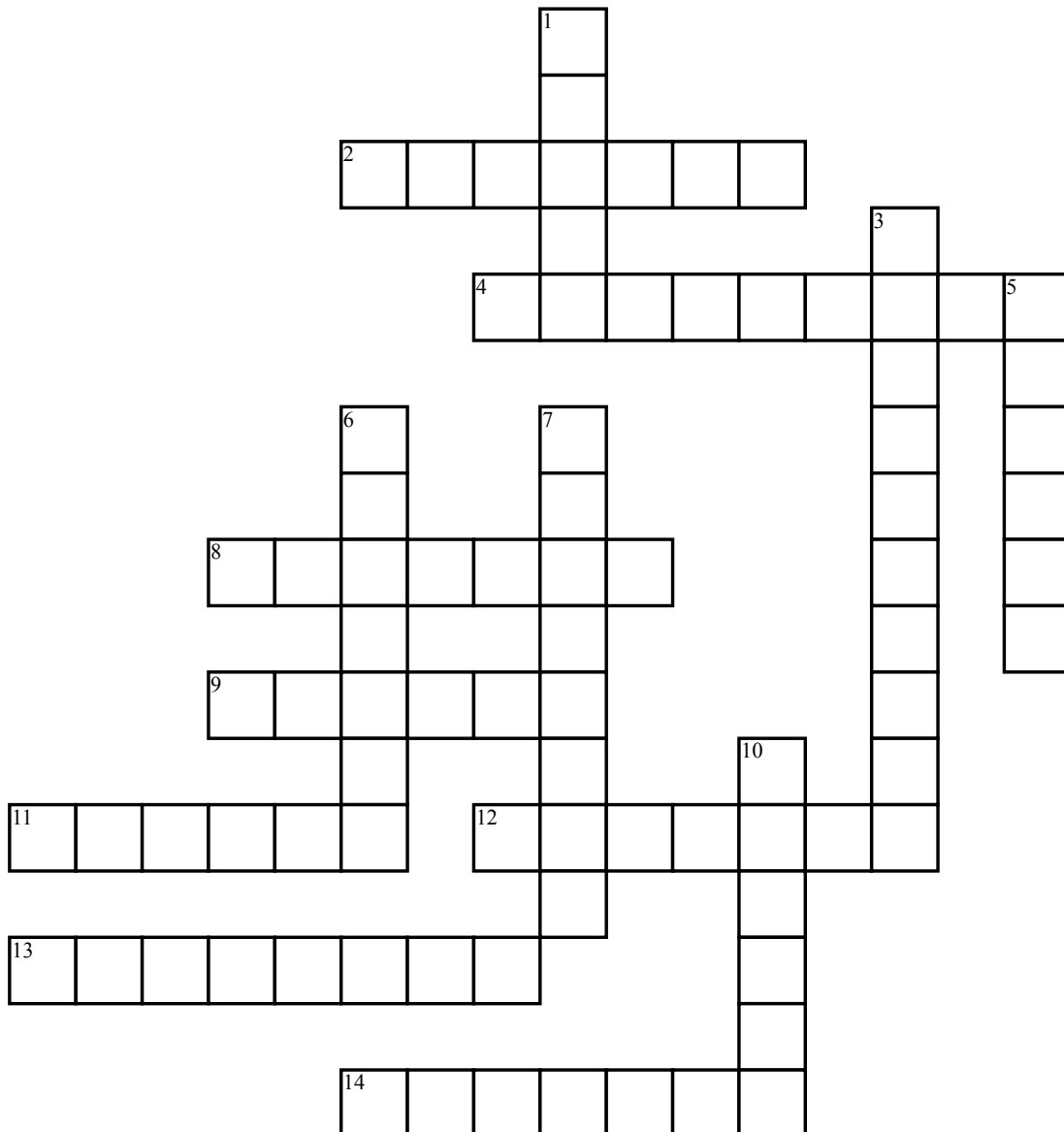


# Newton's second and third laws



## Across

2. \_\_\_\_\_ is the resistance of any physical object to any change in its state of motion

4. \_\_\_\_\_ is an area of science concerned with the behaviour of physical bodies when subjected to forces or displacements

8. The type of friction that identifies how much force is needed to keep an object moving

9. The force of gravity on the object

11. The SI unit of force.

12. \_\_\_\_\_ is the tendency of a force to rotate an object around an axis, fulcrum, or pivot.

13. \_\_\_\_\_ is a branch of applied mathematics concerned with the study of forces and torques and their effect on motion

14. The concept that everything is pulled towards the centre of the earth

## Down

1. \_\_\_\_\_ is any interaction that, when unopposed, will change the motion of an object

3. \_\_\_\_\_ is the branch of classical mechanics which describes the motion of points, bodies, and systems of bodies without consideration of the masses of those objects nor the forces that may have caused the motion.

5. The friction that identifies how much force is needed to get an object moving

6. \_\_\_\_\_ is the pulling force transmitted axially by means of a string, cable, chain, or similar one-dimensional continuous object

7. The force resisting the relative motion of solid surfaces, fluid layers, and material elements sliding against each other.

10. A \_\_\_\_\_ is a machine consisting of a wheel over which a pulled rope or chain runs to change the direction of the pull used for lifting a load