

JUNIOR GET MOVING! JOURNEY (ENERGIZE) - MEETING 1

Journey Award Purpose: When girls have earned this award, they'll have learned about different kinds of energy and how to use energy-efficiently.

Activity Plan Length: 1.5 hours

Time	Activity	Materials Needed
15 minutes	Getting Started <ul style="list-style-type: none"> Girls recite the Girl Scout Promise + Law. 	<input type="checkbox"/> (Optional) Girl Scout Promise and Law poster
10 minutes	Ultimate Power Plant <ul style="list-style-type: none"> Girls discuss what they think energy does and has the ability to do. 	<input type="checkbox"/> Outline of a power plant on poster board, whiteboard, or easel <input type="checkbox"/> Sticky notes <input type="checkbox"/> Writing utensils
15 minutes	Recycle Town <ul style="list-style-type: none"> Girls explore ways to be energy efficient. 	<input type="checkbox"/> Bottle caps, poker chips, or other small tokens (one per girl) <input type="checkbox"/> Plastic or paper cups (one per girl) <input type="checkbox"/> Two ice cream buckets or water pitchers of the same size <input type="checkbox"/> Large water reservoir, such as a water cooler <input type="checkbox"/> Open space
10 minutes	Edible Compost Pile and Snack Chat <ul style="list-style-type: none"> Girls enjoy a healthy snack while discussing compost and what they've learned. 	<input type="checkbox"/> Clear cups or bowls <input type="checkbox"/> Spoons <input type="checkbox"/> Serving utensils <input type="checkbox"/> "Greens" food items <input type="checkbox"/> "Browns" food items <input type="checkbox"/> Healthy snack
10 minutes	Family Energy Pledge <ul style="list-style-type: none"> Girls pledge to save energy. 	<input type="checkbox"/> Paper <input type="checkbox"/> Writing utensils
15 minutes	Wrapping Up	<input type="checkbox"/> (Optional) Make New Friends song lyrics poster

Getting Started

Time: 15 minutes

Materials Needed: (Optional) Girl Scout Promise and Law poster

Welcome everyone to the meeting, recite the Girl Scout Promise and Law.



Activity #1: Ultimate Power Plant

Time: 10 minutes

Journey Connection: Session 1 – Start Your Engines

Materials Needed: Outline of a power plant drawn on poster board, whiteboard, or easel; sticky notes; writing utensils
Prep Needed:

- Draw the outline of a power plant on poster board, whiteboard, or easel, and include word or symbols representing the following types of energy: human power, solar power, electricity, chemical energy, heat, and mechanical energy (such as a robot, engine, or car).
1. Introduce the girls to the topic of energy by asking them to describe what they think energy is or does. If no one mentions it, point out that one way to think of energy is that it is the ability to do work.
 2. Tell the girls that energy can take many different forms. The sun gives us energy in heat and light, and plants use that energy to produce food. We eat food to produce energy ourselves, which we can then use to do work and create other kinds of energy. We use electricity to make machines and devices work; the electricity is generated from coal, gas, nuclear energy, hydroelectric dams, or heat from the earth. Chemicals react together to generate heat or movement, and things that are heated can be turned into mechanical energy in a machine's moving parts.
 3. Give each girl some sticky notes and a writing utensil. Ask them to think about their week and recall a time when something they did involved energy.
 4. The power plant or space on the board represents all of the different kinds of energy as if it all comes from one source. The girls' task is to write one of their energy uses on a sticky note and post it on top of the power plant. These are all things that need energy from our ultimate power plant source. If you have placed words or symbols on your power plant drawing, girls may choose to post their energy use near the energy type that seems most closely related. For example, if a girl writes, "play soccer" on her sticky note, she can post it near the "human power" word/symbol on the power plant poster.
 5. Leave the sticky notes out, and inform girls that they can add more energy uses to the power plant poster as they think of them throughout the meeting.

