## Wednesday May 19 Le mercredi 19 mai



| Times | Temps | Program Title   <i>Titre du reportage</i>  | Description   Description  | The | me   <i>Thème</i> |
|-------|-------|--|--|-----|-------------------|
| 12:04 | 15:04 | Talk with an Astronaut   | Astronaut Dr. Robert Thirsk sits down with Cyril Mani, CWSF 2021 Ambassador<br>Team Member, to answer questions submitted from schools across the country.   |     |                   |
| 12:32 | 15:32 | Finalist Highlight Video - Agriculture,<br>Fisheries and Food   <i>Vitrine sur les</i><br><i>finalistes - « Agriculture, Pêche et</i><br><i>Alimentation »</i> | CWSF projects address eight challenges. The following video showcases five of this year's Agriculture, Fisheries and Food projects. English and French projects are highlighted in this video.   <i>Les projets de l'ESPC relèvent huit défis. La vidéo suivante présente cinq des projets « Agriculture, Pêche et Alimentation » de cette année. Les projets y sont en anglais et en français.</i>  |     |                   |
| 12:39 | 15:39 | Michael Ng Science<br>Demonstrations   | Michael is an AP Chemistry High School Teacher in St. Albert, Alberta. He is<br>dedicated to finding innovative ways to make science fun for his students. Michael<br>appears monthly on GlobalTV Edmonton Morning News where he demonstrates his<br>passion for making science education fun!   |     | E Constantino     |
| 12:48 | 15:48 | Creating Meaningful Change with<br>CWSF Alumna Catharine<br>Bowman   | Catharine will discuss five key lessons she learned along her journey towards creating meaningful change and how, through science fair, she recognized ways in which young people can identify, explore, and pursue their "big ideas".   |     | $\bigcirc$        |
| 13:03 | 16:03 | Science in the Kitchen with<br>Dominic: Capsaicin EN then FR  <br><i>La cuisine scientifique avec</i><br><i>Dominic : capsaïcine</i>                           | Our taste buds are involved in detecting five elements of taste perception: salty,<br>sour, bitter, sweet and umami. What about spicy food? Spiciness is not a taste, but<br>is linked to pain. In this segment, you will witness Dominic feel the pain as he goes<br>up the Scoville Scale and uses science to learn how to numb the pain! Video in<br>English followed by in French.   <i>Nos papilles gustatives sont impliquées dans la<br/>perception de cinq goûts : salé, acide, amer, sucré et umami. Qu'en est-il des<br/>aliments épicés ? Le piquant n'est pas un goût, mais il est lié à la douleur. Dans cette<br/>séquence, vous verrez Dominic ressentir la douleur en montant sur l'échelle de<br/>Scoville et utiliser la science pour apprendre à calmer la douleur!</i> |     |                   |
| 13:17 | 16:17 | Why to How Podcast Highlights<br>Video   | Every great science fair project starts with a simple question: "why?" which sparks<br>a pursuit of curiosity to ultimately discover the "how." This video is a montage of<br>some of the best pieces from the Why to How Podcast, where YSC's Stuart<br>McKelvie interviews science fair alumni, taking a deep dive into their passion for<br>STEM.   |     |                   |
| 13:36 | 16:36 | Finalist Highlight Video -<br>Curiosity and Ingenuity   <i>Vitrine</i><br>sur les finalistes - « Curiosité et<br>ingéniosité »                                 | CWSF projects address eight challenges. The following video showcases five of this year's Curiosity and Ingenuity projects. English and French projects are highlighted in this video.   Les projets de l'ESPC relèvent huit défis. La vidéo suivante présente cinq des projets « Curiosité et ingéniosité » de cette année. Les projets y sont en anglais et en français.   |     |                   |
| 13:42 | 16:42 | Nanobot (Havana Parody)   A<br>Capella Science ft. Dorothy<br>Andrusiak  | A Capella Science is an educational and utterly nerdy musical learning experience<br>created by former physics researcher and lifelong harmony addict, Tim Blais.<br>Drawing inspiration from Weird Al, Bill Nye, Mike Tompkins and Vi Hart, Tim uses<br>sounds from his mouth, throat and vocal cords to produce the phenomenon that is<br>A Capella Science!   |     |                   |
| 13:46 | 16:46 | What's in a Name? Identifying<br>and Naming Fish Species Using<br>Museum Collections   | Dr. Katriina Ilves, Research Scientist and Section Head of Zoology at the Canadian<br>Museum of Nature talks about how fish species are identified and named.  |     |                   |
