

## Chapter 6: Single-Qubit Gates

This section is already in the book plan, but it has not been written fully yet. The book owner can press Generate section to write this part with the language model connected to TheoryTrace.

Section plan:

Introduces quantum gates as reversible linear transformations. Students learn the X, Z, Y, H, S, and T gates, how they act on states, how to multiply matrices by state vectors, and how gates move states on the Bloch sphere.

### References

References will be added when this section is generated.

# Document information

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<b>Project</b>	Quantum Computing from First Principles
<b>Document</b>	Document 1.10
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<b>Verifier</b>	Not verified
<b>Downloaded</b>	July 04, 2026 19:08 KST
<b>Status</b>	Working
<b>Document link</b>	<a href="https://www.theorytrace.com/projects/quantum-computing-from-first-principles/documents/chapter-6-single-qubit-gates/">https://www.theorytrace.com/projects/quantum-computing-from-first-principles/documents/chapter-6-single-qubit-gates/</a>