




Suggested Units by Grade for


Pennsylvania Science, Technology & Engineering, Environmental Literacy and Sustainability (STEELS)





| K | Curriculum Series | | Curriculum Series | |
|--|--|--|--|--|
| | Suggested Units | Standards | Suggested Units | Standards |
| Engineering | YES Elementary™ Engineering Sun Hats | 3.2.K.D, 3.5.K-2.H to J, L to P, S, T, V, DD | Engineering is Elementary® To Get to the Other Side: Designing Bridges | 3.2.K.A 3.2.K.B 3.5.K-2.H to J, L to P, S, T, V, DD |
| | EiE® for Kindergarten Here's the Scoop: Engineering Trash Collectors | 3.3.K.E, 3.4.K-2.D, 3.5.K-2.H to J, L to P, S, T, V, DD | | |
| Computer Science  | EiE® for Kindergarten Sort It Out: Programming Robots | Data & Analysis, Algorithms & Programming* | | |

| 1 st Grade | Curriculum Series | | Curriculum Series | |
|--|---|---|---|--|
| | Suggested Units | Standards | Suggested Units | Standards |
| Engineering | YES Elementary™ Engineering Nightlights | 3.2.1.B-D, 3.5.K-2.H to J, L to P, S, T, V, DD | YES Enrichment™ Engineering Bandages | 3.5.K-2.H to J, L to P, S, T, V, DD |
| | YES Enrichment™ Engineering Bubble Wands | 3.5.K-2.H to J, L to P, S, T, V, DD | | |
| Computer Science  | Computer Science Essentials® Programming Robots | Computing Systems, Data & Analysis, Algorithms & Programming, Impacts of Computing* | | |






| 2 nd Grade | Curriculum Series | | Curriculum Series | |
|--|--|--|--------------------------------------|--|
| | Suggested Units | Standards | Suggested Units | Standards |
| Engineering | YES Elementary™ Engineering Pumpkin Pollinators | 3.1.1.A, 3.1.2.B, 3.2.2.A 3.2.2.B, 3.5.K-2.H to J, L to P, S, T, V, DD | YES Enrichment™ Engineering Sails | 3.3.2.A-B, 3.5.K-2.H to J, L to P, S, T, V, DD |
| | Engineering is Elementary® A Work In Progress: Improving A Play Dough Process | 4.1.A, 4.1.C, 4.3.A, 4.3.B, 4.5, 4.1, 4.2.A, 4.2.B, 4.2.D, 4.3, 4.4, 4.5, 4.6.B, 4.7 | | |
| Computer Science  | Computer Science Essentials® Creating Animations | Computing Systems, Data & Analysis, Algorithms & Programming, Impacts of Computing* | | |

| 3 rd Grade | Curriculum Series | | Curriculum Series | |
|--|---|---|--|--|
| | Suggested Units | Standards | Suggested Units | Standards |
| Engineering | YES Elementary™ Engineering Magnetic Dog Doors | 3.2.3.C-D, 3.5.3-5.I, K, M-U, Z, DD | YES Enrichment™ Engineering Rescue Shuttles | 3.2.3.A, 3.3.3.C, 3.5.3-5.I, K, M-U, Z, DD |
| | Engineering is Elementary® Catching the Wind: Designing Windmills | 3.2.3.A, 3.2.3.B, 3.3.3.B, 3.5.3-5.I, K, M-U, Z, DD | | |
| Computer Science  | Computer Science Essentials® Building Automated Systems | Computing Systems, Data & Analysis, Algorithms & Programming, Impacts of Computing* | | |

