion to their superpower. For example, if Antonio says he's super fast, he might choose to run in place. Then ask the whole group to repeat Antonio's name and run in place as they note his superpower. ("This is Antonio, and he's super fast.") Repeat with each person.

NOTE: An individual youth might have trouble thinking of a way he or she is super. For instance, if Johnny isn't sure how to respond, you might ask the other youth how they see Johnny trying to be super, or you might share one way that you see Johnny trying to be super. For example, "Johnny is a super good sport, for being here today and giving this a try."

Debriefing Questions:

- Why did you pick the characteristic that you did?
- How will this characteristic help you during your Service Member's deployment?
- In what ways can you be super each day? How can you show super behavior, express super attitudes or be a super example?
- What is one thing you hope others will like about you (or remember about you)?
- Did this game help you learn and remember names? What helps you remember new things?

Activity from: *Great Group Games for Kids*, Susan Ragsdale and Ann Saylor (page 21)
(Book is located in the OMK Tech Discovery Tool Kit)

Activity 1: **Understanding Emotions (20 Minutes)**

This is a Pictionary-type game that helps encourage youth to brainstorm and explore various types of emotions.

1. Taking turns, each youth selects a pre-printed emotion card from the volunteer standing by the flip chart.
2. Without saying anything, the youth draws a depiction of the emotion from their card on the flip chart.
3. The rest of the youth try to guess which emotion is being portrayed in the picture.
4. After the emotion has been guessed, write it out on the top of the flip chart paper.
5. Hang the pictures in the room so that everyone can see them.
6. *"You've made some great drawings of different types of emotions. So, when do you feel these emotions?"*

7. Break youth into small groups of 3 and have each group pick 3 emotions. Within the small groups, have youth write down the emotions and examples of when they have experienced each of the emotions (on a flip chart page). For example, youth could feel "fearful" when they "see a scary movie," "their parents aren't home" or "they are alone in the dark," etc.

List of Emotion Pictionary Cards:

- Fearful
- Angry
- Happy
- Sad
- Proud
- Worried
- Loved
- Confident
- Bored
- Disappointed
- Joyful
- Embarrassed
- Stressed
- Confused
- Relaxed
- Lonely
- Motivated

Activity 2: **Ways to Express Your Emotions (10 Minutes)**

Everybody needs an outlet for expressing their emotions. In this activity, youth will explore the different outlets for their feelings.

"A deployment can be very difficult. It's important for everyone to find a way to express how they're feeling, whether they're happy, sad or angry. Think about the emotions your group chose and the times you've felt those emotions. You need a way to share your own feelings, understand what's making you feel that way and then figure out what you're going to do about it. Your way of expressing yourself could be something more private, or it could be something you share with others. Let's spend some time figuring out what the options are so that everyone can find a way that works best for them."

1. As one big group, have youth brainstorm ways that they can express their emotions.
2. List all the ways the youth can think of on the flip chart up front (for example: journaling, creating art, talking with friends and Family, writing a letter, praying).
3. *"Is everybody satisfied with this list? Looking at the list, do you see one (or more) options that would work for you? Think about when your Service Member deploys and you're feeling stressed, proud, independent, excited, sad or lonely. How will you express these feelings? Let's go around the room and share 1 (or more) of the options that you already do, or would be interested in starting."*
4. Go around the room and have everyone share what outlet they will use for their emotions; encourage them to take action and follow through with using these outlets.

Activity 3: **Taking a Portrait (5 Minutes)**

Before youth are given the iPad 2 devices to create their emoticons, take a few minutes to discuss tips for taking portraits. Remind youth that a **portrait is a picture of a person that shows them for who they are, where the face and expression is the main subject.**

"In a few minutes we'll start taking some pictures, but before we do that, we want to cover some tips for taking portraits of each other. One important thing a person's portrait shows is their emotions!
"Here are some tips for when you take pictures of other people:

- *Think about the lighting in the room so that you can clearly see the person in the photograph without shadows on their face (unless you're trying to take an artistic photograph)*
- *Be conscious of the background; pick a spot in the room where the background isn't too busy or distracting*
- *Make sure the person that you're photographing is comfortable and relaxed*
- *Take your time and take lots of pictures so that you have lots of choices"*

Activity 4: **Expressing Your Emotions (50 Minutes)**

This activity will allow youth to express themselves through their facial expressions. Youth will take pictures of each other expressing different emotions and put them into a finished product that they can take home and share.

"One way that everybody expresses themselves is by their facial expressions. How many of you know what emoticons are? Think about when you text, send emails or post something on Facebook...you have the option of putting in different faces that show and explain what you're feeling.

"In this activity, we'll make our own emoticons by taking pictures of ourselves and each other expressing different feelings. When we're done, we'll put the pictures into story boards so that you can print them and take them home with you as a way to share how you feel with your Family."

1. Have youth make a list of 4-6 emotions that they might like to include in their personal Emoticons Photo Story Board (2-3 positive, 2-3 negative).
2. Hand out iPad 2 devices and discuss the **iPad 2 Rules and Regulations** (read the following out loud and then ask youth for examples of what NOT to do):
   - *Handle with care*
   - *Use 2 hands at all times*
   - *Keep it clean*
   - *If you break it, you buy it ($500.00)*
3. Youth will work in teams of 3 to take pictures of each other on the iPad 2 "camera," expressing each of their chosen 4-6 emotions (other cameras are available if needed because of a large group).
4. Youth that are not in the photo should help the youth that is being photographed to achieve the right facial expression. Youth should get to know each other so that they can prompt each other with questions like:
   - How did you feel when your younger brother or sister broke your phone?
   - How did you feel when you got all As on your last report card?
   - How did you feel when you heard that your pet died?
5. Once the teams have finished taking their portraits, have the teams pick 4 portraits for each person, choosing those that best represent the intended emotions.

6. Open the My Photo Story app on the iPad 2.
7. Have youth take turns creating their own Emoticon Photo Story Board, using their own photos.
8. Tell each youth to select a story board that has 4 boxes by clicking on it (it will open).
9. Tell youth to click "Tap Me!"
10. Tell youth to click "Camera Roll."
11. Tell youth to select the photo that they want in that box and then continue with the other 3 photos in that story board.
12. After the 4 photos have been selected, tell youth to click on each individual photo to add text; youth should write in which emotion each photo is conveying.
13. Tell youth that when the story board is finished, they should click "Save & Share," then click "Save Normal Size."
14. Tell youth to click "Clear Story Board" on the top of the screen and repeat the process to make another youth's story board.
15. After all team members have created their story boards, have them close the app and click "Photos" on the iPad 2.
16. Story Boards can be printed through the PrintCentral Pro app included on the iPad 2 (a laptop and Internet access are needed to facilitate this).
17. *"You have each created a story board with 4 different emoticons. Congratulations!*
    - *Take these story boards home and hang them on the fridge or your bedroom door, or put them someplace safe where you and your Family can view them*
    - *Decide how you will indicate how you're feeling on your story board; you might put a sticky note on the appropriate picture, or a magnet*
    - *Whenever you can, take time to share with your Family or friends how you're feeling*
    - *Use the pictures as a way to guide your discussion"*

Talk It Over: **(10 Minutes)**

1. To help you focus the discussion, briefly look at Life Skill, Resilience Skill and Science and Technology Objectives on page 1.
2. Lead the entire group through the Talk It Over discussion.
3. Remember to include the Uniformed Service Member in the discussion.
4. Have a volunteer take comments/notes about group dynamics and specific youth comments.

Share/Reflect

- What was your favorite thing about creating your story boards?
- What did you learn while doing this project?
- How did you feel working in a team? Did it work well? Was it helpful to have teammates?

Process

- How did you feel about talking about emotions with the group? What made it hard? What made it easy?
- How did you decide which feelings you were going to use for your emoticons?
- How did your teammates help you?
- Why was this project important for you to do?

Generalize

- In doing this activity, you learned about how to communicate your feelings. Why is this important as you face an upcoming deployment?
- You had to make some decisions during this project. When might you have to make some decisions during a deployment?
- What key points have you learned today throughout our activities?

Apply

- How will you apply what you learned today about your emotions to your everyday life?
- How will you share your emotions in positive ways in the future?
- Why was this project important to your life right now as you prepare for the deployment of a Service Member?

Debrief Youth on Life/Resilience Skills:

Point to the Life/Resilience Skill signs that are posted around the room:
Communication, Decision Making, Self-responsibility, Emotional and Social.
As you point to each sign, ask:

- How have our activities today helped you develop your _____ (skills)?
- Why do you think these skills are important?

Closing & Cleanup: **(10 Minutes)**

"Today we did some activities that had you thinking about your emotions and how to positively share them. We hope that you'll take what you learned and find ways in your life to incorporate tools such as the emoticons. Throughout the day you've improved your communication, self-responsibility and decision-making skills, which will be of great importance for you as you face the upcoming deployment of your Service Member. We hope that you had some fun and that you learned a little bit more about yourself and how to take care of YOU!"

Extend the Activity:

- Give youth paper/journal/notepad and allow for journaling time; here are some possible questions:
  - How did you feel when you first heard that your Service Member was going to deploy?
  - How do you feel now that the deployment is almost here?
  - What are you going to miss the most about your deploying Service Member?
  - How will you keep in touch with your Service Member when they are deployed?

Post Event

Lead Volunteer:

- Check to make sure that the space is clean and returned to the arrangement it was in prior to your arrival
- Inventory and put all equipment and supplies back into their respective kits and pack them up to return as directed; make sure all iPad 2 devices, connecter kits, cords and power chargers are returned to the OMK Tech Discovery Tool Kit

- Fill out report:
  - Names of all volunteers
  - Number and names of youth (attach sign-in sheet)
  - Quotes from youth about activities
  - Other important notes on activities, volunteers and youth
  - Critical follow-ups (parents about behavior/worries about a particular youth, inappropriate language from a volunteer, etc.)
  - Indicate if there are videos, photos or other content that needs to be forwarded to youth/Family; make it clear which items go to each youth/Family

Activity Developed for OMK Tech Discovery by:
Lead Author: Amber Runke, 4-H/OMK Program Specialist, University of Minnesota Extension Center for Youth Development
Assistant Author: Teresa Noon, OMK Project Director, 4-H Youth Development, University of Arizona Cooperative Extension
Contributing Author: Eric Vogel, Regional Extension Educator, University of Minnesota Extension Center for Youth Development
Instructional Design Specialist: Wendy Rubinyi (rubinyi.com)

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Become Your Own Emoticon!

Dear Family,

Today we learned how to express our emotions in positive ways. We played our very own Emotion Pictionary game to learn about types of emotions, discovered different ways to express our emotions, learned tips for how to take portraits and created our own personal emoticons so that we can share with you how we are feeling.

Every youth picked 4-6 emotions. Their teammates took pictures of them expressing those particular emotions on an iPad 2. Then each youth put their photos into a collage and printed it (or, if there were printer problems, we will email this to your Family soon).

Everybody is taking home their own personally created emoticons that they can hang up on the refrigerator or bedroom door, or put somewhere safe where the Family can share them.

Youth were encouraged to share these photos with you and to update them as often as possible with a sticky note or magnet indicating which emotion they are feeling at that particular time, whether it is happy, worried, angry or relaxed, and why they are feeling that way. We hope that this is a tool that your Family can use to communicate and share emotions in a positive way.

Your upcoming deployment is going to be difficult, so it is very important for your youth (and you) to find an avenue to express yourselves. Talk with your youth about what that avenue might be, whether it's journaling, sharing their emoticons, creating artwork or something completely different. Allow them the option to keep it private or to share it with you as needed.

Throughout today's activities, youth worked on developing their communication, self-responsibility and decision-making skills, as well as strengthening their emotional and social resilience skills. Hopefully you will see these skills shine throughout this deployment experience.

Thanks for helping your youth participate in this OMK Tech Discovery experience!

Best regards,

Conversation Starters:

- What is your favorite positive emotion? Why?
- If you had to assign an animal to this emotion, what would it be?
- What animal might express a negative emotion? Why?
- If you kept a journal, would you fill it with words, pictures or both?
- Does technology help you express your emotions? How?

Navigating My World

Time Needed: 4 hours
Skill Level: Basic
Number of Youth: 12
Deployment Segment: Pre-Deployment
Internet Required: Yes

Life Skill Objectives:

- **Communication:** Develop an understanding of the world we live in and share that experience with others
- **Teamwork:** Collaborate with others to learn more about being a good team member in your own world and the world that will be experienced by your Service Member
- **Self-responsibility:** Be responsible for your world: locally, regionally or as a global citizen, and understand how that impacts your Service Member and Family

Resilience Skill Objectives:

- **Emotional:** Approach life challenges in a positive and optimistic way
- **Social:** Explore how strong connections with others can help you act in ways that are good even under the most adverse and challenging circumstances
- **Spiritual:** Explore the benefits of being connected to your community and surroundings

Science and Technology Objectives:

- Expand knowledge of use of navigation tools
- Apply use of navigation tools to daily life

Activity Overview:
Youth will learn navigation basics with Google Earth on the iPad 2 to expand their knowledge of their world and learn more about the upcoming deployment of their Service Member.

Shout Out to Youth!
Come meet other youth while navigating your world using an iPad 2 and Google Earth.

Prerequisites: None

Breakdown of Activities:

Icebreaker	Laptop, Tablet, Cell	(20 Minutes)
Activity 1:	X Marks the Spot	(60 Minutes)
Activity 2:	Getting to Know Google Earth	(90 Minutes)
Activity 3:	Location, Location, Location	(60 Minutes)
Closing & Cleanup		(10 Minutes)

Budget Range for Activity: $1/youth

Space Needed:
You will need a large room with tables and chairs. Wireless Internet access is required for this activity.

Before the Event

Get Ready:

Tasks for Lead Volunteer

- Do Volunteer Training with the additional OMK Tech Discovery training (found at: http://www.4-hmilitarypartnerships.org/p.aspx?tabid=187)
- Review the activity, all materials and handouts

Do Ahead:

In coordination with the Military Point of Contact:

1. Schedule use of the OMK Tech Discovery Tool Kit. (If you anticipate a large group of youth, schedule additional OMK Tech Discovery Tool Kits. 1 Kit=12 youth.)
2. Schedule use of Mobile Technology Lab.
3. Ensure wireless Internet access.
4. Schedule Uniformed Service Member and at least 1 volunteer per 6 youth to participate in the activity.
5. Schedule a Military Family Life Consultant (MFLC).
6. Recruit a Tech volunteer (for device and Internet support).
7. Borrow or buy supplies.
8. Contact volunteers and go through online training (to learn more before you show up about OMK and OMK Tech Discovery).

