

# EXPLORING™

CAREER ACHIEVEMENT  
AWARD PROGRAM





# INTRODUCTION

## BACKGROUND

Exploring programs involve active learning and include lots of fun-filled, hands-on activities. Exploring promotes the conditions necessary for the growth and development of adolescents. The following are the key components of the Career Achievement Award programs, which allow young people to acquire and be recognized for career proficiency achievement and community service.

## PURPOSE

The purpose of the Career Achievement Award program is to

- Provide direction to Explorers registered in a post in individual career proficiency.
- Motivate Explorers to discover new career opportunities.
- Recognize Explorers for significant community service.
- Give Explorers distinguished credentials for their résumés.

## REQUIREMENTS

Explorers can earn a Career Achievement Award in one or all of the 12 career fields. To earn a Career Achievement Award, the candidate must provide 50 hours of community service and complete any nine career achievements. The adult leader 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.

**NOTE:** Only Explorers registered in a post can qualify for this award. Explorers registered in a club can qualify for the Career Awareness Award.

## RECOGNITION

The Career Achievement Award Certificate, SKU 639678, has space for signatures of both the adult leader and the organization head. Certificates are available through your local Exploring office. Adult leaders may present them as merited.

## QUALIFYING ACHIEVEMENTS

Due to the flexible nature of the program, adult leaders are permitted a reasonable degree of latitude in substituting appropriate achievements that serve to meet the requirements for the Career Achievement Award.

# CAREER ACHIEVEMENT AWARD APPLICATION

Submit this application along with the service hours log and career achievement checklists to your unit leader to complete the award process. Upon approval you will receive the Career Achievement Award Certificate. (Tip: Include a copy of your certificate in college, job, and scholarship applications.)

## PART ONE CANDIDATE PERSONAL DATA

_____ POST NO.		_____ PARTICIPATING ORGANIZATION	
_____ NAME		_____ NICKNAME	
_____ ADDRESS		_____ P.O. BOX	
_____ CITY	_____ STATE	_____ ZIP CODE	
_____ EMAIL			
_____ HOME PHONE		_____ BIRTH DATE	

## PART TWO 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 Exploring Career Achievement Award and has my approval for recognition of this significant accomplishment.

_____ ADULT LEADER	_____ DATE
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# CAREER ACHIEVEMENT AWARD SERVICE HOURS LOG

NAME

POST NO.

A minimum of 50 service hours at any number of nonprofit organizations in your community is required to earn the Career Achievement Award.

Description of Activity	Total Hours	Service Performed For	Supervisor Signature and Phone No.
Grand Total of Hours:			





# SCIENCE CAREER ACHIEVEMENT CHECKLIST

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NAME

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POST NO.

**Submit this list along with the award application and service hours log to your unit leader.**

Complete nine of the following achievements:

1. Make three-dimensional models of the atoms of the three isotopes of hydrogen. Show neutrons, protons, and electrons. Make a presentation at a post meeting, community youth group, school class, or other group meeting using these models to explain the difference between atomic weight and number.
2. Write a 500-word essay telling who any FIVE of the following people were and explain what each of the five discovered in the field of atomic energy: Henri Becquerel, Niels Bohr, Marie Curie, Albert Einstein, Enrico Fermi, Otto Hahn, Ernest Lawrence, Lise Meitner, Wilhelm Roentgen, and Ernest Rutherford. Also, explain how any one person's discovery was related to another person's work.
- 3a. Build an electroscope. Put a radiation source on or near the terminal.
- 3b. Demonstrate at your post meeting or another youth group meeting how it works. Explain any difference seen. Explain how you made the electroscope.
- 4a. Build a model of a reactor.
- 4b. Make a presentation to your post or another youth group explaining how the reactor works. Explain the function of the fuel, the control rods, the shielding, the moderator, and any cooling material. Explain how a reactor could be used to change nuclear energy into electrical energy or to make things radioactive.
- 5a. Make and use a simple electromagnet.
- 5b. Show magnetic attraction and repulsion.
- 5c. Make a presentation to your post, your class, or another youth group explaining how to use the knowledge you have acquired about magnetic attraction and repulsion.  
OR
- 5d. Create a tabletop display using the knowledge you have acquired about magnetic attraction and repulsion and display it at a post meeting, in your classroom, or in another public area.

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DATE COMPLETED

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6. With your post, another community youth group, or your school class, define chemistry and tell what chemicals are. Cover the following topics:
- (a) Explain the difference between atoms and molecules and between compounds and mixtures.
  - (b) Prepare and present a list of 10 chemicals found in your home and explain their uses.
  - (c) Tell the difference between a chemical reaction and a physical change.
  - (d) Tell how chemicals in your home are safely stored and how to dispose of them safely.

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DATE COMPLETED

- 7a. Learn about and be able to define inorganic chemistry.
- 7b. Carry out an experiment to show three different ways of protecting iron or steel from rusting.
- 7c. Tell why aluminum doesn't rust the way iron does.
- 7d. Do an experiment in which one metal makes another metal deposit from solution.

- 7e. Explain what takes place in terms of the activity series of metals.

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DATE COMPLETED

- 8a. Make a presentation to your post or another group on ONE of the following:
- (a) The formula for ozone. Tell where ozone is found. Tell how it is a pollutant but also necessary for a healthy environment.
  - (b) The formula for carbon dioxide. Tell how it can cause the greenhouse effect.
  - (c) The formula for sulfur dioxide. Explain what acid rain is. What does pH measure? Measure the pH of rain or a body of water near your home. Tell how acid rain can be prevented.

OR

- 8b. Make a tabletop display to accompany the topic selected in 8a. Display at your post meeting or in another public place.

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DATE COMPLETED

9. Demonstrate the flow of heat energy. Use your demonstration with your post or another group to explain in your own words the ideas of heat, temperature, kinetic energy, calorie, and the laws of thermodynamics.

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DATE COMPLETED

10. Make a presentation to your post or another group giving an example of each of the following forms of energy: heat, light, mechanical, electrical, chemical, and atomic. Prepare a table showing devices for each of the forms of energy that will convert each into another form of energy. Describe the idea of trade-offs in energy use.

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DATE COMPLETED

- 11a. Write a 500-word essay listing the main salts, gases, and nutrients in seawater. Describe some important properties of water. Tell how the animals and plants of the ocean affect the chemical composition of seawater. Explain how differences in evaporation and precipitation affect the salt content of the oceans.

OR

- 11b. Make a presentation of the topics above to your post or another group.

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DATE COMPLETED

12. Do materials science experiments to show the differences in strength and heat conductivity of wood, plastic, and metal. Explain how this affects building design. Discuss what you have learned with your post, your class, or another group.

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DATE COMPLETED

13. Develop a project that would help solve an environmental problem, reduce a negative environmental effect, or increase environmental awareness in your community. Include plans for a specific project that your Explorer post, your school class, or another community group could do.

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DATE COMPLETED

14. Attend a regional or national science career conference as a staff member or a participant.

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DATE COMPLETED

