# ENDS 2: Academics and Foundations PART 2 January 10, 2018

Upon graduation, students will be academically prepared and confident to pursue higher education or specialized career training.

# Interpretation

- We interpret **students** to mean each student in the previous graduating class.
- We interpret *graduation* to mean meeting the District's established graduation requirements and earning a diploma.
- We interpret academically prepared to mean meeting the state's high school proficiency exams and meeting Washington state public universities' or community/technical colleges' minimum entrance requirements.
- We interpret confident to mean a feeling of self-assurance about one's ability to accomplish his/her personal plan for post-secondary pursuits.
- We interpret to pursue higher education to mean post-secondary education institutions including two- and four-year colleges and universities.
- We interpret specialized career training to mean programs that prepare students for a
  particular career, including apprenticeships, technical schools, military service, and
  specialized training programs.

#### Reasonable progress

We have confidence that students are meeting the targets of E-2 when they navigate our educational system and earn a diploma and affirm their high school experiences have prepared them for a wide range of post-graduate opportunities of their choosing. For graduation, the Issaquah School District requires that a student pass the state's proficiency exams, earn credits in courses that satisfy community/technical college entrance, and establish and implement a post-graduation plan of action. Additionally, students have the opportunity to earn credits in courses that meet four year college and university entrance requirements. Under this definition, monitoring will focus on three major areas: (1) ensuring the graduation requirements meet the requirements of E-2, (2) ensuring students have ample opportunities to take classes that help better prepare them for post-secondary education, and/or specialized career training (3) tracking our students' enrollment and need for remediation in post-secondary education and other programs that prepare our students for a career.

#### **Overall Evidence**

As students navigate the ISD K-12 system they are exposed to rigorous content and learning opportunities. Our graduation requirements mandate that students take a broad range of core academic and elective courses and pass all state required examinations. Therefore, graduating from the ISD is evidence that students have met the standards and requirements of E-2 Academics and Foundations.

District K-12 curriculum aligns with state standards. ISD selects curriculum that requires the same or higher level of cognitive demand (critical thinking) as is defined in the State standards.

#### **Graduation Rate**

Source: OSPI Report Card

	% On-time Adjusted 4 year cohort	% Extended Adjusted 5 year cohort
Class of 2013	92.9	94.3
Class of 2014	92	93.4
Class of 2015	92	93.7
Class of 2016	92	

# **Graduation Rate by School**

Source: OSPI Report Card

Class of 2015/Baseline	% On-time Adjusted 4 year cohort	% Extended Adjusted 5 year cohort
IHS	92.8	93.9
LHS	89.8	92.9
SHS	96.1	97.1

# **Graduation Rate by School**

Source: OSPI Report Card

Class of 2016	% On-time Adjusted 4 year cohort	% Extended Adjusted 5 year cohort		
IHS	91.5	94.2		
LHS	89.4	91.7		
SHS	95.6	97.5		

# 2017 Non-Grad Report

Source: Skyward

The Non-graduated Report is unduplicated count of students for the Grad Year of 2017.

School	Down Credits	Testing	Non-Grads- unspecified	Total				
Issaquah High	14	3	14	31				
		*Class of 2017 N=517; 6.3% non-grads						
Liborty High	4	4 10						
Liberty High		*Class of 2017 N=2	79; 5.2% non-grads					
Clarling High	0	4						
Skyline High		*Class of 2017 N=	522; .8% non-grads					

<sup>\*</sup>N is the total of Grads and Non Grads for the Class of 2017.

2017 Grads in 2016-17 school year (1 Year Cohort) students enrolled between 9/1/16- 6/20/17 Students in the ACT Program are included in the graduation totals, but not in the non-grad percentage and not in the unspecified percentage.

Class of 2016 Disaggregated Data by High School - OSPI

Class of 2016 ISD Disaggregated Data - OSPI

Class of 2016 ISD Disaggregated Data - OSPI - Chart

Link to OSPI Website - All Dropout and Graduation Reports

#### Count of Students Enrolled in College the Fall Immediately After High School

Source: Education Research and Data Center 2014 P-20 Reports Comparing Districts (Cohort)

Graduating Class of 2014	Washington						Out of State					Total	
		Public	Private	Public	Private		Public Private Public Private				HS Grads	% Going to College	
	Total	4yr	4yr	2yr	2yr	Total	4yr	4yr	2yr	2yr			
Issaquah	72%	40%	6%	25%	0-1%	28%	15%	12%	0-1%	0-1%	1206	84%	
Statewide	82%	31%	5%	45%	0-1%	18%	8%	8%	2%	0-1%	65881	61%	

# Count of Students Enrolled in College the Fall Immediately After High School

Source: Education Research and Data Center 2015 P-20 Reports Comparing Districts (Cohort)

Graduating Class of 2015	Washington						Out of State					Total	
		Public	Private	Public	Private		Public	Private	Public	Private	HS Grads	% Going to College	
	Total	4yr	4yr	2yr	2yr	Total	4yr	4yr	2yr	2yr			
Issaquah	68%	38%	6%	24%	0-1%*	32%	16%	13%	2%	0-1%*	1,221	85%	
Statewide	82%	32%	5%	44%	0-1%*	18%	7%	8%	3%	0-1%*	67,841	60%	

<sup>\*</sup>High school reporting 10 – 20 graduates have percentages reported in interval widths: high schools reporting 41 – 100 graduates in a given year have interval widths of 5%

Link – 2015 Graduates in Postsecondary Education

Additional Links:

2015 Postsecondary Graduates by Demographic Characteristic

2015 Postsecondary Graduates by Program - Bilingual, 504, Special Education, Title 1, LAP

<u>2015 Postsecondary Graduates - Remediation Rates</u>

2015 High School Performance by Postsecondary Enrollment

#### Students will:

# 2.7 know and apply mathematics to a level of fluency that ensures a broad range of post-secondary opportunities and career choices

We interpret 2.3 to mean each student adequately demonstrates and applies mathematical proficiency to pursue post-graduate goals of his/her choosing, including: post-secondary education at two and four-year colleges and universities, *specialized career training* programs such as apprenticeships, technical schools, and military service.

