

Lesson #6: Drill Press safety video and safety test

Objectives

Students will be able to...

- Identify the Drill press major components and safety operation.

Common Core Standards

LS 11-12.6
RSIT 11-12.2
RLST 11-12.2
Health and Safety 6.0, 6.2, 6.3, 6.5, 6.6
Technical Knowledge and Skills 10.0, 10.1, 10.2
Demonstration and Application 11.1
Cabinetmaking and Wood Products Pathway A4.1, 4.3, & A4.4
Residential and Commercial Construction Pathway D2.1, D3.1, D3.2, D3.3

Materials

YouTube video <https://www.youtube.com/watch?v=Gby7a1hUAPg>
Drill Press Safety Test

Lesson Sequence

- Watch the *You tube video* <https://www.youtube.com/watch?v=Gby7a1hUAPg> answer any questions students may have (15 minutes).
- Review any questions students have for the drill press safety test (5 minutes).
- Pass out *Drill Press Safety test*. Students must pass this test before being able to participate in a project in the job. (20-25 minutes)

Assessment

Students must pass the portable drill safety test prior to being able to participate in a project in the shop.

Accommodations/Modifications

Test May Be Read Aloud
One on One Support
Extra Time If Needed

Drill Press Safety Test

Instructions: Circle the letter next to the most correct answer.

1. What must you do before using the drill press? Circle all that apply
 - A. wear Personal Protective Equipment
 - B. confine long hair
 - C. remove jewelry
 - D. ask permission from your instructor

2. Long stock should be held on which side of the drill press?
 - A. left
 - B. right
 - C. front
 - D. back

3. What should you do when operating a drill press?
 - A. leave the key in the chuck
 - B. leave the machine running unattended
 - C. never use drill bits and sanding drums that are damaged
 - D. all of them.

4. How should stock be secured when using the drill press?
 - A. not fastened at all
 - B. held at an angle with your hands
 - C. secured in a safe manner (clamps etc.)
 - D. none of these

5. What should have occurred before you use the drill press?
 - A. passed the safety test with a 100% grade
 - B. followed all safety procedures
 - C. received teacher demonstration
 - D. all of them

6. Which statement is false for the safe operation of the drill press?
 - A. Use recommended speeds for all operations.
 - B. Tighten all lock handles.
 - C. Properly lock the bit in the chuck
 - D. Turn the machine on when changing drill bit.

7. Which statement is true for the safe operation of the drill press?
- A. Adjust the table depth stop to avoid drilling into the table.
 - B. Change the speed without asking for permission.
 - C. Adjust with the machine still running.
 - D. Remove stock when drill bit is still turning
8. What is the correct shut down procedure for the drill press?
- A. shut off power, remove the drill bit or cutting tool, and remove debris
 - B. turn machine off, leave it plugged in and do not remove drill bit or cutting tool
 - C. turn off machine, unplug, and leave key in the chuck
 - D. none of the above
9. For what does the table depth stop used?
- A. to adjust the drill bit
 - B. to avoid drilling into the table
 - C. to tighten the drill bit
 - D. to align the tabletop
10. What is the rule when choosing the correct speed to drill different materials?
- A. the harder the material the slower the speed
 - B. the harder the material the faster the speed
 - C. the softer the material the slower the speed
 - D. it doesn't matter
11. When operating a drill press you should:
- A. Never start the drill with the drill bit pressed against your work
 - B. Operate the drill at appropriate speeds
 - C. Reduce the drilling pressure when the bit begins to break through your work
 - D. All the above
12. You should never use your hands to remove metal cuttings from the drill press table. Instead you should use a:
- A. Vacuum
 - B. Brush
 - C. Both A and B
 - D. None of these

13. Which of the following three drill bits shanks should only be used in a drill press chuck?

- A. Triangular, the chuck key, or hex
- B. Square, round, or hex
- C. Round, hex, or triangular
- D. Roller, twist, or triangular

14. Where should the chuck key be before turning on the machine?

15. What does center punching mean?

16. How do you keep the back of the piece you are drilling from splintering?

17. Why should you adjust the depth stop when drilling?

Drill Press Safety Exam – Answer Key

Instructions: Circle the letter next to the most correct answer

1. What must you do before using the drill press? Circle all that apply
A. wear Personal Protective Equipment **B. confine long hair**
C. remove jewelry **D. ask permission from your instructor**
2. Long stock should be held on which side of the drill press?
A. left B. right C. front D. back
3. What should you do when operating a drill press?
A. leave the key in the chuck B. leave the machine running unattended
C. never use drill bits and sanding drums that are damaged D. all of them.
4. How should stock be secured when using the drill press?
A. not fastened at all B. held at an angle with your hands
C. secured in a safe manner (clamps etc.) D. none of these
5. What should have occurred before you use the drill press?
A. passed the safety test with a 100% grade **B. followed all safety procedures**
C. received teacher demonstration **D. all of them.**
6. Which statement is false for the safe operation of the drill press?
A. Use recommended speeds for all operations. B. Tighten all lock handles.
C. Properly lock the bit in the chuck. **D. Turn the machine on when changing a drill bit.**
7. Which statement is true for the safe operation of the drill press?
A. Adjust the table depth stop to avoid drilling into the table.
B. Change the speed without asking for permission.
C. Make adjustments with the machine still running.
D. Remove stock when drill bit is still turning.
8. What is the correct shut down procedure for the drill press?
A. shut off power, remove the drill bit or cutting tool, and remove debris from the table
B. turn machine off, leave it plugged in and do not remove drill bit or cutting tool
C. turn off machine, unplug, and leave key in the chuck
D. none of the above

9. For what is the table depth stop used?

- A. to adjust the drill bit
B. **to avoid drilling into the table**
C. to tighten the drill bit
D. to align the table top

10. What is the rule when choosing the correct speed to drill different materials?

- A. the harder the material the slower the speed** B. the harder the material the faster the speed
C. the softer the material the slower the speed D. it doesn't matter

11. When operating a drill press you should:

- A. Never start the drill with the drill bit pressed against your work
B. Operate the drill at appropriate speeds
C. Reduce the drilling pressure when the bit begins to break through your work
D. All the above

12. You should never use your hands to remove metal cuttings from the drill press table. Instead you should use

- A. Vacuum
B. Brush
C. Both A and B
D. None of these

13. Which of the following three drill bits shanks should only be used in a drill press chuck?

- A. Triangular, the chuck key, or hex
B. Square, round, or hex
C. Round, hex, or triangular
D. Roller, twist, or triangular

14. Where should the chuck key be before turning on the machine?

Return to the holding mechanism on side of drill

15. What does center punching mean?

Punching a small hole to guide the drill into the exact location you want to drill

16. How do you keep the back of the piece you are drilling from splintering?

Use scrap wood as a backing

17. Why should you adjust the depth stop when drilling?

So you don't drill into the metal table and ruin the drill bit