Copy:

- Sign-in sheet (OMK Tech Discovery Tool Kit)
- Parent letter (1 per youth = 12 copies)

Get from OMK Tech Discovery Tool Kit:

- Laminated Life/Resilience Skill signs to post around the room (Communication, Teamwork, Self-responsibility, Emotional, Social and Spiritual)
- Sign-in sheet
- Nametags
- 4 iPad 2 devices, which have the following app downloaded:
  - Google Earth
- Writing utensils
- 12 balloons

Get from Mobile Technology Lab:

- Wireless router with Internet connection
- Extension cords/power strips if needed

Buy or Borrow Supplies

Icebreaker: Laptop, Tablet, Cell

- Nametags for all youth, volunteers, Family members and anyone else who will be present (OMK Tech Discovery Tool Kit)
- Table for sign-in sheet
- Sign-in sheet (OMK Tech Discovery Tool Kit)
- Writing utensils (OMK Tech Discovery Tool Kit)

Activity 1: X Marks the Spot

- 12 balloons (OMK Tech Discovery Tool Kit; not yet blown up)
- 6 permanent markers
- Inflatable globe or world map

Activity 2: Getting to Know Google Earth

- 4 iPad 2 devices with the following app (OMK Tech Discovery Tool Kit):
  - Google Earth (double-check to make sure it is already downloaded)
- Wireless router with Internet connection (Mobile Technology Lab)
- Extension cords/power strips if needed (Mobile Technology Lab)

Activity 3: Location, Location, Location

- 4 iPad 2 devices with the following app (OMK Tech Discovery Tool Kit):
  - Google Earth (double-check to make sure it is already downloaded)
- Wireless router with Internet connection (Mobile Technology Lab)
- Extension cords/power strips if needed (Mobile Technology Lab)

Day of the Event

Roles for Uniformed Service Member:

- Help youth identify and form a positive connection with another Service Member
- Encourage youth to ask questions about the Deployment Cycle
- Talk about how you or others use navigation, Google Earth or other similar software applications in your work
- Share your personal stories about the places you have been while deployed

Roles for Volunteers:

- Help youth with all activities and form a positive connection with the youth
- Provide positive support for youth throughout the activities
- Assist youth in using the technology
- Assist with setup and cleanup

Before the Youth Arrive….

1. Orient your group of volunteers to the activity (make sure they all have nametags and introduce themselves to each other before you get started).
2. Have Tech volunteer ensure Internet access and make sure Google Earth is downloaded on iPad 2 devices
3. **Activity Orientation for all Volunteers** (on-site, E-mail or conference call):
   - Discuss **navigation** and how it can be applied to the discussion of the targeted Life/Resilience Skills
   - Review each activity
   - Have volunteers help set up for the event
   - Cue volunteers where to look for the Life/Resilience Skill objectives in the directions and remind them of the importance of discussing them during the activity; remind them how these will help youth manage deployment issues and adjustments

Set up Your Space:

Space: You will need a large room with tables and chairs**.** Wireless Internet access is required to do this activity.

1. Post **Life/Resilience Skill signs** around the room.
2. Set up a greeting table with a sign-in sheet.

WHAT TO DO **Navigating My World**

As the Youth Arrive….

- Have youth and accompanying adult fill out the sign-in sheet and have participant(s) put on a nametag
- Don't forget to introduce yourself and your team of volunteers, the Uniformed Service Member and others that might be in the room, along with their roles

Icebreaker: **Laptop, Tablet, Cell (20 Minutes)**

"Welcome to Navigating My World. Today we're going to learn how small our world really is! We'll use some traditional navigation tools and some new technology tools to explore ways to navigate your world of dispersed Families. Let's get warmed up!"

1. Tell youth that they will play a new game of Rock, Paper, Scissors called Laptop, Tablet, Cell.
2. Teach youth the gestures that symbolize each of the items:
   - Laptop (use 2 arms to simulate closing a laptop in front of your chest)
   - Tablet (use the index finger of your right hand to simulate typing on a tablet into the palm of your left hand)
   - Cell (Use the universal sign for "call me")
3. Inform youth which item "beats" which other item:
   - Laptop beats Tablet because it is more powerful
   - Tablet beats Cell because it has a bigger screen
   - Cell beats Laptop because it is more mobile
4. Have youth grab a partner and introduce themselves by sharing their name, hometown and cell phone model/brand they own or would like to own.
5. Have youth stand back-to-back with their partner; when volunteer says "Go," the youth turn around and make one gesture of Laptop, Tablet or Cell.
6. Have youth establish a winner; winners all move to the front of the room and losers move to the back of the room.
7. Winning youth choose a new partner from the winning group; losing youth choose a new partner from the loosing group.
8. Repeat steps 3 through 5 until the winner challenges the loser pool in this double-elimination round and1 winner is established.

Debriefing Questions:

- How did you feel when you lost?
- What does it feel like to be excluded?
- How might a Service Member feel excluded?
- Can you think of a way that we all could be winners in this activity?

Activity 1: **X Marks the Spot (60 Minutes)**

"When was the last time you used a map? Can you imagine a world without GPS units telling us where to turn next? Probably not. In order to travel this world today we are dependent on GPS, smartphones and other devices. In the next activities, we're going to learn how to use navigation tools to better 'navigate' the changes within our Families."

1. Youth should pair up.
2. In each pair, the older youth should be A and the younger youth should be B.
3. Each team needs 2 balloons and 1 marker.
4. Stay with your teammate, but otherwise spread out around the room as much as possible.
5. Stand back-to-back with teammate and inflate balloon.
6. Try not to see the teammate's balloon.

7. Using the permanent marker, Youth A marks a size-14 font X anywhere they want on their balloon.
8. Youth A should hand the marker over their shoulder to Youth B, but remind Youth B not to look at their teammate's balloon.
9. Teammates will remain back-to-back.
10. *"When I say 'Go,' Youth A will have 30 seconds to describe the location of their X to Youth B. 1, 2, 3, Go!"*
11. Count off 30 seconds.
12. Youth B will use the marker to place an X on their balloon in the location that they believe matches the X on Youth A's balloon.
13. When all of the Youth Bs have an X marked on their balloon, they should walk around Youth A, who remains in the same spot. Youth A and B are now facing each other with their balloons extended in front of them. They can compare the locations of their Xs.
14. Each team should set down one balloon and continue holding the other balloon and the marker; the balloon represents Earth
15. "*What could we mark on the balloon to help us find a specific location more easily and accurately?* (Ideally youth answers will include items such as North and South Pole, Equator, etc.)
16. Youth B should hold the balloon (Earth), and Youth A marks an N for North Pole (tied end of balloon) and S for South Pole (opposite end of balloon).
17. Youth A should hold the balloon and Youth B uses the marker to draw a line (Equator) between the poles all the way around the Earth.
18. "*This represents the Equator, which is an imaginary line that does not really exist, but is what we use to help us locate specific locations on Earth. Other imaginary parallel lines running this way around the Earth are called lines of latitude."*
19. Have teams draw a line around the Earth connecting the North Pole and South Pole, representing the Prime Meridian. The Prime Meridian is the line of longitude that is 0 degrees. Degrees go East to West from the Prime Meridian.
20. "*This line is also imaginary and is referred to as a line of longitude."*
21. Have youth label 0 degrees at Equator, 30 N, 30 S, 60 N, 60 S and 90 N at North Pole and 90 S at South Pole.
22. Ask youth the following questions:
    a. *"The middle line or circle you drew, that divides the Earth in 2 separate halves connecting the North Pole to South Pole, represents what?"*(Prime Meridian)
    b. *"What does the middle line or circle that you drew, that is between the North and South Poles, represent?"* (Equator)
    c. *"How does this help in finding locations on the Earth?"* (creates unique intersecting points)
    d. *"How many degrees are in a circle?"* (360)
    e. *"What do we call the lines on a map or globe that connect the North and South Poles?"* (longitude)
    f. *"What do we call the lines on a map or globe that come between the North and South Poles?"* (latitude)

23. Ask youth to try to locate the approximate location of the following continents, countries or cities on their Earth balloon using lines of latitude and longitude:
    a. Sydney, Australia – South 33 East 150
    b. Kabul, Afghanistan – North 33 East 68
    c. Tokyo, Japan – North 35 East 140
    d. Denver, Colorado, USA – North 39 West 105
24. Prompt youth to find more locations if there is time.

Talk It Over:

1. To help you focus the discussion, briefly look at Life Skill, Resilience Skill and Science and Technology Objectives on page 1.
2. Lead the entire group through the Talk It Over discussion.
3. Remember to include the Uniformed Service Member in the discussion.
4. Have a volunteer take comments/notes about group dynamics and specific youth comments.

Share/Reflect

- How many degrees are in a circle? (360)
- What is another name for the International Date Line? (Prime Meridian)
- How was the Equator represented on your balloon? (0, cuts across middle of balloon)
- How many hemispheres are there? (4)
- How did this activity help you understand the world we live in?
- What kind of connections did you find?

Process

- How did drawing details on the balloon help you learn more about your world?
- Why do we need latitude and longitude markers?
- How did you communicate and use teamwork to construct your balloon? What was most helpful?

Generalize

- Why are good communication skills important?
- What kinds of markers do you use to help keep you on track?
- What communication and teamwork skills did you learn today that may help you while your Service Member is deployed?

Apply

- How might you use longitude and latitude points in a future career?
- How would Service Members use coordinates in their work?

Activity 2: **Getting To Know Google Earth (90 Minutes)**

"We just established a basic understanding of using navigation tools to find your location on the Earth. There are some electronic applications that can enhance navigation to an even more exact science. Let's take a look at Google Earth. As you work with it, think about what happens to your charted course when the established markers/guides change or disappear."

1. Have youth split into 4 teams of 3 and give each team an iPad 2.

2. Review the **iPad 2 Rules and Regulations** (read the following out loud and then ask youth for examples of what NOT to do):
   - Handle with care
   - Use 2 hands at all times
   - Keep it clean
   - If you break it, you buy it ($500.00)
3. Have youth open the Google Earth application.
4. Have youth enter 1 of their hometowns into the "Search" feature of Google Earth located in the upper right-hand corner of the screen.
5. Give youth 5 minutes to zoom in and view their hometown, making sure they take turns with the iPad 2 devices; then have them try:
   - Double tapping the screen
   - "Pinching" the screen
   - "Tilting" the screen
   - "Panning" the screen
   - View different "layers," or levels of view; the "Layers" button is located in the upper left-hand corner of the screen
   - Identifying coordinates of their hometown; the coordinates can be viewed on the bottom of the screen by clicking on the "Settings" button (wrench icon) and then turning "Position" feature to "On"
6. Have youth enter the address of where each of them is living and locate the coordinates.
7. Have youth use latitude and longitude coordinates of their homes to place a mark on their balloon from Activity 1.
8. Have youth try to find some of the following locations (again, remind them to take turns with the technology):
   a. Fukushima Dai-ichi Nuclear Plant
   b. Buckingham Palace
   c. Pyramids of Egypt
   d. Taj Mahal
   e. Great Wall of China
   f. Grand Canyon
   g. Ground Zero
   h. Mount Rushmore
   i. Panama Canal
   j. Eiffel Tower
   k. A place to visit on vacation

Talk It Over:

1. To help you focus the discussion, briefly look at Life Skill, Resilience Skill and Science and Technology Objectives on page 1.
2. Lead the entire group through the Talk It Over discussion.
3. Remember to include the Uniformed Service Member in the discussion.
4. Have a volunteer take comments/notes about group dynamics and specific youth comments.

Share/Reflect

- What did you learn about the world that surprised you?
- Were you able to just search and find the locations? Why or why not?
- How did your team help?

Process

- What was challenging about locating these places?
- What strategies did you use to locate a difficult place to find?
- What happened when you double tapped, pinched or tilted the screen?
- Was there a limit to how close you can zoom in?
- Which methods (pinching, tilting, panning, etc.) were most effective?
- What did you learn about your ability to communicate and work with others?

Generalize

- What are some practical uses for Google Earth?
- What are some other devices on which you could use Google Earth? How might they differ?
- What were the most successful things your group did to help each other? How might these things be helpful in other situations?

Apply

- How could you use this application at school? For a job? While traveling?
- What is something you have learned today that can help you in your Family?

Activity 3: **Location, Location, Location (60 Minutes)**

"Our Service Members have very important missions across the world. In this activity, we'll use Google Earth to investigate areas of deployment around the world. We'll start by discussing different locations where Service Members deploy." (If the Uniformed Service Member is willing to lead this discussion, it is a good opportunity to involve them in the discussion and as an "authority" on deployment.)

1. Lead a discussion about why Service Members are deployed to different locations. Ask youth:
    a. *Why are Service Members deployed to certain locations?*
    b. *What is their mission at each of these locations?*
    c. *What are some positions or tasks your Service Member conducts when deployed?*
    d. *How is this service important?"*
2. Brainstorm locations where Service Members deploy. For example:
    a. Continental United States Disaster Relief
    b. International Disaster Relief
    c. Afghanistan
3. As a large group, locate the places suggested using Google Earth.
4. Model for youth how to use the icons (camera, luggage, food) to research a place.
5. Break into your small groups and use Google Earth to locate where their Service Member is deploying or where they have previously been deployed.
6. Youth should use icons (camera, luggage, food) to investigate the landscape, culture and living conditions of the areas of deployment.

7. Ask youth who have Service Members with previous deployment experience to share their personal knowledge of the areas of deployment as well.

Talk It Over:

1. To help you focus the discussion, briefly look at Life Skill, Resilience Skill and Science and Technology Objectives on page 1.
2. Lead the entire group through the Talk It Over discussion.
3. Remember to include the Uniformed Service Member in the discussion.
4. Have a volunteer take comments/notes about group dynamics and specific youth comments.

Share/Reflect

- Did your team have a wide range of deployment locations? Did this surprise you? Why or why not?
- Did you find you had more connections with others on your team then you had originally thought?
- How can you explore the connections you made today in the future?

Process

- Why do you think there aren't more icons for locations like Afghanistan on Google Earth?
- What icons would you add to help better inform other Operation Military Kids?
- What would be an alternative way to find more information on a particular location?

Generalize

- How is the area of deployment similar or different from the Service Member's current location in the United States?
- Now that you have more knowledge about your Service Member's area of deployment, how does this help you better navigate changes in your Family?

Apply

- How does a better understanding of the area of the world where your Service Member will be deployed help you to be more resilient?
- How can you become more responsible for your world, at home? How does your world, at home, impact your Service Member?
- In what ways does understanding their new environment affect how you will communicate with your Service Member during deployment?

