# Robotics, Mechatronics, Digital Fabrication (RMD) Academy
BOARD OF EDUCATION UPDATE – MARCH 9, 2021

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nvsd

**WEDNESDAY** FEBRUARY 10 2021 $1.25

# north shore news

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Q&A WITH THE PRIME MINISTER

## Sutherland students ask Trudeau reopen

MR. ROBOTO Robotics engineering teacher Rob Olson and students Odette Beaudin, Cameron Janke and Pippa Crear discuss projects they built at Carson Graham Secondary. The school is hoping to open a robotics academy. See story page E1.

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north shore news

WEDNESDAY FEBRUARY 10 2021 | A13

# lifestyle
ARTS | ENTERTAINMENT | FOOD | HOME | HEALTH | COMMUNITY

HANDS-ON LEARNING

## Gears set in motion for Carson robotics academy

JANE SEYD

Robotics engineering teacher Rob Olson and student Pippa Crear discuss robotics projects at Carson Graham Secondary.
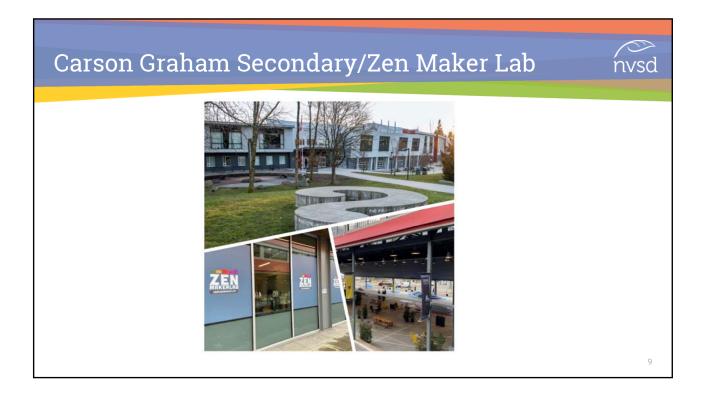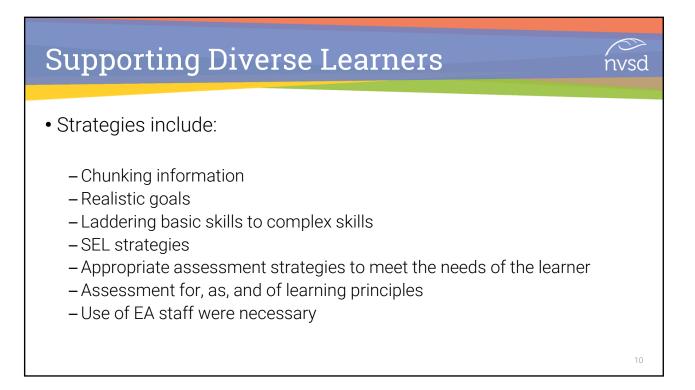
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# Rationale

The proposal for this STEAM academy (Science, Technology, Engineering, Art, Mathematics) will provide learning opportunities which utilize cutting edge technology, collaboration, problem solving using math, science, and engineering principles.

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# 2011-2021 Strategic Plan/3 Year Operating Plan

- "develop and promote innovative and sustainable programs"

- "encourage the growth of collaborative, adaptive and personalized learning environments"

- the continued enhancement of "student engagement and skill development through active involvement in project-based learning initiatives, specialized programs and academies"

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# 2021-2031 Strategic Plan

## Draft Goals and Operational Statements

- Student-Centred Education

- Innovative Instruction

# Applications

- Total Applications (January 18 – February 21) = 47

- Selection process for Academies:

  – Priority 1: Returning students
  – Priority 2: Wait-listed students from the previous year
  – Priority 3: Lottery for remaining students consistent with Board Policy 605: Admission of Students to Schools

# Carson Graham Secondary/Zen Maker Lab



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# Supporting Diverse Learners

• Strategies include:

– Chunking information
– Realistic goals
– Laddering basic skills to complex skills
– SEL strategies
– Appropriate assessment strategies to meet the needs of the learner
– Assessment for, as, and of learning principles
– Use of EA staff were necessary

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# Ethical Technologies

- Topics include:

  - The use of AI Technologies of Deep Fakes
  - Mass surveillance using applications, AI, and IOT
  - Social media's use of disinformation
  - Isaac Asimov's "Three Laws of Robotics"
  - Automation and Manual labour conflicts

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# Capilano University

- Financial Support

- Faculty/Instructional Support
  - Mentorship, connection to industry, transition to post-secondary, curriculum connections

- Facilities (Main Campus, Shipyards) & Equipment
  - Field days, experiential opportunities, access to industry level equipment

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# Capilano University

- RMD Academy is "future facing"
  - Students don't have to pursue engineering, but the Academy can be a launch pad to an employment landscape that is shifting

- RMD for "social good"

- MOU – NVSD, Zen Maker Lab, Capilano University

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# Finances & Fees

- Start-up costs

  - Approximately 50% raised + commitments pending Board approval

- Financial Assistance

  - Bursary assistance = up to 2-3 FTE

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# Curriculum Design & Delivery

# RMD Academy Information Video