

# COOL TOOLS

## LEARNING OUTCOMES:

Having completed this badge members will:

- Demonstrate understanding and care of some hand and powered tools,
- Demonstrate safety measures:
  - when using hand and powered tools,
  - when working with motors,
- Describe the parts and functions of a basic motor,
- Participate in the repair or care of a basic motor.



## BADGE REQUIREMENTS

1. Identify some basic hand and powered tools and show how to use and care for them.
2. Explain safety measures when working with tools and motors.
3. Describe the parts and functions of a basic machine.
4. Participate in the repair or care of a basic machine.
5. Construct a simple machine using pulleys, levers, axles and/or cogs.

**GUARDS  
RANGERS**



**CATEGORY**  
Specialities

**TIME FRAME**  
Four - five weeks

**AIM**  
To gain skills, knowledge and confidence in the use of hand and power tools and mechanical devices.





# TEACHING IDEAS

As you use the tools be sure to comply with safety measures. You may need to combine requirements 1 and 2 in order to safely demonstrate the use of the tools. Refer to the questions on pages 13 - 14, 44 of *Caring for Kids Manual* to minimise risks when planning the badge. If you do not have the necessary skills, a qualified instructor should be invited to teach this badge. Invite parents/carers to be involved.



## 1. Identify some basic hand and powered tools and show how to use and care for them.

Provide an assortment of tools, e.g. spanners, screwdrivers, shifting spanner, wrench, pliers, hammers, sockets, sanders, electric drill, grinder, chainsaw. Discuss the use of each tool and demonstrate their use. Allow members to handle tools.

### Games

Kim's Game. Arrange some tools on a table and cover with a cloth. Allow members to view the tools for a minute or so and then cover the tools again. Take a tool away and, showing the tools again, ask members which tool is missing. Alternatively, members list or name the tools they can remember.

Match tools and uses, e.g. hammers and nails, screwdriver and screws, spanner with nuts and bolts. Alternatively, prepare pictures of tools and their uses.

Relay race. Assemble or disassemble something simple, e.g. removing nails from a block of wood. Alternatively use a Mecanno set or similar to construct an item for members to disassemble.



## 2. Explain safety measures when working with tools and motors.

Display and discuss safety equipment and safety measures, e.g. safety goggles, gloves, solid footwear, hairnets, no jewellery, hand positions, correct lifting procedures.

Invite a guest who works in occupational health and safety to speak to members about safety.



## 3. Describe the parts and functions of a machine.

Examples of a basic machine include a lawnmower, sewing machine, vacuum cleaner or other motor.

Invite a specialist who knows about machines and motors to work with members, e.g. car mechanic, sewing machine or lawnmower repairer.



## 4. Participate in the repair or care of a basic machine.

Leaders may wish to allow members to disassemble and reassemble a motor or machine. The invited specialist may be available to assist with this requirement.

This requirement may be completed by individuals, in small groups or altogether. Remember to provide sufficient motors or machines for individuals or groups to work on.

# Teaching ideas

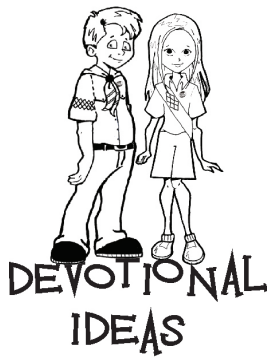


## 5. Construct a simple machine.

The machine should make use of mechanical systems like the following: pulleys, levers, axles and cogs.

Examples of a simple machine include a flag pole and hoist, elevator pulley system, see-saw, or design and build a machine using any materials you choose, e.g. wood, metal, Mecanno or Lego set.

In completing this requirement members should demonstrate that they can follow the plans and instructions in constructing the machine.



# Devotional ideas



- Title:** God's tools  
**Bible:** Ephesians 2:10  
**Thought:** God needs all of us to get His work done  
**Supplies:** a tool box

Display a tool box. What do you think might be in it? (Allow members to name various tools and display the tools you have as they are called out.)

Are they all important? Why or why not? Each tool has a unique job that it does well and it is best if it is only used for the job it was meant to do.

Have you ever thought that we are a bit like tools in God's tool box? He has jobs for all of us to do.

Read Ephesians 2:10 'God has made us what we are, and in union with Christ Jesus he has created us for a life of good deeds which he has already prepared for us to do.'

Allow time for members to discuss what they think this verse means.

We each have a job that we can do and we have skills that enable us to do that job. What are you good at doing?

(Allow a few minutes for members to think about this and/or invite members to create a list of things they can do. You may need to help some members to think about this by identifying the skills you have observed.)

One of the 'jobs' we have is to do good deeds for God. What do you think this means? How can you use your skills to do good deeds for God?

You are unique and important, and you have skills that God can use, just like the unique tools in the toolbox. When we use our skills in conjunction with everyone else, that is when we all work together as God's tools then His work gets done.

Prayer: Dear God, help me to look for the good deeds that you want me to do this week and to do them well. Amen.

# Devotional ideas



2. Title: A good worker  
Bible: 2 Timothy 2:15, Colossians 3:23  
Thought: Always do your best  
Supplies: Bible

Think of any work that you've done recently, e.g. school homework, jobs at home. Think about the amount of effort you put into the work.

Discuss the following questions:

- Does it matter whether or not we do our best?
- Is doing a job really well all that matters?
- Is 'doing your best' a better attitude?
- How could you gauge that you have 'done your best'?
- What circumstances might prevent you from or motivate you to 'do your best'?

People will have different answers to those questions, but God has something to say about being a good worker.

In Colossians 3:23 we read, 'Whatever you do, work at it with all your heart, as though you were working for the Lord and not for men.'

Do you think if we remember this verse it will make a difference to how we tackle a job?

If we really want to please God then we will try to do our best. God knows all about us and He knows whether we have done our best. He judges what I do on what He knows I can do - not on the work of others.

Paul gave some good advice about this to Timothy - 'Do your best to win full approval in God's sight, as a worker who is not ashamed of his work ...'

Ask the members to close their eyes and think about the jobs they did this week. Were there jobs you didn't want to do so left them undone or did them poorly? Talk to God about them and ask Him to help you do better this next week, so that you will not feel ashamed of any of your work.

Were there jobs where you tried your best but they didn't turn out too well? Thank Him that He knows that you tried your best and accepts them as work for Him.

Were there jobs that worked out well? Thank Him that He gave you the skills you needed and that you did the work with all your heart.

