Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Which Microscope?**

You are a scientist working in a lab studying marine microorganisms. Your team has found samples of several types. In the table below is a list of the microorganisms and the size of each.

| **Name** | **Size (in meters)** |
| --- | --- |
| Protists | 0.00275 |
| Archaea | 0.000062 |
| Copepods | 0.003 |
| Microfungi | 0.000159 |

Your team needs to study these microorganisms under a microscope. There are several different microscopes in your lab and each one has a different depth of focus (range in which objects can be focused and sharp).

Microscope A has a depth of focus of $7.5 x 10^{-5}$ to $2.5 x 10^{-3}$ meters.

Microscope B has a depth of focus of $8.0 x 10^{-6}$ to $4.0 x 10^{-3}$ meters.

Microscope C has a depth of focus of $4.9 x 10^{-6}$ to $2.9 x 10^{-3}$ meters.

Which microscope should your team use to study the samples? Provide evidence and explain your reasoning.