Activity #2: Recycle Town

Time: 15 minutes

Journey Connection: Session 1 – Start Your Engines

Materials Needed: Bottle caps, poker chips, or other small tokens (at least one per girl); plastic or paper cups (one per girl); two ice cream buckets or water pitchers of the same size; large water reservoir (such as a water cooler)
Prep Needed:

- Read through directions before leading girls through the activity.
 - This activity requires a large open space. Before the game starts, spread your caps or chips around the play area. A grassy area is nice because the tokens will be harder to see. Fill your large container with water and put it at one end of the game area, and put the two empty buckets at the opposite end. There should be more than enough water in the large container to fill the two buckets.
1. Divide the group into two equal teams, and have each team line up behind one of the empty buckets. The teams represent two towns that are currently not recycling their pop cans. Each town makes its own pop cans by mining for bauxite ore, processing the ore into cans and filling the cans with pop. When the pop is gone, they throw the cans in the trash.
 2. Station yourself with the cups off to the side, between the teams and the water.
 3. When the game starts, the first person in each line collects a piece of bauxite by finding a token. They bring the token to the processor (you) to trade in for a cup, which represents the new aluminum can. Then they scoop up water in their cup (filling the can with pop) and bring it back to their line, where they empty the water into the bucket and stack the cup next to the bucket. Then they sit down at the end of the line, and the next person runs off to get her token. You can continue either until everyone has had a turn or until the bucket is full.



4. Ask the girls how it went. Ask them to look around at the bauxite area. Will they run out of bauxite (tokens) soon? What will the towns do when that happens? Are the remaining tokens harder to find? Look at the stacks of cups. What happens to these once they get thrown away?
5. Bring all the cups back to the processing site and spread the tokens out again. Now you will choose one of the towns to begin recycling (you may want to pick the team that came in second, but don't tell them that their process will be faster).
6. The first person in line at the recycling town will go through exactly the same process as before—find an ore token, trade it in for a cup, fill the cup with water, bring the water back to the bucket. Instead of starting a new stack of discarded cups, however, she hands the cup to the next person in line. This person does *not* look for ore, and does *not* get a new cup from you. Instead, they run straight to the water, fill up the cup and bring it back to the bucket, handing the cup off to the next person.
7. When finished, ask the girls what was different this time. They should notice that recycling helped the town in three different areas: raw material used (they didn't have to find more bauxite), amount of garbage sent to landfill (there were no cups stacked up in a pile) and energy consumed (in transportation and processing—it should have taken the recycling group less time to finish).
8. Introduce the idea of efficiency.
 - Everything we do requires using some type of energy. Being energy-efficient means making the best possible use of that energy in ways that are the most inexpensive, healthy and sustainable.

Activity #3: Edible Compost Pile and Snack Chat

Time: 10 minutes

Journey Connection: Session 2 – Pledging to Save Energy

Materials Needed: Clear cups or bowls, spoons, serving utensils, a combination of “greens” and “browns” food items

Prep Needed:

- Gather materials and supplies. If desired, assign a small team of girls to make a collage or poster of the information below as a fun visual aid.
- Make a poster listing different types of nitrogen-rich materials (“greens”) and carbon-rich materials (“browns”) that can be included in a compost pile. You might include:
 - Carbon-rich materials (“browns”)
 - Dried weeds/leaves
 - Woody material, including sawdust
 - Paper products
 - Straw/hay
 - Nitrogen-rich materials (“greens”)
 - Grass clippings
 - Raw fruit and vegetable waste, including peels, rinds, etc.
 - Egg shells
 - Coffee grounds
- Prepare a combination of “greens” food items:
 - Pistachio pudding, lime yogurt, or mint chocolate chip ice cream
 - Coconut with green food coloring
 - Fruit
 - White chocolate chips (represents eggshells, which are “greens”)
 - Oreo cookies, crumbled (represents coffee grounds, which are “greens”)
- Prepare a combination of “browns” food items:
 - Chopped nuts
 - Mini pretzels or pretzel pieces
 - Chocolate chips
 - Chow mein noodles
 - Trefoil or similar cookies, broken up
- (Optional) Gummy worms
- Divide food materials to make serving easier, or assign someone to help set up the snack station on the day of the meeting.