#### **Evidence**

- MSP/SBA District Comparisons
- SBA Math
- Proficiency: Graduation rate, college remediation rate math (Education Research & Data Center – Base Year Data 2009), HSPE trends, Math SAT, Math ACT, enrollment in AP/IB Math and numbers passing AP/IB exams.
- SAT, ACT, AP/IB Race/Ethnicity Charts
- Confidence measure: Question 20 Decision Research Survey, numerical problems and finances (see chart in 2.1)
- Algebra 1, Geometry, Algebra 2, District Common Assessments
- Middle School CC Math Sequence

Source: OSPI Report Card

2015-2016 SB/MSP District Comparison Chart 2016-2017 SB/MSP District Comparison Chart

# Postsecondary Participation Characteristics for Students Enrolled in Washington Public Institutions

Source: Education Research and Data Center

Graduating Class of 2013	2 year enrolled	2 year enrolled	4 year enrolled	4 year enrolled
	Issaquah	State	Issaquah	State
	% enrolled	% enrolled	% enrolled	% enrolled
Enrollment in Pre-College Course Work in Math	29%	47%	3%	6%
Enrollment in Pre-College Course Work in <i>Both</i> English <u>and</u> Math	8%	17%	0-1%	0-1%
Enrollment in <u>any</u> Pre-College Course Work	31%	54%	3%	7%

Graduating Class of 2014	2 year enrolled	2 year enrolled	4 year enrolled	4 year enrolled
	Issaquah	State	Issaquah	State
	% enrolled	% enrolled	% enrolled	% enrolled
Enrollment in Pre-College Course Work in Math	26	45	3	7
Enrollment in Pre-College Course Work in <i>Both</i> English <u>and</u> Math	9	16	0-1	0-1
Enrollment in <u>any</u> Pre-College Course Work	29	52	3	9

Graduating Class of 2015	2 year enrolled	2 year enrolled	4 year enrolled	4 year enrolled
	Issaquah	State	Issaquah	State
	% enrolled	% enrolled	% enrolled	% enrolled
Enrollment in Pre-College Course Work in Math	26	43	4	9
Enrollment in Pre-College Course Work in <i>Both</i> English <u>and</u> Math	5	15	0-1	0-1
Enrollment in <u>any</u> Pre-College Course Work	31	50	6	11

98% of the students in 12<sup>th</sup> grade met the math graduation requirements for the class of 2017.

# **SAT Math Mean Scores**

Source: College Board

	Student Count			M	ath Sco	re	% of Class
<b>Graduating Class</b>	Nat'l	State	ISD	Nat'l	State	ISD	
2015	1,698,521	44,423	913	511	510	597	77.2%
2016	1,637,589	43,783	890	508	506	601	68.9%*
2017	1,832,683	41,731	753	533	533	619	57.1%

<sup>\*</sup>Total of Graduate and Non-Graduates for the Class of 2017= 1318

# SAT Math Breakdown by Race/Ethnicity

Source: College Board/Skyward

College-Bound Seniors represents data on high school graduates in the year 2016 who participated in the SAT Program. Students are counted only once and only their latest scores.

Race/Ethnicity	Number of Students Taking the Test			Number in Class*	% of Class	Mathemati	Mathematics Mean Score		
Class of 2016	Nat'l	State	ISD**			Nat'l	State	ISD	
American Indian or Alaska Native	7,778	545	4	4	100%	471	471		
Asian	196,735	5,656	249	290	85.9%	602	548	639	
Black or African American	199,306	2,277	10	16	62.5%	425	424	523	
Native Hawaiian or Pacific Islander	2,371	168	1	2	50%	438	427		
Hispanic or Latino	355,829	5,837	41	91	45.1%	453	445	542	
White	742,436	23,964	520	832	62.5%	533	529	592	
Two or More Races, Non- Hispanic	28,460	1,235	20	56	35.7%	505	514	577	
Other	20,604	832	16		N/A	519	487	596	
No Response	840,070	3,269	29		N/A	501	439	577	
Total				1291					

<sup>\*</sup>Total of Graduate and Non-Graduates for the Class of 2016

<sup>\*\*</sup>Self-reported by test takers

# SAT Math Breakdown by Race/Ethnicity

Source: College Board/Skyward

College-Bound Seniors represents data on high school graduates in the year 2016 who participated in the SAT Program. Students are counted only once and only their latest scores.

Race/Ethnicity		er of Stud ng the Te		Number in Class*	% of Class	Mathemati	Mathematics Mean Score		
Class of 2017	Nat'l	State	ISD**			Nat'l	State	ISD	
American Indian or Alaska Native	7782	434	3	6	50%	477	488	*	
Asian	158,031	4715	185	291	63.6%	612	574	653	
Black or African American	225,860	2248	10	22	45.5%	462	462	525	
Native Hawaiian or Pacific Islander	4131	404	3	5	60%	488	467	*	
Hispanic or Latino	408,067	7192	51	111	45.9%	489	484	580	
White	760,362	23,937	439	820	53.5%	553	555	609	
Two or More Races, Non- Hispanic	57,049	2720	41	63	65%	544	549	627	
Other					N/A				
No Response	94,199	2261	21		N/A	485	474	639	
Total				1318					

<sup>\*</sup>Total of Graduate and Non-Graduates for the Class of 2017

# **ACT Math Average Scores**

	Student Count			M	ath Sco	re	% of Class
<b>Graduating Class</b>	Nat'l	State	ISD	Nat'l	State	ISD	
2015	1,924,436	16,944	508	20.8	22.4	26.5	42.9%
2016	2,090,342	16,652	598	20.6	23.1	26.2	46.3%*
2017	2,030,038	19,581	651	20.7	21.9	26.9	49.4%**

<sup>\*</sup>Total of Graduate and Non-Graduates for the Class of 2016 (Base Grad Year) = 1291

<sup>\*\*</sup>Self-reported by test takers

<sup>\*\*</sup>Total of Graduate and Non-Graduates for the Class of 2017 = 1318

# **ACT Math Average Scores by Race/Ethnicity**

Race/Ethnicity	Co	ount – N ar	nd Percent		Ma <sup>s</sup> Average	
Class of 2016	State N	% of total # of WA students who tested	ISD N	% of total # of ISD students who tested	State	ISD
Black/African American	583	4%	7	1%	18.2	21.1
American Indian/Alaskan Native	120	1%	1	0%	18.2	*
White	9,060	54%	384	64%	24.1	25.9
Hispanic/Latino	2,325	14%	26	4%	19.1	25
Asian	2,053	12%	101	17%	25.5	28.7
Native Hawaiian/Other Pac. Isl.	147	1%	1	0%	18.4	*
Two or More Races	1,154	7%	36	6%	23.1	27
Prefer not/No Response	1,210	7%	42	7%	23.9	27.6
Total All Students	16,652	100%	598	100%	23.2	26.5

<sup>\*</sup>Suppressed

# **ACT Math Average Scores by Race/Ethnicity**

Race/Ethnicity	Co	ount – N ar	nd Percent		Ma Average S	
Class of 2017	State N	% of total # of WA students who tested	ISD N	% of total # of ISD students who tested	State	ISD
Black/African American	897	5%	6	1%	15.1	23
American Indian/Alaskan Native	161	1%	2	0%	15.2	*
White	9744	50%	384	59%	23.2	26.4
Hispanic/Latino	3554	18%	32	5%	15.2	25.5
Asian	2217	11%	139	21%	22.5	28.3
Native Hawaiian/Other Pac.	271	1%	5	1%	14.6	*
						27.7
Two or More Races	1364	7%	49	8%	22	27.7
Prefer not/No Response	1373	7%	34	5%	21.4	28.0
Total All Students	19,581	100%	651	100%	20.9	26.9

