

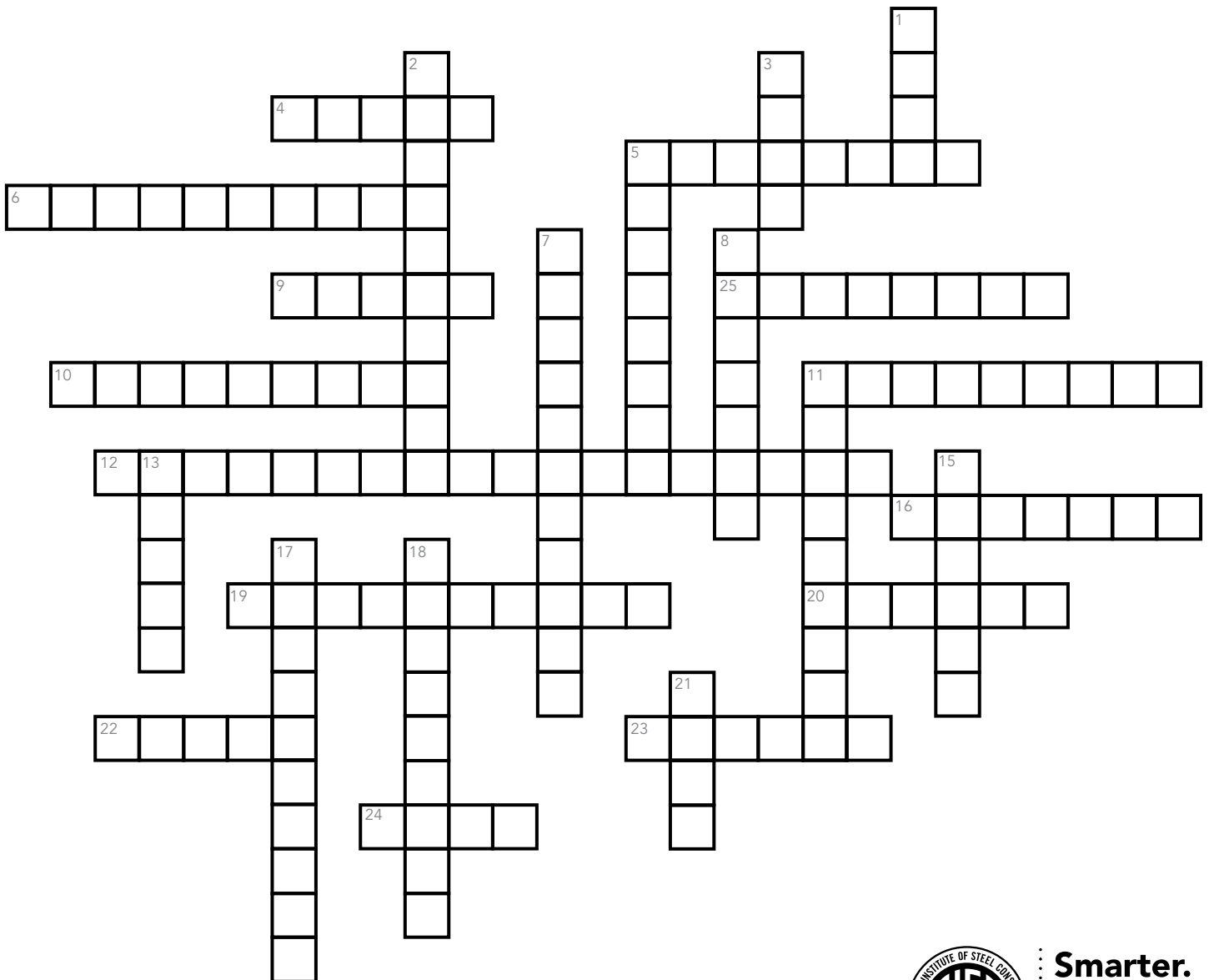
Steel Crossword Puzzle

Difficulty:
HARD

Complete the puzzle by reading
the clues on the next page and using the
word bank to the right.

WORD BANK

AISC	Architect	Bending	Bolt
Brace	Bridge	Buckling	Building
Column	Compression	Deflection	Engineer
Fabricator	Iron	Load	Recycling
Resilience	Shear	Skyscraper	Steel
Steel Beam	Stiffness	Structural Engineer	
Tension	Truss	Welder	Welding



**Smarter.
Stronger.
Steel.**

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CLUES

DOWN

1. Hard and magnetic metal that is the main ingredient for making steel. A chemical element with the symbol "Fe" and atomic number 26.
2. A person who makes and organizes the steel pieces that are used to build a structure.
3. A type of fastener that is used to join two or more pieces of steel together. It is tightened with a nut and washer.
5. The sudden change in the shape of a structural object.
7. A squeezing force on an object.
8. Joining together metal pieces or parts by heating the surfaces to the point of melting, typically with an electric or gas arc.
11. A horizontal piece of steel that carries the weight of a floor or other parts of a structure
13. Special kind of structure made up of connecting triangles.
15. A person who joins together metal pieces or parts by heating the surfaces to the point of melting, typically with an electric or gas arc.
17. The ability of a structure and its materials to absorb and recover from an external shock.
18. Reusing waste materials by converting them to something new.
21. The total weight of a structure plus any other forces that the structure may encounter.

ACROSS

4. A kind of force that pushes things in opposite directions.
5. A structure with a roof, flooring, and walls.
6. A really tall building.
9. An extra piece of material used to make a structure stronger and more stable. Very important for making buildings resistant to wind and earthquakes.
10. A person who designs beautiful buildings and supervises their construction.
11. How hard it is to bend something.
12. An engineer who makes sure objects are stable, are strong enough to carry loads, and are safe for the general public.
16. A force that pulls on an object.
19. The movement or change in shape of a structural object.
20. A structure that carries a road, path, or railroad across a body of water or other obstacle.
22. A strong metal made mostly from iron and carbon. It can be used to build bridges, buildings, and other structures.
23. A vertical piece of steel that carries weight.
24. A company that works to make buildings and bridges better and safer, helps engineers and architects with their designs, and offers scholarships for college and graduate students.
25. A person who uses math, science, and problem solving to design safe systems for people.



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