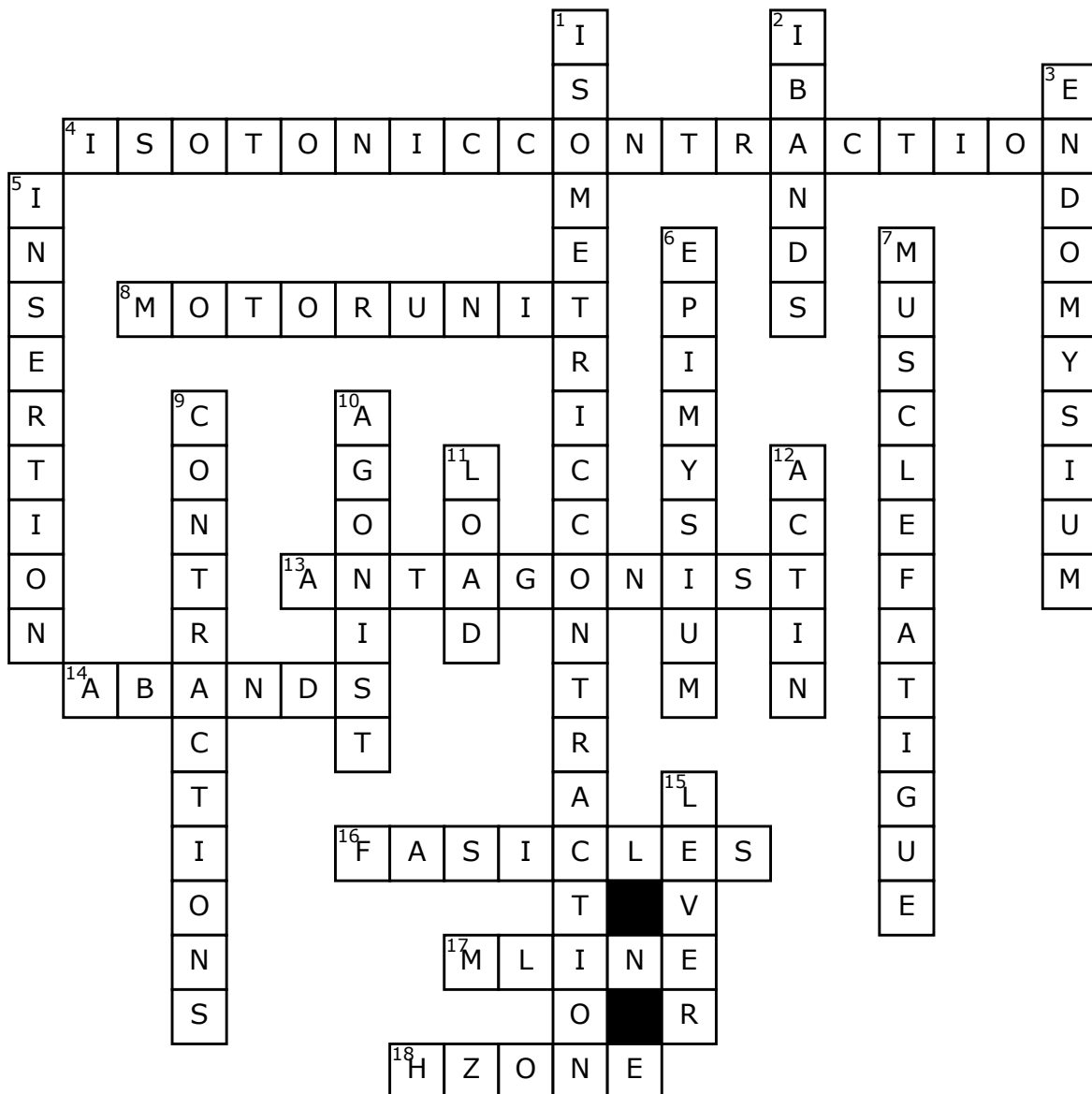


# Muscles & Muscle Tissue



## Across

4. (1) concentric and (2) eccentric contractions are \_\_\_\_\_

8. A \_\_\_\_\_ unit is made up of a motor neuron and the skeletal muscle fibers innervated by that motor neuron's axonal terminals.

13. \_\_\_\_\_ agonist muscles often occur in pairs, called antagonistic pairs.

14. what is the dark-staining anisotropic cross striations in the myofibrils of muscle fibers, comprising regions of overlapping thick (myosin) and thin (actin) filaments.

16. a bundle of structures, such as nerve or muscle fibers.

17. the attachment site for the thick filaments.

18. The region of a striated muscle fibre that contains only thick (myosin) filaments

## Down

1. a type of strength training in which the joint angle and muscle length do not change during contraction (compared to concentric or eccentric contractions, called dynamic/isotonic movements).

2. the thick filaments, are bipolar and extend throughout the A-band. They are cross-linked at the centre by the M-band.

3. a wispy layer of areolar connective tissue that ensheaths each individual myocyte (muscle fiber, or muscle cell).

5. The origin is the fixed attachment, while the \_\_\_\_\_ moves with contraction.

6. a sheath of fibrous elastic tissue surrounding a muscle.

7. the decline in ability of a muscle to generate force.

9. The three different types of muscular \_\_\_\_\_

10. what is a chemical that binds to a receptor and activates the receptor to produce a biological response.

11. also an agonist

12. what is essential for such important cellular functions as the mobility and contraction of cells during cell division.

15. In producing a body movement, bones act as \_\_\_\_\_ and joints function as fulcrums of these \_\_\_\_\_.