<sup>\*</sup>Suppressed

# **AP/IB Math Course Enrollment and Exams**

Source: College Board and International Baccalaureate Organization

Course	E	nrollme	ent	# of	Tests Ta	aken		vho pass 3+ /IB		Pas	s Rate 9	6
	2014 2015	2015 2016	2016 2017	2014 2015	2015 2016	2016 2017	2014 2015 (IB 4+)	2015 2016 (IB 3+)	2016 2017 (IB 4+)	2014 2015 IB 4+	2015 2016 IB 3+	2016 2017 IB 4+
AP Calculus AB	178	200	210	181 (19 SHS)	237 (53 SHS)	224	157 (6 SHS)	159 (3 SHS)	175	86.7% (32% SHS)	67% (6% SHS)	78%
IHS	112	118	120	101	107	113	99	107	109	98%	100%	97%
LHS	66	82	90	61	77	84	52	49	56	85.2%	64%	66%
SHS*						27			10			37%
AP Calculus BC	77	90	69	78 (8 SHS)	<b>76</b> (9 SHS)	73 (1 GE)	72	<b>70</b> (6SHS)	61 (0 GE)	92.3%	92% (66% SHS)	84% (0% GE)
IHS	41	51	33	38	43	28	37	43	28	97.4%	100%	100%
LHS	36	39	36	32	24	28	29	21	26	90.6%	87.5%	93%
SHS*						16			7			44%
AP Statistics	158	129	134	148 (1 SHS)	111 (1 SHS)	115	103	89	90	69.6%	80%	78%
IHS	27	33	49	29	28	47	23	26	47	79.3%	93%	100%
LHS	131	96	85	118	82	66	80	62	41	67.8%	76%	62%
SHS*						2			2			100%
SHS IB Math Methods 1	162	*		-	-		-	-		-	-	-
SHS IB Math Methods 2	140	*		83	-		80	-		96.4%	-	-
SHS IB Math Methods 3	65	76		41	56		33	51		80.5%	92%	-
SHS IB Math SL 1	-	100	99	-	-	0	-	-	-	-	-	-
SHS IB Math SL 2	-	49	93	-	41	68	-	41	64	-	100%	96%
SHS IB Pre-HL Math	-	128	113	-	-	0	-	-	-	-	-	-
SHS IB Math HL 1	-	90	109	-	-	0	-	-	-	-	-	-
SHS IB Math HL 2			89			76			63	-	-	83%
SHS IB Math HL 3		72	-	-	-	-	-	-	-	-	-	-

<sup>\*</sup> SHS is now offering the AP exams on campus this row for SHS is now included.

AP: A 3 on an AP exam is considered passing and may give the student college credit OR advanced placement at a higher education institution. IB: An average of 4s on an IB exam across 6 subjects are required to get an IB Diploma with an aggregated total, not subject to subject evaluation. The 2014/15 and 2016/17 scores do not include 3s, the 2015/16 scores do include 3s.

# Graduates who have Math above Algebra 2

(does not include Algebra 2 classes in data)

School	Number of Students in Graduating Class			Graduati	of Student ng Class w ove Algebr	vith	% of Graduating Class with Math above Algebra 2			
	Class of 2015	Class of 2016	Class of 2017					Class of 2016	Class of 2017	
Issaquah HS	440	493	517	301	374	354	68.4%	75.9%	68.5%	
Liberty HS	276	285	279	224	235	202	81.1%	82.5%	72.4%	
Skyline HS	470	479	522	361	404	439	76.9%	84.3%	84.1%	
Total	1186	1263*	1318	886	1013	995	74.7%	80.6%	75.5%	

<sup>\*2016</sup> total included 6 students from Tiger Mountain

2016-17 Algebra 1 HS MS Common Assessments

2016-17 Algebra 2 HS MS Common Assessments

2016-17 Geometry Common Assessments

Middle School CC Math Sequence

#### Students will:

# 2.8 use analytic and scientific principles to draw sound conclusions

We interpret 2.4 to mean each student is able to identify and apply the scientific method to formulate a hypothesis, apply processes and procedures, collect and analyze data to test the hypothesis, take into account variables, and infer and draw informed conclusions.

#### **Evidence**

- MSP/SBA District Comparisons
- Proficiency: Graduation rate, MSP/SBA trends, enrollment in AP/IB Science and numbers passing AP/IB exams.
- Biology District Common Assessment
- ACT Scores and Ethnicity/Race Charts
- Biology Adoption Charter

Source: OSPI Report Card

2015-2016 SB/MSP District Comparison Chart 2016-2017 SB/MSP District Comparison Chart

#### **Biology EOC**

Source: OSPI Report Card

School Year	Biology
2012-2013	90.2%
2013-2014	91.1%
2014-2015	94.6%
2015-2016	90.8%
2016-2017	89.3%

# **AP/IB Science Course Enrollment and Exams**

Source: Skyward, College Board and International Baccalaureate Organization

Course	E	nrollme	nt	# of	Tests T	aken		vho pas 3+ /IB		Pass Rate %		
	2014 2015	2015 2016	2016 2017	2014 2015	2015 2016	2016 2017	2014 2015	2015 2016	2016 2017	2014 2015	2015 2016	2016 2017
AP Physics C: Mechanics	48	53	62	46 (3 SHS)	45	59	43	44	53	93.5%	98%	90%
IHS	48	53	62	42	43	57	41	42	51	97.6%	98%	89%
LHS	0	0	0	1	2	0	1	2	0	100%	100%	0
SHS						2			2			100%
AP Biology	64	95	83	67 (1 SHS)	86 (2 SHS)	80	67	79 (2 SHS)	71	100%	92%	89%
IHS	32	52	53	33	49	49	33	48	45	100%	98%	92%
LHS	33	43	30	33	35	29	33	29	24	100%	83%	83%
SHS						2			2			100%
AP Chemistry	57	76	84	56 (5 LHS, 1 TMHS)	64 (1 SHS)	80	48	51 (1 SHS)	66	85.7%	80%	82.5%
IHS	57	58	60	50	48	56	43	37	51	86%	77%	91%
LHS		18	24		15	21		13	14		87%	66.6%
SHS						3			1			33%
AP Envir. Science	78	57	28	71	50	28	57	42	24	80.3%	84%	86%
IHS	20	32	28	18	28	25	16	23	21	88.9%	82%	84%
LHS	58	25	0	53	22	2	41	19	2	77.3%	86%	100%
SHS						1			1			100%
AP Comp Science	112	122	131	93	95 (4 SHS)	105	75	89 (4 SHS)	91	80.6%	94%	87%
IHS	82	85	93	70	68	74	60	61	70	85.7%	90%	95%
LHS	30	37	38	22	23	29	14	13	19	63.6%	57%	66%
SHS				1		2	1		2	100%		100%
SHS IB Biology 1	151	184	150	-	-	0	-	-		-	-	-
SHS IB Biology	68	98	126	64	93	118	62	89	97	96.9%	96%	82%
SHS IB Chemistry SL	107	72	102	42	24	49	17	23	34	40.5%	96%	70%
SHS IB Chemistry HL	17	28	?	14	14	-	9	13	-	64.3%	93%	-
SHS IB Physics	85	79	106	-	-	0	-	-	-	-	-	-
SHS IB Physics 2 IB Envir. & Soc	53	44	48	44	35	43	27	29	15	61.4%	83%	35%
Systems	38	61	64	4	13	21	3	13	16	75%	100%	76%
IB Comp Sci SL  IB Comp Sci HL	-	86	91	-	31	38	-	30	21	-	97%	55%
1B Comp Sci HL	-	15	24	-	12	20	-	11	16	-	92%	80%

