

What is Universal Design?

Worksheet

Universal design is the practice of designing environments and products to be usable by all people, to the greatest extent possible, without adaptation - guided by seven core principles like Equitable Use and Flexibility in Use.

Questions

1. Which of the following is NOT one of the 7 principles of universal design?

- A) Equitable Use
- B) Flexibility in Use
- C) Cost Minimization
- D) Perceptible Information

2. Universal design aims to create environments usable by:

- A) Only people with permanent disabilities
- B) The greatest extent possible by all people, without adaptation
- C) Only elderly users
- D) Only children

3. A single ramped entrance used by everyone (not a separate side door) best demonstrates which principle?

- A) Tolerance for Error
- B) Equitable Use
- C) Low Physical Effort
- D) Size and Space for Approach and Use

4. Universal design differs from basic accessibility compliance because it:

- A) Only meets minimum legal codes
- B) Applies to new construction only
- C) Aims to benefit everyone, not just meet a legal minimum for disabled users
- D) Ignores building codes

5. A building has only stairs at the main entrance. How would you redesign it using the Equitable Use principle?

6. How would you apply Flexibility in Use to a kitchen design?

7. How would you apply Perceptible Information to an elevator control panel?

8. Define: What is universal design?

9. Define: Who developed the 7 principles of universal design?

10. Define: Give one example of Equitable Use.

Answer Key

1. C) Cost Minimization - Cost Minimization isn't one of Ron Mace's 7 principles; the seven focus on usability, not cost.
2. B) The greatest extent possible by all people, without adaptation - Universal design targets the widest possible range of users, not a single group.
3. B) Equitable Use - Equitable Use means the same means of use for all users, avoiding segregated accessible entrances.
4. C) Aims to benefit everyone, not just meet a legal minimum for disabled users - Universal design is a broader best-practice philosophy that goes beyond legal minimums.
5. Identify the barrier: stairs exclude wheelchair users, people with strollers, and those with temporary injuries. Apply Equitable Use: everyone should use the same entrance, not a separate 'accessible' side door. Solution: integrate a gently sloped ramp into the main entrance design, plus handrails for ambulatory users.
6. Identify diverse user needs: seated cooks, standing cooks, left- and right-handed users. Apply Flexibility in Use: choose a design that adapts to preferences instead of one fixed solution. Solution: an adjustable-height counter, cabinet handles reachable from either side, and two work-surface heights.
7. Identify user diversity: people with visual impairments, hearing impairments, and non-native language speakers. Apply Perceptible Information: don't rely on a single sense to convey information. Solution: mark floor numbers in large print, Braille, and audible announcements, plus high-contrast colors.
8. A design approach creating environments usable by all people, to the greatest extent possible, without special adaptation.
9. Architect Ronald L. Mace and a team at North Carolina State University in 1997.
10. A single step-free main entrance used by everyone, instead of a separate accessible side door.

Bounlu

All cards, step-by-step solutions and an AI tutor are in the Notek app.
Promy turns exam dates into automatic reminders.