

Exploring



**ENGINEERING
EXPLORER POST
PROGRAM GUIDE**

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WHAT IS ENGINEERING EXPLORING?

Exploring is the young adult career education program of Learning for Life for both young men and women who are 14 and graduates of the eighth grade or 15 through 20 years of age.

Engineering Exploring is a youth development program centered on engineering and technology careers. Engineering Explorers might choose to investigate one of the specialties of engineering:

- ❖ Chemical
- ❖ Civil
- ❖ Electrical
- ❖ Mechanical
- ❖ Industrial
- ❖ Aerospace

They might take trips to places like Air Force bases, engineering museums, companies, or college facilities. They might learn to design equipment or use computers. The bottom line is that Engineering Exploring is action oriented.

The Five Areas of Program Emphasis is the basis of well-developed, planned program.

The Five-Step Plan for Explorer Post Program Development is the method used to organize a post program.

ORGANIZING AN EXPLORER POST

Each year Learning for Life requests support from business, industry, military, professional, service, and other community-based organizations across the country to operate Explorer posts.

The organization interested in Engineering Exploring is known as the participating organization. These participating organizations provide the program assistance for Explorer post meetings, activities, and trips through caring adult volunteer leaders recruited from the organization.

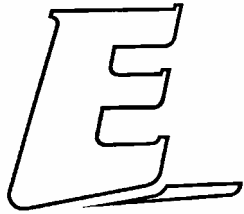
There is a five-step process to organize a post and develop the post's program. Each participating organization, through its executive officer, agrees to:

- Recruit adult volunteer leaders
- Complete the annual Memorandum of Understanding
- Utilize the Engineering Career Opportunities Worksheet
- Organize supplementary business program ideas
- Develop a post calendar
- Provide meeting facilities

Learning for Life provides:

- Program development support and resources
- Adult and youth leadership training
- Liability insurance for the organization and adults
- Planned activities
- Ongoing volunteer and staff service

FIVE STEPS TO ORGANIZING AN ENGINEERING EXPLORING POST



Organizing an Explorer post in your organization is easy!

Just follow the five-step plan for program development:

- Step One** **Organization Makes a Commitment:** Secure a commitment from the chief executive officer or head of the participating organization.
Key Items:
CEO selects the key leadership for the post
CEO sends out the adult resources survey
CEO sets the date for the career opportunities meeting and firstnighter
CEO agrees to send out invitation letter to firstnighter
CEO signs the Memorandum of Understanding
- Local high school survey of students interested in engineering has already been completed in your community.
- Step Two** **Career Opportunities Development Meeting:** Meeting of post adult leadership with a Learning for Life representative.
Key Items:
Conduct adult leadership training
Select and put on calendar career opportunities from Career Opportunities Worksheet
Plan firstnighter
- Step Three** **Post Firstnighter:** Organization conducts an exciting hands-on event.
Key Items:
Follow up on letters of invitation sent out
Exciting hands-on program is presented
Sign up youth
Distribute Explorer activity interest survey
- Step Four** **Post Activities Development Meeting:** Post's activity program is agreed upon with youth input.
Key Items:
Results from adult resource survey and Explorer activity interest survey
Schedule post activities using annual post program calendar and assign youth chairperson for each activity
Elect youth officers
- Step Five** **Youth Officers' Seminar:** Elected officers are trained.
Key Items:
Post officers understand their job in operating post program
Post activities have a youth chair and adult consultant



SUGGESTED POST PROGRAM IDEAS

The program of an Explorer post matches the interests of young adults with the resources and adult expertise of their participating organization. Your Explorer post adult and youth leaders might use the following ideas when planning a well-balanced program around Exploring's five areas of program emphasis: career opportunities, leadership experience, life skills, citizenship, and character education.



1. CAREER OPPORTUNITIES: Programs that develop potential contacts that may broaden employment options. Activities that boost a youth's self-confidence and help him or her experience success at school and work.

SUGGESTED TOPICS: Investigate the total scope of engineering careers in industry, agriculture, military, government, research, and recreation. Visit a manufacturing facility to see the practical applications of engineering. Government or military installations are great places to see engineering in action. Various governmental laboratories are available for touring. Universities also have a variety of engineering programs such as an **Engineering Academy** that will welcome potential students. Use the **Engineering Exploring Career Opportunities Worksheet** to plan out these types of programs. Review the **Career Achievement Award for Engineering Exploring**.



2. LEADERSHIP EXPERIENCE: Programs that help youth develop leadership skills to fulfill their responsibilities in society. Advisors should encourage activities that provide exposure to different leadership traits.

SUGGESTED TOPICS: Elect post officers to coordinate trips and plan for the post's outings. Each activity should have a youth chair who works with an adult to organize the activity. Study the effects of engineering on the community, state, and nation. Review the ethics, licensing, and regulation of engineers. Study the history and development of engineering. Plan a program based on the purposes and programs of the National Society of Professional Engineers. At the **post activities program development meeting**, make sure to elect officers. Schedule **the post officers' seminar** to train the new officers. Get all Explorers involved with leadership by having youth chairs for all meetings and activities. Attend the **post leaders workshop** conducted by your local program.

The Learning for Life leadership workshop can be offered as a one-day session, an overnight meeting, or as a series of short, focused sessions. It works equally well with senior high school groups, work-based Explorer posts, community youth groups, and community youth leaders. The Leadership Workshop Series covers 16 topics: Introduction to Leadership, Analysis and Evaluation, Beliefs and Values, Character of Leadership, Communication, Decision Making, Diverse Culture and Climate, Effective Group Management, Ethics of Leadership, Goal Setting, Managing Through Others, Meeting Management, Motivation, Planning and Sequence of Events, Team Building, and Time Management.