Debrief Youth on Life/Resilience Skills:

Point to the Life/Resilience Skill signs that are posted around the room:
Communication, Teamwork, Self-responsibility, Emotional, Social and Spiritual.
As you point to each sign, ask:

- How have our activities today helped you develop your _____ (skills)?
- Why do you think these skills are important?

Closing & Cleanup: **(10 Minutes)**

"Today we've explored how to use both traditional and technological tools for helping you navigate your world. We hope that you can use these tools during the upcoming deployment of your Service Member. Please go back with your teammates and help us clean up before you leave. Then make sure you take home a copy of the parent letter that we're handing out. Thank you for engaging in our activities today!"

Extend the Activity:

- Identify other navigation tools and applications to navigate your world
- Use Google Earth to share what you learned with others
- Create a social networking page for other deployed Operation Military Kids to share cultural knowledge about the deployment locations of their Service Members
- Open a photo sharing account for your Family to share photos during deployment

Post Event

Lead Volunteer:

- Check to make sure that the space is clean and returned to the arrangement it was in prior to your arrival
- Inventory and put all equipment and supplies back into their respective kits and pack them up to return as directed; make sure all iPad 2 devices, connecter kits, cords and power chargers are returned to the OMK Tech Discovery Tool Kit
- Fill out report:
  - Names of all volunteers
  - Number and names of youth (attach sign-in sheet)
  - Quotes from youth about activities
  - Other important notes on activities, volunteers and youth
  - Critical follow-ups (parents about behavior/worries about a particular youth, inappropriate language from a volunteer, etc.)
  - Indicate if there are videos, photos or other content that needs to be forwarded to youth/Family; make it clear which items go to each youth/Family

Activity Developed for OMK Tech Discovery by:
Steve Truby, 4-H/Army Youth Development Project – Iowa State University-Extension
Annie Lisowski, 4-H Youth Development Educator, University of Wisconsin-Extension
Wendy Rubinyi, Instructional Design Specialist (rubinyi.com)

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Navigating My World

Dear Family,

Today in *Navigating My World* we expanded knowledge about basic and online navigation tools. We used Google Earth to find places where we live, places we would like to visit and areas of deployment.

We also used Google Earth to discuss the upcoming deployment of your Service Member. We explored the similarities and differences in lifestyles of the people who live in the area where they will be deployed. We discussed how we could use the cultural knowledge we gained to help us better understand each other before, during and after the deployment of our Service Member.

Deployment can be a time when new Family navigation tools are needed to cope with changes in a positive way. Today's activity encouraged youth to think about resilience skills while practicing communication, problem solving and teamwork. Hopefully you will see these skills shine during this deployment experience.

Thanks for helping your youth participate in this OMK Tech Discovery experience!

Best regards,

Conversation Starters:

- Where in the world would you most like to visit?
- How would you get there?
- When was a time when you felt like you needed help "navigating your world?"
- What are some ways to use navigation in your daily life?
- Why is it important for someone to always know your location?

Perspective Through Another Lens

Time Needed: 4 Hours
Skill Level: Basic
Number of Youth: 12
Deployment Segment: Pre-Deployment
Internet Required: Yes

Life Skill Objectives:

- **Teamwork:** Learn how to work with others, respecting other's opinions and making team decisions when taking images of objects and people
- **Decision Making:** Learn how to make good choices and choose positive images to share with your Service Member and Family

Resilience Skill Objectives:

- **Social:** Strengthen connections with others by learning how to empathize, communicate more effectively and pay attention to others' emotions through the use of digital images
- **Spiritual:** Stay healthy and strong by exploring the benefits of being connected to your community and surroundings through the perspective of a camera lens

Science and Technology Objectives:

- Understand the basic elements of photography including digital camera use, shot composition and shot angles

Activity Overview:
Youth will explore the basics of digital photography, including camera basics, shot composition and shot angles and then apply this knowledge during a photo scavenger hunt.

Shout Out to Youth!
From your eyes to the click of the camera! Explore photography using an iPad 2 and a digital camera. Then use these skills to discover how to creatively "see" things from a different perspective!

Prerequisites: None

Breakdown of Activities:

Icebreaker:	Walk This Way	(30 Minutes)
Activity 1:	iPad 2 and Camera Basics	(60 Minutes)
Activity 2:	Photo Scavenger Hunt	(90 Minutes)
Activity 3:	ArtStudio	(30 Minutes)
Talk it Over		(20 Minutes)
Closing & Cleanup		(10 Minutes)

Budget Range for Activity: $2/youth

Space Needed:

You will need tables, chairs and a large space with power outlets; wireless Internet access is required. You may also want to have an outdoor space available, but plan for a bad-weather back-up as well.

Before the Event

Get Ready:

Tasks for Lead Volunteer

- Do Volunteer Training with the additional OMK Tech Discovery training (found at: http://www.4-hmilitarypartnerships.org/p.aspx?tabid=187)
- Review the activity, all materials and handouts
- Secure indoor and outdoor (optional) space to hold activity
- Become familiar with iPad 2 techniques and digital cameras and review shot composition/shot angle techniques (included at the end of the activity plan)
- Practice use of the iPad 2, applications, downloading images from an SD chip (memory card in a digital camera) and sending images via email
- Determine boundaries for Photo Scavenger Hunt

Do Ahead:

In coordination with the Military Point of Contact:

1. Schedule use of the OMK Tech Discovery Tool Kit. (If you anticipate a large group of youth, schedule additional OMK Tech Discovery Tool Kits. 1 Kit=12 youth.)
2. Schedule use of Mobile Technology Lab for Internet access, printing, laptops and additional cameras.
3. Schedule Uniformed Service Member and at least 1 volunteer per 6 youth; encourage Service Member to bring photographs of their deployment to share.
4. Borrow or buy supplies.
5. Contact volunteers and go through online training (to learn more before you show up about OMK and OMK Tech Discovery).
6. Recruit a Tech volunteer (for device, laptop and Internet support).

Copy:

- Sign-in sheet (OMK Tech Discovery Tool Kit)
- Parent letter (1 per youth = 12 copies)
- "Walk This Way" sheet (found at the end of the activity plan; 1 per youth = 12 copies)
- "History of the Camera" sheet (found at the end of the activity plan; 1 per team = 4 copies)
- "Photo Scavenger Hunt" sheet (found at the end of the activity plan; 1 per team = 4 copies)
- "Quick Tips for Shot Composition" packet (6 pages found at the end of the activity plan; copy and staple 1 packet per youth = 12 packets; copy in color if at all possible)

Get from OMK Tech Discovery Tool Kit:

- Laminated Life/Resilience Skill signs to post around the room (Teamwork, Decision Making, Social and Spiritual)
- Sign-in sheet
- Nametags
- 4 iPad 2 devices, which have the following apps downloaded:
  - PrintCentral Pro
  - ArtStudio
- iPad Camera Connection Kit
- Writing utensils

Get from Mobile Technology Lab:

- Wireless router with Internet connection
- Flip camera
- Digital camera(s)
- Wireless printer
- Laptops

Buy or Borrow Supplies

Icebreaker: Walk This Way

- Writing utensils (OMK Tech Discovery Tool Kit)
- "Walk this Way" sheets (found at the end of the activity plan)
- Nametags for all youth, volunteers and anyone else who will be present (OMK Tech Discovery Tool Kit)
- Table for sign-in sheet
- Sign-in sheet (OMK Tech Discovery Tool Kit)

Activity 1: iPad 2 and Camera Basics

- 4 iPad 2 devices (OMK Tech Discovery Tool Kit)
- Flip Camera (Mobile Technology Lab)
- Digital camera(s) (Mobile Technology Lab)
- Laptops (Mobile Technology Lab)
- Wireless router with Internet connection (Mobile Technology Lab)
- "History of the Camera" sheet (found at the end of the activity plan)
- "Quick Tips for Shot Composition" packet (found at the end of the activity plan)
- Writing utensils (OMK Tech Discovery Tool Kit)

Activity 2: Photo Scavenger Hunt

- 4 iPad 2 devices (OMK Tech Discovery Tool Kit)
- Digital camera(s) (Mobile Technology Lab)
- Flip camera (Mobile Technology Lab)
- "Photo Scavenger Hunt" sheet (found at the end of the activity plan)
- Snack
- Bug spray/sunscreen if going outdoors
- Writing utensils (OMK Tech Discovery Tool Kit)
- Clipboards

Activity 3: ArtStudio

- 4 iPad 2 devices with the following apps (OMK Tech Discovery Tool Kit):
  - ArtStudio (double-check to make sure it is already downloaded)
  - PrintCentral Pro (double-check to make sure it is already downloaded)
- Laptops (Mobile Technology Lab)
- iPad Camera Connection Kit (OMK Tech Discovery Tool Kit)
- Digital camera(s) (Mobile Technology Lab)
- Flip Cameras (Mobile Technology Lab)
- Wireless printer (optional—Mobile Technology Lab)
- Wireless router with Internet connection (Mobile Technology Lab—necessary to make the printer connection)
- Photo paper (optional)

Day of the Event

Roles for Uniformed Service Member:

- Help youth identify and form a positive connection with another Service Member
- Encourage youth to ask questions about the Deployment Cycle
- Talk about their favorite photos they have taken or received while they were deployed and why they are so special

Roles for Volunteers:

- Help youth with all activities and form a positive connection with the youth
- Provide positive support for youth throughout the activities
- Assist youth in setting positive goals
- Facilitate problem solving and use teamwork when youth become frustrated or have questions
- Assist with setup and cleanup

Before the Youth Arrive….

1. Orient your group of volunteers to the activity (make sure they all have nametags and introduce themselves to each other before you get started).
2. Have Tech volunteer make sure Internet access is working, make sure the PrintCentral Pro and ArtStudio apps are downloaded and set up printing capabilities for the iPad 2 devices via a laptop (if desired for optional portion of Activity 3).
3. **Activity Orientation for All Volunteers (**before the beginning of the event):
    - Review each activity
    - Cue volunteers where to look for the Life/Resilience Skill objectives in the directions and remind them of the importance of talking about them during the activity; remind them how these will help youth manage deployment issues and adjustments
    - Have volunteers help set up for the event

Set up Your Space:

Space: You will need tables, chairs and a large space with power outlets; wireless Internet access is required. You may also want to have an outdoor space available, but plan for a bad-weather back-up as well.

- Post **Life/Resilience Skill signs** around the room.
- Set up a greeting table with a sign-in sheet.

WHAT TO DO **Perspective Through Another Lens**

As the Youth Arrive….

- Have youth and accompanying adult fill out the sign-in sheet and have participant(s) put on a nametag
- Don’t forget to introduce yourself and your team of volunteers, the Uniformed Service Member and others that might be in the room, along with their roles

Icebreaker: **Walk This Way (30 Minutes)**

1. Provide each youth a copy of the "Walk This Way" handout and a writing utensil.
2. *"Welcome to the OMK Tech Discovery experience! Today's activities focus on us getting to know each other and discovering some of the things we have in common as Military youth. To begin, we're going to play the 'Walk This Way' game to get to know each other."*
3. *"Walk This Way is a BINGO-type game where you have the opportunity to find out who among us has experienced the situations in each space on the game. Try to meet everyone in the room and discover which of these experiences you have in common."*
4. *"As you meet people in the room, have them place their initials in the box of the experience you both share."*
5. Once the game is finished, have youth form a circle and briefly introduce themselves (including their name and where they are from). Then have them identify and discuss one experience they have in common with another member of the group, from their "Walk This Way" sheet.

Debriefing Questions:

- Were you able to fill all the boxes with initials?
- Were there some boxes that no one could fill? Which ones?
- What were some things you learned from this activity?
- In this activity, we learned that we all have some shared experiences; what are some of those we have in common?
- How does it make you feel now that you know that other youth have experienced some of the same things you have?

Activity 1: **iPad 2 and Camera Basics (60 Minutes)**

1. *"Now that we've all met each other, separate yourselves into 4 groups of 3."*
2. Give everyone time to look around and form teams, then have volunteers hand out an iPad 2 to each team.
3. *"These are delicate and expensive devises so we need to have rules."* Review the **iPad 2 Rules and Regulations** (read the following out loud and then ask youth for examples of what NOT to do):
   - Handle with care
   - Use 2 hands at all times
   - Keep it clean
   - If you break it, you buy it ($500.00)
4. *"How many of you have used an iPad 2 before?"* Demonstrate: On/Off; tablet image orientation; how to swipe and open apps; how to take still and video images; how to reverse your camera so that it is taking a picture of you.
5. *"How many of you have used a digital camera before?"* Show youth where digital and Flip cameras are available for them to use as well. Quickly demonstrate: On/Off; how to take a picture; how to zoom; menu options and how to review and other particulars of the individual cameras available to you.

6. *"Before we begin, does anyone know how long photography has been around? According to National Geographic, photography has been around for nearly 200 years. But the first cameras were not digital, like the ones we're using today."*
7. Hand out "History of the Camera" worksheet and writing utensils.
8. *"Using your iPad 2 or a laptop, let's discover the history of cameras and photography together. Open Safari on your iPad 2 or the search engine on your laptop and search 'history of the camera.' For 5 to 10 minutes, we want your team to search and discover information on a specific type of camera in history."*
   - Group 1: Camera obscura
   - Group 2: Daguerreotype & calotype cameras
   - Group 3: Film cameras
   - Group 4: Digital cameras
9. *"Here are some questions to consider. Use your worksheets to record the answers you find so you can report back to the bigger group:*
   - *When was this type of camera invented?*
   - *What type of photos did/does this camera produce?*
   - *What's one fun fact about this type of camera?"*
10. Have volunteers assist groups.
11. *"Now it's time to being exploring how to use the camera and the iPad 2 that you've been given today. First we're going to explore shot composition and different types of camera shots."*
12. Hand out the "Quick Tips for Shot Composition" packet to all the youth. Read the first 4 items out loud, then have youth take turns reading.

