

Tools of the Auto Trade

Explorers will be introduced to the wide variety of hand and power tools that are commonly used within the automotive repair industry, and they will become familiar with their use.

CATEGORY

- Auto Technology (could be adapted for other fields)

OBJECTIVES

By the end of this session, participants will be able to:

- Identify the most common power and hand tools used in the auto shop.
- Explain the industry practice of tool ownership and who is expected to provide them.
- Explain the basics of maintaining each tool and the importance of keeping your tools in good repair.

SUPPLIES

- Activity 1 Supplies
 - Licorice
 - Spoons
 - Drinking straws
 - Paper cups
 - Large bowl or other open container
 - Paper clips
 - Blunt-end grasping tools or utensils
- Activity 2 Supplies
 - Proper safety attire and equipment for each Explorer
 - A varied selection of power and hand tools that are common in your shop

ADVISOR NOTE: Text in italics should be read aloud to participants. As you engage your post in activities each week, please include comments, discussions, and feedback to the group relating to **Character, Leadership, and Ethics**. These are important attributes that make a difference in the success of youth in the workplace and in life.

ACTIVITY 1

Do What?

Play “Do What?” This activity is not only an opening activity that will get your Explorers moving and engaged, but it is also intended as a lead-in to the main event.

The format of this activity will be somewhat dependent on the resources of your shop and the experience level of your Explorers. Be prepared with questions that may be specific to your company or environment.

The object of the game is to complete three otherwise simple tasks using tools that were not designed for that purpose. The tasks should be challenging but doable. The Explorer who completes all of these tasks first is the winner.

Set up three work stations with sufficient space for everyone in your post to be gathered around

the station at a single time.

- Station 1
 - At this station, you will have a strand of thick licorice, such as Twizzlers or Red Vines, for each participant, along with a selection of spoons. The goal is to cut the licorice into four pieces using only a spoon.
- Station 2
 - Station 2 should be set up with drinking straws and a paper cup for each participant. In advance mark a line on the cups approximately 1 inch from the bottom. Place a large bowl or other open container of water in the center of the work station. Using only the straw—and not allowing the straw to touch their lips or mouth—each Explorer must transfer enough water from the bowl to fill his or her cup to the line. Participants may not dip their cups into the bowl, or pour water directly from the bowl to their cups.
- Station 3
 - Spread out a bunch of paperclips (or pennies as an alternative) on the work surface so all are lying flat and not resting atop one another. In addition, provide a number of blunt-end grasping devices. These could include salad tongs, tongue-and-groove pliers, chopsticks, or other similar tools. DO NOT include smaller needle nosed pliers or anything that has been magnetized. The Explorers must pick up a paperclip and place it in a designated box or cup using only the tools on the table. Their hands may not directly touch the paperclip and they may not slide to paperclip off the edge of the work surface directly into the receiving container.

May the best competitor win!

ACTIVITY 2

Tool Demonstrations

To begin the main event, ask the members of the post questions such as:

- *How did you feel about the opening activity?*
- *Was it easy? If not, why not?*
- *What changes would have made you feel more successful?*

Try to guide the discussion toward the conclusion that for each job there is an appropriate tool. Although necessity can be the mother of invention, having the right tool for the job makes work more productive, more efficient, and more profitable.

- Allow the Explorers to handle and “play” with a variety of tools at your workstation.
- Explain the unique attributes of each tool and the jobs the tool is best suited for.
- When practical, demonstrate the tool in action. For example, you may use a torque wrench to tighten a drain plug or spark plug, or a pneumatic wrench to remove a bolt or nut.
- Point out that while power tools may seem more fun to use, hand tools still have their place in the shop.
- Explain the benefits and limitations of each.
- Allow each Explorer to use the tools you have demonstrated.

- This might be a good time to talk about the cost of the tools, which may help as a reminder to treat the tools with respect.
- Explain which tools are customarily provided by the shop owner and which are typically purchased by the individual technicians.
- Remind them that purchasing the tools is only part of the expense.
- Discuss the need for ongoing maintenance and replacement of parts or broken tools.

As a group, let the Explorers make a list of those tools which they now understand to be part of a basic tool chest.

- If time permits, help them calculate the initial cost of the list they have created.

ADVISOR NOTE

Some sample questions are below. They are designed to help the participants apply what they have learned to their own interests. You are welcome to use these questions or develop your own questions that relate to your post or specific focus area. Allow flexibility in the discussion so that members feel comfortable asking and discussing other pertinent questions.

REFLECTION

Focusing Questions

- *What about today's session interested you the most?*
- *What did you learn during today's discussion?*
- *How did the activities change your views on auto technology?*

Analysis Questions

- *Why is it important to know what tools are available?*
- *Why is it important to use the proper tool?*

Generalization Questions

- *What can you do now, to prepare yourself for this or a similar career in the auto industry?*
- *Why is auto technology important?*

ADVISOR'S PARTING THOUGHT

Share the following quote:

We become what we behold. We shape our tools, and thereafter, our tools shape us.

—Marshall McLuhan

Close by sharing that using the proper tools for any job can transform a good technician into a true craftsman—and that in turn shapes who we are and how others perceive us.

ADVISOR/OFFICER REVIEW

After the meeting, address the following points:

- Identify what was successful in the meeting.
- Identify what needed improvement.

Schedule a planning meeting for the officer and advisor to prepare for the next post meeting or

activity.