AP: A 3 on an AP exam is considered passing and may give the student college credit OR advanced placement at a higher education institution. IB: An average of 4s on an IB exam across 6 subjects are required to get an IB Diploma with an aggregated total, not subject to subject evaluation. The 2014/15 and 2016/17 scores do not include 3s, the 2015/16 scores do include 3s.

# Other Science Courses w/ Enrollment-College in the High School Courses

Source: Skyward

Other Science Courses w/Enrollment- College in the High School Courses

	Total Student Enrollment								
School Year	2014 2015	2015 2016	2016 2017						
Honors Physics									
LHS	31	20	30						
Anatomy & Physiology College in the HS									
IHS	51	32	63						

# Number of Students with 3 or more Science Credits

Source: Skyward

	Number of Students in graduating class			Graduat	er of Studo ing class v edits of a	vith 3 or	% of graduating class with 3 or more credits of science			
School	Class of 2015	Class of 2016	Class of 2017	Class of 2015	Class of 2016	Class of 2017	Class of 2015	Class of 2016	Class of 2017	
Issaquah HS	440	493	517	382	428	379	86.8%	86.8%	73.3%	
Liberty HS	276	285	279	241	227	216	87.3%	79.6%	77.4%	
Skyline HS	470	479	522	436	424	455	92.8%	88.5%	87.1%	
Total	1186	1257	1318	1059	1079	1050	89.3%	85.8%	80%	

# **ACT Science Average Scores**

	Count				Science		% of Class
<b>Graduating Class</b>	Nat'l	State	ISD	Nat'l	State	ISD	
2015	1,924,436	16,944	508	20.9	22.4	26.1	42.9%
2016	2,090,342	16,652	598	20.8	22.9	25.7	46.3%*
2017	2,030,038	19,581	651	21.0	22.0	26.1	49.4%**

<sup>\*</sup>Total of Graduate and Non-Graduates for the Class of 2016 (Base Grad Year) = 1291

<sup>\*\*</sup>Total of Graduate and Non-Graduates for the Class of 2017 = 1318

# **ACT Science Average Score by Race/Ethnicity** Source: College Readiness

Race/Ethnicity	Co	ount – N ar		Science Average Score		
Class of 2016	State N	% of total # of WA students who tested	ISD N	% of total # of ISD students who tested	State	ISD
Black/African American	583	4%	7	1%	18.1	19.9
American Indian/Alaskan Native	120	1%	1	0%	18.8	*
White	9,060	54%	384	64%	24	25.6
Hispanic/Latino	2,325	14%	26	4%	19	24.2
Asian	2,053	12%	101	17%	23.7	26.7
Native Hawaiian/Other Pac. Isl.	147	1%	1	0%	17.9	*
Two or More Races	1,154	7%	36	6%	23	26.6
Prefer not/No Response	1,210	7%	42	7%	23.5	26.4
Total All Students	16,652	100%	598	100%	22.9	25.7

<sup>\*</sup>Suppressed

# **ACT Science Average Score by Race/Ethnicity** Source: College Readiness

Class of 2017 Race and Ethnicity	State N	% of total # of WA students who tested	ISD N	% of total # of ISD students who tested	State Average Score	ISD Average Score
Black/African American	897	5%	6	1%	17.6	21.8
American Indian/Alaskan Native	161	1%	2	0%	18.2	*
White	9744	50%	384	59%	23.5	25.9
Hispanic/Latino	3554	18%	32	5%	18.2	24
Asian	2217	11%	139	21%	23.7	27.5
Native Hawaiian/Other Pac. Isl.	271	1%	5	1%	17.5	*
Two or More Races	1364	7%	49	8%	22.7	25.6
Prefer not/No Response	1373	7%	34	5%	22.3	26.3
Total All Students	19,581	100%	651	100%	22.0	26.1

<sup>\*</sup>Suppressed

2016-17 Biology District Common Assessment

Charter - Life Science Materials Selection Work Group 2015-17 Middle School

#### Students will:

2.9 understand and apply current and emerging technologies to demonstrate technology literacy and use technology to solve problems using both computational and critical thinking;

We interpret 2.9 to mean students will effectively use technology to facilitate and enhance their problem solving skills.

#### **Evidence:**

- Technology Graduation Requirement
- Digital Citizenship
- Core Curriculum
- Speak Up Survey Data
- Technology course enrollment and program participation
- Special Education Assistive Technologies
- ELL supports
- Extra-curricular technology club participation

#### **Technology Graduation Requirement**

The Issaquah School District requires students to meet a technology graduation requirement. All 2017 graduating seniors met this requirement through coursework or the challenge test. During the 2016/17 school year 1596 middle school students took TechSmart to satisfy this requirement, 105 high school students took the challenge test to meet the requirement.

The data from eighth grade records show the number of incoming freshmen for the class of 2021 who have not met the Tech Proficiency Requirement.

Beaver Lake Middle School	Issaquah Middle School	Maywood Middle School	Pacific Cascade Middle School	Pine Lake Middle School	Grand Total
33	61	45	35	45	219

Students who enter the Issaquah School District after middle school have several options to meet the technology graduation requirement, including but not limited to taking the Introduction to Computer Science class or the Technology Challenge Test. The <u>Course Guide</u> includes information on which classes meet the technology graduation requirement.

