

PARTNERS IN EDUCATION

**CAREER AWARENESS INITIATIVES
2017-2020**

**SCHOOL
DISTRICT**



**NECHAKO
LAKES**

RioTinto



INTRODUCTION

School District No. 91 (Nechako Lake) Career & Trades Programs along with our 'Partners in Education' strive to continually provide all our students 'Real and Relevant' career awareness opportunities. Partner funding creates and expands educational programming that greatly enhances our ability to connect students with local and regional partners.

APPLIED SKILLS

Applied skills are a broad set of knowledge, skills, work habits, and character traits believed to be critically important to success in school and beyond. These include hands-on skills like carpentry or machine works, as well as skills related to careers in health and environment.

TECHNOLOGY SKILLS



Technology skills are a broad set of select and appropriate tools/technologies that extend students' capability to understand and relate to mechanical, information technology, mathematical, or scientific tasks. Some examples include knowledge of programming languages, mechanical equipment, or tools.

WATERSHED SKILLS

Watershed skills cover a broad range of educational outcomes that relate to the technical, social, environmental, community and First Nations interactions within the Nechako Watershed. Students gain greater understanding of the many facets that encompass a watershed.

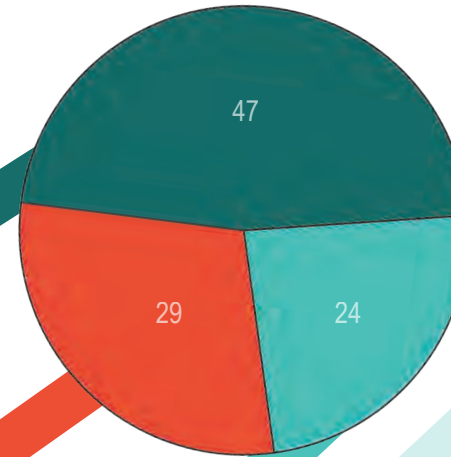
LEGEND

PROGRAM TITLE

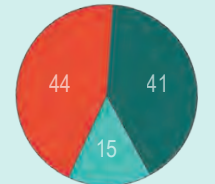
30 **S** **1 Y**   **Programming Discipline(s)**

Number of students that the program has served E = Elementary Students S = Secondary Students Number of years Rio Tinto funding has supported this program. **★** — New Project since Rio Tinto support

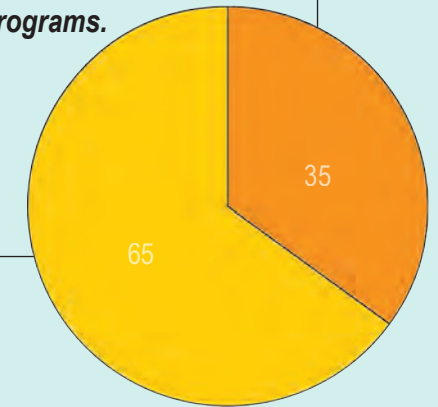
Percent of Rio Tinto funding to the three program areas.



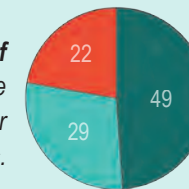
Percent of Rio Tinto funding to the three program areas for Elementary programs.