The Leadership Workshop Series is available from your local Learning for Life office.



3. LIFE SKILLS: Programs that help youth develop physical and mental fitness. Explorer-aged youth need activities that provide opportunities for them to experience positive social interaction.

SUGGESTED TOPICS: A science/engineering challenge would make a great program. Divide Explorers into teams that would work on engineering problems. Ideas such as an egg drop, bridge building, or balloon race have proved to be popular with posts. Plan to have parents and family members attend. Make sure to use **the adult resource survey** and **the Explorer activity interest survey** to generate ideas for life skills!

The following Exploring resources are to be used with the online *Exploring Adult Leader Guide* and the *Exploring Youth Leader Guide*. (Go to www.learningforlife.org/exploring/engineering/index.html then click on Resources for Exploring Leaders under New Resources.)

- How to Brainstorm
- How to Conduct a Post Parents' Night
- How to Develop Service Projects
- How to Earn Money
- How to Generate Publicity
- How to Introduce a Speaker
- How to Lead a Discussion
- How to Make a Speech or Presentation
- How to Plan Your Superactivity
- How to Recruit New Participants
- How to Teach a Skill
- How to Use Charts and Posters
- How to Use Parliamentary Procedure



4. CITIZENSHIP: Programs that encourage youth to develop the skill and desire to help others. Posts need to provide activities that provide opportunities for youth to gain a keen respect for the basic rights of others.

SUGGESTED TOPICS: Engineering Explorers can serve the local community by assisting with the math education of younger students. They can serve as tutors or coaches for “mathlete” events. The environmental impact of engineering can serve to direct students to cooperate in local projects. Other governmental agencies may be interested in helping with civil engineering projects that involve surveys. Put citizenship and community service activities on the post’s program calendar. Remember that a community service project is one of the options for **the National Exploring Excellence Award!**

Congressional Award. An adult adviser the student chooses helps the student set challenging but achievable goals in the four program areas. Once they’ve achieved their goals, they summarize them on a recommendation form. They’ll receive a letter, which will let them know when their senator and/or member of Congress will present them with their medal and certificate. (Go to www.learningforlife.org, click on the Exploring icon, then scroll down and click on Awards and Scholarships, and then click on Congressional Award.)

Helpful Exploring Tools (see public Web site). The following Exploring resources are to be used with the online *Exploring Adult Leader Guide* and the *Exploring Youth Leader Guide*. (Go to

www.learningforlife.org/exploring/engineering/index.html, then click on Resources for Exploring Leaders under New Resources):

- Challenge Initiative Games
- Cooperative Games
- Problem-Solving Initiative Games
- Becoming and Being a Leader
- Developing a Community of Youth Leaders
- Exploring for People With Disabilities
- Leadership Checkup
- Leadership Reflection
- Problem-Solving Skills for Explorers
- Suggested Post Bylaws

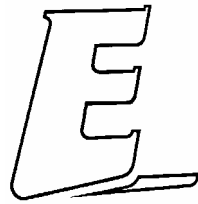


5. CHARACTER EDUCATION: Programs that help youth develop skills necessary to making ethical choices. Strong programming will involve activities that provide opportunities for fulfilling one's responsibility to society.

SUGGESTED TOPICS: Visit an engineering industry–related trade show. Have a family picnic and do engineering-related competitions or have a model rocket–launching event. Have an annual post awards banquet. Conduct seminars on developing communications skills. Assist with projects to help retirees, dependents, the elderly, or disadvantaged people. Character Education Activities provides an excellent resource for these activities.

Character Education Activities. The local Learning for Life office provides a packet of 25 character dilemmas for posts to use in developing Explorers' critical thinking. Begin with the prepared character education activities and work toward your post developing its own situations.

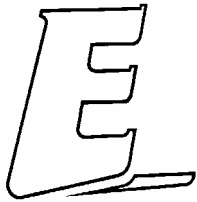
Character Education in Exploring. The local Learning for Life office provides this overview flier, which describes the key components of character education in Exploring: learning through experiences, problem-solving skills, character education forum, and reflection.



SAMPLE AGENDA: REGULAR POST MEETING

1. Call to order and introduction of guests (2 min.; post president)
2. Announcements (8 min.)
3. Old business (10 min.)
 - A. Secretary reads minutes of previous meeting.
 - B. Treasurer gives status report.
 - C. Other post officers report.
4. New business (10 min.)
 - A. Discuss matters that require post approval.
 - B. Administrative vice president enrolls new youth attending meeting.
 - C. Program vice president promotes upcoming events.
 - D. Post Advisor gives update and comments.
5. Conduct post activity program (45 min.; Explorer activity chair and adult consultant)
(See note below.)
6. Closing (7 min.; post president)
 - A. Announce date, time, place of next meeting.
 - B. Assigned Explorer conducts closing.
 - C. Refreshments served.

Note: An interested and capable Explorer is appointed to serve as the chair for each activity and is assisted by an adult consultant from the adult resource survey. (*Explorer Youth Leader Guidebook*, available at www.learningforlife.org).



GENERAL EXPLORING PROGRAM DEVELOPMENT RESOURCES

For more information on the process outlined below, see the *Explorer Adult Leader Guidebook* and *Youth Leader Guidebook*, both available at www.learningforlife.org.

ADULT RESOURCE SURVEY This inventory should be conducted by the post committee and adult Advisors. List as many adults as possible who are associated with the post. Find out their vocations, skills, interests, and contacts. This form shows the potential of what a post can do.