Activity 2: **Photo Scavenger Hunt (90 Minutes)**

1. *"Your group of 3 is going to use a camera or iPad 2 to collect some visuals using a variety of camera angles and shot composition."*
2. Hand out "Photo Scavenger Hunt" sheet.
3. *"Have each person in your team take 5 different letters or items from the list and compose shots of those. Help your teammates out if they're having trouble finding the right image to represent their item. Make sure you write down some notes about the shots so that you can talk about them later."* If space and time allow, take the groups outside. Remember to use sunscreen and/or bug spray.
4. *"Grab a clipboard and a pencil. Remember, don't run, take turns and think about safety. Stay with your group. Please use the restrooms before you get started."* As the facilitator, you may need to remind them about traffic and other nearby hazards and/or the parameters of the area that they can use.
5. *"If time allows, you can also take extra photos using each other's letters or items."*

Photo Scavenger Hunt:
"A" find something that begins with the letter "A" or represents "Adventure"
"B" find something that begins with the letter "B" or represents "Belonging"
"C" find something that beings with the letter "C" or represents "Change"
"D" find something that begins with the letter "D" or represents "Diversity"
"E" find something that begins with the letter "E" or represents "Emotions"
"F" find something that begins with the letter "F" or represents "Friendship"
"G" find something that begins with the letter "G" or represents "Generosity"
"L" find something that begins with the letter "L" or represents "Location"
"M" find something that beings with the letter "M" or represents "Memory"
"O" find something that begins with the letter "O" or represents "Open-minded"
"P" find something that begins with the letter "P" or represents "Peace"
"R" find something that begins with the letter "R" or represents "Responsibility"
"S" find something that begins with the letter "S" or represents "Sharing"
"W" find something that begins with the letter "W" or represents "World"
"Y" find something that begins with the letter "Y" or represents "Youth"

6. After the group is back and assembled, hand out a snack.
7. *"As a group, please select 1 photo from each of the following categories:*
   - *Favorite overall photo taken by each team member*
   - *A photo you think does the best job representing its particular letter and why*
   - *A photo that best utilizes a shot angle or composition technique; identify the angle or composition technique"*
8. Have each group present their favorites to the entire group. Leave time for interactions and questions from the youth.

Activity 3: **ArtStudio (30 minutes)**

"*Using the iPad 2, you'll edit 1 of your photos from the Photo Scavenger Hunt to see it from a different perspective."*

1. Each youth should choose 1 of their photos to edit.
2. Open the ArtStudio application on the iPad 2.
3. Load images from iPad 2 Camera Roll or load photos from Flip Camera or digital camera into the iPad 2 using the iPad Camera Connection Kit and the SD chip from the camera.
4. Each youth should edit their 1 image.
5. Once the youth have finished, they can email their images to themselves.
6. Optional: "Photo Booth," found on the iPad 2, is a fun app. Have youth take pictures of themselves. It can be used if you have extra time to get the youth acting silly and lighten the mood. After they use the app, ask them to show others and have them ask the group, "Who am I?" in the image they choose to share.
7. Optional: using the wireless printer and a laptop to act as a server, have youth print their photos through their iPad 2 with PrintCentral Pro. (Open PrintCentral Pro, open your image, find the printer, then print.)
8. Make sure you have youth delete the images off the iPad 2 after they have emailed the images they want to keep.

Talk It Over: **(20 Minutes)**

1. To help you focus the discussion, briefly look at Life Skill, Resilience Skill and Science and Technology Objectives on page 1.
2. Lead the entire group through the Talk It Over discussion.
3. Remember to include the Uniformed Service Member in the discussion.
4. Have a volunteer take comments/notes about group dynamics and specific youth comments.

Share/Reflect

- What was your favorite aspect of working on this photography activity?
- What did you learn about cameras and photography while working on this activity?
- What did you learn about yourself during this activity?
- How did this activity better connect you to others and your surroundings?
- How did the images you chose help you put your emotions into words?

Process

1. What problems came up during the Photo Scavenger Hunt activity and how did you overcome them?
2. What did you learn from the photography activity that you didn't know before the activity?
3. In what ways can you apply what you learned in today's activities to life in the real world?
4. What new questions do you have about what you experienced through the activities?

Generalize

5. What did you discover you have in common with other group members?
6. How would you describe your skills at shot composition?
7. In what ways have you learned to see items from different perspectives?
8. How did you learn to communicate more effectively while working with your team?

Apply

- How do the skills learned during this activity connect to skills you use in everyday life?
- How can you use the skills that you learned today in different situations?
- What aspects could you relate to in the Walk This Way and Photo Scavenger Hunt activities?
- In what ways can the skills learned today help you during the upcoming deployment of your Service Member?

Debrief Youth on Life/Resilience Skills:

Point to the Life/Resilience Skill signs that are posted around the room:
Teamwork, Decision Making, Social and Spiritual.
As you point to each sign, ask:

- How have our activities today helped you develop your _____ (skills)?
- Why do you think these skills are important?

Closing & Cleanup: **(10 Minutes)**

"Today we learned that we have more in common with each other than we may have thought when we walked through the door. Then we explored the history of a tool: the camera, which can be used to view things from a different perspective through photos. Finally we used our own cameras to capture our images from our individual perspectives. Think about the activities that you completed today, the friends you made and the teamwork and decision-making skills that you used.

"How can seeing things from different perspectives and these life skills help you as your Service Member is preparing to deploy? As you leave today, please take the parent letter and share it with your parent or guardian. And make sure each group has returned the iPad 2 devices or cameras that were used during today's activities."

Extend the Activity:

- Use letters not listed in the Photo Scavenger Hunt and pick words that begin with those letters to take additional photos

Post Event

Lead Volunteer:

- Check to make sure that the space is clean and returned to the arrangement it was in prior to your arrival
- Inventory and put all equipment and supplies back into their respective kits and pack them up to return as directed; make sure all iPad 2 devices, connecter kits, cords and power chargers are returned to the OMK Tech Discovery Tool Kit
- Fill out report:
  - Names of all volunteers
  - Number and names of youth (attach sign-in sheet)
  - Quotes from youth about activities
  - Other important notes on activities, volunteers and youth
  - Critical follow-ups (parents about behavior/worries about a particular youth, inappropriate language from a volunteer, etc.)
  - Indicate if there are videos, photos or other content that needs to be forwarded to youth/Family; make it clear which items go to each youth/Family

Activity Developed for OMK Tech Discovery by:
Lead Author: Teresa Noon, OMK Project Director, University of Arizona Cooperative Extension, 4-H Youth Development
Assistant Author: Amber Runke, 4-H/OMK Program Specialist, University of Minnesota Extension Center for Youth Development
Contributing Author: Eric Vogel, Regional Extension Educator, University of Minnesota Extension Center for Youth Development
Instructional Design Specialist: Wendy Rubinyi (rubinyi.com)

The OMK Tech Discovery Curriculum was developed at the University of Minnesota Extension Center for Youth Development through a partnership of the Department of Defense, Office of the Secretary of Defense, Military Community & Family Policy, Office of Family Policy/Children and Youth and the United States Department of Agriculture, National Institute of Food and Agriculture, Institute of Youth, Family and Community, 4-H National Headquarters under Kansas State University special project number 2010-48713-21882.

Perspective Through Another Lens

Dear Family,

Today we learned that we have more in common with each other than we may have initially thought when we walked through the door, thus developing a different perspective on one another.

To begin, we participated in an activity entitled "Walk This Way" – a BINGO-type game where we had the opportunity to find out who among us could relate to the various scenarios described in each space on the game that correspond to the experiences that Military youth often have.

Following that activity, we explored the history of a tool: the camera, which can be used to view things from a different perspective through photos. Finally, we used cameras to capture images from our own different perspectives.

Through these activities, we learned skills in teamwork and decision making – working collaboratively to better respond to deployment-related challenges and experiences. We also explored the benefits of social and spiritual resilience by exploring our connections with others, communicating more effectively and paying attention to others' emotions. These life and resilience skills helped to prepare us as our Service Member is preparing to deploy.

Thanks for helping your youth participate in this OMK Tech Discovery experience!

Best regards,

Conversation Starters:

- Do you like looking at the world from another perspective? Upside down? Through sunglasses? What is your favorite perspective?
- Can 2 people see the same thing, but see it in 2 different ways?
- Would you rather be in a film, be on YouTube or have your picture in a magazine? Why?
- How do you think perspective might help with our upcoming deployment?

Walk This Way

INSTRUCTIONS: Find someone in the room who has personally experienced these situations.

Have you…?

…ever had to move because of a parent or guardian's job?	…ever had a sudden major change of Family income?	…ever known the joys of a flexible schedule because you have to live life "spur of the moment?"	…felt upset or angry because you do not get enough time with your parents or guardians?	…communicated frequently with friends by either letters or emails?
…had the fear of a sibling, parent or guardian getting a serious disease or illness?	…experienced stress or anxiety over the last year?	…had to quit a sports team or a club because you had to move?	…had a dog?	…ever felt like your parent or guardian has missed a major milestone in your life?
…had a pen pal outside the United States?	…ever enjoyed spending time with others who share similar experiences?	**FREE SPACE** OMK CAN MAKE A DIFFERENCE **FREE SPACE**	…had to stay with Family members or friends while a parent or guardian went away for an extended period of time?	…not had communication with a parent or guardian for over 2 weeks when they were away from home?
…ever been confused as to where "home" really is?	…attended 3 or more different schools?	…gotten a letter or email from your parent or guardian while they were away from home?	…had to complete the housework by yourself?	…got a parent or guardian who is currently enrolled in the Military?
…traveled internationally?	…listened to recorded stories from parents or guardians because they were away from home?	…dreaded listening to the news or reading the newspaper for fear of bad news?	…had to celebrate holidays or birthdays without parents or guardians?	…ever lived outside of the state you are currently living in?

History of the Camera

For 5 to 10 minutes, your team should search for information on a specific type of camera in history:

Group 1: Camera obscura

Group 2: Daguerreotype & calotype cameras

Group 3: Film cameras

Group 4: Digital cameras

Questions to Consider and Report Back to the Group:

- When was this type of camera invented?
- What type of photos did/does this camera produce?
- What is one fun fact about this type of camera?

Photo Scavenger Hunt

“A” find something that begins with the letter “A” or represents “Adventure”

“B” find something that begins with the letter “B” or represents “Belonging”

“C” find something that beings with the letter “C” or represents “Change”

“D” find something that begins with the letter “D” or represents “Diversity”

“E” find something that begins with the letter “E” or represents “Emotions”

“F” find something that begins with the letter “F” or represents “Friendship”

“G” find something that begins with the letter “G” or represents “Generosity”

“L” find something that begins with the letter “L” or represents “Location”

“M” find something that beings with the letter “M” or represents “Memory”

“O” find something that begins with the letter “O” or represents “Open-minded”

“P” find something that begins with the letter “P” or represents “Peace”

“R” find something that begins with the letter “R” or represents “Responsibility”

“S” find something that begins with the letter “S” or represents “Sharing”

“W” find something that begins with the letter “W” or represents “World”

“Y” find something that begins with the letter “Y” or represents “Youth”

Quick Tips for Shot Composition

Framing: Focus on the subject of your photo, but also pay attention to what is in your photo's background and around the edges of your subject. Be aware of items that could be distracting, such as: people, animals, cars, poles, signs, power lines and trees.

This is an example of a shot that is distracting around the edges and in the background:

Photo Credit: Arizona Operation Military Kids – University of Arizona 2011

Rule of Thirds: Imagine the subject of your image being in a grid that divides your image into nine equal segments, using 2 vertical and 2 horizontal lines (see the example below). Try to position the most important elements of the scene along the lines, or at the points where the lines intersect, instead of in the center of the frame. Following the Rule of Thirds helps to add balance and interest to your photo.

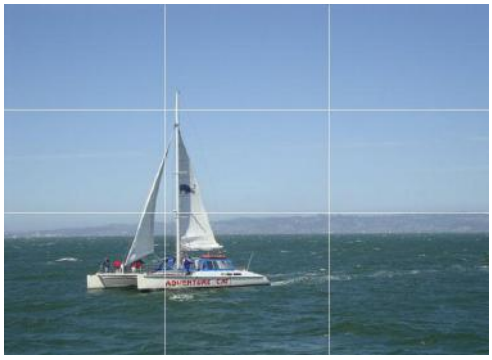

Photo Credit: Teresa Noon (AZ) Photography - 2011

Foreground/Background: Every photo has a foreground and a background. When composing your photos, pay close attention to what is in your foreground and your background. Do you want the items in your background to be focused or blurred? Are items in your foreground (for example, the subject) in focus?

This is an example of a focused foreground/blurred background:

Photo Credit: Teresa Noon (AZ) Photography - 2011

Perspective: The subject of your photo can be shot from different perspectives. For example, if your subject is close to the ground, try kneeling or shooting closer to the ground (see below), or change the angle by climbing stairs and shooting from above the subject. Changes in perspective can add dramatic effects to the photo, including textures and other details.

Photo Credit: Teresa Noon (AZ) Photography - 2011

Patterns and Interesting Effects: Look for patterns or other features of the subject that could produce interesting photo effects.

Notice how the shadows and the shapes create a dramatic effect in this shot:

Photo Credit: Teresa Noon (AZ) Photography - 2011

Exploring Camera Shots & Angles

Extreme Long Shot (ES): This type of shot establishes the setting or a sense of place. The shot is taken very far away from the subject (see below).

Photo Credit: Teresa Noon (AZ) Photography - 2011

Long Shot (LS): This type of shot captures the entire subject of the photo (see below).

Photo Credit: Arizona Operation Military Kids – University of Arizona 2011

Medium Shot (MS): This type of shot captures half of the subject in action (see 2 examples below).

Photo Credit: Arizona Operation Military Kids – University of Arizona 2011

Close Up/Extreme Close Up Shot: This type of shot focuses in closely on the subject and can focus on specific details and textures of the subject (see 3 examples below).

Photo Credit: Arizona Operation Military Kids University of Arizona 2011

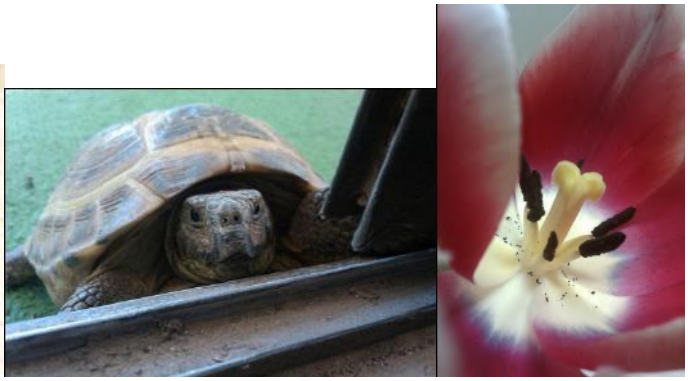

Photo Credit: Teresa Noon (AZ) Photography - 2011

Bird's Eye View: Shooting the subject from above, looking down at the subject. This type of shot can establish the setting and a sense of place (see 2 examples below).

