

Name:

Date:

Class:

Myth/Fact Assessment Sheet **Answer Key**

Pre-Test	Statement	Post-Test	What Did I Learn?
Myth/Fact	Semiconductors conduct electricity the same way metals do.	Myth/Fact	Semiconductors conduct electricity differently from metals. They only conduct under certain conditions, allowing precise control in electronics.
Myth/Fact	Photolithography is a process used to create tiny patterns on semiconductor surfaces.	Myth/ Fact	Photolithography uses light to transfer patterns onto semiconductor materials, forming circuits and microchips.
Myth/Fact	A photoresist layer gets removed by UV light during photolithography.	Myth/Fact	UV light polymerizes or chemically changes the photoresist in certain areas, making them either harder or easier to remove in later steps.
Myth/Fact	Wavelength doesn't matter when exposing a photoresist to light.	Myth/Fact	The wavelength of UV light is crucial because only certain wavelengths cause the photoresist to undergo polymerization effectively.
Myth/Fact	Masking controls which areas of a semiconductor are exposed to light.	Myth/ Fact	A mask blocks UV light in some areas, allowing engineers to control which parts of the photoresist are polymerized during photolithography .
Myth/Fact	In manufacturing, exposure time has no effect on the resolution of a pattern surface.	Myth/Fact	Exposure time affects how much polymerization occurs, influencing the clarity and sharpness (resolution) of the patterns.
Myth/Fact	Photolithography is only used in electronics and has no other applications.	Myth/Fact	Though semiconductor manufacturing is a key application, photolithography is also used in microfluidics, solar cells, and biomedical devices.

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Pre-Test	Statement	Post-Test	What Did I Learn?
Myth/Fact	Polymerization is a chemical reaction where small molecules join to form a larger chain.	Myth/ Fact	This is the correct definition of polymerization , a critical step in curing the photoresist when exposed to UV light.
Myth/Fact	The distance between the UV light and the masking pattern does not impact resolution.	Myth /Fact	The distance affects resolution because greater distances cause light to scatter or blur, reducing the sharpness of the pattern on the photoresist.