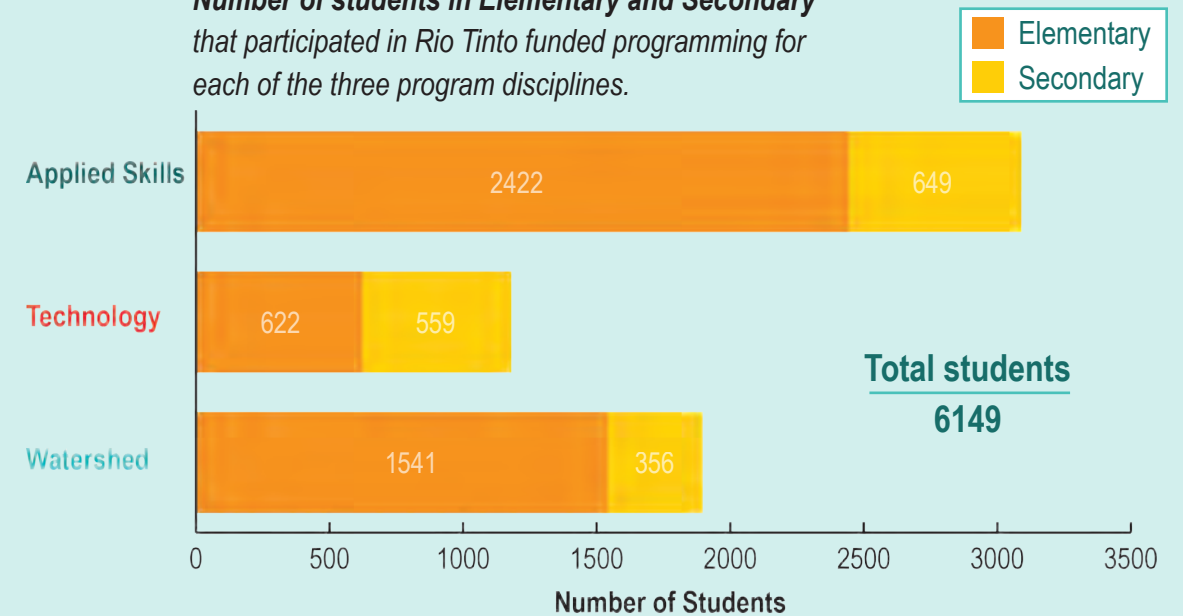
Percent of Rio Tinto funding to Elementary and Secondary programs.



Percent of Rio Tinto funding to the three program areas for Secondary programs.



Number of students in Elementary and Secondary that participated in Rio Tinto funded programming for each of the three program disciplines.





JUNIOR ACHIEVEMENT BC MARKET DAY - ELEMENTARY STUDENTS GO SHOPPING FROM THE ENTREPRENEUR GROUPS



JR. ACHIEVEMENT BC & MARKET DAY

810 E 3Y

Culmination of the 4-week JABC program – student business teams’ market to sell their various products. In addition to adults, parents, and staff - Grade 3 and 6 Elementary students are present as well, spending “market dollars” to facilitate their math and money management skills.

“I thought it was neat to make stuff and then sell it with people I didn’t know.” Penelope, Grade 7 at NVSS.

CARL’S CAR INITIATIVE

225 E 3Y ★

Elementary students design and build a small wooden car that they ultimately get to race in a District-wide **Carl’s Car Race Day**.

“I liked racing my car the best.” André, Grade 2 at WL McLeod.

UNBC ACTIVE MINDS

144 E 3Y ★

One-day science camps for younger students, by UNBC, are an opportunity for exposure of science and engineering for students who might not get that opportunity elsewhere.

Rio Tinto support of Applied Skills Programming

11 Existing and
7 NEW Programs
3071 students
over **3 years**

2422 Elementary Students

649 Secondary Students



CARL’S CARS INITIATIVE RACE DAY!

SENIOR SCIENCE EXPERIENCES

Bamfield and Physics @ Playland are two programs offered in alternating years to Secondary students within the entire School District that are very keen and strong in science and are interested in applied science careers. Funding from Rio Tinto has allowed our educators to offer these high-expense opportunities to students that would otherwise be out of reach.

BAMFIELD

72 | S | 2Y | ★

For senior science students with aptitude for biology and a specific interest marine biology. Five day trip on Vancouver Island with hands-on field experience in biology.

PHYSICS @ PLAYLAND

72 | S | 2Y | ★

For students that are strong in physics and science. Students learn through play how to relate physics to real-world situations and problem solving.



YELL - ENTREPRENEURSHIP PROGRAM

22 | S | 2Y | ★

Introduction to entrepreneurship with a focus on an entrepreneurial mindset as it relates to modern business and business risk. Students get to present their work in a 'Dragon's Den' type setting.

ICUBED

240 | S | 3Y | ★

A tech-based and entrepreneurial conference for youth. Students get to see opportunities and concepts in technology.

VIRTUAL SANDBOX INITIATIVE

400 | E | 1Y | ★

Interactive geology tool for younger students. A mobile unit that has cutting edge technology to allow students to manipulate their landscape and see the impacts of change in terms of weather, geography and geology.

AVIATION PROGRAM

48 | S | 3Y

Supports the flight simulator programming and opportunities in aviation-specific to NVSS.