The following middle school and high school courses meet the technology graduation requirement. The document mapping the tech standards within the course content is attached. <u>High School Tech Rubric</u>, <u>Middle School Tech Rubric</u>

		Course Name	Course Codes				
High	Scho	ool					
Previous		Computer Science (Intro, Adv, AP, IB)	INT245, COM336, COM335, COM600, COM651, COM650, COM801				
<u> </u>		Web Design	COM330, COM800				
Added Fall 2016, records updated last	ur years	TV/Video Production  Graphic Design Yearbook	INT150, INT250, INT251, INT350, INT351,INT450, INT451, INT452, COM800, COM802 INT240, INT241, INT242, TEC101 INT160, INT161, INT162, TEC100				
ddeg	for	Intro to Engineering and Eng. Robotics	INT435, INT442				
reco		Interactive Media Photography	INT140 ART125, ART225				
Midd	lle So	chool					
Curre	ent	TechSmart					
Added Fall, 2017		Automation and Robotics  Design and Modeling  CS Discoveries (new Fall 2017)  Video Production/DMQ Des & Prod  Advanced Video Production  ter long courses	KRA078 (MMS, IMS)  KDM078 (MMS, IMS)  KCW078 (PCMS)  KVP078, KTP678 (PCMS)  KVP078 (PCMS)				
LIII	nest	er lully courses					

#### **Digital Citizenship**

The Children's Internet Protection Act (CIPA) requires schools to provide Internet Safety training every year to all students. There is no provision from CIPA for what curriculum is used so each school makes its own choices of Internet Safety Curriculum. In Issaquah all schools are required to complete Internet Safety Training and submit a completed form certifying that they have done so. The completed certifications are sent to the Executive Director of Compliance and Legal Affairs. K-5 Students Responsible Use Agreement 2017-18, 6-12 Students Responsible Use Agreement 2017-18

#### **Core Curriculum**

A key focus for educators in Issaquah is our students' thinking skills, as high level thinking is critical for success in life especially in the 21st century. The importance of explicitly teaching thinking skills, engaging students in articulating their thinking processes, and posing rigorous critical-thinking questions for students to consider is an emphasis in each content area. Thinking skills and thinking habits provide the foundation for student learning in our rapidly changing digital world. We have <u>defined and prioritized twenty thinking skills</u> and <u>eight thinking habits</u> to be explicitly taught to our students, depending on the grade level and background knowledge of the learners.

Computational and critical thinking skills are taught in many core classes. Examples follow:

	Biology (SCI200)	Algebra 1 (MTH101)	United States History (SST300)
Content	Students will be actively engaged in learning and experiencing the following:  Biochemistry  Cellular biology; respiration, reproduction, use of matter and energy  Classification and relationship among organisms  Ecology, ecosystems and human impact on the biosphere and population  Evolution with speciation, natural selection, adaptation and diversity  Genetics to include molecular genetics, genetic regulation of life processes and genetic engineering  Plant systems physiology and anatomy; photosynthesis	Critical areas include, but are not limited to:  Relationships between Quantities and Reasoning with Equations Linear Relationships Exponential Relationships Descriptive Statistics Expressions and Equations Quadratic Functions and Modeling	Critical areas include, but are not limited to:The US Constitution  Western Expansion  Civil War  Industrialization, Immigration and Gilded Era, Populism/Progressiv ism and Urbanization  Imperialism  World War I  Post World War I  Vietnam  Contemporary America
Skills taught course	<ul> <li>Inquiry</li> <li>Use and care of microscopes and probe ware</li> <li>Problem solving and critical thinking strategies</li> <li>Extended data analysis and graphing techniques</li> </ul>	<ul> <li>Persevering through problem-solving</li> <li>Analyzing and making use of structure</li> <li>Reasoning abstractly and Quantitatively</li> <li>Constructing viable arguments</li> <li>Evaluating algebraic expressions</li> <li>Making authentic connections with real world contexts</li> </ul>	<ul> <li>Researching</li> <li>Problem-solving</li> <li>Analysis of political and historical developments</li> <li>Document analysis</li> <li>Communicating thinking</li> <li>Identifying Bias Outlining</li> <li>Evaluating</li> <li>Summarizing</li> <li>Integrating</li> </ul>

Students will learn through a combination of:

- Lecture/Discussion
- Inquiry-based laboratory work
- Critical thinking exercises
- Multimedia offerings (computer simulations, video features)
- Online textbook, web activities & reinforcement
- Demonstrations (teacher or studentdirected)
- Student project and research

- Students will learn through a combination of:Critical thinking exercises
- Launch Activities to activate thinking
- Application of problem-solving
- Online textbook and web activities
- Socratic Lectures
- Small Group Constructive Learning
- Scaffolded Practice Opportunities

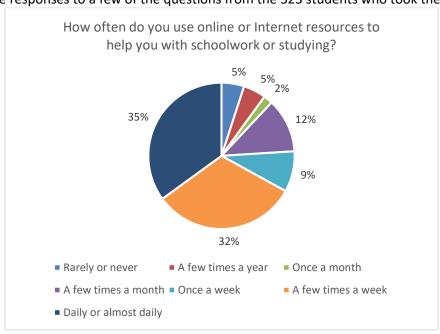
Students will learn through a combination of:

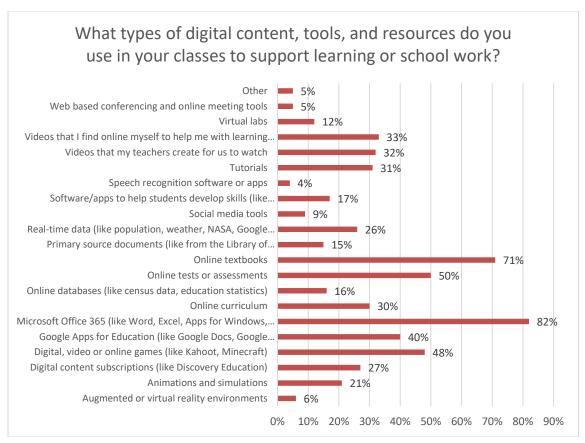
- Research-based papers
- Multi-media presentations
- Visual document analysis using graphs, charts, written documents, political cartoons and photographs
- Cooperative group projects
- Identifying bias
- Socratic Lectures
- Critical Thinking exercises
- Online textbook and web activities

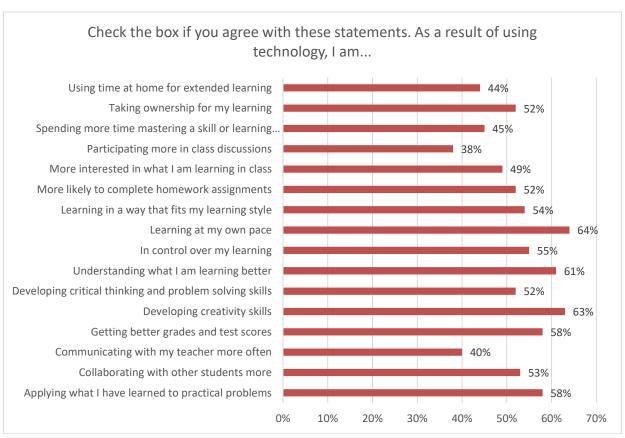
#### **Speak Up Survey Data**

Strategies

Students enrolled in TechSmart, Tri 2 of the 2016/17 school year participated in the national Speak Up survey. Below are responses to a few of the questions from the 523 students who took the survey.