EXPLORER ACTIVITY INTEREST SURVEY Now, find out what the youth participants want to do. Survey the youth participants at a post meeting and tally the results. The post officers should design this survey.

MATCH RESULTS OF BOTH SURVEYS Match the Explorer activity interest survey results with the adult resource survey. Where a suggested Explorer activity matches a resource from the adult survey, you have a possible program. Use the program match sheet as a tool to help. The post committee will need to recruit other resources for the remainder of the Explorer activity interests.

USE THE POST ACTIVITIES DEVELOPMENT MEETING This should be the first meeting after the firstnighter. Engage the youth in active discussion by presenting the result of the match sheet. If necessary, use these other ideas to generate more program options:

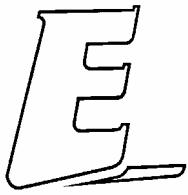
BRAINSTORM Brainstorm to bring out ideas that might not be on the survey. Sometimes the most creative activities are suggested this way. The brainstorming should involve all of the youth participants.

FILL IN THE GAPS The post officers may feel that an activity should be included to better balance the post program. These can now be added.

SCHEDULE THE POST ACTIVITIES List each activity on the post's calendar. Watch out for possible conflicts with other dates. Make sure you have all the dates from the local office for Exploring events.

SELECT EXPLORER CHAIRS AND ADULT CONSULTANTS An interested and capable Explorer is appointed to serve as the chair for each activity and is assisted by an adult consultant. Use the post officers' seminar to complete this process. Give youth leadership the responsibility for the operation of the post.

FOLLOW-UP IS VITAL!!! ASSUME NOTHING!!!



ENGINEERING EXPLORING **PROGRAM SUPPORT**

Resources outlined below are available as noted on either the public Web site at www.learningforlife.org/exploring/engineering/index.html or from the local Learning for Life office. For local office information, go to www.learningforlife.org, then scroll down and enter your five-digit zip code and click on SEARCH.

ADULT AND YOUTH LEADER TRAINING (see local Learning for Life office)

The local Learning for Life office provides basic and advanced adult leader training sessions along with post leader workshops, quarterly Advisors meetings, and organized activities for all posts.

New Advisors and adult post committee participants attend an Adult Explorer Leadership Training session conducted at the Step Two Meeting when using the Five-Step Plan for Post Program Development to start up new Explorer posts.

Advisors and adult Explorer leaders of existing posts attend the Adult Explorer Leader Basic Training course conducted as a group training session.

For new adult Explorer leaders unable to attend group basic training, they complete the Self-Study Adult Explorer Leader Basic Training course with an assigned service team member.

ENGINEERING EXPLORING WEB PAGE (see public Web site)

Visit the Engineering Exploring Web site at www.learningforlife.org/exploring/engineering/index.html for the following:

- Career Achievement Award for Engineering Explorers
- Endorsements from national organizations
- *Exploring Adult Leader Guide* and *Exploring Youth Leader Guide*
- News from national office
- Resources for Exploring leaders (secretary's and treasurer's books, forms, games, guides, how to)
- Safety First Guide to Learning for Life Activities
- Scholarships for Explorers
- Suggested program ideas
- Youth Protection Training [PowerPoint]

CAREER ACHIEVEMENT AWARD

The Learning for Life Career Achievement Award program allows young people to be recognized for community service and to acquire and be recognized for career proficiency achievement in arts and humanities, aviation, business, communications, engineering, fire and emergency service, health, law and government, law enforcement, science, skilled trades, social services, or all 12 career clusters. It gives Explorers distinguished credentials for their resume.

CHARACTER EDUCATION ACTIVITIES (see local Learning for Life office)

The local Learning for Life office provides a packet of 25 character dilemmas for posts to use in developing Explorers' critical thinking. Begin with the prepared character education activities and work toward your post developing its own situations. (For Character Education Activities, request a copy from local Learning for Life office.)

CHARACTER EDUCATION IN EXPLORING (see local Learning for Life office)

The local Learning for Life office provides this overview flier, which describes the key components of character education in Exploring: learning through experiences, problem-solving skills, character education forum, and reflection. (For the Character Education in Exploring flier, request a copy from your local Learning for Life office.)

CONGRESSIONAL AWARD (see public Web site)

An adult adviser the student chooses helps the student set challenging but achievable goals in the four program areas. Once they've achieved their goals, they summarize them on a recommendation form. They'll receive a letter, which will let them know when their senator and/or member of Congress will present them with their medal and certificate. (Go to www.learningforlife.org, click on the Exploring icon, scroll down and click on Awards and Scholarships, and then click on Congressional Award.)

EXPLORING ADULT LEADER GUIDE (see public Web site)

EXPLORING YOUTH LEADER GUIDE (see public Web site)

Contains complete information for the youth and adult leaders of Explorer posts. These online guidebooks contain sections on getting started, post operation, leadership roles, key factors for success, qualities of a good program, post bylaws, and the Exploring activity planner (go to www.learningforlife.org/exploring/engineering/index.html, then click on Exploring Adult Leader Guide or Exploring Youth Leader Guide under New Resources).

FACTS EVERY TEEN SHOULD KNOW ABOUT SEXUAL ABUSE, No. 99-249 (see local Learning for Life office)

This pamphlet is available from the local Learning for Life office and contains five stories concerned with risky situations of sexual abuse. These stories are meant to spur discussion in the context of an Explorer post meeting. Discussion points are suggested and resources are provided for more information about sexual abuse.

