



# Traffic Safety

## Merit Badge Workbook

This workbook is not required but is designed to help you with this merit badge. No one can add or subtract from the Boy Scout Requirements #33215. Use page backs & add pages as needed. Please send comments to: craig@craiglincoln.com. Requirements revised: 2001, Workbook updated: January 2004.

Scout's Name: \_\_\_\_\_ Unit: \_\_\_\_\_

Counselor's Name: \_\_\_\_\_ Counselor's Ph #: \_\_\_\_\_

1) Do the following:

a) Make a scrapbook containing 10 newspaper articles about serious traffic crashes. Prepare a summary table of facts in the articles indicating the number of people injured, the number killed, type of crash (single vehicle, head-on collision, etc.), time of occurrence, age of the driver, whether alcohol or drugs were involved, use of safety belts, and any other factors that were reported to have contributed to the crash (weather conditions, fatigue, construction, etc.). Discuss how these crashes could have been prevented.

Crash 1 Description: \_\_\_\_\_

Crash 2 Description: \_\_\_\_\_

Crash 3 Description: \_\_\_\_\_

Crash 4 Description: \_\_\_\_\_

Crash 5 Description: \_\_\_\_\_

Crash 6 Description: \_\_\_\_\_

Crash 7 Description: \_\_\_\_\_

Crash 8 Description: \_\_\_\_\_

Crash 9 Description: \_\_\_\_\_

Crash 10 Description: \_\_\_\_\_

Crash #	Injured	# Killed	Accident Type	Time	Age	Alcohol?	Drugs?	Belts?	Prevention?
1	_____	_____	_____	_____	_____	_____	_____	_____	_____
2	_____	_____	_____	_____	_____	_____	_____	_____	_____
3	_____	_____	_____	_____	_____	_____	_____	_____	_____
4	_____	_____	_____	_____	_____	_____	_____	_____	_____
5	_____	_____	_____	_____	_____	_____	_____	_____	_____
6	_____	_____	_____	_____	_____	_____	_____	_____	_____
7	_____	_____	_____	_____	_____	_____	_____	_____	_____
8	_____	_____	_____	_____	_____	_____	_____	_____	_____
9	_____	_____	_____	_____	_____	_____	_____	_____	_____
10	_____	_____	_____	_____	_____	_____	_____	_____	_____

b) Describe how alcohol affects the human body \_\_\_\_\_

and why this is a problem for safely driving a motor vehicle. \_\_\_\_\_

Research the legal blood alcohol concentration in your state and the consequences for driving while intoxicated. \_\_\_\_\_

c) Describe at least four factors to be considered when an engineer designs a road or highway.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Explain how roadside hazards \_\_\_\_\_

and road conditions contribute to the occurrence and seriousness of traffic crashes. \_\_\_\_\_

d) Explain why a driver who is fatigued should not operate a motor vehicle. \_\_\_\_\_

Describe how volunteer drivers can plan to be alert when transporting Scouting participants. \_\_\_\_\_

2) Do the following:

a) Identify the different types of occupant restraint systems used in motor vehicles. Describe how they work and their purpose for safety.

Type of System	How it works	Purpose for safety
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Demonstrate how to properly wear lap and shoulder belts. Explain why it is important for drivers and passengers to wear safety belts at all times. \_\_\_\_\_

b) List five safety features found in motor vehicles besides occupant restraint systems. Describe each feature, how each works, and how each contributes to safety.

Safety Feature	How it works	How it contributes to safety
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

3) Do the following to show your knowledge of car care for safety maintenance:

(a) Using your family car or another vehicle, demonstrate that all lights and lighting systems in the vehicle are working. Describe the function and explain why each type of light is important to safe driving.

Lighting Type	Function	Why it is important to safe driving
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

(b) Using your family car or another vehicle, demonstrate how to check tire pressure and identify the correct tire pressure for the vehicle. Explain why proper tire pressure is important to safe driving. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(c) Demonstrate a method to check for adequate tire tread. Explain why proper tread is important to safe driving.

\_\_\_\_\_

\_\_\_\_\_

(d) Demonstrate with a smear-and-clear test if the windshield wiper blades will clear the windshield completely or need to be replaced. Describe instances in good and bad weather when windshield washers are important to safe driving. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4) Do the following:

(a) In a location away from traffic hazards, measure with a tape measure - not in a car - and mark off with stakes the distance that a car will travel during the time needed for decision and reaction, and the braking distances necessary to stop a car traveling 30, 50, and 70 miles per hour on dry, level pavement. Discuss how environmental factors such as bad weather and road conditions will affect the distance. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(b) Demonstrate the difference in nighttime visibility between a properly lit bicycle and rider (or a pedestrian) wearing reflective material and a bicycle and rider with no lights (or a pedestrian) dressed in dark clothing, without reflective material. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(c) Make a chart of standard traffic signs.

Meaning:	Meaning:	Meaning:	Meaning:
Meaning:	Meaning:	Meaning:	Meaning:
Meaning:	Meaning:	Meaning:	Meaning:
Meaning:	Meaning:	Meaning:	Meaning:
Meaning:	Meaning:	Meaning:	Meaning:

Explain how color and shape are used to help road users recognize and understand the information presented. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Explain the purpose of different types of sign: signals, and pavement markings. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

d) Describe at least three examples of traffic laws that apply to drivers of motor vehicles and that bicyclists must also obey. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

5) Do ONE of the following:

- (a) Interview a traffic law enforcement officer in your community to identify what three traffic safety problems the officer is most concerned about. Discuss with your merit badge counselor possible ways to solve one of those problems.
- OR-  (b) Initiate and organize an activity to demonstrate the importance of traffic safety. Activities could include making a traffic safety presentation before a school assembly, to classes of younger students, or to another large group of people; having a staged demonstration of the consequences of a crash, working with the police and paramedics; organizing a presentation to the students of your school by an emergency room doctor and/or nurse to describe their experiences with motor vehicle crash victims; organizing a clinic to demonstrate safe bicycle riding and helmet use.
- OR-  (c) Accompanied by an adult, pick a safe place to observe traffic at a controlled intersection (traffic signal or stop sign) and survey (1) such violations as running a red light or stop sign; or (2) seat belt usage. Count the number of violations or number of drivers not wearing a seat belt. Record in general terms if the driver was young/old, male/female. Discuss the findings with your merit badge counselor.
- OR-  (d) Based on what you have learned so far, develop a checklist for a safe trip. Share the checklist with your merit badge counselor, and use the checklist whenever your family makes a vehicle trip. Include on the list the responsibilities of the driver and the passengers for before and during the trip.

Requirement 5 notes: \_\_\_\_\_

\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_