Photo Credit: Arizona Operation Military Kids University of Arizona 2011

Photo Credit: Teresa Noon (AZ) Photography - 2011

High Angle: Shooting the subject looking down, but not as high as a Bird's Eye View. This type of shot can make the subject appear smaller (see below).

Photo Credit: Teresa Noon (AZ) Photography - 2011

Low Angle: Shooting just below the subject, looking up at them. This type of shot can make subjects look larger (as in the flower example below).

Photo Credit: Teresa Noon (AZ) Photography – 2011

Photo Credit: Arizona Operation Military Kids University of Arizona 2011

Tilted Angle: Shooting from an angle, creating a feeling of imbalance and alternate perspective (see 2 examples below).

Photo Credit: Teresa Noon (AZ) Photography – 2011

Practice using different composition techniques and angles as we continue with our activities today or after you go home.

Rise to the Challenge

Time Needed: 2 hours
Skill Level: Basic
Number of Youth: 12
Deployment Segment: Pre-Deployment
Internet Required: Optional

Life Skill Objectives:

- **Communication:** Use positive communication to explore how to succeed in challenging situations that can happen as variables in Family life change with deployment
- **Problem Solving:** Work with others to solve problems or conflicts using inquiry learning and communication skills
- **Teamwork:** Collaborate with others to succeed with the challenges in the activity

Resilience Skill Objectives:

- **Emotional:** Approach challenges in a positive and optimistic way
- **Social:** Respond to others with authentic, active and constructive interest
- **Family:** Understand the different communication styles people use when resolving conflicts and problems
- **Spiritual:** Look for and appreciate the positive things that can happen

Science and Technology Objectives:

- Understand the basics of buoyancy through the use of a balloon
- Demonstrate the knowledge and use of inquiry learning

Activity Overview:
Youth will create their own dirigible balloon to experience 3 different challenges that engage them in learning about flight, buoyancy and balance.

Shout Out to Youth!
"Rise to the challenge" of flying through the air! Use helium, balloons and weights to manage buoyancy, win races and see who the most ingenious pilot is!

Prerequisites: None

Breakdown of Activities:

Icebreaker	Don't Crash Your Balloon!	(20 Minutes)
Activity 1:	Magic Ping-Pong	(15 Minutes)
Activity 2:	Blimps Ahoy!	(45 Minutes)
Activity 3:	Flight School Summit	(30 Minutes)
Closing & Cleanup		(10 Minutes)

Budget Range for Activity: $2/youth

Space Needed:
You will need a large room without too much furniture.

Before the Event

Get Ready:

Tasks for Lead Volunteer

- Do Volunteer Training with the additional OMK Tech Discovery training (found at: http://www.4-hmilitarypartnerships.org/p.aspx?tabid=187)
- Review the activity, all materials and handouts
- Secure a large enough space and facilities to hold event
- Review "The Process of Inquiry" handout
- Assemble a personal balloon; practice the activities so that you can demonstrate to your team of volunteers and youth
- Review and practice the "Blimps Ahoy!" challenge
- Identify where you will obtain helium filled balloons

Do Ahead:

In coordination with the Military Point of Contact:

1. Schedule use of OMK Yellow Ribbon Tool Kit.
2. Schedule use of the OMK Tech Discovery Tool Kit. (If you anticipate a large group of youth, schedule additional OMK Tech Discovery Tool Kits. 1 Kit=12 youth.)
3. Schedule Uniformed Service Member and at least 1 volunteer per 6 youth to participate in the activity.
4. Schedule a Military Family Life Consultant (MFLC).
5. Borrow or buy supplies.
6. Contact volunteers and go through online training (to learn more before you show up about OMK and OMK Tech Discovery).

Copy:

- Sign-in sheet (OMK Tech Discovery Tool Kit)
- Parent letter (1 per youth = 12 copies)
- "The Process of Inquiry" handout (1 copy per each volunteer; found at the end of the activity plan)

Get from OMK Yellow Ribbon Tool Kit:

- Boom box
- CDs

Get from OMK Tech Discovery Tool Kit:

- Laminated Life/Resilience Skill signs to post around the room (Communication, Teamwork, Problem Solving, Emotional, Social, Family and Spiritual objectives)
- Sign-in sheet
- Nametags
- Writing utensils
- Balloons (20 minimum so that you have a couple of extras on hand)

Buy or Borrow Supplies

Icebreaker: Don't Crash Your Balloon!

- Balloons (OMK Tech Discovery Took Kit, 1 per youth=12 balloons NOT YET blown up)
- Nametags for all youth, volunteers, and anyone else who will be present (OMK Tech Discovery Tool Kit)
- Writing utensils (OMK Tech Discovery Tool Kit)
- Table for sign-in sheet
- Sign-in sheet (OMK Tech Discovery Tool Kit)
- Boom box (OMK Yellow Ribbon Tool Kit)
- CDs (OMK Yellow Ribbon Tool Kit)

Activity 1: Magic Ping-Pong

- 4 hair dryers
- 4 ping-pong balls
- 4 plastic funnels (medium sized)
- 4 empty toilet paper tubes
- Extension cords

Activity 2: Blimps Ahoy!

- Helium filled balloons (1 per team = 6 total)
- Masking tape to mark a starting and finishing line
- 6 paper cups
- 6 handheld fans
- Washers (variety of sizes to use as weights)
- Coins (variety to use as weights)
- Playdough (to use as weights)
- 6 pairs of scissors
- Small pad of sticky notes
- Writing utensils (OMK Tech Discovery Took Kit)
- 6 yardsticks

Day of the Event

Roles for Uniformed Service Member:

- Help youth identify and form a positive connection with another Service Member
- Encourage youth to ask questions about the Deployment Cycle
- Talk about how you or others have seen different modes of flight during your deployment
- Share your personal stories about flight, buoyancy in life and the importance of innovation

Roles for Volunteers:

- Help youth with all activities and form a positive connection with youth
- Provide positive support for youth throughout the activities
- Assist youth in setting positive goals
- Model problem-solving strategies
- Facilitate problem solving and use teamwork when youth become frustrated or have questions
- Assist with setup and cleanup

Before the Youth Arrive….

1. Orient your group of volunteers to the activity (make sure they all have nametags and introduce themselves to each other before you get started).
2. Make sure to have all the supplies ready for Activity 2 and use masking tape to set up a starting point and a finishing point for the second challenge in Activity 2.
3. **Activity Orientation for All Volunteers** (onsite, email or conference call):
   - Discuss **inquiry learning**; handout and review "The Process of Inquiry" chart
   - Review each activity
   - Cue volunteers where to look for the Life/Resilience Skill objectives in the directions and remind them of the importance of discussing them during the activity; remind them how these will help youth manage deployment issues and adjustments
   - Have volunteers help set up for the event

Set up Your Space:

Space: You will need a large room without too much furniture.

1. Post **Life/Resilience Skill signs** around the room.
2. Set up a greeting table with a sign-in sheet.
3. If necessary, move furniture to the side of the room for the activities.
4. Set up boom box.
5. Turn down air conditioner or heat to avoid air waves.

WHAT TO DO **Rise to the Challenge**

As the Youth Arrive….

1. Have youth and accompanying adult fill out the sign-in sheet and have participant(s) put on a nametag.
2. Welcome them as they arrive to the room.

Icebreaker: **Don't Crash Your Balloon! (20 Minutes)**

"*I'd like to welcome you to Rise to the Challenge. Once you've signed in, you can find a place to sit down on the floor."*

1. After all of the participants have signed in, give them each a balloon; instruct them not to blow it up until they are given the instructions to do so.
2. *"Your first objective is to keep your balloon up in the air. Your second objective is to keep your hands behind your back. You can't touch the balloons at all with your hands or your feet. If your balloon touches the floor, your feet or your hands, you'll need to sit out."*
3. Tell the group to blow up their balloons.
4. *"Let's start the game!"*
5. Turn on some music on the boom box.
6. Monitor the group and have them sit out if their balloon touches the ground or their hands or feet.
7. After they have played 2 or 3 rounds, have them sit down again.
8. *"Thank you for participating in this event. I appreciate your participation. Please sit down where you are."*
9. Introduce yourself and your team of volunteers, the Uniformed Service Member and others that might be in the room, along with their roles.

Debriefing Questions:

"Let's take a few minutes and talk about what we just did."

- What was difficult about this activity?
- What was it like to keep your balloon in the air?
- When were you having fun?
- Where else have you had fun and learned new things at the same time?
- Where have you faced similar challenges in your life?
- What are some things in your life that you have to keep up in the air?
- How will you act differently in the future as a result of this experience?

Activity 1: **Magic Ping-Pong (15 Minutes)**

"There are 4 major forces involved in flight: lift, weight (gravity), thrust and drag. We will be using some common household objects to help us think about the process of flight."

1. Break youth into 4 groups of 3.
2. Give each group a funnel, an empty toilet paper roll, a hairdryer and a ping-pong ball.
3. Have them try to blow through the funnel and the tube to see if they can float the ball (sometimes the harder you blow, the tighter the ball gets in the funnel).

4. Next have them plug in the hairdryers and see if they can float the ball.
5. Have the youth experiment with the speeds on the dryer and decide if it works better with the toilet paper roll or the funnel.
6. Try it in both directions with the funnel and see what happens; run the hairdryer over the wide mouth of the funnel.
7. *"What happens to the ping-pong ball when you try different things?"*
8. Discuss air flow and curved surfaces with the group.

"You're using air to lift the ping-pong ball. How? By controlling a force called air pressure. Pressure is what we call it when something pushes on something else.

"What you've just seen is an example of what's called Bernoulli's principle. Bernoulli, a Swiss scientist who wanted to find out how these things work, discovered this effect more than 250 years ago. He found that the faster air slips past the surface of something, the less the air pushes on that surface (and so the lower its pressure).

"When you place the ball in the stream of air created by the hair dryer, you force the air to flow around the ball and create an area of lower pressure. The still air surrounding the air stream has more pressure and pushes the ball to keep it snuggled in the stream.

"*Remember some of the principles we've learned in this activity. It will help you with the challenges for our next activity."*

Activity 2: **Blimps Ahoy! (45 minutes)**

Make sure to have all the supplies ready for this experience before you begin. Use masking tape to set up a starting point and a finishing point for the second challenge.

"Ballooning has been around since the late 1700s. Individuals such as Jean-Francois Pilatre de Rozier, Ben Abruzzo, Maxie Anderson and Larry Newman gave ballooning its foundation.

"Hot air balloons create warmer air that rises in cooler air. This is because hot air is lighter than cool air, as it has less mass per unit of volume.

"Today, instead of hot air, we'll be using balloons filled with a gas (helium) that is lighter than air. That will make the balloons float. This is like a type of craft called an airship or dirigible, which is a 'lighter-than-air aircraft.' Unlike aerodynamic aircraft such as fixed-wing aircraft and helicopters, which produce lift by moving a wing through the air, and unlike hot air balloons which stay aloft by filling a large cavity with a lifting gas, this type of 'blimp' is not used much today. One of the reasons is because the hydrogen gas that's used to fill the dirigible is very explosive. This type of craft can be steered and propelled through the air using rudders and propellers or other thrust mechanisms."

1. "*Today we're going to experience flight on a small scale using helium-filled balloons."*
2. Youth will break into pairs; start off by numbering the group 1-6.

3. Now pair the 1's and the 2's and so on until everyone is paired up (if you need a group of 3 at the end for an odd number of youth, that will work too).
4. Make sure the youth introduce themselves and tell something about themselves to their partner (such as a hobby or a sport they enjoy).
5. Have each team find a spot in the room to work.
6. Hand out to each team:
    - Paper cup
    - String
    - Washers
    - Coins
    - Playdough
    - Sticky note
    - Writing utensil
    - Handheld fan
    - Pair of scissors
    - Yardstick
7. *"First your team will make a 'basket' for your helium-filled balloon. Then you'll attach it to your balloon."*
8. *"To make your basket, poke 3 holes equally spaced around the top of your cup. Now cut equal lengths of string and attach each string to a hole with a knot."*
9. Hand out 1 helium-filled balloon per team.
10. "*It's important while you work that you hold onto your balloon so that it doesn't fly away, so hold on tight while you do the next step of attaching the basket."*
11. *"Now take the other ends of the strings from your basket and tie all 3 pieces of string to the knot of the balloon. Make sure your basket is flat so that you can put objects in it."*
12. *"Now that you have your baskets attached, you'll use the balloons to tackle 3 different challenges:*
    - *"The first challenge is to get a balloon to float 3 feet straight up in the air; use your playdough, washers and coins as weights to balance your balloon at 3 feet; make sure to check your height with the measuring stick*
    - *"The second challenge will be to move a balloon from point A to point B using the handheld fan; there is a starting line and a finish line on the floor* (point to the masking tape on the floor)
    - *"The third challenge will be to deliver a note written on a sticky note to someone across the room using a balloon; let's see who can be the most accurate air balloon pilot"*
13. Begin the challenges when everyone has their balloons and baskets attached.
14. Have each team see if they can complete the first challenge (get your balloon to float 3 feet straight up in the air).
15. Once complete, see if the teams can complete the second challenge (move your balloon from point A to point B using the handheld fan).

16. *"Now see if you can conquer the last challenge and become the air balloon pilots of the day!"* (Deliver a note to someone across the room.)
17. *"Great job flying your balloons!"*

Activity 3: **Flight School Summit (30 Minutes)**

1. *"Now let's showcase some of our pilots in the room. Each team will take a turn and show us how your balloon flies. Each team will come to the starting line and tell us a little about what you learned and what your balloon will be doing. Everyone please wait your turn and respect those who are up showing us their balloon."*
2. After all teams have demonstrated & balloons have been collected, continue on to Talk It Over.

Talk It Over:

1. To help you focus the discussion, briefly look at Life Skill, Resilience Skill and Science and Technology Objectives on page 1.
2. Lead the entire group through the Talk It Over discussion.
3. Remember to include the Uniformed Service Member in the discussion.
4. Have a volunteer take comments/notes about group dynamics and specific youth comments.

Share/Reflect

- Which challenge was the most interesting? Which was the least?
- What did you learn about lift, weight (gravity), thrust, drag, balance and buoyancy that surprised you?
- Did problem solving and teamwork help you approach the challenges in a positive and optimistic way?
- When you completed the activities, how did you feel?

Process

- How did you communicate and use teamwork to make your modifications?
- Throughout the process of constructing your craft, did you look for positive things that could happen?
- How did you resolve conflicts and problems during the challenges?