HELPFUL EXPLORING TOOLS (see public Web site)

The Resources for Exploring Leaders can be found along with the online *Exploring Adult Leader Guide* and the *Exploring Youth Leader Guide* on our Internet site. (Go to www.learningforlife.org/exploring/engineering/index.html, then click on Resources for Exploring Leaders under New Resources.)

Exploring Secretary's Records

Exploring Treasurer's Records

Exploring Clip Art

Approval of Parents or Guardians

Brainstorming Worksheet

Money-Earning Application

Challenge Initiative Games

Cooperative Games

Problem-Solving Initiative Games

Leadership Skills

Participation Awards Program

Becoming and Being a Leader
Developing a Community of Youth Leaders
Exploring for People With Disabilities
Leadership Checkup
Leadership Reflection
Program Support for Explorer Posts
Problem-Solving Skills for Explorers
Suggested Post Bylaws
How to Brainstorm
How to Conduct a Post Parents' Night
How to Develop Service Projects
How to Earn Money
How to Generate Publicity
How to Introduce a Speaker
How to Lead a Discussion
How to Make a Speech or Presentation
How to Plan Your Superactivity
How to Recruit New Participants
How to Teach a Skill
How to Use Charts and Posters
How to Use Parliamentary Procedure

LEADERSHIP AWARD PROGRAM (see public Web site)

The Leadership Award is given to youth and adults who have given exceptional dedication and leadership to the youth participants in either the Learning for Life or Exploring programs. The award includes a certificate and ribbon medallion (go to www.learningforlife.org, click on the Exploring icon, then scroll down and click on Awards and Scholarships, and then click on Leadership Award Program).

LEADERSHIP WORKSHOP SERIES (see local LFL office)

The Learning for Life leadership workshop can be offered as a one-day session, an overnight meeting, or as a series of short, focused sessions. It works equally well with senior high school groups, work-based Explorer posts, community youth groups, and community youth leaders. The Leadership Workshop Series covers 16 topics: Introduction to Leadership, Analysis and Evaluation, Beliefs and Values, Character of Leadership, Communication, Decision Making, Diverse Culture and Climate, Effective Group Management, Ethics of Leadership, Goal Setting, Managing Through Others, Meeting Management, Motivation, Planning and Sequence of Events, Team Building, and Time Management.

LEARNING FOR LIFE WEB PAGE (see public Web site)

Visit the Learning for Life Web site at www.learningforlife.org. Connect with today's Explorers in such careers as Arts and Humanities, Aviation, Business, Communications, Engineering, Fire/Emergency Services, Health, Law Enforcement, Law and Government, Science, Skill Trades, and Social Services.

LIABILITY INSURANCE FOR PARTICIPATING ORGANIZATIONS (see local Learning for Life office)

The general liability policy issued to Learning for Life provides primary liability insurance coverage for all participating organizations with a Learning for Life group or Explorer post. Automobile liability coverage is provided on a secondary or excess basis. All vehicles used in

Learning for Life activities must be covered by automobile liability insurance with limits that meet or exceed the requirements of the state in which the vehicle is licensed. A \$100,000 combined single limit is recommended. Any vehicle designed to carry 10 or more passengers is required to have limits of \$100,000/\$500,000/\$100,000 or \$500,000 combined single limit.

Although our general liability coverage has been extended on a primary basis to the participating organizations, the coverage for our volunteers remains on an excess basis. Any insurance coverage that a volunteer has, such as a homeowner policy or coverage on his or her personal automobile, will still protect the volunteer on a primary basis, and Learning for Life's coverage will be over and above the limits that the individual volunteer has purchased. If the volunteer has no personal insurance, then our coverage will extend to cover him or her immediately. There is no coverage for those who commit intentional or criminal acts. Liability insurance is purchased to provide financial protection in the event of accidents or injury that is neither expected nor intended.

NATIONAL EXPLORING EXCELLENCE AWARD (see local Learning for Life office)

The local Learning for Life office provides a packet of materials for each post's annual renewal date. At renewal date the post can qualify for the National Exploring Excellence Award and make a commitment for the next program calendar year.

PROCEDURE FOR ACTIVITIES OR EVENTS INVOLVING OTHER POSTS

On occasion, posts conduct an activity or event that involves other posts. Some of these activities are being held without notification or discussion with the local Learning for Life office. In response to the relationship problems arising from this type of situation, the following procedure should be followed:

- Posts that wish to host events involving other posts must have the approval of the local Learning for Life office.
- This includes events for posts from the same Learning for Life office, the same area, the same region, or other regions.
- The proposed post event must contribute directly or indirectly to the strengthening of the participating Explorer posts' program.

GUIDELINES:

- The proposal, including a written statement of the objectives of the event, must be submitted to the local Learning for Life office for approval.
- If posts within the same area or region will be involved, the local Learning for Life office must forward the proposal to the region for review and approval.
- If posts from other regions will be involved, the proposal must be forwarded to the national office Learning for Life for review and approval.

For local office contact, go to www.learningforlife.org, then scroll down and enter your five-digit zip code and click on SEARCH.