| 13:51 | 16:51 | Finalist Highlight Video - Digital<br>Technology   <i>Vitrine sur les<br/>finalistes - « Technologies du<br/>numérique »</i>                                   | CWSF projects address eight challenges. The following video showcases five of this year's Digital Technology projects. English and French projects are highlighted in this video.   <i>Les projets de l'ESPC relèvent huit défis. La vidéo suivante présente cinq des projets « technologies du numérique » de cette année. Les projets y sont en anglais et en français.</i>  |     |                   |
| 13:57 | 16:57 | Carleton University - Butterfly<br>Show  | Each year Carleton University welcomes the public to campus for their annual<br>butterfly show. This year due to COVID restrictions the butterfly show had to be<br>done virtually. Carleton has shared a piece for us to watch. They look forward to<br>2022 when this event can be held in person again!   |     | E Constantino     |
| 14:04 | 17:04 | Michael Ng Science<br>Demonstrations   | Michael is an AP Chemistry High School Teacher in St. Albert, Alberta. He is<br>dedicated to finding innovative ways to make science fun for his students. Michael<br>appears monthly on GlobalTV Edmonton Morning News where he demonstrates his<br>passion for making science education fun!   |     | E Constantino     |
| 14:14 | 17:14 | Alumni Stories   | CWSF has been happening for the last 59 years and over this course of time we<br>have developed an incredible Alumni network across the world. We caught up with<br>some of them to find out what they are up to now. Many of them had well wishes<br>to share with this year's Finalists.   |     |                   |
| 14:20 | 17:20 | Physicists Among Us  | The Canadian Association of Physicists have put together a series of videos showcasing the work that Physicists do. The following two videos are from this series.   |     |                   |
| 14:28 | 17:28 | Telus World of Science Outreach  | Join the Telus World of Science outreach team as they discuss how animals use camouflage in the wild.  |     |                   |
| 14:37 | 17:37 | Musée canadien de la nature - Le<br>lemming—le « garde-manger » de<br>la toundra de l'arctique   | Le mammalogiste Dominique Fauteux, Ph. D., présente le lemming - le « garde-<br>manger » de la toundra. Ce petit rongeur herbivore détient un rôle écologique bien<br>plus grand que sa taille. Le déclin cyclique des lemmings a de conséquences<br>importantes sur de nombreux prédateurs arctiques, comme le renard, l'hermine, le<br>Harfang des neiges, et le Faucon gerfaut.   |     |                   |
| 14:42 | 17:42 | Musée canadien de la nature -<br>Voyez un squelette de rorqual<br>bleu et plus dans cette tournée<br>virtuelle de la Galerie de l'eau                          | Profitez d'une tournée guidée toute spéciale de la Galerie de l'eau du Musée à la<br>suite d'une brève escale dans la Galerie des fossiles, où vous en apprendrez<br>davantage au sujet de l'évolution des cétacés.  |     |                   |
| 14:48 | 17:48 | The Math Guru  | The Math Guru was founded in 2010 by Vanessa Vakharia, a certified high school math teacher with a Masters in Mathematics Education. Vanessa used to hate math. In fact, she failed grade 11 math twice (twice!) and decided she was simply not a "math person." Then she changed schools. She decided to brave another math course with an open mind. This is when she realized: There is no such thing as a "math person." Realizing she could do math has led to a lifetime of fulfilling wild dreams including hosting a podcast called Math Therapy, writing two books, and starting a rock band (that opened for Bon Jovi two years ago!) Vanessa has prepared a few clips for us to enjoy this week.  |     |                   |

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## Thursday May 20 Le jeudi 20 mai



| Times        | Temps         | Program Title   <i>Titre du reportage</i>   | Description   Description  | The | eme   <i>Thème</i> |
|--------------|---------------|---|--|-----|--------------------|
| 12:04        | 15:06         | How to be smarter than your brain   | Partnership between Observatorie and NSERC entitled "How to be smarter than your brain". In this video the narrators will look into the scientific culture of being well informed.   |     |                    |
