Bellevue School District
STEM Initiative Overview
K-5 STEM
K-12 Computer Science
WHY Computer Science?

1,000,000 more jobs than students by 2020

- $500 billion opportunity
- 1.4 million computing jobs
- 400,000 computer science students

Bureau of Labor Statistics and College Board
WHY Computer Science?

Exposure to CS leads to some of the best-paying jobs in the world. But 75% of our population is underrepresented.

Of this group, only 15% are women, and only 8% are Hispanic Americans or African Americans.

Code.org and College Board
WHY Computer Science?

AP CS Participation in Bellevue School District by Race

<table>
<thead>
<tr>
<th>CS Participation by Race</th>
<th>BSD Overall Student Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian 56%</td>
<td>Asian 36%</td>
</tr>
<tr>
<td>Black 1%</td>
<td>Black 3%</td>
</tr>
<tr>
<td>Hispanic 3%</td>
<td>Hispanic 12%</td>
</tr>
<tr>
<td>Multi Ethnic 7%</td>
<td>Multi Ethnic 9%</td>
</tr>
<tr>
<td>White 33%</td>
<td>White 40%</td>
</tr>
</tbody>
</table>

2015-2016 School Year
WHY Computer Science?

AP/IB Computer Science Participation by Gender

- Female: 28%
- Male: 72%

AP/IB Math, Science, & CS Participation by Gender

- Female: 52%
- Male: 48%

Bellevue School District 2015–2016 School Year
WHY Computer Science?

ELL & Special Ed Enrollment in Computer Science & Robotics

- Students enrolled in Computer Science CTE Courses

Bellevue School District
2015-16 School Year
A 21st century view of Computer Science: A field that’s unique in its societal impact

Principle areas of computer science and computer engineering

- Big data
- Mobile
- Wireless & Sensors
- Natural language processing
- Cloud computing
- Robotics
- Human computer interaction
- Machine learning

Impact Across Society

- Medicine & Global Health
- Energy & Sustainability
- Security & Privacy
- Transportation
- Agriculture
- Education
- Scientific Discovery
- Engineering
- Commerce
Goal: For all students at all schools to receive a high quality computer science education beginning in Kindergarten and extending through 12th grade.
NGSS Aligned Curriculum & Practices
Teacher Professional Development
Arts Integration
Robotics
Family Engineering
Hour of Code
K-5 Coding Pilot

Students + teachers + family = success