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| FIRE SCIENCE | |
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Superintendents: Scott Rice (382-4219)

4-H Resources: Fire Science Information Sheet

4-H Fire Science exhibits need to be educational in nature. They need to teach others about your topic and experience. If your division has more than one option, make sure you pick a different option each year you are in that division.

All Fire Science projects need to be displayed on a stiff-backed poster 22x28, displayed horizontally.

They need to be covered in a clear plastic sleeve (poster board and plastic may be purchased from the Sullivan County Extension Office).

Please read the information provided in the front of your 4-H Manual concerning poster projects.

All posters, notebooks and display boards **MUST** include a reference list indicating where information was obtained, giving credit to the original author, to complete the 4-H member's exhibit. This reference list should/might include web site links, people and professionals interviewed, books, magazines, etc. It is recommended this reference list be attached to the back of a poster or display board, be the last page of the notebook, or included as part of the display visible to the public. A judge is not to discredit an exhibit for the manner in which references are listed.

DIVISION 1 (Grade 3)

Visit a local fire station and explain to your leader and parents what you thought about your visit.

Create a poster displaying six (6) pictures of your visit and an explanation for each of your pictures.

DIVISION 2 (Grades 4-5)

Choose 1 of the following projects:

A.) Fire Escape Route - Design an escape route of your home for you and your family. Be very specific about where you plan to meet and how you will know if everyone has made it out safely. Practice the fire drill with your family several times.

Create a poster including either your escape plan OR pictures and explanations of your practice drills (or a combination of both). If you chose to display your practice drills make sure to tell what you learned by doing the practice drills and what changes you made (if any) to your original plan.

B.) First Aid - Learn basic first aid. Visit a fire station and learn about basic first aid. Ask a fireman, EMT, or Paramedic to teach you what to do before help arrives in the event someone gets hurt. Practice on a friend or family member. Be sure to take pictures!

Create a poster showing what you learned and include your pictures!

C.) Trucks- Visit several different fire stations and learn about the different trucks they have.

Create a poster including pictures and tell about 5 or 6 different trucks you learned about. Be sure to explain what the purpose of each truck is and what makes it the best truck for the job.

DIVISION 3 (Grades 6-8)

Choose 1 of the following projects:

A.) What does a firefighter do? There are 4 different types of Fire Service (Career, Paid on Call, Volunteer, or Combination). If possible, visit with a firefighter that falls into each category. Tell what jobs each firefighter is called upon to do. Explain what makes each job different.

Create a poster, include pictures of your firefighters and include them with your poster.

B.) Life Safety- Visit a fire station and learn the ways a firefighter stays safe.

Create a poster explaining all the different ways a firefighter stays safe on the job and off the job. Be sure to include pictures.

C.) Tools and Equipment - Firefighters use many different tools and equipment depending on the type of emergency and also depending on the size of the incident. Visit a fire station and learn about some of the different tools and equipment.

Create a poster explaining the uses of 8 to 10 different tools including pictures of the tools and equipment. If possible include pictures of the tools and equipment in use. Make sure to include a little bit about the care and maintenance of these tools.

- D.) **Public Education-** Firefighters go into schools and businesses every year to teach about fire safety. Visit with a local firefighter in charge of teaching fire safety.

Create a poster describing a program of your own explaining what you would do in a school or business to teach about fire safety. Be creative in your program and include examples. If possible, put your program to the test by showing it to some younger friends, a school class, or family members. Be sure to include pictures of your demonstration, and or educational material, as well as reactions to the program.

- E.) **Fire Prevention-** Firefighters perform inspections for fire prevention. Visit with a local firefighter in charge of fire prevention. Collect information on how to perform a fire prevention inspection. Conduct your own fire prevention inspection of your home and garage. Take photos of possible fire hazards.

Create a poster describing a fire prevention inspection. Use the pictures you have taken. Be sure to indicate your findings with the pictures.

- F.) **Different Jobs-** When firefighters respond to a fire call, they are assigned different jobs to do at the fire. For example search and rescue, Emergency Medical Technician, Ladder Company, incident command...etc. Visit a local fire station and learn about the different jobs assigned to the firefighters. Create a poster and explain these jobs. Include pictures of tools and/or trucks each job may require.

DIVISION 4 (Grades 9-10)

Choose 1 of the following projects:

- A.) **Haz-Mat-** Visit a local fire station and talk with the firefighters about Haz-Mat (Hazardous Material). Learn about local Haz-Mat teams and what they do, how and when they are called out.

Create a poster of what you have learned. Take pictures of several different Haz-Mat signs you may see in the area and tell what each of them mean and how you came to this conclusion. Include an Emergency Response Guide (ERG) book with your project, or pictures of one showing the different parts to the book.

- B.) **Fire triangle-** Visit a local fire station and talk with the firefighters about the aspects of a fire. Go online or go to a library for additional help on what a fire triangle or fire tetrahedron is.

Create a poster with visuals, explaining a fire triangle (tetrahedron) and describe fire.

- C.) **Fire Extinguishers** – Visit a local fire station and learn about the different types of fire extinguishers and their different uses. Learn where each should be properly located. Learn how to properly use a fire extinguisher.

Create a poster with visuals of the different types of fire extinguishers, or a poster with photos showing the proper use of a fire extinguisher.

- D.) **Open Burning** – Research and find the Indiana Law, as well as your local, and county governing ordinance concerning Open Burning. Compare these documents.

Create an Open Burning Training Poster. Make it educational and informative using the information you have found.

DIVISION 5 (Grades 11-12)

Choose 1 of the following projects:

- A.) **Volunteer-** Volunteer at your local fire department for a minimum of 20 hours and receive your CPR and First Aid certification. Create a log describing in detail what you did and record your time spent. Have an over-seeing officer sign your log.

Create a poster describing what you did during your time and about learning CPR and First Aid. Be sure to include any pictures you may have taken as well as the log you kept.

- B.) **Join a cadet program** at a local fire station and receive your CPR/First Aid certification. Keep a log describing in detail what you did and record your hours. Have it signed by your overseeing officer.

Create a poster describing the cadet program and what you have learned. Be sure to include pictures as well as the log you kept.

- C.) **Search/Rescue-** Visit a local fire station and talk with some fire fighters about how they perform search and rescue. Go online or visit a local library for additional help.

Create a poster describing what you learned about search and rescue. Do your own pretend search and rescue in a home or building and have a friend take pictures. Explain what you are doing in the photos and why.