| 12:18        | 15:20         | Finalist Highlight Video - Disease<br>and Illness   <i>Vitrine sur les finalistes</i><br>- « <i>Maladies et infections »</i>                              | CWSF projects address eight challenges. The following video showcases five of this year's Disease and Illness projects. English and French projects are highlighted in this video.   Les projets de l'ESPC relèvent huit défis. La vidéo suivante présente cinq des projets « Maladies et infections » de cette année. Les projets y sont en anglais et en français.   |     |                    |
| 12:24        | 15:26         | Canadian Museum of Nature   | If someone asked you if heavy metal music and research done at a natural history<br>museum had anything in common, you'd probably say no! But many scientists are<br>also musicians. Here are four research scientists from the Canadian Museum of<br>Nature, along with special guest musicians, to show you exactly how they rock out<br>both on and off the job.  |     | Er3                |
| 12:33        | 15:35         | Brilliant Labs  | Brilliant Labs is a not-for-profit, hands-on technology and experiential learning<br>platform based in Atlantic Canada. They support the integration of creativity,<br>innovation, coding and an entreprenurial spirt within classrooms and educational<br>curricula.  |     | Er3                |
| 12:42        | 15:44         | Science in the Kitchen with<br>Dominic: Emulsifying Agents EN<br>then FR   <i>La cuisine scientifique</i><br><i>avec Dominic : agent émulsifiant</i>      | We all learned it in science class: water and oil don't mix! When making salad dressing, you need to mix oil with vinegar, which is mostly water-based. How can we achieve that? In this segment, you will explore the power of emulsifying agents to achieve the impossible! Video in English followed by in French.   <i>Nous l'avons tous appris dans nos cours de sciences : l'eau et l'huile ne font pas bon ménage! Lorsque vous préparez une vinaigrette, vous devez mélanger l'huile avec le vinaigre, qui est principalement à base d'eau. Comment y parvenir? Dans ce segment, vous allez explorer le pouvoir des agents émulsifiants pour réaliser l'impossible!</i>  |     | ( To 3             |
| 12:58        | 16:00         | Adam Noble's Story  | Adam Noble is the CEO of Noblegen. Adam drives Noblegen with the vision of impact driven profitability. This brilliant entrepreneur brings a twist to the concept of Food 2.0 and aims to balance the world's resources by introducing natural and non-GMO nutrition sources. He took his science fair project to commercialization and raised capital to build a facility to prove his techniques work at industry level. Learn more about his story in this video  |     |                    |
| 13:09        | 16:11         | Finalist Highlight Video - Energy  <br>Vitrine sur les finalistes -<br>« Énergie »  | CWSF projects address eight challenges. The following video showcases five of this<br>year's Energy projects. English and French projects are highlighted in this video.  <br>Les projets de l'ESPC relèvent huit défis. La vidéo suivante présente cinq des<br>projets « Énergie » de cette année. Les projets y sont en anglais et en français.  |     |                    |
| 13:15        | 16:17         | Evo-Devo (Despacito Biology<br>Parody)   A Capella Science  | A Capella Science is an educational and utterly nerdy musical learning experience<br>created by former physics researcher and lifelong harmony addict, Tim Blais.<br>Drawing inspiration from Weird Al, Bill Nye, Mike Tompkins and Vi Hart, Tim uses<br>sounds from his mouth, throat and vocal cords to produce the phenomenon that is<br>A Capella Science!   |     |                    |
| 13:21        | 16:23         | A career with the Department of Fisheries and Oceans  | These three videos give us a glimpse into where a career with DFO can take you!  |     |                    |
| 13:28        | 16:30         | Finalist Highlight Video -<br>Environment and Climate Change  <br>Vitrine sur les finalistes -<br>« Environnement et changement<br>climatique »           | CWSF projects address eight challenges. The following video showcases five of this year's Environment and Climate Change projects. English and French projects are highlighted in this video.   <i>Les projets de l'ESPC relèvent huit défis. La vidéo suivante présente cinq des projets « Environnement et changement climatique » de cette année. Les projets y sont en anglais et en français.</i>   |     |                    |