AVIATION PROGRAM - UNIQUE PROGRAM TO NVSS

LITTLE CHEF PROGRAM

48 | E | 2Y | ★

Elementary students plan and prepare a three-course meal that is delivered via a "restaurant" model during the course of a day.



VIRTUAL SANDBOX

'PROJECT' PROGRAMS

987 | E/S | 2-3Y

The 'Project' class of programs has been one of the most successful on-going initiatives provided through the SD91 Trades and Careers Program. The key concept of this series of programs is to provide students with hands-on work experience within a skills and/or trades field. What started with a singular focus on large-equipment trades training for senior students, has grown into a multi-faceted program in applied, watershed and technology learning for elementary and Secondary students. Programs in the **Applied Skills** field include:

AVIATION

48 | S | 3Y

One-day hands on experience at the airport. A partnership with Vanderhoof Flying Club that has students flying in planes as part of their completion of the aviation program. Only open to students of the Aviation program at NVSS.

BOAT FLOAT

180 | E | 3Y

Student teams design and construct a boat that can hold a passenger afloat for a designated period. Grade 3 students build and float a boat in a pool, while Grade 6's build a larger boat that they then get in and attempt to sail.

HEALTH

72 | S | 3Y

Two-day career awareness event for Secondary students. Students get exposed to all levels and categories of health-related careers, from care staff and administration to specialists and physicians. Includes a full day in a local hospital and a trip to see the UNBC medical program.

JUNIOR TRADES

255 | E | 3Y

Introduces students to a variety of trades at the Elementary level utilizing the school based 'maker-kit' resources for in-class projects.

SIMPLE MACHINES

360 | E | 2Y

A week-long project where participants design and develop a variety of "simple machines" in collaboration with staff and community partners that culminates in a demo-day where students present their machines to community.

STEAM

72 | S | 3Y

Students get to participate in the UNBC STEAM program... "UNBC continues to engage and inspire next-generation leaders with programs in science, technology, engineering, art and math (STEAM), all while getting youth comfortable in a university setting at an early age. These programs are an opportunity for northern youth to have a positive experience with their peers, community leaders, and UNBC students, staff and faculty as they explore post-secondary educational pathways and career trajectories long before they finish Secondary." *This Is UNBC*, Spring 2019



**PROJECT HEALTH -
SECONDARY STUDENTS
HANDS ON LEARNING.**



**PROJECT SIMPLE
MACHINES -
INTERMEDIATE
STUDENTS BUILDING!**



**PROJECT BOAT FLOAT -
ELEMENTARY STUDENTS
BUILD CARDBOARD
BOATS AND TEST IF
THEY FLOAT.**

APPLIED SKILLS



DRONE PROGRAM - PRACTICAL EXERCISE AT THE NECHAKO WHITE STURGEON CONSERVATION CENTRE

BC TECH SUMMIT

80 S 2Y ★

Opportunity that allows Secondary students one-day access to the conference floor of the BC Tech Summit to interact with all the large technology companies. Real-life exposure to industries and businesses specializing in robotics, 3D printing, AI, and all things related to tech.

DOORS TO TECHNOLOGY

36 S 3Y ★

Two-day event for Secondary students interested in technology, with exposure to different products and aspects of technology.

DRONE PROGRAM

48 S 3Y

Drone certification program over a semester. Students receive certification in drone operation that is the industry standard.

Rio Tinto support of Technology Programming

2 Existing and

7 NEW Programs

1181 students

over **3 years**

227 Elementary Students

954 Secondary Students

LIVE-IT: LIVE STREAMING

Live-it is a live-streaming business that offers experiential educational opportunities to rural and remote schools. There is a wide variety of live-streaming and interactive learning sessions available for educators, as well as entire schools, in which to participate.

ORCA

220 | E/S | 1Y | ★

Students were able to interact with biologists out in the field, on a boat in the ocean, while they search for whales and spoke about their biology and conservation.

SEA LION

310 | E/S | 1Y | ★

Students were able to interact with a sea lion expert in a live format.

WILDFIRE

260 | E/S | 1Y | ★

Students were taken on a tour by a forest-fire expert through a forest that had been impacted by wildfire.