PROMOTIONAL ITEMS (see local Learning for Life office)

Exploring, Discover a Career Through Exploring, three-fold mailer insert, No. 99-265

Exploring, Exploring Program, four-page brochure, No. 99-992

RECOGNITION ITEMS (see public Web site)

The following items are available through your local Learning for Life office (go to www.learningforlife.org then scroll down and click on Online Resource Catalog):

Advisor Exploring Emblem Patch, No. 04031A
Associate Advisor Exploring Emblem Patch, No. 04033A
Engineering Exploring Emblem Patch, No. 04183A
Engineering Exploring Lapel Pin, No. 04182A
Base Wood for Explorer Ornament "E," No. 17583A
Career Achievement Award Certificate, No. 32194
Exploring Appreciation Certificate, No. 33144A
Exploring "E" Emblem Patch, No. 04002A
Lapel Pin, Explorer "E," No. 04001A
Leadership Award Certificate, Youth and Adult, No. 32195
Leadership Award Medallion, Youth and Adult, No. 04173
Learning for Life Tie, No. 50022
Mug, Exploring "E", No. 04003A
Ornament, Explorer "E," No. 04105A
Panel Drape, Exploring, No. 11134A
Paperweight, Explorer, No. 04160A
Paperweight, Thank You Exploring, No. 17695A
Plaque, Exploring Logo on Walnut With Engraving Plate, No. 17685
Post Committee Emblem Patch, No. 04045A
President Explorer Emblem Patch, No. 04035A
Secretary Explorer Emblem Patch, No. 04039A
Treasurer Explorer Emblem Patch, No. 04041A
Vice President Explorer Emblem Patch, No. 04037A

SAFETY FIRST, Learning for Life Guidelines (see public Web site)

Adult Explorer post leader's guide to keeping youth safe in Learning for Life activities. Topics include adult leadership; aquatics safety; camping; drug, alcohol, and tobacco use and abuse; safety practices and emergency preparedness; first aid; guns and firearms; sports and activities; medical information; transportation; and personal safety (go to www.learningforlife.org/exploring/engineering/index.html, then click on Safety First Guide to Learning for Life Activities under New Resources).

YOUNG AMERICAN AWARD (see public Web site)

First presented in 1968, the council-level award is given to young adults between the ages of 19 and 25 to highlight publicly the importance of their excellent achievements and service to their community, state, and nation. The council-level Young American Award consists of a plaque to be awarded at an appropriate council ceremony. Each council selects and submits their top nominee for consideration for the five national Young American Awards given annually in May, which include the unrestricted \$5,000 cash award and ribbon medallion. (Go to www.learningforlife.org, click on the Exploring icon, then scroll down and click on Awards and Scholarships, and then click on Young American Award.)

YOUTH PROTECTION TRAINING (Go to

www.learningforlife.org/exploring/engineering/index.html then click on Youth Protection Training [PowerPoint] under New Resources.)

As an adult Explorer post leader, you need to have basic knowledge about the potential for abuse of adolescents and the Youth Protection policies of Learning for Life that are designed to prevent it. Because of the coeducational nature of Exploring, youth protection takes on added dimensions.

It is important to realize that although child abuse is sometimes thought to be a problem only for young children, it's not unusual for adolescents to be victims of abuse, whether emotional, physical, or sexual. Therefore, Exploring leaders are obliged to be familiar with the Youth Protection emphasis of Learning for Life.

The Youth Protection Guidelines are available on the Web for viewing. It lists several considerations that the Explorer leader must remember. At least one adult is required to complete the Youth Protection presentation on the Web for any overnight outing. Safety First Guidelines has the requirements for outings and activities. It is also available on the Web at www.learningforlife.org. Outings permits can be obtained from the local Learning for Life office.

Post Advisor Guidelines for Creating External Barriers:

- There must be two-deep adult leadership on all trips and on all activities.
- There must be no one-on-one contact with Explorers. Other Explorers or Advisors must be present.
- Respect the privacy of your Explorers.
- Provide separate accommodations for Advisors and Explorers and for males and females on overnight trips.
- Ensure proper preparation for activities, especially those with safety risks.
- Secret organizations are not permitted.
- Hazing is not permitted.
- Appropriate standards for attire should be upheld.
- Proper training, supervision, and monitoring of officers is necessary.

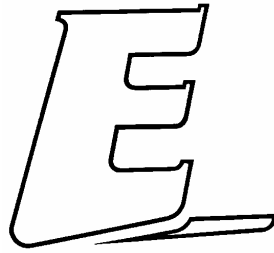
Exploring

ENGINEERING &
TECHNOLOGY

APPENDIX:

CAREER OPPORTUNITIES
WORKSHEET, SAMPLE PROGRAM
CALENDARS, CAREER
ACHIEVEMENT AWARD
INFORMATION, AND SAMPLE
FORMS





Additional Instructions for Steps 2 and 4 for Engineering Exploring Program Development

Step 2. Career Opportunities Program Development Meeting

(Use Engineering Career Opportunities Worksheet)

1. Review the Engineering Career Opportunities Worksheet and select those career activities that your organization has the resources to support by checking the "Yes/No" column, and please add any career activities unique to your organization.
2. Name a person from your organization for each "Yes" activity who could serve as a consultant to help plan and lead the career opportunities activity.
 - These will become the career focus of your Explorer post for the upcoming program year. (See sample of the completed Engineering Exploring program calendar.)
3. Determine and list the first and second monthly career opportunities meeting topics.
4. Put the career opportunities on the calendar for distribution at the firstnighter.

Step 4. Post Activities Program Development Meeting

(First post meeting after open house)

(Use Engineering Exploring calendar and the results from the adult resource survey, Explorer activity interest survey, and the program match sheet)

5. Review the results from the adult resource survey and the Explorer activity interest survey. Use the program match sheet to help determine post activity suggestions.
6. Make sure you have included the local council Exploring events, activities, and training dates on the calendar.
7. At the first post meeting following the open house, present the suggested post activity ideas to the youth leadership.
8. Include other dates:
 - Open house date (fall and spring)
 - Participating organization dates
 - Superactivity dates
 - Check for school and other official holiday dates

Engineering Career Achievement Award Requirements

Explorers can earn a Career Achievement Award in one or all of the 12 career clusters. To earn a Career Achievement Award, the candidate must provide *50 hours of community service and complete any nine career achievements*. The Explorer post certifies that each Explorer has satisfactorily performed 50 hours of community service and verifies that each candidate has completed at least nine achievements within the career cluster.

