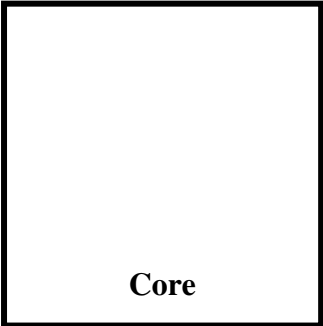

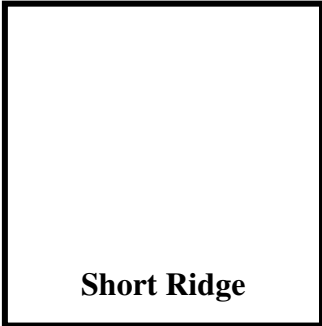
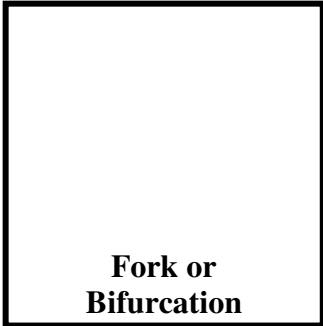
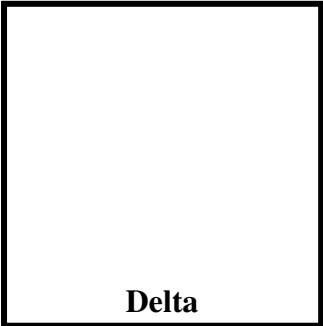
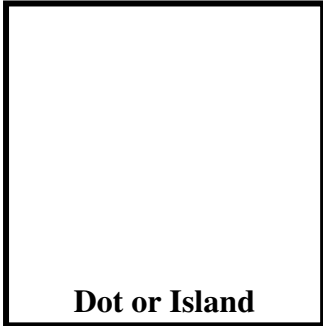
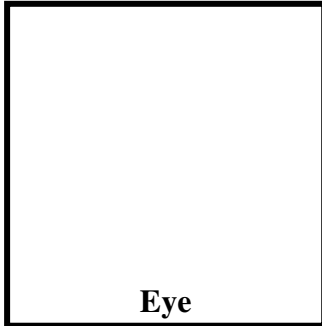
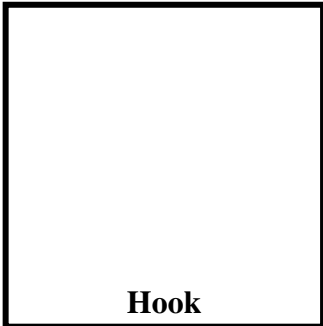
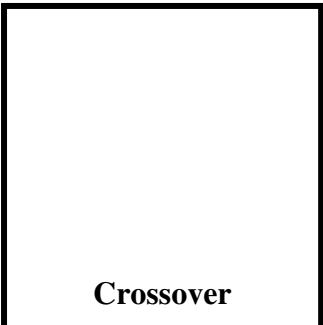
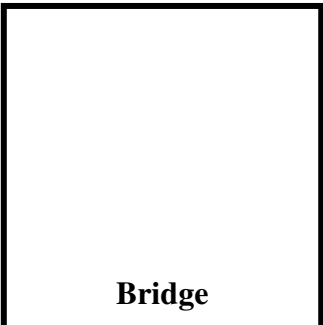
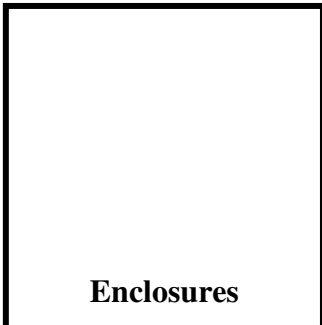
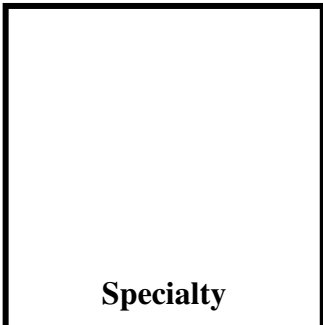


# The Science of Ridges

Name \_\_\_\_\_

1. \_\_\_\_\_ is the study of the uniqueness of friction ridge structures and their use for personal identification.
2. As we have learned in our first lesson, a fingerprint is made of a series of \_\_\_\_\_ and \_\_\_\_\_ on the surface of the finger. The uniqueness of a fingerprint can be determined by the \_\_\_\_\_ of ridges and valleys as well as the \_\_\_\_\_ points, which are points where the ridge structure changes.
3. When minutiae on two different prints match, these are called points of \_\_\_\_\_ or points of \_\_\_\_\_. At this point there is \_\_\_\_\_ international standard for the number of points of identification required for a match between two fingerprints. However, the United Kingdom requires a minimum \_\_\_\_\_ points while Australia requires \_\_\_\_\_.
4. AFIS = \_\_\_\_\_

5. **Ridge Characteristics** - Draw the different ridge characteristics listed below.

 <b>Core</b>	 <b>Ending Ridge</b>	 <b>Short Ridge</b>	 <b>Fork or Bifurcation</b>
 <b>Delta</b>	 <b>Dot or Island</b>	 <b>Eye</b>	 <b>Hook</b>
 <b>Crossover</b>	 <b>Bridge</b>	 <b>Enclosures</b>	 <b>Specialty</b>

**6. How many ridge characteristics can you identify in this fingerprint?** Use a hand lens and highlighter to help you identify the characteristics and then label each one.



**Try It!** - Analyze the fingerprints on your “My Prints” worksheet to see how many ridge characteristics you can find.

Which ridge characteristics did you find in your fingerprints? List them below and mark the two most common ones with a star.