SALMON RUN

200 | E/S | 1Y | ★

Students were able to ask questions of fisheries biologists as they watched them work stream-side enumerating and assessing salmon during an active salmon run.

VANCOUVER AQUARIUM

3 | S | 1Y | ★

This opportunity had two SD91 students, who were keen on video production, travel to Vancouver to participate in the production side of a *Live-it* live-streaming event. Students were involved in all components of the production of the live-stream, from scripting to filming and the technology supporting the process.



BEE-BOTS

75 | E | 3Y | ★

Beginner programming and coding resource for K-1 students. These students learn to move a robot through a simple course.

MICRO-BITS INITIATIVE

60 | E | 1Y | ★

Next level from Bee-Bots where Grade 2-3 students expand their coding abilities to operate robots through a more advanced course.

ROBOTIC LEGO LEAGUE

167 | E | 3Y | ★

The third level in the elementary coding, this is a more challenging experience for Grade 4-6 students. These students develop their programming skills over the course of a school year, with all teams coming together for the annual robotics Lego League Competition.



ECHO NETWORK - NECHAKO VALLEY SECONDARY STUDENTS ATTENDING THE ECHO CONFERENCE.

ECHO NETWORK

4 S 1Y

ECHO - Environment, Community, Health Observatory

National symposium addresses health, environment and community impact of resource development, with specific emphasis on rural, remote and Indigenous communities. Students are active participants in this event.

STREAMKEEPERS - KOH INITIATIVE

360 E/S 3Y ★

Community specific activities throughout the school district related to stream monitoring, data collection and rehabilitation.

"It was a fun experience to help the creeks and to go to the same place twice because you can see how the creek can change." Penelope, Grade 7 student, NVSS

**STREAMKEEPERS - KOH INITIATIVE
NVSS GRADE 7 STUDENTS
AT MURRAY CREEK.**

OUTDOOR LEARNING FOR K'S

40 E 2Y ★

Hands-on learning for grade K-1 students utilizing "real tools" to facilitate collaborative learning and problem-solving skills.



Rio Tinto support of Watershed Based Programming

2 Existing and **8 NEW** Programs

1897 students over **3 years**

1261 Elementary Students

636 Secondary Students



OUTDOOR LEARNING FOR K'S

WATERSHED SKILLS



STURGEON RELEASE - STUDENT AND STURGEON.

STURGEON STORM DRAIN PROJECT - PAINTING STURGEON AND SALMON IN FORT ST. JAMES... SAFETY FIRST!



STURGEON RELEASE

1125 E 3Y

Full day conservation event. Students directly participate in naming and releasing a one-year old endangered Nechako White Sturgeon into the Nechako River. Up to 600 students from across School District 91 participate in the event. Collaboration between the Nechako White Sturgeon Recovery Initiative, SD91, Rio Tinto, Department of Fisheries, District of Vanderhoof, Carrier Sekani Tribal Council, and more.

"The sturgeon release is the most fun event in Vanderhoof." Kate, Grade 7, NVSS

STURGEON STORM DRAIN PROJECT

72 E 3Y ★

Students in Vanderhoof, Fraser Lake and Fort St. James paint sturgeon and salmon images at storm drains to promote conservation within the watershed.

PROJECT JR. OUTDOOR LEARNING

24 E 1Y ★

Hands-on learning for Grade 2-4 students utilizing "real tools" to facilitate collaborative learning and problem-solving skills.



PROJECT JR. OUTDOOR LEARNING

INDIGENOUS FILM ACADEMY

0 | S | 1Y  ★


A partnership with the University of Victoria to develop media arts (film making) program for First Nation students.



TRU INTEGRATED LAB - IN THE FIELD AND IN THE LAB.




TRU INTEGRATED LAB

48 | S | 3Y 

A partnership with Thompson Rivers University (TRU) where laboratory level water and/or soil sample testing is facilitated remotely between the school and TRU.

PROJECT SMELTER

24 | S | 2Y  ★

A career awareness opportunity for area Secondary students to tour and interact with staff at a modern industrial facility — the Rio Tinto Aluminium Smelter.



**“Making Education
Real & Relevant”**

ADST APPLIED DESIGN

**SCHOOL
DISTRICT**

91

**NECHAKO
LAKES**

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