Engineering Achievements

Do nine of the following:

1.
 - a. Build a switch magic project.
 - b. Display and demonstrate your project at a post meeting or in another public place.
2.
 - a. Build a small Jacob's ladder (high-voltage arc).
 - b. Demonstrate your project at a post meeting, community group, class, or other group meeting.
3.
 - a. Learn soldering techniques by building a self-contained, solid-state signal injector that will enable you or another person to troubleshoot the simple way.
 - b. Demonstrate what you have learned about soldering to your post, another post, a community group, or another group.
4. Build an ohmmeter that will show a person's grip strength and display it.
5.
 - a. Build a model of a space station.OR
 - b. Make a tabletop display on the concept for a space station. Show the display at your post or another group meeting.
6. Tour a manufacturer of soft and/or hard goods, such as automobiles, radios, TVs, paint, oil and gas, batteries, etc. Share what you see and/or learn with other Explorers or students.
7. Learn how to construct electronic dice in which, when the "roll" button is depressed, all 14 LEDs go on, and then there's a "roll-down" similar to the effect obtained when regular dice are thrown.
8. Learn and teach other Explorers, students, or youth groups how to construct a model bridge out of basswood and glue.
9.
 - a. Either participate in or organize and lead a contest to construct a paper airplane and test it in three areas: weight, time aloft, and aesthetic design.OR
 - b. Either participate in or organize and lead a contest to build vehicles propelled by a mouse trap spring or a rubber band.
10. Design a playground set, bench area, garden trail, pedestrian bridge, or pavilion for a park, school, retirement home, etc. If possible, build your project.
11. Tour a construction site with an engineer. Discuss various jobs done on the site. What are the steps in the construction process? What role did a civil engineer play? Other engineers? Ask about the inspection process.
12. Explain the work of six of the following types of engineers: civil, mechanical, chemical, electrical, industrial, agricultural, aeronautical, mining, astronomical, metallurgical, nuclear, biomedical, ceramic, and petroleum.
13. With your Advisor's or teacher's advice, select a subject to research in engineering. Research publications and interview experts. Tell what you learned and where you got the facts.
14. Visit five Web sites to discover three new trends in computers or computer programming. Or find out about five engineering professional organizations. Write about the three new trends or the five organizations in a two-page report for your adult leader.

15. Obtain information on five colleges or universities that offer engineering as a major course of study. Prepare a presentation for your post that includes (a) what engineering programs are offered, (b) what the admission requirements are, and (c) what the graduation requirements are for a bachelor's degree. Have the college mail information to you so you can share it with other Explorers, high school students, or another group.
16. Attend a regional or national engineering conference as a staff member or participant.

Resources

Exploring Youth Leader Guide and *Exploring Adult Leader Guide* and Resources for Exploring Leaders can be found on the Learning for Life Web site (www.learningforlife.org).

Qualifying Achievements

Because of the design and flexible nature of the program, Advisors and adult leaders are permitted a reasonable degree of latitude in substituting appropriate achievements that serve to meet the qualifying requirements for the Learning for Life Career Achievement Award.

Engineering Career Achievement Award Worksheet

Name: _____

(Certification: Adult leaders must initial and date each completed achievement.)

Do nine of the following:

1a. Build a switch magic project.

1b. Display and demonstrate your project at a post meeting or in another public place.

Completed _____

2a. Build a small Jacob's ladder (high-voltage arc).

2b. Demonstrate your project at a post meeting, community group, class, or other group meeting.

Completed _____

3a. Learn soldering techniques by building a self-contained, solid-state signal injector that will enable you or another person to troubleshoot the simple way.

3b. Demonstrate what you have learned about soldering to your post, another post, a community group, or another group.

Completed _____

4. Build an ohmmeter that will show a person's grip strength and display it.

Completed _____

5a. Build a model of a space station.

OR

5b. Make a tabletop display on the concept for a space station. Show the display at your post or another group meeting.

Completed _____

6. Tour a manufacturer of soft and/or hard goods, such as automobiles, radios, TVs, paint, oil and gas, batteries, etc. Share what you see and/or learn with other Explorers or students.

Completed _____

7. Learn how to construct electronic dice in which, when the "roll" button is depressed, all 14 LEDs go on, and then there's a "roll-down" similar to the effect obtained when regular dice are thrown.

Completed _____

8. Learn and teach other Explorers, students, or youth groups how to construct a model bridge out of basswood and glue.

Completed _____

9a. Either participate in or organize and lead a contest to construct a paper airplane and test it in three areas: weight, time aloft, and aesthetic design.

OR

9b. Either participate in or organize and lead a contest to build vehicles propelled by a mouse trap spring or a rubber band.

Completed _____

10. Design a playground set, bench area, garden trail, pedestrian bridge, or pavilion for a park, school, retirement home, etc. If possible, build your project.

Completed _____

11. Tour a construction site with an engineer. Discuss various jobs done on the site. What are the steps in the construction process? What role did a civil engineer play? Other engineers? Ask about the inspection process.

Completed _____

12. Explain the work of six of the following types of engineers: civil, mechanical, chemical, electrical, industrial, agricultural, aeronautical, mining, astronomical, metallurgical, nuclear, biomedical, ceramic, and petroleum.

Completed _____

13. With your Advisor's or teacher's advice, select a subject to research in engineering. Research publications and interview experts. Tell what you learned and where you got the facts.

