



IXL Skill Plan for the NJSLA

Algebra 1



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www.ixl.com/math/skill-plans/njsla-algebra-1

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Sub-Claim A

Major Content

Standard	IXL skills
Expressions	<p>Polynomial operations</p> <ol style="list-style-type: none"> Checkpoint: Add, subtract, and multiply polynomials XGP <p>Factoring</p> <ol style="list-style-type: none"> Factor quadratics with other leading coefficients 7ED Factor quadratics: special cases 56E
Interpreting Functions	<ol style="list-style-type: none"> Identify functions: vertical line test HLX Domain and range of relations 2CG Domain and range of quadratic functions: equations 4J7 Interpret functions using everyday language U98 Interpret the graph of a function: word problems STU Evaluate a function R96
Rate of Change	<ol style="list-style-type: none"> Checkpoint: Average rate of change T79
Solving Algebraically	<p>Linear equations and inequalities</p> <ol style="list-style-type: none"> Solve linear equations: mixed review DN6 Solve advanced linear inequalities 9K8 <p>Quadratic equations</p> <ol style="list-style-type: none"> Solve a quadratic equation by factoring CSS Solve a quadratic equation using the quadratic formula XCF <p>Multi-variable equations</p> <ol style="list-style-type: none"> Rearrange multi-variable equations WSJ

Solving Graphically

Graph solution sets

1. Relate the graph of an equation to its solutions L8U
2. Solve a system of equations by graphing TSS
3. Solve systems of linear inequalities by graphing SGH

Approximate solutions

4. Approximate solutions using a table FK2
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Sub-Claim B

Additional & Supporting Content

Standard	IXL skills
Number Systems	1. Classify rational and irrational numbers 3S8
Equivalent Expressions and Functions	1. Write a quadratic function in vertex form W2Q
Interpreting Graphs of Functions	1. Graph linear functions VVB 2. Characteristics of quadratic functions: graphs HW8 3. Match quadratic functions and graphs AU8 4. Match cubic functions and graphs 48R
Function Transformations	1. Transformations of linear functions C8G 2. Transformations of quadratic functions 6YS
Multiple Representations of Functions	1. Solve a system of equations using any method: word problems GDQ 2. Compare linear functions: tables, graphs, and equations GD7 3. Write linear and exponential functions from tables JGJ 4. Write linear and exponential functions: word problems T84
Summarizing, Representing, and Interpreting Data	1. Checkpoint: Two-way frequency tables 5GL 2. Checkpoint: Linear modeling U7N

Sub-Claim C

Expressing Mathematical Reasoning

Standard	IXL skills
Reasoning	<ol style="list-style-type: none"><li data-bbox="850 457 1419 520">1. Properties of operations on rational and irrational numbers <small>C7S</small><li data-bbox="850 537 1409 600">2. Checkpoint: Solve linear equations and inequalities <small>VYL</small><li data-bbox="850 617 1474 680">3. Describe linear and exponential growth and decay <small>S7T</small><li data-bbox="850 697 1393 739">4. Checkpoint: Quadratic equations <small>NXG</small><li data-bbox="850 751 1507 814">5. Checkpoint: Solve equations using graphs and tables <small>DV9</small><li data-bbox="850 831 1399 894">6. Checkpoint: Systems of equations and inequalities <small>LQW</small><li data-bbox="850 911 1458 953">7. Checkpoint: Function transformations <small>QKX</small>

Sub-Claim D

Modeling and Application

Standard	IXL skills
Modeling	<ol style="list-style-type: none"><li data-bbox="850 457 1386 489">1. Checkpoint: Units and quantities CBX<li data-bbox="850 506 1528 569">2. Checkpoint: Problem solving with equations and inequalities QZQ<li data-bbox="850 588 1406 619">3. Checkpoint: Represent constraints 2VV