Generalize

- How can you use the skills you learned today to build resilience in yourself? In your Family? In your community?
- What are some things you can use to help keep your life in balance?
- What are weights in your life that hold you down? What can you do to be more buoyant and lift yourself up?
- How can you approach challenges in a positive and optimistic way during the upcoming deployment?

Apply

- How can you continue to work on resilience in your Family as variables shift and change while your Service Member is deployed?
- What supports and resources can you find in your Family and community that can help you lift and balance the upcoming deployment of your Service Member?

- How can you use teamwork to communicate with your Service Member during the deployment?

Debrief Youth on Life/Resilience Skills:
Point to the Life/Resilience Skill signs that are posted around the room:
Communication, Teamwork, Problem Solving, Emotional, Social, Family and Spiritual.
As you point to each sign, ask:

- How have our activities today helped you develop your _____ (skills)?
- Why do you think these skills are important?

Closing & Cleanup: **(10 Minutes)**
"Thank you for coming and experiencing Rise to the Challenge! I hope you had a good time, met some new friends and learned about the types of crafts, variables of lift, weight (gravity), thrust, drag, balance and buoyancy through this activity. As you leave today, please take the parent letter home with you.

"Will you help me thank the volunteers and Service Members who are here today with a round of applause? Thank you for your time with us today. Thank you for volunteering with this event."

Extend the Activity:

- On the iPad 2, look for free apps to download on ballooning
- Use the iPad 2 to record the flight challenges and the process

Post Event

Lead Volunteer:

- Check to make sure that the space is clean and returned to the arrangement it was in prior to your arrival
- Inventory and put all equipment and supplies back into their respective kits and pack them up to return as directed; make sure all iPad 2 devices, connecter kits, cords and power chargers are returned to the OMK Tech Discovery Tool Kit
- Fill out report:
  - Names of all volunteers
  - Number and names of youth (attach sign-in sheet)
  - Quotes from youth about activities
  - Other important notes on activities, volunteers and youth
  - Critical follow-ups (parents about behavior/worries about a particular youth, inappropriate language from a volunteer, etc.)
  - Indicate if there are videos, photos or other content that needs to be forwarded to youth/Family; make it clear which items go to each youth/Family

Activity Developed for OMK Tech Discovery by:
Brian McNeill, Extension Educator, 4-H Youth Development
Wendy Rubinyi, Instructional Design Specialist (rubinyi.com)

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Rise to the Challenge

Dear Family,

It was a great day! We learned about the basics of lift, weight (gravity), thrust, drag, balance and buoyancy and how they play a role in flight. "Rise to the Challenge" had your youth create their own dirigible balloon to experience 3 different challenges. Ask them about the activities and the challenges they conquered as they became test pilots.

These activities also helped your youth think about the upcoming deployment of your Service Member. Life skills of communication, problem solving and teamwork, as well as resilience skills, can help your youth cope with the emotional, social, Family and spiritual changes that will be challenging during the upcoming deployment.

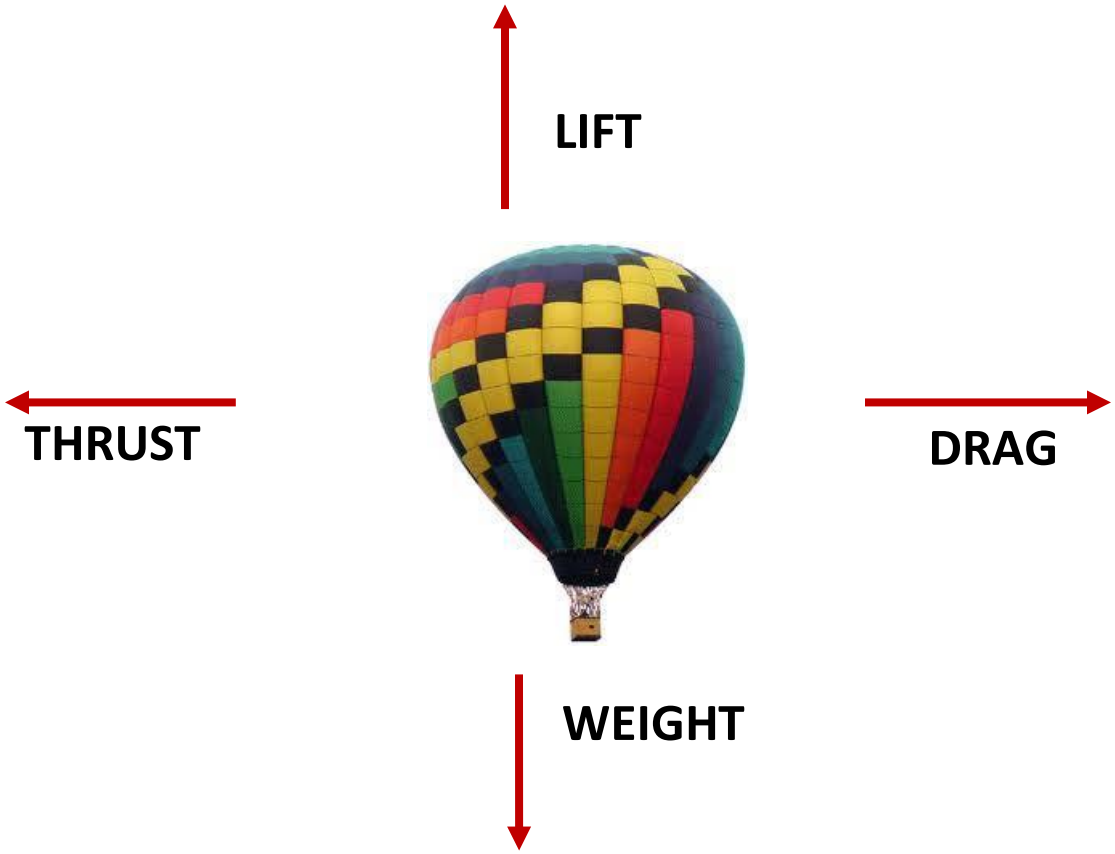
Your youth was also able to meet some new friends who they will be able to use as support during the deployment of their Service Member. Help them keep those connections and see these friends again in other OMK activities.

Thanks for helping your youth participate in this OMK Tech Discovery experience!

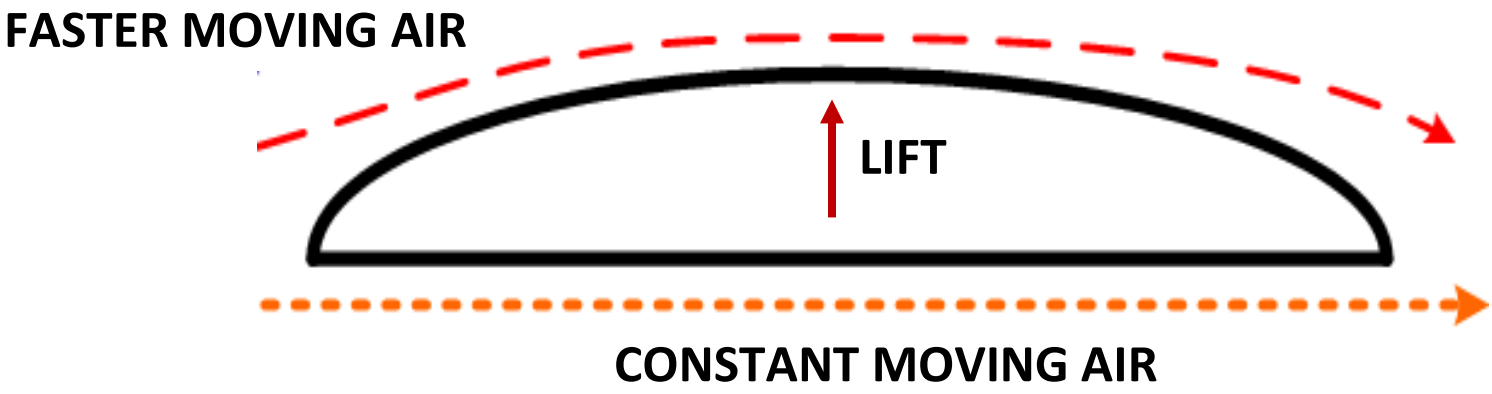
Best regards,

Conversation Starters:

- What type of vehicle would you like to learn to fly? Why?
- Would you rather be an airplane, helicopter or dirigible?
- Who would you take with you in a flying machine?
- What is your favorite type of weather?
- Where is your favorite place to be?

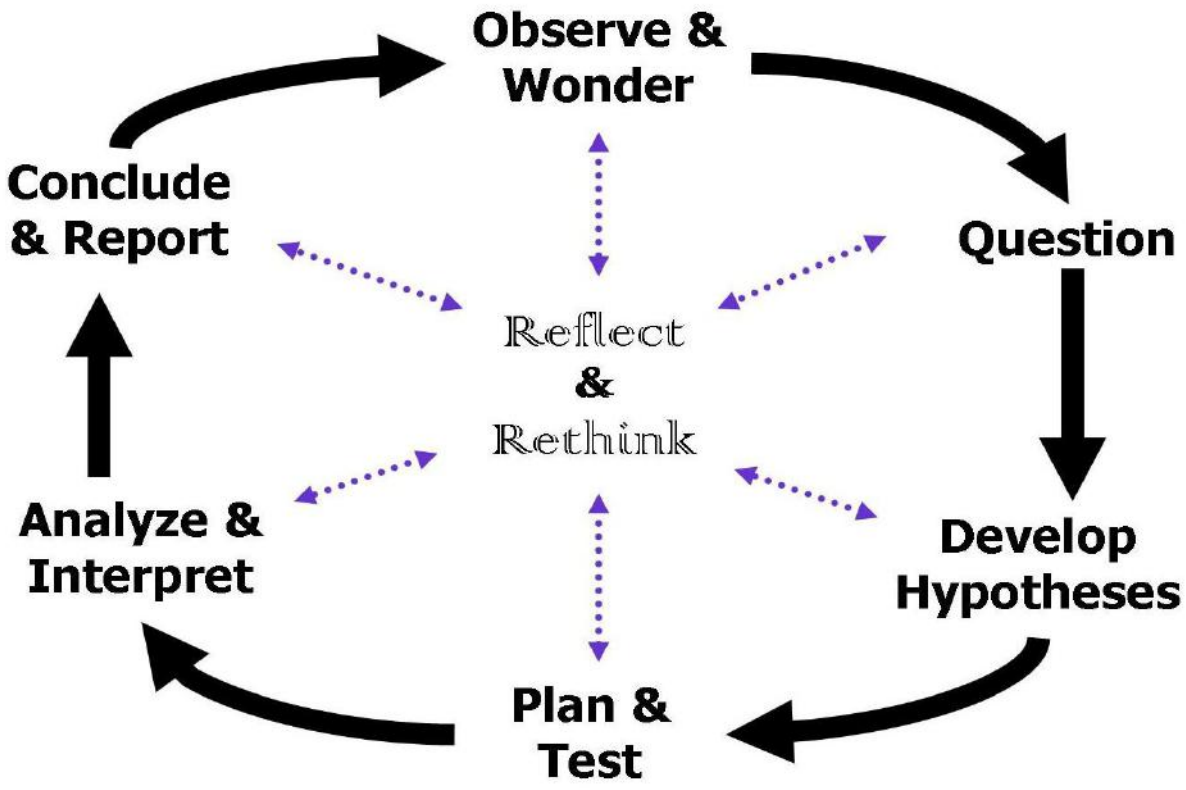


Bernoulli's Principle



Andrea Lorek Strauss, Extension Educator, University of Minnesota Extension, astrauss@umn.edu

THE PROCESS OF INQUIRY



Scientific discoveries are made through the process of inquiry, though scientists often use the word "research" or "the scientific method" to describe what they do. Inquiry involves detailed examination of phenomena with the goal of discovering and interpreting new knowledge, whether the knowledge is new to human-kind, to a small group of people, or even just to the person doing the research.

FACILITATOR SKILLS THAT FOSTER INQUIRY

Inquiry is learner-driven, not teacher driven, so the instructor must take a back seat to his or her participants' curiosity. The instructor simply facilitates the learning process. Facilitating inquiry experiences requires flexibility, patience, tolerance of ambiguity, and an emphasis on student skill building. When learner-driven inquiry takes place, the instructor becomes a learner, too. And not just in the content area, but by gaining a deeper understanding of his/her students' thinking processes as well as the process of inquiry itself.

Wind Energy Workout

Time Needed: 4 hours
Skill Level: Basic
Number of Youth: 12
Deployment Segment: Pre-deployment
Internet Required: Optional

Life Skill Objectives:

- **Communication:** Use positive communication to explore variables that change as a Service Member is deployed
- **Problem Solving:** Work with others to solve problems or conflicts using inquiry learning and communication skills
- **Teamwork:** Collaborate with others to succeed with the challenges in the activity and then identify and apply these skills to your Family team as your Service Member is deployed

Resilience Skill Objectives:

- **Emotional:** Approach challenges in a positive and optimistic way
- **Social:** Respond to others with authentic, active and constructive interest
- **Family:** Understand the different communication styles people use when resolving conflicts and problems
- **Spiritual:** Develop a sense of purpose, meaning and the strength to persevere and prevail when faced with significant challenges and responsibilities

Science and Technology Objectives:

- Understand the basic components and variables in wind energy turbines
- Demonstrate knowledge and use of the inquiry learning process

Activity Overview:
Youth will assemble a personal wind turbine and experiment with wind turbine blade variables to optimize energy output. Their final blade design will be *put to the test* in a friendly competition that challenges them to lift as many jelly beans as they can in the "Great Jelly Bean Challenge."

Shout Out to Youth!
Put wind energy to work! Assemble a personal wind turbine, experiment with blade designs and put your wind energy knowledge to work in the "Great Jelly Bean Challenge."

Prerequisites: None

Breakdown of Activities:

Icebreaker	Count on It: Chaos!	(30 Minutes)
Activity 1:	Wind Turbine Assembly	(45 Minutes)
Activity 2:	The Great Jelly Bean Challenge	(90 Minutes)
Activity 3:	The Jelly Bean Energy Summit	(60 Minutes)
Closing & Cleanup		(15 Minutes)

Budget Range for Activity: $2 to $5/youth

Space Needed:
You will need a large room with big tables, chairs and plenty of electrical outlets.

