

Sample Lesson Plan
Construction Industry Training Program
Hand and Power Tools

Introduction

Hazards of using hand and power tools

- Objects that fall, fly, are abrasive or splash
- Harmful dusts, fumes, mists, vapors and gases
- Electrical shock

Instructor's Activities

- PowerPoint presentation
- Discuss 29 CFR Part 1926 subpart I
- Participant feedback

Learning Objectives and Outcomes

I. Basic hand and power tool safety rules

- A. Operate tools according to the manufacturers' directions.
- B. Use proper guards.
- C. Use appropriate PPE (personal protective equipment).

II. Essential precautions for hand tools

- A. Do not use wrenches if jaws are sprung.
- B. Do not use tools with loose, cracked, splintered or taped handles.
- C. Keep cutting tools sharp.
- D. Maintain regularly.

III. Essential precautions for electrically powered tools

- A. Tag damaged tools "do not use".
- B. Do not carry tools by the power cord.
- C. Use a cord with a three pronged plug and grounding pin.

IV. Essential precautions for abrasive wheels and tools

- A. Cover spindle end, nut and flange.
- B. Maintain proper alignment with wheel.
- C. Ensure wheel is free of cracks.

V. Essential precautions for pneumatic wheels

- A. Place safety device on muzzle.
- B. Ensure air hose is securely fastened to connector.
- C. Reduce compressed air to 30 p.s.i. before using to clean.

VI. Guarding techniques and principles applying to hand tools

- A. Guard moving parts of power tools.

- B. Guards must protect the operator and others from point of operation, nip points, rotating parts or flying chips or sparks.
- C. Guard abrasive wheel so that the minimal amount of wheel is exposed.

References

OSHA Standard

- **29 CFR Subpart I Tools – Hand and Power**

http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10688

OSHA Publications

- **3080 Hand and Power Tools**

<http://www.osha.gov/pls/publications/pubindex.list>

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