Completed _____

14. Visit five Web sites to discover three new trends in computers or computer programming. Or find out about five engineering professional organizations. Write about the three new trends or the five organizations in a two-page report for your adult leader.

Completed _____

15. Obtain information on five colleges or universities that offer engineering as a major course of study. Prepare a presentation for your post that includes (a) what engineering programs are offered, (b) what the admission requirements are, and (c) what the graduation requirements are for a bachelor's degree. Have the college mail information to you so you can share it with other Explorers, high school students, or another group.

Completed _____

16. Attend a regional or national engineering conference as a staff member or participant.

Completed _____

Resources

Exploring Youth Leader Guide and *Exploring Adult Leader Guide* can be found on the Learning for Life Web site (www.learningforlife.org).

Qualifying Achievements

Because of the design and flexible nature of the program, Advisors are permitted a reasonable degree of latitude in substituting appropriate achievements that serve to meet the qualifying requirements for the Learning for Life Career Achievement Award.

Requirements

Explorers can earn any Career Achievement Award in one or all of the 12 career clusters. To earn a Career Achievement Award, the candidate must provide *50 hours of community service and complete any nine career achievements*. The Explorer post Advisor certifies that each Explorer has satisfactorily performed 50 hours of community service and verifies that each candidate has completed at least nine achievements within the career cluster.

Engineering Career Achievement Award Application

Part 1: Candidate Personal Data

Post/No.: _____ Participating Organization: _____
Name: _____ Nickname: _____
Address: _____
City: _____ State: _____
Zip: _____
Home Phone: (____) _____ Birth Date: _____
School/College: _____ Grade Level: _____

Part 2: Adult Leader Certification of Candidate

I certify that the above-named candidate has fulfilled nine required achievements and 50 hours of community service for the Learning for Life Career Achievement Award and has my approval for recognition of this significant accomplishment.

Adult Leader: _____
Date: _____

Part 3: Learning for Life Office Authorization

This candidate is a currently enrolled Explorer. Having been certified by the adult leader for completing the required nine achievements and 50 hours of community service, the Explorer post is authorized to purchase and present the Learning for Life Career Achievement Award certificate.

Learning for Life Office Signature: _____
Date: _____

Name: _____

Description of Activity

Total Hours

Supervisor Signature and Phone No.

Exploring

Youth Activity Interest Survey

Look at the list and place a check mark on the line in front of three (3) items you would like the post to plan as part of its program for this year. Use the lines on the last three items to write in suggestions that are not on this list.

Name: _____

Bowling

Photography

Sports activities:

Camping

River/white-water rafting

Career clinic

Rock climbing/
rappelling

College planning

Roller-skating

Hobby/interest:

Community cleanup
project

Sailing/canoeing

Computers

Snorkeling/scuba diving

Conservation project

Snow skiing

Other ideas:

Cycling

Swimming

Dance

Tour of city (area)

First aid training

Visit to TV or radio
station

Fishing

Waterskiing

Horseback riding

Ice skating

Movies

Music

Return to: _____



Adult Resource Survey

Each year our Explorers, young men and women aged 14 to 20, work with our adult leadership of the post to create a new program. To help them, we are attempting to discover the talents and resources in our organization. Please complete the form by telling us if you have a skill or resource in any of the following areas.

Name: _____ Occupation: _____

Phone Number: (Work) _____ (Home) _____

	<u>Have Skill</u>	<u>Have Resources</u>
Bowling		
Camping		
Career Clinic		
College Planning		
Community Cleanup		
Computers		
Conservation Project		
Cycling		
Dance		
Field Sports		
First Aid		
Fishing		
Horseback Riding		
Ice Skating		

	<u>Have Skill</u>	<u>Have Resources</u>
Movies/Video		
Music		
Photography		
River/White-water rafting		
Rock Climbing		
Roller-skating		
Sailing/Canoeing		
Snorkeling/Scuba Diving		
Snow Skiing		
Swimming		
Tour of City (Area)		
Visit to TV or Radio Station		
Waterskiing		

I have a vehicle and am willing to help with transportation. I would be interested in working with youth chair on events.

Other Sports/Recreation Activities: _____

Other Hobbies: _____

Other Ideas: _____

Exploring

Activity Planner

Youth Activity Chairperson _____ Adult Consultant _____

Youth Phone # _____ Adult Phone # _____

Other Information _____

Name of the Activity: _____

Date: _____ Location: _____

Resources Needed: _____

Alternatives

What is the alternate plan in case of bad weather or other factors? _____

Personnel: *Delegate responsibilities!*

Job to Be Done	Assigned to

Follow-up—At additional meetings and through personal contacts, follow up on all assignments until you are sure you are all set. If the going gets rough, call on your Advisor for help.

Carry Out the Plan/Conduct the Activity

Just before the activity, double-check all arrangements.

Notes: _____

After the activity, thank everyone involved, and leave things clean and in good order.

After-Action Evaluation

Use a separate sheet to explain your reasons for how you answered.