Before the Event

Get Ready:

Tasks for Lead Volunteer

- Do Volunteer Training with the additional OMK Tech Discovery training (found at: http://www.4-hmilitarypartnerships.org/p.aspx?tabid=187)
- Review the activity, all materials and handouts
- Secure an appropriate space to hold the event
- Assemble a personal wind turbine
- Practice all activities so that you can demonstrate to your team of volunteers and youth
- Review "The Great Jelly Bean Challenge" worksheet (found at the end of the activity plan)
- Review "The Process of Inquiry" handout (found at the end of the activity plan)
- View the DVD (about wind turbines) included in the OMK Tech Discovery Tool Kit
- *(Optional)* Watch the video on inquiry learning (this is important to help guide youth as they experiment): http://mediamill.cla.umn.edu/mediamill/embedqt/71888

Do Ahead:

In coordination with the Military Point of Contact:

1. Schedule use of the OMK Tech Discovery Tool Kit. (If you anticipate a large group of youth, schedule additional OMK Tech Discovery Tool Kits. 1 Kit=12 youth.)
2. Schedule use of OMK Yellow Ribbon Tool Kit.
3. Schedule use of Mobile Technology Lab.
4. Schedule Uniformed Service Member and at least 1 volunteer per 6 youth to participate in the activity.
5. Schedule a Military Family Life Consultant (MFLC).
6. Order a variety of plastic blades from KidWind (www.kidwind.org) and extra dowels *if necessary* (ask the OMK Tech Discovery Point of Contact if this is needed).
7. Borrow or buy supplies.
8. Contact volunteers and go through online training (to learn more before you show up about OMK and OMK Tech Discovery).
9. Practice putting together the ALTurbine.
10. Make several types of blades you can show and use to demonstrate.

Copy:

- Engineering Notebook (make 20 copies and staple them together in order, 1 for each youth and the volunteers plus extra copies in case someone needs to start over), including the following elements found at the end of the activity plan:
  - Engineering Notebook cover
  - "The Great Jelly Bean Challenge" worksheet (2 pages)
  - "The Process of Inquiry" handout
  - 2 extra blank sheets
- Sign-in sheet (OMK Tech Discovery Tool Kit)

- "ALTurbine Instructions" (OMK Tech Discovery Tool Kit, 1 per table = 3 copies)
- Parent letter (1 per youth = 12 copies)

Get from OMK Tech Discovery Tool Kit:

- Laminated Life/Resilience Skill signs to post around the room (Communication, Teamwork, Problem Solving, Emotional, Social, Family and Spiritual objectives)
- Sign-in sheet
- Nametags
- 3 ALTurbines (4 youth per team)
- 12 blade hubs
- 60 corrugated plastic blades
- 60 dowels
- 4 iPad 2 devices (use camera to document process)
- 6 Phillips screwdrivers
- Any other leftover blade materials available
- Writing utensils
- 24 balloons
- 12 safety glasses
- 12 Jumbo Craft Sticks
- Paper

Get from OMK Yellow Ribbon Tool Kit:

- Boom box with assorted CDs
- Microphone (to be available if the room is too noisy with the fans going)
- 6 rulers
- 3 rolls of duct tape
- 6 hot glue guns (2 per table)
- Hot glue gun glue sticks

Get from Mobile Technology Lab:

- Extension cords
- Power strips
- Wireless router with Internet connection (only necessary if you would like to have Internet access for the iPad 2 devices)
- Flip Camera (can use in addition to iPad 2 cameras to document process)
- Digital camera (can use in addition to iPad 2 cameras to document process)

Buy or Borrow Supplies

Icebreaker: Count on It: Chaos!

- Jumbo Craft Sticks (OMK Tech Discovery Tool Kit; 1 per youth = 12)
- Container for Jumbo Craft Sticks (mason jar or sturdy cup)
- Flip chart
- 3 box fans (with 3 speeds)
- 24 balloons (OMK Tech Discovery Tool Kit; assorted colors and varieties, not yet inflated)
- 4 helium-filled balloons
- Extension cords (Mobile Technology Lab)
- Power strips (Mobile Technology Lab)
- Nametags for all youth, volunteers, and anyone else who will be present (OMK Tech Discovery Tool Kit)
- Sign-in sheet (OMK Tech Discovery Tool Kit)
- Table for sign-in sheet
- 3 Sharpie markers
- Writing utensils (OMK Tech Discovery Tool Kit)
- Boom box with assorted CDs (OMK Yellow Ribbon Tool Kit)

Activity 1: Wind Turbine Assembly

- 3 ALTurbines (OMK Tech Discovery Tool Kit; 4 youth per team)
- Engineering Notebooks (copied as earlier instructed)
- 3 table coverings
- 6 Phillips screwdrivers (OMK Tech Discovery Tool Kit)
- Flip Camera (Mobile Technology Lab; can use to document process)
- Digital camera (Mobile Technology Lab; can use to document process)
- Wireless router with Internet connection (Mobile Technology Lab, if Internet access is desired)
- 4 iPad 2 devices (OMK Tech Discovery Tool Kit; use camera to document process)
- Writing utensils (OMK Tech Discovery Tool Kit)

Activity 2: The Great Jelly Bean Challenge

- Various recyclable materials to make blades: an abundance of manila folders, balsa wood, flexible cutting boards, cardboard stock, old political signs, etc.
- 6 pairs of utility scissors or other devices that can be used to cut the plastic blades
- 3 protractors
- 3 reams of copy paper (some paper available in the OMK Tech Discovery Tool Kit)
- 3 bags of assorted jelly beans (small)
- 3 Sharpie markers
- 3 ALTurbines (OMK Tech Discovery Tool Kit; 4 youth per group)
- 12 blade hubs (OMK Tech Discovery Tool Kit)
- 60 corrugated plastic blades (OMK Tech Discovery Tool Kit)

- 60 dowels (OMK Tech Discovery Tool Kit)
- 6 Phillips screw drivers (OMK Tech Discovery Tool Kit)
- 3 rolls of duct tape (OMK Yellow Ribbon Tool Kit)
- 12 safety goggles (OMK Tech Discovery Tool Kit)
- 6 hot glue guns (OMK Yellow Ribbon Tool Kit; 2 per table)
- Hot glue gun glue sticks (OMK Yellow Ribbon Tool Kit)
- 3 box fans (with 3 speeds)
- Engineering Notebooks (copied as earlier instructed)
- 6 rulers (OMK Yellow Ribbon Tool Kit)
- 3 table coverings
- 4 iPad 2 devices (OMK Tech Discovery Tool Kit; use camera to document process)
- Flip Camera (Mobile Technology Lab; can use to document process)
- Digital camera (Mobile Technology Lab; can use to document process)
- Wireless router with Internet connection (Mobile Technology Lab, if Internet access is desired)
- Extension cords (Mobile Technology Lab)
- Power strips (Mobile Technology Lab)
- Boom box with assorted CDs (OMK Yellow Ribbon Tool Kit)
- Writing utensils (OMK Tech Discovery Tool Kit)

Activity 3: The Jelly Bean Energy Summit

- A healthy snack
- A healthy drink
- Flip chart
- Sharpie marker
- Engineering Notebooks (copied as earlier instructed)

Day of the Event

Roles for Uniformed Service Member:

- Help youth identify and form a positive connection with another Service Member
- Encourage youth to ask questions about the Deployment Cycle
- Talk about how you or others used wind energy during your deployment
- Share your personal stories about energy and the importance of innovation

Roles for Volunteers:

- Help youth with all activities and form a positive connection with youth
- Provide positive support for youth throughout the activities
- Assist youth in setting positive goals
- Model problem-solving strategies
- Facilitate problem solving and use teamwork when youth become frustrated or have questions
- Assist with setup and cleanup

Before the Youth Arrive….

1. Orient your group of volunteers to the activity (make sure they all have nametags and introduce themselves to each other before you get started).
2. **Activity Orientation for All Volunteers** (onsite, email or conference call):
   - Handout and review "The Process of Inquiry" chart
   - Discuss **inquiry learning** and how it can be applied to the discussion of the targeted life skills of **Teamwork, Communication and Problem Solving**
   - Discuss **Emotional, Social, Family and Spiritual Resilience** skills
   - Remind volunteers that engineering is about solving problems
   - Review each activity
   - Demonstrate how to assemble a personal wind turbine
   - Discuss the variables that can increase energy output and give examples to the volunteers on how they can help their team
   - Get comfortable using the personal wind turbine for power generation and lifting jelly beans
   - Cue volunteers where to look for the Life/Resilience Skill objectives in the directions and remind them of the importance of discussing them during the activity; remind them how these will help youth manage deployment issues and adjustments
   - Have volunteers help set up for the event

Set up Your Space:

Space: You will need a large room with big tables, chairs and plenty of electrical outlets.

1. Set up each table with an ALTurbine Kit (unassembled), power strip, extension cord and all the other supplies they will need for Activities 1 & 2.

2. Line up the box fans across the middle of the room and point all fans towards the ceiling; make sure you are not under a bank of lights. Make sure that anything hanging from the ceiling above the fans will not go flying.
3. Set up the boom box and have music playing as youth enter
4. Post **Life/Resilience Skill signs** around the room.
5. Set up a greeting table with a sign-in sheet, Jumbo Craft Sticks, container, a pile of not-yet-inflated balloons and some Sharpie markers.

WHAT TO DO **Wind Energy Workout**

As the Youth Arrive….

1. Have youth and accompanying adult fill out the sign-in sheet and have participant(s) put on a nametag.
2. Have youth write their name on a Jumbo Craft Stick and put the stick into a mason jar or a sturdy cup.
3. Give each youth a balloon (not yet inflated) and have them blow up and write their name on their balloon. Also hand out the helium-filled balloons to different youth.
4. Tell youth to count how many times they can hit the balloon and keep it in the air, starting over if the balloon hits the ground (keep the fans off!).
5. Youth can team up with other youth and count throws back and forth as well.
6. Youth will continue until everyone arrives.

Icebreaker: **Count on It: Chaos! (30 Minutes)**

1. When everyone is there and the door of the room is closed, turn on some music and all the fans on HIGH and see what happens. See if they can keep the balloons in the air, even if it is not their balloon!
2. And the chaos continues! As the youth get tired and you can tell enough is enough, turn off the fans and have them sit down, turn off the music and have youth go where they can see the board/flip chart.
3. Gather the youth and say:
   "Welcome to the Wind Energy Workout! Today we're going to do many fun activities that will help us talk to each other, our Families and our Service Member about issues that are important to us. The first thing we need to do, however, is to get to know each other."
4. Write down all the names and the counts without the fans on, while they catch their breath.
5. Don't forget to introduce yourself and your team of volunteers, the Uniformed Service Members and others that might be in the room, along with their roles.

Debriefing Questions:

- What happened to the balloons when the fans were turned on?
- What was the difference between the helium balloons and the regular balloons? Which were easier to control? Why?
- Were you having fun?
- When did it stop being fun?

- How long did it take for you to get tired?
- What did you do to maintain "control" of your balloon?
- Were there places in the room where you had no control, things were just always out of your control?
- What did you do /what can you do to deal with being out of control?
- How does this activity remind you of getting ready for the deployment of your Service Member?
- Did you notice the winds of change? That the routine of bouncing off of each other is suddenly changed by shifting people, places and things?

"The wind can create energy and chaos. It's up to us to take that energy and make it productive. It's the same as when your Service Member gets deployed. We need to take that energy and be resilient during the changes, bend and use the energy to move forward with our Families."

Activity 1: **Wind Turbine Assembly (45 Minutes)**

Make sure to have all directions and supplies at each station before you begin.

"*The development of alternative energy is a priority for our nation and the health of our world. Alternative energy and energy independence are also critical factors in our national security. In order to become more energy independent and better stewards of our environment, we need YOU! You and your generation are essential to the development of creative and innovative solutions to our energy dilemmas.*

"Today we're going to take a closer look at wind energy. Wind turbines are a way to capture the energy of the wind that occurs through the heating and cooling of the land, the ocean and the rotation of our planet. We've become more efficient in how we capture this energy, but there are still ways to improve designs, locations and the cost of transmitting this energy to where it's needed most.

"As the scientists and inventors of the future, we need your help. So today, we'll be working with adaptable learning turbines. Our first task is to assemble the turbines. After I demonstrate some of the basics, I will randomly form the teams using the Jumbo Craft Sticks. As you head for a table, take a fan from the middle of the room to your table.

"The first thing you'll want to do is introduce yourself to your teammates and then choose a name for your team.

"I want you to remember several things as you work: ***safety, teamwork, communication and problem solving.*** *There are signs around the room to help you remember. You'll need to work together to get the best results.*

"The assembly directions are on your tables along with an Engineering Notebook for each of you. There are many people around to ask for help if you have questions about the directions.

When you finish with the assembly, take a look at the pile of materials and start jotting down some of your ideas about blade design in your Engineering Notebooks.

"You also have iPad 2 devices and cameras at your table that you can use to record your process. Here are some ***iPad 2 Rules and Regulations*** *to remember."* (Read the following out loud and then ask youth for examples of what NOT to do):

- Handle with care
- Use 2 hands at all times
- Keep it clean
- If you break it, you buy it ($500.00)

"We will not move to The Great Jelly Bean Challenge until everyone has an assembled ALTurbine."

1. Demonstrate the ALTurbine assembly.
2. Break the youth into groups using the Jumbo Craft Sticks; remind them to choose a team name.
3. Walk around and assist with assembly as needed.

Activity 2: **The Great Jelly Bean Challenge (90 Minutes)**

1. *"Now that you have your turbine assembled, you're ready to give it some blades."*
2. Hold up some blades and pass them around.
3. "*Each of you should get a hub* (hold up) *and design your own set of blades. You'll then work as a team to test your blade's lifting power in the Great Jelly Bean Challenge!*
4. Read "The Great Jelly Bean Challenge" instructions out loud.

"You have everything you need at your table. Dowels that fit into the hub, materials to construct the blades, a ruler to mark your blades so they are attached evenly, glue guns to secure the dowels to your blades (do NOT glue the dowels to the hub) and a fan to test your blades.

"Support each other in innovation, but remember to be safe. Blades do go flying if they aren't attached securely, turbines fall and break and need to be repaired. There are safety glasses at your table. If you don't have glasses on, you must wear safety glasses as you test your blades. I know it sounds like fun, but if someone gets hurt, it isn't. So let's really think about safety!

"There are plenty of people to help you, so don't hesitate to ask if you have a question or a concern. Good luck!"

1. Help each youth choose variables (number of blades, length, pitch, shape and materials).
2. Help youth assemble blades; cue them to keep consistent measurements and designs for each blade in their Engineering Notebooks.
3. Turn on the boom box so there is some music in the room; encourage youth to have fun!
4. When youth have their data sheets (in the Engineering Notebooks) completed, gather the youth in one area for the Jelly Bean Energy Summit to share their results.
5. You will clean up after the Jelly Bean Energy Summit.