#### Technology course enrollment and program participation

#### **Elementary**

Science and Technology Magnet Program

The Issaquah School District offers three Science and Technology Magnet Programs, serving 4th and 5th grade students in unique multi-age classrooms. Each magnet serves 50+ students in a two-year program. Each program covers all standard 4/5 district adopted curriculum, with an added emphasis on science and technology. Grade specific math instruction is provided. Magnet programs are located at Briarwood, Clark, and Cascade Ridge Elementary schools, with each program fully integrated into the home school. The district science curriculum, which includes engineering design, is expanded through the use of simulations, field trips, guest speakers and experiences focused on scientific process and investigation. All of these approaches are designed to encourage creativity and draw personal connections to real-world application of the concepts under study. Each school offers expanded science – technology learning opportunities that can contribute to a distinct curricular focus at each magnet.

4th grade GY 2025	Students in Class	Male	Female	Total Applicants	Male	Female	Declined initial placement*	Male	Female
Briarwood	26	13	13	78	34	44	0	0	0
Cascade Ridge	25	14	11	87	46	41	2	0	2
Clark	25	13	12	76	40	36	6	3	3
5th grade GY 2024	Students in Class	Male	Female	Total Applicants	Male	Female	Declined initial placement*	Male	Female
Briarwood	26	11	15	82	37	45	2	1	1
Cascade Ridge	25	20	5	97	56	41	5	3	2
Clark	25	15	10	82	43	39	5	3	2

<sup>\*</sup>declined numbers were adjusted to reflect families who declined the initial placement. Prior years included the number of families who declined mid-year when an opening occurred.

# Middle School

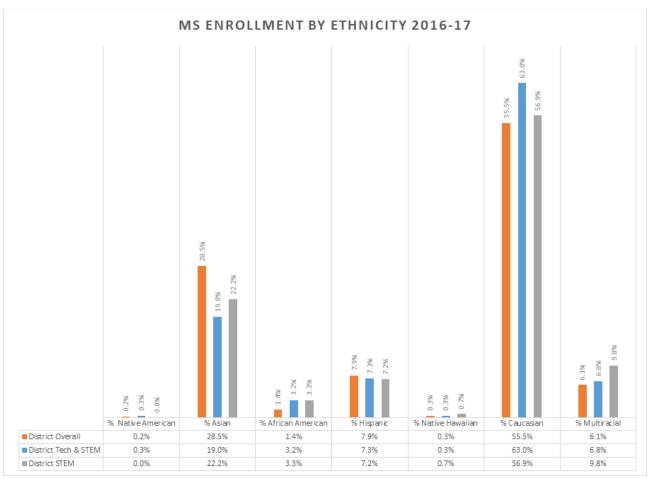
For the purposes of the tables and charts below, STEM classes are defined as classes with a strong focus in *technology and an additional focus on one of the following* Science, Engineering and Mathematics.

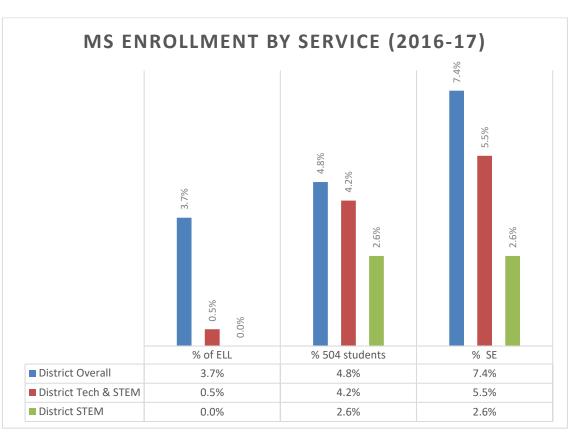
	Stem and Tech Electives by School	# of students who took class in 2016-17	# of students who Passed	Passage Rate
	Beaver Lake Middle School			
	Digital Photograph (KDP078)	21	20	95.2%
	Video Production 7 8 (KVP078)	11	11	100.0%
	Issaquah Middle School			
	Digital Photograph (KDP078)	135	118	87.4%
	TV Production (KTP678)	11	8	72.7%
	Video Media (KVI678)	0	0	0.0%
STEM	Design and Model (KDM078)	62	52	83.9%
ST	Automat&Robotic (KRA078)	34	31	91.2%
	Maywood Middle School			
	Digital Photograph (KDP078)	95	92	96.8%
STEM	Automation & Robotics (KRA078)	11	11	100.0%
ST	Design & Model (KDM078)***	46	44	95.7%
	Pacific Cascade Middle School			
	Digital Photograph 6 (KDP060)	76	65	85.5%
	Digital Photograph (KDP078)	38	35	92.1%
	ILYNX (KILO78)	13	12	92.3%
	Video Production 6 (KVP060)	10	10	100.0%
	Video Production 7 8 (KVP078)	1	0	0.0%
	Adv Video Production (KVD078)**	10	10	100.0%
	Pine Lake Middle School			
	Video Production7 8 (KVP078)	42	41	97.6%