| 4 th Grade | Curriculum Series | | Curriculum Series | |
|--|--|--|--|--------------------------|
| | Suggested Units | Standards | Suggested Units | Standards |
| Engineering | YES Elementary™ Engineering Safety Vests | 3.2.4.B., 3.2.4.D, 3.2.4.G, 3.5.3-5.A, 3.5.3-5.I, K, M-U, Z, DD | YES Enrichment™ Engineering Upcycled Toys | 3.5.3-5.I, K, M-U, Z, DD |
| | EiE® Essentials Designing Solar Ovens | 3.2.4.B, 3.2.4.D, 3.3.4.D, 3.4.3-5.B 3.4.3-5.C, 3.4.3-5.F, 3.5.3-5.I, K, M-U, Z, DD | | |
| Computer Science  | Computer Science Essentials® Designing Computer Games | Computing Systems, Data & Analysis, Algorithms & Programming, Impacts of Computing* | | |

| 5 th Grade | Curriculum Series | | Curriculum Series | |
|--|--|---|--|---|
| | Suggested Units | Standards | Suggested Units | Standards |
| Engineering | YES Elementary™ Engineering Plastic Filters | 3.2.5.C, 3.3.5.E-F, 3.4.3-5.A, 3.5.3-5.E, 3.5.3-5.I, K, M-U, Z, DD | Engineering is Elementary® A Long Way Down: Designing Parachutes | 3.2.5.C, 3.2.5.F, 3.5.3-5.I, K, M-U, Z, DD |
| | Engineering Essentials® Cleaning an Oil Spill | 3.1.5.A, 3.1.5.B, 3.3.5.F, 3.4.3-5.A, B, D, E, F, 3.5.3-5.I, K, M-U, Z, DD | | |
| Computer Science  | Computer Science Essentials® Analyzing Digital Images | Computing Systems, Data & Analysis, Algorithms & Programming, Impacts of Computing* | | |

**Grades
6–8**

| Curriculum Series | | Curriculum Series | |
|---|---|---|--|
| Suggested Units | Standards | Computer Science Module | Standards |
| YES Middle School™ Engineering Medicine Coolers | 3.2.6.F, 3.2.6.M, 3.4.6-8.H, 3.5.6-8.Z, 3.5.6-8.HMN O P Q R S T U V W X | YES Middle School™ Heatwave Visualizations |  Algorithms & Programming, Impacts of Computing* |
| | | YES Middle School™ Medicine Cooler Alarms |  Data & Analysis, Impacts of Computing* |
| YES Middle School™ Engineering Eco-friendly Slippers | 3.2.6-8.C, 3.2.6-8.H, 3.4.6-8.H, 3.5.6-8.D, 3.5.6-8.E, 3.5.6-8.I, 3.5.6-8.Z, 3.5.6-8.HMN O P Q R S T U V W X | YES Middle School™ Step Counters |  Algorithms & Programming, Impacts of Computing* |
| | | YES Middle School™ User Reviews Analysis |  Data & Analysis, Impacts of Computing* |
| YES Middle School™ Engineering Landing Pads | 3.2.6-8.G, 3.2.6-8.L, 3.2.6-8.O, 3.2.6-8.P, 3.2.6-8.H, 3.5.6-8.D, 3.5.6-8.E, 3.5.6-8.Z | YES Middle School™ Delivery Notification Systems |  Algorithms & Programming* |
| | | YES Middle School™ Bounce Height Measurements |  |
| Engineering Everywhere® Put a Lid on It: Engineering Safety Helmets | 3.1.6-8.H, 3.2.6-8.G, 3.5.6-8.HMN O P Q R S T U V W X | | |
| Engineering Everywhere® Go Fish: Engineering Prosthetic Tails | 3.1.6-8.D 3.5.6-8.HMN O P Q R S T U V W X | | |
| Engineering Everywhere® Don't Runoff: Engineering an Urban Landscape | 3.1.6-8.I, 3.1.6-8.L, 3.1.6-8.U, 3.3.6-8.M, 3.3.6-8.N, 3.5.6-8.HMN O P Q R S T U V W X | | |
| Engineering Everywhere® Growing Up: Engineering Vertical Farms | 3.1.6-8.D, 3.1.6-8.F, 3.1.6-8.U, 3.2.6-8.R, 3.4.6-8.A, 3.4.6-8.H, 3.5.6-8.D, 3.5.6-8.HMN O P Q R S T U V W X | | |