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 7.5×10^{-5} to 2.5×10^{-3} meters. Microscope B has a depth of focus of 8.0×10^{-6} to 4.0×10^{-3} meters. Microscope C has a depth of focus of 4.9×10^{-6} to 2.9×10^{-3} meters.

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

Virginia Department of Education

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