| 13:34        | 16:36         | Alumni Stories  | CWSF has been happening for the last 59 years and over this course of time we<br>have developed an incredible Alumni network across the world. We caught up with<br>some of them to find out what they are up to now. Many of them had well wishes<br>to share with this year's Finalists.   |     |                    |
| 13:41        | 16:43         | The Math Guru   | The Math Guru was founded in 2010 by Vanessa Vakharia, a certified high school math teacher with a Masters in Mathematics Education. Vanessa used to hate math. In fact, she failed grade 11 math twice (twice!) and decided she was simply not a "math person." Then she changed schools. She decided to brave another math course with an open mind. This is when she realized: There is no such thing as a "math person." Realizing she could do math has led to a lifetime of fulfilling wild dreams including hosting a podcast called Math Therapy, writing two books, and starting a rock band (that opened for Bon Jovi two years ago!) Vanessa has prepared a few clips for us to enjoy this week.  |     | E Constantino      |
| 13:46        | 16:48         | Why Earth Sciences - UNB  | The Department of Earth Sciences at the University of New Brunswick provided the following videos, which explore the many reasons why students choose Earth Science and where career paths in Earth Science can take you.  |     |                    |
| 13:54        | 16:56         | Alumni Stories  | CWSF has been happening for the last 59 years and over this course of time we<br>have developed an incredible Alumni network across the world. We caught up with<br>some of them to find out what they are up to now. Many of them had well wishes<br>to share with this year's Finalists.   |     |                    |
| 14:00        | 17:02         | Using Science to Create the Best<br>LEGO® Robot for a Sumo Fight  <br>Utiliser la science pour créer le<br>meilleur robot LEGO® pour un<br>combat de sumo | Have you entered a robotics competition and you had to build a robot for a sumo fight? How can we use science to make a robot that will increase your chance of winning? In this segment, you will explore many scientific concepts with Dominic that will give you an advantage when designing your award-winning robot: friction, centre of gravity, gear ratios, inclined planes and many more. Video in English followed by French.   <i>Avez-vous participé à une compétition de robotique et avez-vous dû construire un robot pour un combat de Sumo? Comment utiliser les concepts scientifiques pour concevoir un robot qui augmentera vos chances de gagner? Dans ce segment, vous explorerez avec Dominic de nombreux concepts scientifiques qui vous donneront un avantage lors de la conception de votre robot primé : la friction, le centre de gravité, les rapports de vitesse, les plans inclinés et bien d'autres encore.</i> |     | E Constantino      |
| 14:16        | 17:18         | BC Wildfires  | YouTuber Tom Scott in conjunction with Dr. Lori Daniels, professor of Forest<br>Ecology at UBC talk about the BC Wildfires and their impact on the landscape.  |     |                    |
| 14:21        | 17:23         | How an engineering degree can<br>be a master key to your future   | Sam Stuart works in the field of engineering and she has put together a small clip for us on how an engineering degree can be a master key to the future.  |     |                    |
| 14:27        | 17:29         | Michael Ng Science<br>Demonstrations  | Michael is an AP Chemistry High School Teacher in St.Albert, Alberta. He is<br>dedicated to finding innovative ways to make science fun for his students. Michael<br>appears monthly on GlobalTV Edmonton Morning News where he demonstrates his<br>passion for making science education fun!  |     | E B                |
| 14:39        | 17:41         | Why to How Podcast Highlights<br>Video  | Every great science fair project starts with a simple question: "why?" which sparks<br>a pursuit of curiosity to ultimately discover the "how." This video is montage of<br>some of the best pieces from the Why to How Podcast, where YSC's Stuart<br>McKelvie interviews science fair alumni, taking a deep dive into their passion for<br>STEM.   |     |                    |
| 14:54        | 17:56         | Faculty of Science at the<br>University of Alberta  | Three videos featuring work happening at the U of A in Edmonton, Alberta.  |     |                    |