Should the post do this activity again? _____ Yes _____ No

Number participating: _____ Explorers _____ friends _____ adults

Engineering Career Opportunities Worksheet

	<u>Career Opportunities</u>	Organi- zation Has Resource	<u>Organization Consultant</u>
	Engineering Skill	Yes/No	Who Will Lead This Skill
1	Build a switch magic project		
2	Build a Jacob's ladder (high-voltage arc)		
3	Learn soldering techniques		
4	Build an ohmmeter		
5	Visit a manufacturer of soft and hard goods		
6	Construct electronic dice		
7	Learn model-bridge building		
8	Learn paper-airplane design		
9	Build propelled vehicles (rubber band-, spring-, or mouse trap-powered)		
10	Design a playground set for children		
11	Tour a construction site with a civil engineer		
12	Know the roles of 6 types of engineers		
13	Visit the Web sites of engineering organizations		
14	Obtain information on college & universities that offer engineering courses of study		
15	Attend an engineering conference		
16	Participate in engineering science projects		
17	Electronic Wheel of Fortune		
18	Nerve tester		
19	What IZ it		
20	Balloon staging		
21	Paper rockets		
22	Rocket car		
23	Participate in engineering competitions		
24	Egg drop		
25	Bridge building		
	Continued on next page		

Sample of 12-Month Completed Engineering Exploring Program

	1st Mtg. Date	Career Opportunities 1st Meeting	Adult Consultant/ Youth Chair	2nd Mtg. Date	Career Opportunities 2nd Meeting	Adult Consultant/ Youth Chair	Monthly Planning Meeting Date	3rd Weekend Monthly Post Activity	Post Activity Youth Chair	Weekend Council Activity
SEPT	2nd Wed.	Fall open house	Hal Mark	4th Wed.	Elect officers and plan post activity program	Bill Martha	1st Wed.		Martha	Post officers training
OCT	2nd Wed.	CA Achievement Award	James Sean	4th Wed.	Construction site visit	Cliff Cheryl	1st Wed.	Planning for post spring break ski trip/fund-raising	Cheryl	Exploring camping weekend
NOV	2nd Wed.	Build a Jacobs ladder & HV arc	Frank Tom	4th Wed.	Learn model-bridge building computer software	Peggy Jimmy	1st Wed.	Council food drive	Jimmy	Quarterly Exploring conference date
DEC	2nd Wed.	Character education activities	Cosby Judy	4th Wed.	Straw tower competition (Web site)	Marty Mariann	1st Wed.	Planning for summer superactivity	Mariann	
JAN	2nd Wed.	Build a propelled vehicle	Laun Mike	4th Wed.	Visit an airport/pilot/traffic controller	Jim Natalie	1st Wed.	Explorer blood drive	Natalie	
FEB	2nd Wed.	Paper-airplane design/competition	Matthew Danny	4th Wed.	Build a switch magic project	John Cindy	1st Wed.	Post ski trip	Cindy	Quarterly Exploring conference date
MAR	2nd Wed.	Spring break		4th Wed.	Visit engineering Web sites	Carey Ann	1st Wed.	Fund-raising	Ann	
APR	2nd Wed.	Visit a commercial product mfg	Cliff Maya	4th Wed.	Participate in engineering competitions	Debbie Murray	1st Wed.		Murray	Annual Exploring banquet
MAY	2nd Wed.	Complete Career Achievement Award	Ashley Amy	4th Wed.	Design a playground set for children	Rayna David	1st Wed.	Post family outing	David	Quarterly Exploring conference date
JUNE JULY	2nd Wed.	Planning for superactivity	Matthew Monica	4th Wed.			1st Wed.	Post superactivity	Hazel	Attend an engineering academy
AUG	2nd Wed.			4th Wed.			1st Wed.	Plans for fall firstnighter	Stephanie	Our Town at Night Activity

Exploring Program Calendar

	1st Mtg. Date	1st Meeting Career Opportunities Topic	1st Meeting Adult Consultant/ Youth Chair	2nd Mtg. Date	2nd Meeting Career Opportunities Topic	2nd Meeting Adult Consultant/ Youth Chair	Monthly Activity Planning Meeting Date	Monthly Post Activity	Post Activity Consultant/ Youth Chair	Council Activity Programs
SEPT										
OCT										
NOV										
DEC										
JAN										
FEB										
MAR										
APR										
MAY										
JUN/ JULY										
AUG										

Program Match Sheet:

	Results of Youth Activity Interest Survey	Results of Adult Resource Survey	Tentative Date of Activity	Possible Locations	Potential Youth Chair and Adult Consultant	Additional Notes
Bowling						
Camping						
Career Clinic						
College Planning						
Community Cleanup						
Computers						
Conservation Project						
Cycling						
Dance						
Field Sports						
First Aid						
Fishing						
Horseback Riding						
Ice Skating						
Movies/Video/Music						

Program Match Sheet

	Results of Youth Activity Interest Survey	Results of Adult Resource Survey	Tentative Date of Activity	Possible Locations	Additional Notes
Photography					
River/White-water					
Rock Climbing					
Roller-skating					
Sailing/Canoeing					
Snorkeling/Scuba					
Snow Skiing					
Swimming					
Tour of City (Area)					
Visit to TV or Radio Station					
Waterskiing					
Other Sports: _____					
Other Hobbies: _____					
Other Ideas: _____					

Instructions for Using Program Match Sheet:

1. Complete the youth activity interest survey and put results in the correct row on the program match worksheet.
 - Put a check mark or the total number of responses for that item.
2. Review the adult resource survey and put results in correct row on the program match worksheet.
 - Put a check mark or the total number of responses for that item.
3. Add other results, those written in and especially from brainstorming with youth at firstnighter/open house.
4. Look for matches between first two columns, youth activity interest and adult resource survey.
5. Decide on activities that post will organize.
 - Decision could be by vote or consensus of youth leadership.
6. Select suggested dates for each activity.
 - Put on post calendar for distribution to Explorers.
7. Recruit and assign youth activity chair and adults consultant for each activity that will be on calendar.
8. Post vice president for program follows up with youth activity chair and reports at post monthly planning meeting.