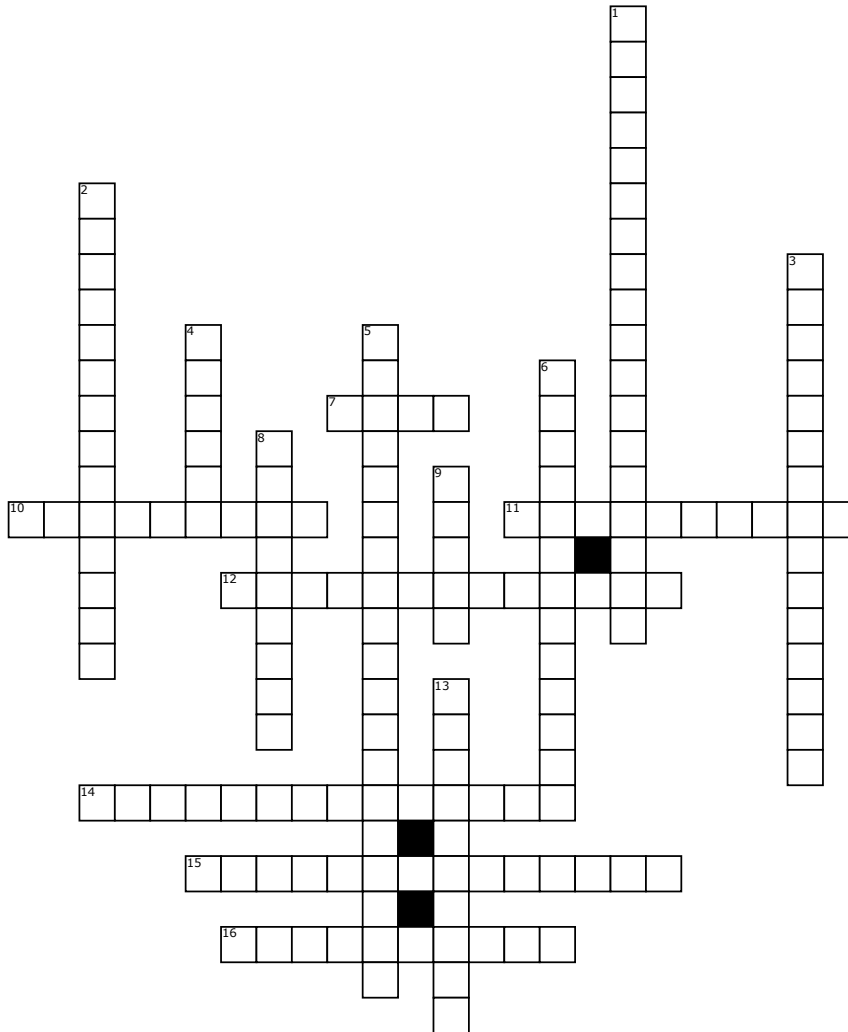


Non-contact forces



Across

- 7.** the amount of matter in an object; mass is measured in kilograms
10. a working model of a design solution that can be used for testing and refining the design
11. opposition to the flow of electric charge
12. a force field surrounding an electrically charged object
14. attractive or repulsive forces between magnets or attractive forces between a magnet and certain materials
15. a property of matter that causes electrical phenomena

- 16.** a model that describes what the force on an object would be if the object were placed in any location in space; usually used to predict the strength and direction of noncontact forces

Down

- 1.** a map of a force field that can be used to predict which way gravitational forces will pull an object
2. attractive or repulsive noncontact forces between charged particles
3. a flow of particles with electric charge

- 4.** the amount of gravitational force on an object; weight is measured in newtons
5. always attractive, noncontact forces between objects that have mass
6. the regions where the magnetic forces exerted by a magnet are the strongest
8. when referring to forces, pushing apart
9. the path that an object in space follows around another object due to gravitational forces between the objects
13. when referring to forces, pulling together

Word Bank

- | | | | |
|-----------------|----------------------|-----------------|------------------|
| magnetic forces | gravitational field | electric forces | electric current |
| orbit | electric charge | magnetic poles | repulsive |
| resistance | attractive | force field | mass |
| weight | gravitational forces | prototype | electric field |