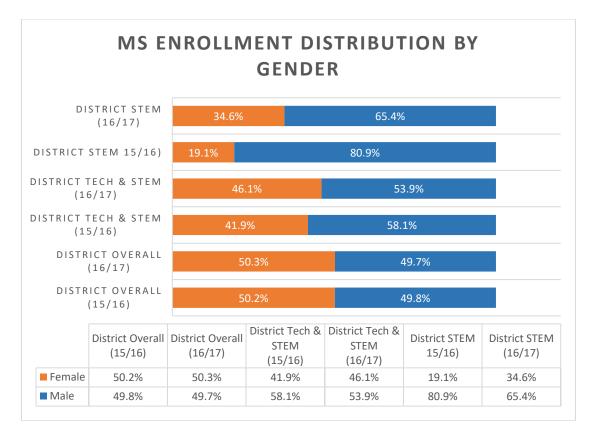
<sup>\*</sup>New Course Code

<sup>\*\*</sup>PCMS Adv Video Production has been offered since 2010-11

<sup>\*\*\*</sup>MMS Design & Modeling has been offered since 2013-14





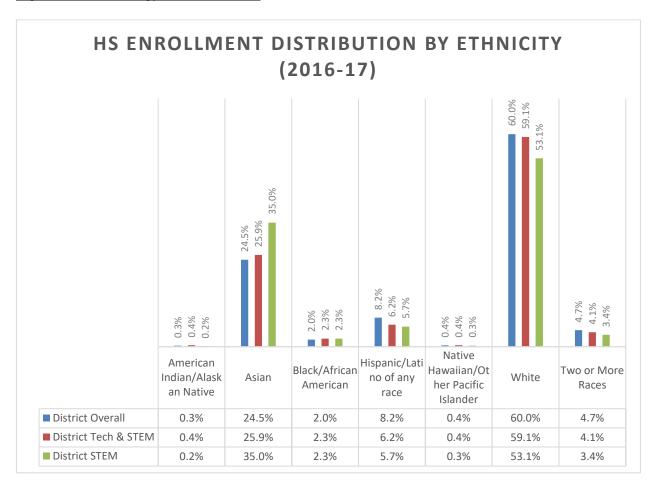


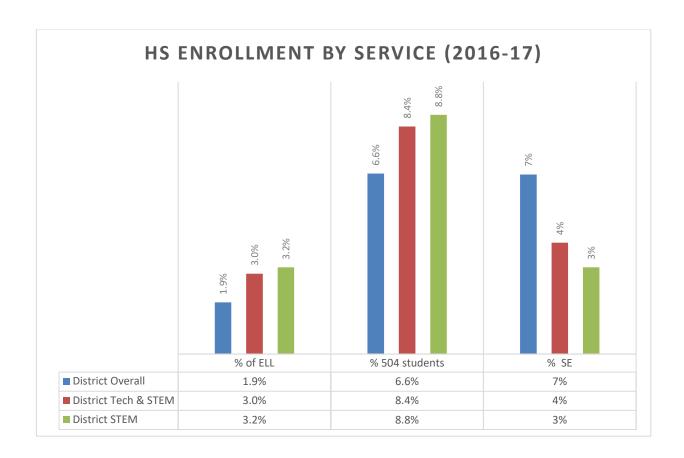
# **High School**

	School	# of students who took class in 2016-17	# of students who Passed	Passage Rate	AP/IB Tests	AP/IB Tests Taken	AP/IB # who passed	AP/IB Passage Rate
	Issaquah High							
	Intro to Computer Science (INT245)	36	34	94.4%				
Σ	AP Computer Science A (COM600)	80	77	96.3%		74	70	
STEM	Intro to Engineering Design (INT435)	42	41	97.6%				
O,	Engineering Robotics (INT442)	16	14	87.5%				
	Web Site Design (COM330)	43	41	95.3%				
	Photography 1 (ART125)	186	177	95.2%				
	Photography 2 (ART225)	44	43	97.7%				
	Journalism 1 (ENG350)	16	12	75.0%				
	Journalism 2 (ENG351)	1	1	100.0%				
	Yearbook 1 (INT160)	14	12	85.7%				
	Yearbook 2 (INT161)	3	3	100.0%				
	Graphic Design I (INT240)	62	57	91.9%				
	Graphic Design II (INT241)	1	1	100.0%				
	I-Vision TV/Video Production 1 (INT251)	16	15	93.8%				
	I-Vison T/Video Production 2 (INT351)	5	4	80.0%				
	Liberty High							
STEM	Intro Computer Science (INT245)	46	46	100.0%				
ST	AP Computer Science (COM600)	29	28	96.6%		29	19	66.0%

**ENDS 2: Academics and Foundations** 

	Intro to Engineering Design (INT435)	32	30	93.8%			
	Web Site Design (COM330)	70	67	95.7%			
	Robotics Lab (7TEC01) 7th period	21	21	100.0%			
	ADV Com Sci T/P (INT335)	4	4	100.0%			
	Journalism (ENG350)	45	45	100.0%			
	Intro Video Production (INT150)	68	68	100.0%			
	Yearbook (INT160)	27	27	100.0%			
	Graphic Design 1 (INT240)	76	74	97.4%			
	TV/Video Production 1 (INT250)	26	26	100.0%			
	TV/Video Production 2 (INT350)	5	5	100.0%			
	TV/Video Production 3 (INT450)	3	3	100.0%			
	Skyline High						
	Intro Computer Science (INT245)	73	70	95.9%			
STEM	IB Computer Science SL (COM650)	88	87	98.9%	20	16	80.0%
ST	IB Computer Science HL (COM651)	24	15	62.5%	38	21	55.0%
	Web Site Design (COM330)	124	124	100.0%			
	Journalistic Writing (ENG354)	20	20	100.0%			
	Yearbook (INT160)	25	25	100.0%			
	Yearbook 2 (INT161)	3	3	100.0%			
	Yearbook 3 (INT162)	1	1	100.0%			
	Graphic Design I (INT240)	161	158	98.1%			
	Graphic Design II (INT241)	22	22	100.0%			
	Television Production (INT250)	41	41	100.0%			
	=						
	Television Production 2 (INT350)	11	11	100.0%			







#### **Special Services**

Special services uses technology to provide accommodations for students with special needs so they can participate in both the special education and general education classrooms. The various technologies are selected based on student need.

- iPads (25) are used with students who have reading and writing disabilities. Students use the iPad to take pictures of documents that they need to be read aloud. Students also use the iPad to take notes on the electronic version of the worksheet or test.
- iPads (26) are used as voice output communication devices for students who are non-verbal or are minimally verbal. Students use the iPads to help communicate their wants, needs and ideas. Apps on the devices organize language in a visual way for students to create sentences and use them to speak.
  - iPads (7) are used by students with vision impairments to mirror and magnify the visual information being presented in class.
  - The vision department also has braille note-takers, monitors and scanners to use by students with vision impairments.
  - Students with reading and writing disabilities use laptops (34) with software that provides spelling and reading support. When students are given a reading assignment in class and asked to write a response, students get an electronic document, have it read aloud to them with software and use word prediction spelling support to write a response. Students are able to comprehend and express ideas at a much higher level with access to this support.

- FM systems (23) are used with students with hearing impairments. These are devices that are worn by the teacher. The auditory information is sent directly to the receiver attached to a student's hearing aid. Without these systems, the hearing aids amplify all noise in the classroom and not just the teacher's voice. The FM systems get the most important noise (teacher's voice) directly to the student.
- Redcat Sound Field systems (7) amplify the teacher's voice through a microphone to the whole classroom. These are also used with students with hearing loss so they are getting the teacher's voice at a louder volume than the other noise in the classroom.
- iPads (56) and apps are used with special services staff as teaching tools specifically geared for students with disabilities. Apps used are designed for fine motor, speech and language development, early academic and cognitive skills, social skills, scheduling or general support for students with learning disabilities.
- All middle and high schools use a site license for Co:Writer. Forty individual licenses are used at the elementary level. The program is designed to help students write complete and correct sentences with improved spelling. As the student begins to type, Co:Writer predicts the word and provides suggested "guesses." Co:Writer's grammar-based word prediction gives appropriate predictions for what is written. If the word is presented in the list of predicted words, the student can select the word by pressing the corresponding number and continue on to the next word. If the word is not in the list, the student continues typing until it appears on the list or until the word is complete. The program provides auditory output to allow the student to hear what they are writing in addition to seeing it. The speech options can be set so the student can hear letters, words and/or sentences. Given a particular writing topic, a word bank with high-content words can be set on the screen as well.
- Snap & Read site licenses are used at all middle and high schools. Ten individual licenses
  are used at the elementary level. The program is designed to help students listen to written
  text. The student can highlight text in any format on the computer and hear it read aloud.
  The student can adjust the voice and rate of speech. The words are highlighted when read
  aloud. When used as a Google Chrome extension there are additional features, including
  outline support, simplifying text and translating text.
- Draftbuilder site licenses at all middle and high schools along with 25 individual licenses at the elementary level is used to help students organize their thoughts for producing written language. They give outline and mind mapping support.
- Clicker 7 (40 computer licenses) is used as a writing tool that supports students of all
  abilities with tools such as word prediction, voice notes, word banks, picture supports, textto-speech. Teachers can produce differentiated curriculum resources to be used with
  students with all ages and disabilities including switch support, eye gaze, low vision,
  dyslexia, and physical and intellectual disabilities.

