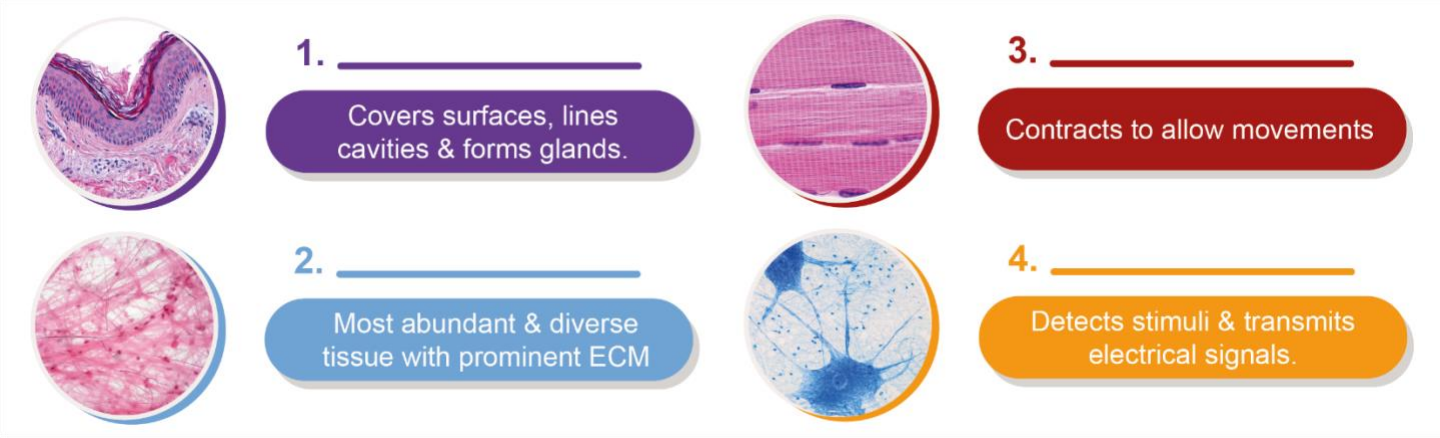
TOPIC: INTRODUCTION TO TISSUES & HISTOLOGY

- The human body is amazingly complex yet is only built from _____ primary types of tissue.
  - Recall: **Tissues**: _____ of *similar* cells working together to perform related functions.
  - "Tissues" can also include **Extracellular Matrix** (_____): surrounding material *outside* cells.



PRACTICE: Which of the following statements is true?

a) Human body has trillions of cells operating completely independently of one another.

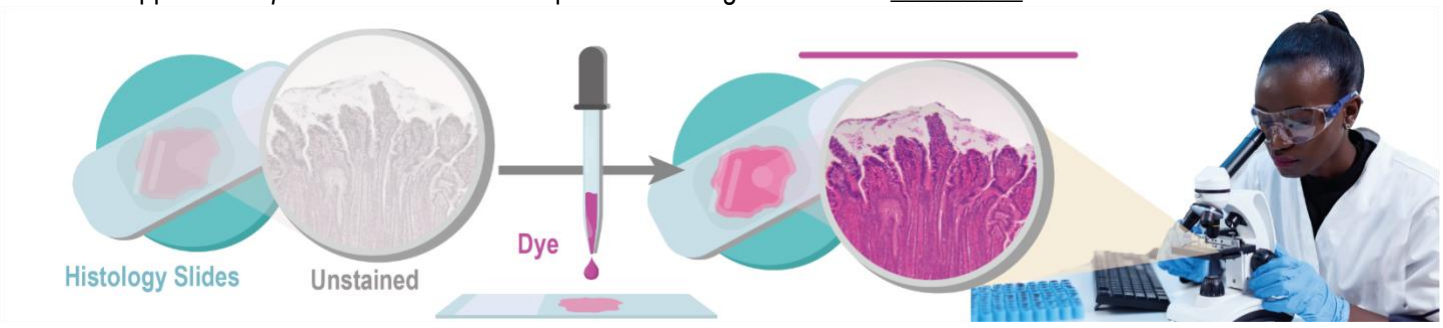
b) All organisms are composed of a unique combination of just four different tissue types.

c) The ECM is a combination of complex molecules found inside connective tissue cells.

d) "Tissues" can be used to refer not only to coordinating groups of similar cells but also to their ECM.

The Study of Tissues

- _____: scientific study of *tissue structure & function* (including *shape*, *size*, *arrangement*, & *ECM*).
- Tissues appear *transparent* under a microscope *before* being *stained* with _____.



PRACTICE: Which of the following is something that a histologist would NOT be expected to do?

a) Utilize a light microscope to inspect a biopsy of suspected cancerous tissue to detect cellular abnormalities.

b) Prepare a sample of lung tissue using the Gram stain technique to identify presence of bacteria.

c) Conducting a cardiac tissue bypass surgery to replace damaged tissue & restore normal blood flow to heart.

d) Analyze cellular structure & ECM of a bone biopsy to help in diagnosis of osteoporosis.

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Map of the Lesson on Tissues

- Here is a _____ that you can continuously use to help guide you through our lessons on *tissues*.