1. Introduce the idea of a compost pile and find out if anyone has used one or contributed to one before. Compost piles break down some kinds of household waste into material that a yard, garden or farm can use to grow. Ask the girls to think about how compost piles are a good energy-use practice (there is less trash to be hauled away or put in landfills, gardeners and farmers don't have to buy other fertilizers, green plants produce food and oxygen, etc.)
2. Explain that the compost pile will decompose most efficiently (there's that word again) if there is just the right balance of nitrogen and carbon. If there isn't enough nitrogen (green), the pile temperature will be too cold for microbes to get to work. If there's too much nitrogen (green), the pile may get too warm for ideal decomposition or will develop an ammonia smell. Turning the pile every now and then adds oxygen and keeps the pile from getting too damp.
3. Go over the lists of greens and browns. Notice that there is no cooked food, meat, or dairy in this compost pile. These items take longer to decompose and attract pests, so they are not recommended.
4. Sound yummy yet? Each person can now make her own pudding or ice cream reminder of what goes into a compost pile. Give each food item something to represent—for example, white chocolate for egg shells, chow mein noodles for straw, chopped peanuts for sawdust, green coconut for grass clippings, etc. Be creative!
5. Have girls layer the brown and green materials to maintain a balance in their pile. If they'd like, they can add gummy worms to their "compost piles" to speed up the process of decomposition.
6. While enjoying the "compost piles," here are some things to talk about:
 - Did you learn anything new about energy today? What did you learn?
 - What are some of your favorite things to do? What kinds of energy are you using when you do them?
 - Gardeners use compost to turn energy from humans and microbes (and earlier, plants and the sun) into new plant energy, while using less energy from power plants or vehicles. How can you use your human energy to reduce your carbon footprint?
 - Besides things to eat, what else do we get from plants?
 - Besides growing plants, what else can we get from the sun?
 - What activities do you like to do that make you feel energized?

Activity #4: Family Energy Pledge

Time: 10 minutes

Journey Connection: Session 2 – Pledging to Save Energy

Materials Needed: Paper; writing utensils

1. Hand a sheet of paper and writing utensil to each girl.
2. Review the ultimate power plant from Activity #1 and ask the girls if they thought of anything else they can add to the poster.
3. Ask them for examples of how some of these things can be done more energy-efficiently. For example, girls can turn off lights and appliances when they're not in use, buy products that use less packaging, bring reusable bags to the store and ask their parents if they can bike or walk together instead of drive.
4. Ask girls what they can do between now and the next meeting to be more energy-efficient. Optional: if they have their *Get Moving!* Journey books, girls can turn to pages 19–21 to get more ideas.
5. Girls should then create an energy-saving pledge that they can promise to do with their families, including their energy-saving ideas and some of the ideas you discussed. Optional: girls can also take home their list and create the pledge with their families.
6. Explain the following two things that girls need to do with their families before the next meeting. In order to earn the Energize Award, girls must:
 - Take home the energy-saving pledge (or develop it at home) and talk with their families about how to meet the challenge. They may decide to change the goal with their families or even try to increase their energy savings.
 - Talk with family members, friends, and neighbors to find out what they do at their jobs or community work to address energy use. Family, friends, and neighbors might install new energy-efficient



appliances, develop work systems to better use employee time, be on a committee to make their church building more green, set up community carpools, etc.

7. Tell girls to be ready to report back about the people they talked with who work on energy issues, and what worked well for their energy-saving pledge.

Wrapping Up

Time: 15 minutes

Materials Needed: (Optional) Make New Friends song lyrics poster

Close the meeting by singing Make New Friends and doing a friendship circle.

More to Explore

- Field Trip Ideas:
 - Visit a building that has been made more energy-efficient, and has someone available to talk to your group about the details. You may find one that uses one or more of the following: solar panels, passive solar systems, green roof, roof garden, rain garden, wind power or greywater conservation.
 - Go to a grocery store or other large retail store and compare packaging on similar items. Where can a shopper make a big difference in reducing packaging waste?
 - Visit a regional recycling center or community compost facility.
- Speaker Ideas:
 - Invite family members to your meeting to do the activities with you.
 - Have a nutritionist, personal trainer, or food scientist come to a meeting to talk about the energy we get from food.