#### **English Language Learners**

- ELL iPads are available for checkout from the ELL office. The iPads are loaded with iTranslate and iTranslate Voice apps to support Emerging ELL students as needed.
- All ELL teachers have received instruction in using apps including Recap as supplementary speaking practice and formative assessment of ELL students.
- All ELL teachers have been trained in how to use OneNote, and each ELL teacher team uses that platform for communications and information sharing.

- IMS and IHS have online components to the *Inside and Edge* curriculum, which include text read-aloud options and visual support. Students have individual logins.
- Secondary ELL teachers have received instruction in how to use Actively Learn as an online reading support.
- Elementary ELL students also receiving LAP/Title services are using Lexia Learning as additional reading support at Apollo, IVE and Grand Ridge.

Classroom teachers use a variety of online tools to differentiate for ELL students. The list below was compiled by Ed Tech TOSAS and shared during GLAD trainings.

- ReadWorks has articles, audio, step reads, paired texts, and <u>article-a-day</u> assignments (a collection of articles for the week on a similar theme to build background knowledge students also create and add to their own "Book of Knowledge")
- News in Levels has three levels of each article
- <u>For the Teachers</u>, teachers choose a skill, choose an article (available at three levels), and assign students to differentiate levels (grades 3+)
- <u>Breaking News English</u> has 7 levels of articles (0-6)
- <u>CommonLit</u> has news articles, poems, short stories, historical documents for grades 5-12 (they are working on grades 3-4) it provides leveled readings with prompts on the same theme (not the same text rewritten for different levels)
- <u>Tween Tribune</u> has articles from the Smithsonian at multiple levels for K-12 (also in Spanish and related to technology)
- <u>British Council</u> has leveled articles (limited selection)
- Newsela has leveled articles on current events

# **Technology Options Outside School Hours**

Many schools have classes outside the school day that are provided by staff, PTA, and some outside vendors. On the next page is a listing.

School	Outside School Day Technology Classes and Clubs (2016/17)
Gibson Ek	Robotics club
Liberty	Physettes, Robotics, Yearbook,
MMS	Robotics
Apollo	Scratch Club, Coding Club
Briarwood	Scratch, Code.org
Maple Hills	Scratch Club, Coding Club
Newcastle	Scratch, Coding Club, Lego Robotics
IHS	Aviation, Code, Engineering, IT Magazine, Robotics, Technology Student Association, Theater Tech, Women in Science and Engineering, Video Game
IMS	Robotics Club, Programing Club
PCMS	TechSmart kids coding 1 and 2 classes, Robotics club both competitive and recreational, MakerSpace activities

Clark	Scratch; Lego Engineering, Coding Club
Cougar	Scratch, Lego Jr. Engineer, Techno Club
IVE	Scratch, Lego Engineering, Coding Club
Grand Ridge	Techno Club, Coding 1-2/3-5, TechSmart Computer Science Education, SBM Design Computer Class, Bricks4Kids STEM Enrichment
Sunset	TechSmart Kids: Intro to Coding Course, Coding Club
Skyline	Automotive, Computer Science, E Sports Club, Engineering Club, Game Galaxy (Video Club), Journalism, Robotics, Rocketry, Tech Theater, Tech Student Association, Video/Anime Club, Yearbook
BLMS	Robotics, Gaming Club, Broadcast, Yearbook Club, Hour of Code
PLMS	Robotics
Cascade	Coding Club, TechVenture Kids
Challenger	Scratch; Lego Engineering, Coding Club
Creekside	Bricks4Kidz - STEM, Techno Club Robotics, Techno Club Coding, Scratch (two sessions)
Discovery	Techno Smart Kids- Computer 101 – Foundation and Beyond (1st & 2nd Grades), Coding Class, Bricks 4 Kidz- Creative Engineering, TechVenture Kids- Introduction to Engineering, Robotics
Endeavour	Robotics, TechVenture, Coding Club
Sunny Hills	Scratch, Coding Club, Techventure Kids
Summer School	Robotics \$250, two weeks, offered twice

#### Students will:

# 2.10 apply academic skills to life situations;

We interpret 2.10 to mean each student will be able to demonstrate their ability to access multiple sources of information, evaluate that information, and make informed decisions to extend their personal abilities and productivity.

#### **Evidence:**

- Percentage of students with successful admission to post-secondary education opportunities
- Graduation requirements
- Applicable post-graduation survey results
- Confidence measure: Question 20 of Decision Research Survey (1, 2, 3, and 5)
- College persistence rate
- Graduates Meeting Washington 4-Year College Admissions Requirements

# **Post Secondary Enrollment**

Source: Decision Research Survey of students who took the survey (in 2015 N = 332)

Graduating Class	% 4-Yr College/Univ.	% Community College	% Trade/Tech School	% Other/ Don't Know
2007	69	27	3	1
2009	68	27	4	1
2011	68	28	3	1
2013	69	27	2	2
2015	71	23	3	3

<sup>\*</sup>Of the 81% of the students who reported being in school full or part time, this chart represents a percentage of the type of school attended.

#### Graduation Requirements and High School Course Guides

**Confidence Measure: Question 20** 

Source: Decision Research Survey (This Chart applies to 2.1, 2.2, and 2.3) (in 2015 N = 332)

	Upon graduation, how prepared did you feel in each of the following areas, regardless of where you acquired the knowledge and skills?													
	% Prepared % Not Sure % Not Prepared									ared				
			2009	2011	2013	2015	2009	2011	2013	2015	2009	2011	2013	2015
Infor	ling for rmation Pleasur	1	85	85	83	83	4	4	11	10	10	11	5	7
Rej	riting ports, rs, Note	s	88	84	87	80	4	8	9	11	7	9	4	9
Probl	nerical ems and ances	d	72	68	67	67	10	14	19	15	16	17	14	19
and	Researd Study thods	ch	82	86	80	78	7	8	11	11	10	7	9	10

Board approval: January 10, 2018

<sup>\*\*</sup> Of the 82% of the students who reported being in school full or part time, this chart represents a percentage of the type of school attended.

<sup>\*\*\*</sup>Of the 83% of the students who reported being in school full or part time, this chart represents a percentage of the type of school attended.