

Signs, Signals, & Codes Merit Badge Self Study Materials

Materials: program binder, international signal flags, semaphore flags, cipher disc, (Morse code machines on the sub), alphabet sheets for signal flags, Morse code, and semaphore, 2 puzzle worksheets, and a merit badge worksheet (optional)



Merit Badge Requirements Covered: 1, 2, 3a, 4a, 4b, 6a, 8c (and 2 more of your choice), 10

Requirements

1. Discuss with your counselor the importance of signs, signals, and codes, and why people need these different methods of communication. Briefly discuss the history and development of signs, signals, and codes. **[The history is covered in the binder.]**
2. Explain the importance of signaling in emergency communications. Discuss with your counselor the types of emergency or distress signals one might use to attract airborne search-and-rescue personnel if lost in the outdoors or trying to summon assistance during a disaster. Illustrate these signaling examples by the use of photos or drawings. **[Several options are covered in the binder.]**
3. Do the following:
 - a. Describe what Morse code is and the various means by which it can be sent. Spell your first name using Morse code. Send or receive a message of six to 10 words using Morse code. **[Morse Code information is covered in the binder. You will/did use the Morse Code machines in the sub during the overnight. If not, there is a Morse Code card in the box and you can also fill out the worksheet in the binder: Puzzle 29.]**
 - b. Describe what American Sign Language (ASL) is and how it is used today. Spell your first name using American Sign Language. Send or receive a message of six to 10 words using ASL. **[On your own]**
4. Give your counselor a brief explanation about semaphore, why it is used, how it is used, and where it is used. Explain the difference between semaphore flags and nautical flags. **[Semaphore flags (2 pair) and nautical flags (2 sets) are available to use in the kit.]**
Then do the following:
 - a. Spell your first name using semaphore. Send or receive a message of six to 10 words using semaphore. **[Demonstrate for a parent/guardian or leader. They can verify that you did this with your Merit Badge Counselor.]**
 - b. Using illustrations or photographs, identify 10 examples of nautical flags and discuss their importance. **[Spell a word using the Nautical Flags in the box. A parent/guardian or leader can verify that you did this with your Merit Badge Counselor. Or show the counselor 10 flags during your meeting.]**

5. Explain the braille reading technique and how it helps individuals with sight impairment to communicate. Then do the following:
 - a. Either by sight or by touch, identify the letters of the braille alphabet that spell your name. By sight or touch, decode a braille message at least six words long.
 - b. Create a message in braille at least six words long, and share this with your counselor.

(To satisfy the braille writing requirement 5b for this merit badge, you do not need to emboss braille dots in thick paper. Rather, you may use a pencil or pen to draw the dots on ordinary paper, copying the characters of the braille alphabet to spell out your message letter by letter.)

[This step (a. & b.) is done on your own, but you can show the Merit Badge Counselor at your meeting to get this one checked off.]
6. Do the following:
 - a. Describe to your counselor six sound-only signals that are in use today. Discuss the pros and cons of using sound signals versus other types of signals.

[Examples are given in the binder.]
 - b. Demonstrate to your counselor six different silent Scout signals. Use these Scout signals to direct the movements and actions of your patrol or troop. **[On your own]**
7. On a Scout outing, lay out a trail for your patrol or troop to follow. Cover at least one mile in distance and use at least six different trail signs and markers. After the Scouts have completed the trail, follow no-trace principles by replacing or returning trail markers to their original locations. **[On your own]**
8. For THREE of the following activities, demonstrate five signals each. Tell what the signals mean and why they are used:
 - a. Sports official's hand signs/signals
 - b. Heavy equipment operator's hand signals
 - c. Aircraft carrier catapult crew signals **[Examples in binder]**
 - d. Cyclist's hand signals
 - e. An activity selected by you and your counselor
9. Share with your counselor 10 examples of symbols used in everyday life. Design your own symbol. Share it with your counselor and explain what it means. Then do the following: **[On your own]**
 - a. Show examples of 10 traffic signs and explain their meaning.
 - b. Using a topographical map, explain what a map legend is and discuss its importance. Point out 10 map symbols and explain the meaning of each.
 - c. Discuss text-message symbols and why they are commonly used. Give examples of your favorite 10 text symbols or emoticons. Then see if your counselor or parent can identify the meaning or usage of each symbol.
10. Briefly discuss the history of secret code writing (cryptography). **[Info & worksheet in binder]** Make up your own secret code and write a message of up to 25 words using this code. Share the message with a friend or fellow Scout. Then share the message and code key with your counselor and discuss the effectiveness of your code.