Activity 3: **The Jelly Bean Energy Summit (60 minutes)**

1. Gather youth and have them sit with their teams; they can bring a blade or the hub with them if they want.
2. Let the teams get snacks as they gather; they can eat their snack during the summit.

"As scientists and engineers, it's now time to report your results! Remember to state the name of your team and your own name. Talk about the variables you chose and why, the initial results and challenges, your hypothesis, the actual number of jelly beans lifted along with your conclusions."

1. Let youth run the summit as much as you can.
2. Have each youth share their results.
3. Have each youth write their name on the flip chart, along with the number of jelly beans lifted.
4. Each youth should talk about the variables they chose and why, the initial results and challenges, their hypothesis, the actual amount of jelly beans lifted and what they concluded; prompt youth if needed.
5. Remind youth of respectful behavior (if they need it) and model applause after each presentation.
6. After all the presentations, lead the entire group through the **Talk It Over** discussion.

Talk It Over:

1. To help you focus the discussion, briefly look at Life Skill, Resilience Skill and Science and Technology Objectives on page 1.
2. Lead the entire group through the Talk It Over discussion.
3. Remember to include the Uniformed Service Member in the discussion.
4. Have a volunteer take comments/notes about group dynamics and specific youth comments.

Share/Reflect

- What variable created the greatest impact on power output?
- Why were some combinations more successful and others not?
- What type of blade materials worked best? At low speeds? High speeds?
- What number of blades worked best? What shapes? What length? What pitch or angle?
- Did success always lift MORE jelly beans? Why or why not?
- How did communication and teamwork help you with the Great Jelly Bean Challenge?
- How did you feel about your team? Did your communication improve as you worked together?
- How did doing the Great Jelly Bean Challenge help you think about resilience?

Process

- Did the "Process of Inquiry" help you make decisions?
- What problems did you encounter with the process? How did your team solve them?
- How was everyone on your team involved?
- What did each team member contribute?
- How did your team encourage/help everyone to contribute?

- Did the process your team developed for testing variables get easier as you worked together?
- How did your team work together use problem-solving skills to make your modifications?
- How did the process help you approach challenges in a positive and optimistic way?
- What suggestions would you have for someone else who wanted to do a similar project?
- What did you learn about your own skill in communicating with others?

Generalize

- How can you use the skills you learned today to build resilience in yourself? In your Family? In your community?
- How did doing this activity help you understand the different communication styles people use when resolving conflicts and problems?
- Did it help you think about how you can "lift more weight" during the deployment?
- Can energy efficiency and innovations be used in other parts of your life? How?
- How does energy and innovation connect with your Service Member's deployment?

Apply

- What variables in your life will you have to change to "lift more weight" at home during deployment?
- How can you work with others in your house to make the weight of deployment easier?
- How are you more resilient? How can you continue to work on resilience while your Service Member is deployed?
- When things don't work or seem out of control, why is it important to experiment with a new way to look at a situation? How can this be helpful during deployment?

Debrief Youth on Life/Resilience Skills:

Point to the Life/Resilience Skill signs that are posted around the room:
Communication, Teamwork, Problem Solving, Emotional, Social, Family and Spiritual.
As you point to each sign, ask:

- How have our activities today helped you develop your _____ (skills)?
- Why do you think these skills are important?

Closing & Cleanup: **(15 Minutes)**

"We had a very busy day today! Thank you for choosing Wind Energy Workout! We hope that you had fun and learned something new about wind energy and yourselves. Think about the activities today, the friends you made and the people who helped you. Remember to focus on the skills of leadership, communication, problem solving and resilience and how they can help as your Service Member is deployed. As you leave today, please take the parent letter handed to you and give it to your parent.

"Please go back with your team and help us clean up before you head out to your ride home. Again, thanks for coming☺"

Extend the Activity:

- Look at an iPad or a computer for fun and informative apps such as: BrainPop, WTunnel, or iWindTurbine
- Add a motor and measure the energy with a multimeter to determine the most efficient blade and a blade that can lift more weight
- Take your wind turbines outside; use a wind gauge and measure how much energy you get at different wind speeds with a multimeter
- Make a mini wind farm from several ALTurbines; charge a cell phone or iPod
- These videos are particularly helpful if you are going to be doing an extended activity on wind turbines that involve motors, capacitors and mini wind farms. Some of these use an older model of the wind turbine, but the principals are the same:
  KidWind Turbine Assembly:
  http://mediamill.cla.umn.edu/mediamill/embedqt/71887
  Managing Turbine Materials and Safety:
  http://mediamill.cla.umn.edu/mediamill/embedqt/71886
- Assemble an information folder on current wind energy and alternative energy issues in your area from the Internet or local newspapers and have 1 at each table
- Have youth invent a way to take wind energy out to your Service Member; how can they use wind energy in their job?
- Assemble a book bin (order from local library or 4-H):
  1. *The Power of the Wind* by Jana Sebestik. National 4-H Curriculum, 2008.
  2. *Wind Power: 20 Projects to Make with Paper* by Clive Dobson. Firefly Books, 2010. ISBN: 978-1-55407-659-8.
  3. *Alternative Energy: Beyond Fossil Fuels* by Dana Meachen Rau. Compass Point Books, 2010. ISBN: 978-0-7565-4247-4.
  4. *Wind Power* by Neil Morris. Smart Apple Media, 2010. ISBN: 978-1-59920-344-7.
  5. *Our Choice: How We Can Solve the Climate Crisis* by Al Gore. Puffin Books and Melcher Media, Young Readers Edition, 2009. ISBN: 978-0-14-240981-7.
  6. *Power from the Wind: Achieving Energy Independence*: *A Practical Guide for Small-Scale Energy Production* by Mick Sagrillo and Ian Woofenden. New Society Publishers, 2009. ISBN: 978-0-86571-620-9.
  7. *Ten Technologies to Save the Planet: Energy Options for a Low-Carbon Future* by Chris Goodall. Greystone Books, 2010. ISBN: 978-1-55365-525-1.

Post Event

Lead Volunteer:

- Check to make sure that the space is clean and returned to the arrangement it was in prior to your arrival
- Inventory and put all equipment and supplies back into their respective kits and pack them up to return as directed; make sure all iPad 2 devices, connecter kits, cords and power chargers are returned to the OMK Tech Discovery Tool Kit

- Fill out report:
  - Names of all volunteers
  - Number and names of youth (attach sign-in sheet)
  - Quotes from youth about activities
  - Other important notes on activities, volunteers and youth
  - Critical follow-ups (parents about behavior/worries about a particular youth, inappropriate language from a volunteer, etc.)
  - Indicate if there are videos, photos or other content that needs to be forwarded to youth/Family; make it clear which items go to each youth/Family

Activity Developed for OMK Tech Discovery by:
Wendy Rubinyi, Instructional Design Specialist (rubinyi.com)

The OMK Tech Discovery Curriculum was developed at the University of Minnesota Extension Center for Youth Development through a partnership of the Department of Defense, Office of the Secretary of Defense, Military Community & Family Policy, Office of Family Policy/Children and Youth and the United States Department of Agriculture, National Institute of Food and Agriculture, Institute of Youth, Family and Community, 4-H National Headquarters under Kansas State University special project number 2010-48713-21882.

Wind Energy Workout

Dear Family,

Today we put wind energy to work! As future engineers, we assembled a personal wind turbine, experimented with blade designs and put our wind energy knowledge to work in "The Great Jelly Bean Challenge." The skills your youth learned may help win the war on energy dependence—they could be the next new energy innovator! Ask your youth about how they worked as a team to lift jelly beans and how they worked on engineering and problem solving.

It was a fun day, but it also had a more serious side. We had discussions about the upcoming deployment of your Service Member and talked about how resilience plays a role in surviving deployment. We also talked about how youth may have to lift a little more weight (i.e. jelly beans☺) while your Service Member is deployed.

Deployment is a time where winds shift in a Family and everyone has to adjust and utilize the energy in a positive way. The Great Jelly Bean Challenge started a conversation with your youth about deployment, communication, problem solving, leadership and resilience.

Jelly beans are a great way to start a conversation. A jelly bean or jelly bean jar can represent many things. It can be permission to ask a hard question (I have the jelly bean jar, so it's my turn to speak), or a way of randomizing chores no one wants to do (red jelly bean = unloads the dishwasher, green = takes out the garbage, etc.). Try it at home!

The Great Jelly Bean Challenge was a fun activity that had your Military youth talking about resilience, the scientific process, energy and deployment. Thanks for helping your youth participate in this OMK Tech Discovery experience!

Best regards,

Conversation Starters:

- What form of energy is your favorite? Why?
- What is your favorite color jelly bean?
- When was a time you felt very resilient? Did you feel proud?
- What problem would you solve if you had super energy powers?
- Imagine you are a CEO of your own company. What is your company called? What service or product does it produce?

Wind Energy Workout Engineering Notebook

The Great Jelly Bean Challenge

Here's what you do:

1. Take a wind turbine hub.
2. Think about what design you want for your version of the wind turbine. Do a drawing if you want. Ask yourself:
    - How many blades do I want on my hub?
    - How long should they be?
    - Which materials should I use?
3. Talk with your teammates for ideas; each of you should come up with unique designs.
4. Gather the materials you need.
5. Make your blades:
    - Keep each blade as similar to each other as you can
    - Keep measurements and shapes consistent
    - Use the glue gun to attach the blades to the dowels; do NOT glue to the hub
6. Attach your blades to the hub; adjust your pitch, make sure everything is secure.
7. Work together and use your Great Jelly Bean Challenge Data Sheet (next page) as your guide and to keep track of your team's results.
8. Take turns testing each of your blades.
9. What are your initial results? Good/Not so good? +/- ? How can you modify your blades?
10. When you are ready, hypothesize how many jelly beans your design will lift.
11. Test your blades lifting jelly beans.
12. What are your conclusions? What did you learn?
13. Think about how you will tell others about your experiment and results.
14. Be a good scientist and record your results accurately; your team will be presenting your report during the Great Jelly Bean Summit.
15. Feel free to make as many blades and combinations as time allows.

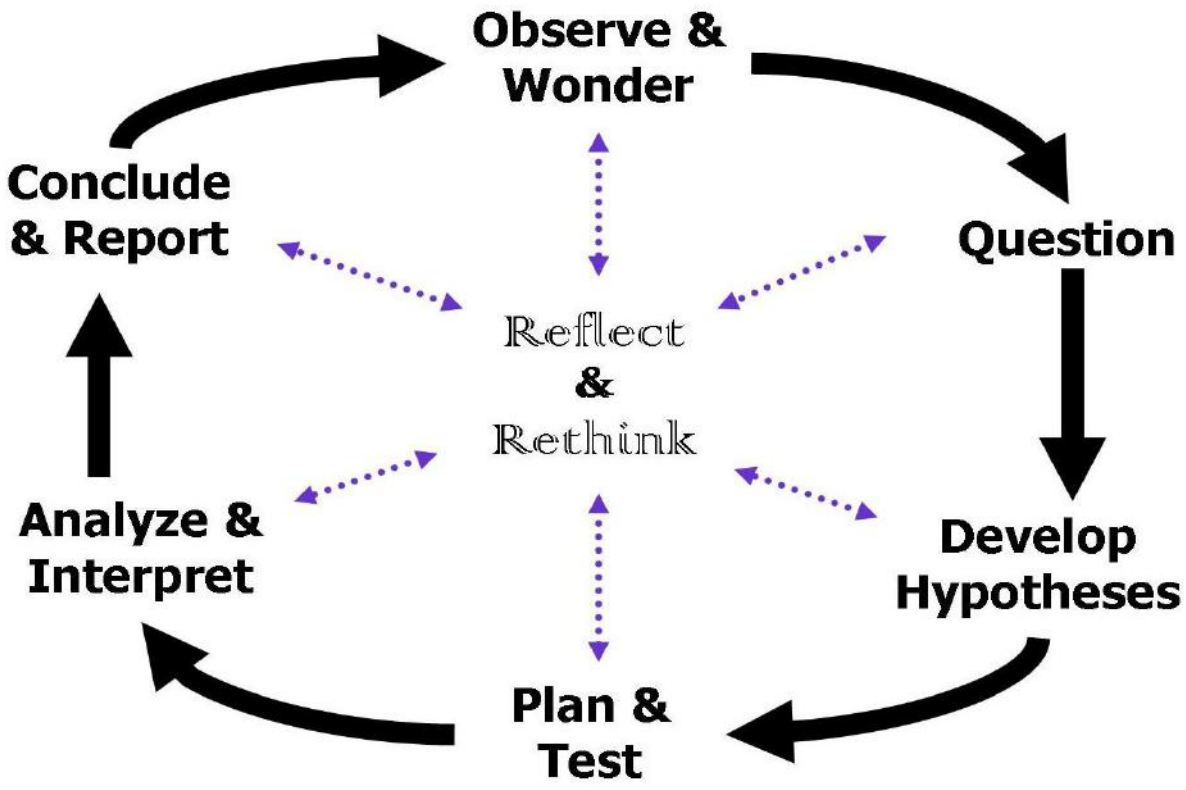
Great Jelly Bean Challenge Data Sheet

Component	Variable	Modification	Initial results ↓	Hypothesize # of Jelly Beans	Conclusion
Blade	Number of Blades	2			
		3			
		4			
		5			
	Lengths of Blades	40 cm			
		30 cm			
		20 cm			
	Pitch	15 degrees			
		30 degrees			
		45 degrees			
		60 degrees			
	Shape	Rectangular			
		Rounded			
		Tapered			
	Material	Plastic-board			
		Balsa wood			
		Cardboard/other			

Record each jelly bean your wind turbine can lift ☺

Andrea Lorek Strauss, Extension Educator, University of Minnesota Extension, astrauss@umn.edu

THE PROCESS OF INQUIRY



Scientific discoveries are made through the process of inquiry, though scientists often use the word "research" or "the scientific method" to describe what they do. Inquiry involves detailed examination of phenomena with the goal of discovering and interpreting new knowledge, whether the knowledge is new to human-kind, to a small group of people, or even just to the person doing the research.

FACILITATOR SKILLS THAT FOSTER INQUIRY

Inquiry is learner-driven, not teacher driven, so the instructor must take a back seat to his or her participants' curiosity. The instructor simply facilitates the learning process. Facilitating inquiry experiences requires flexibility, patience, tolerance of ambiguity, and an emphasis on student skill building. When learner-driven inquiry takes place, the instructor becomes a learner, too. And not just in the content area, but by gaining a deeper understanding of his/her students' thinking processes as well as the process of inquiry itself.