

BIOLOGY 101: SYMMETRY AND ANATOMICAL DEFINITIONS

Biology, like all sciences, has its own vocabulary, or jargon. These words are useful tools that allow biologists to communicate clearly and easily.

Below are listed terms with which you should become familiar. These are used to describe the symmetries and anatomical orientations of organisms and to describe from where sections (e.g. on prepared slides) were removed. These terms are defined below and the accompanying diagrams on the following page will help you visually understand their meaning.

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1. **Anterior:** Toward the front; usually toward the end where a head is located.
 2. **Bilateral:** Symmetry that describes anatomically similar right and left halves of a body or structure.
 3. **Caudal:** Pertaining to the tail, or to the **posterior** part of the body.
 4. **Cranial:** Pertaining to the head, or to the anterior part of the body. Sometimes referred to as **cephalad**.
 5. **Distal:** Away from the point of attachment or reference point.
 6. **Dorsal:** Pertaining to the back or upper surface.
 7. **Lateral:** Pertaining to the right or left side of the anterior-posterior midline.
 8. **Longitudinal:** A section which divides along the long axis. If it divides into right and left halves, it is also referred to as **sagittal**. If it divides into front and rear, it is **frontal**.
 9. **Medial:** Pertaining to the midline.
 10. **Posterior:** Towards the rear; also referred to as **caudal**.
 11. **Proximal:** Near the point of attachment or reference point.
 12. **Radial:** Symmetry in which the body or structure looks the same along any radial plane taken through the dorsal-ventral axis.
 13. **Transverse:** A section which divides into anterior and posterior parts. Often called a **cross section**.
 14. **Ventral:** Pertaining to the belly or underside.