| 18:00        |               | Awards Ceremony  <br><i>Cérémonie de remise des prix</i>  | Join us as we celebrate the 59 <sup>th</sup> CWSF Awards Ceremony.   Sois des nôtres pour la<br>59 <sup>e</sup> cérémonie de remise des prix de l'ESPC.  |     |                    |
| *Tipe on the | y you by - fr | w minutos   Los tomos à l'horairo nouvent vari  |  |     |                    |

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Hands on Science I Sciences les mains à la pâte

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Featured Alumni I Nos anciennes et anciens

## Friday May 21 Le vendredi 21 mai



| Times   7 | Temps | Program Title   <i>Titre du reportage</i>   | Description   Description  | Theme   Thème |
|-----------|-------|---|--|---------------|
| 12:04     | 15:05 | LIGO Feel That Space (The<br>Weeknd parody)   A Capella<br>Science  | A Capella Science is an educational and utterly nerdy musical learning experience<br>created by former physics researcher and lifelong harmony addict, Tim Blais.<br>Drawing inspiration from Weird AI, Bill Nye, Mike Tompkins and Vi Hart, Tim uses<br>sounds from his mouth, throat and vocal cords to produce the phenomenon that is<br>A Capella Science!   |               |
| 12:11     | 15:12 | Finalist Highlight Video - Health<br>and Wellness   <i>Vitrine sur les<br/>finalistes - « Santé et bien être »</i>                          | CWSF projects address eight challenges. The following video showcases five of this year's Health and Wellness projects. English and French projects are highlighted in this video.   Les projets de l'ESPC relèvent huit défis. La vidéo suivante présente cinq des projets « Santé et bien être » de cette année. Les projets y sont en anglais et en français.   |               |
| 12:16     | 15:17 | Alumni Stories  | CWSF has been happening for the last 59 years and over this course of time we<br>have developed an incredible Alumni network across the world. We caught up with<br>some of them to find out what they are up to now. Many of them had well wishes<br>to share with this year's Finalists.   |               |
| 12:22     | 15:23 | Science in the Kitchen with<br>Dominic: Leavening agent   <i>La</i><br><i>cuisine scientifique avec Dominic :</i><br><i>agent de levage</i> | Do you enjoy fluffy bread, pancakes, and other pastries? How do we get all these<br>air pockets in our baked goods? Leavening agent can be chemical or biological in<br>nature, but they produce similar effects. Your recipe calls for baking powder and<br>you don't have it at home? Dominic will use science to show you how to make your<br>own. Video in English followed by in French.   <i>Aimez-vous le pain moelleux, les</i><br><i>crêpes et les autres pâtisseries? Comment se fait-il que nous ayons tous ces trous</i><br><i>d'air dans nos produits de boulangerie? L'agent de levage peut être de nature</i><br><i>chimique ou biologique, mais il produit des effets similaires. Votre recette demande</i><br><i>de la poudre levante et vous n'en avez pas à la maison? Dominic va utiliser la</i><br><i>science pour vous montrer comment en fabriquer.</i> |               |
| 12:38     | 15:39 | Canadian Museum of Nature   | In the first video you will hear from two conservators at the Canadian Museum of<br>Nature. They will show you some behind the scenes work as they get ready for a<br>new exhibit. In the second video you will learn a bit more about the herbarium or<br>plant collection at the museum.   |               |
| 12:47     | 15:48 | The Math Guru   | The Math Guru was founded in 2010 by Vanessa Vakharia, a certified high school math teacher with a Masters in Mathematics Education. Vanessa used to hate math. In fact, she failed grade 11 math twice (twice!) and decided she was simply not a "math person." Then she changed schools. She decided to brave another math course with an open mind. This is when she realized: There is no such thing as a "math person." Realizing she could do math has led to a lifetime of fulfilling wild dreams including hosting a podcast called Math Therapy, writing two books, and starting a rock band (that opened for Bon Jovi two years ago!) Vanessa has prepared a few clips for us to enjoy this week.  |               |
| 12:54     | 15:55 | Why to How Podcast Highlights<br>Video  | Every great science fair project starts with a simple question: "why?" which sparks<br>a pursuit of curiosity to ultimately discover the "how." This video is montage of<br>some of the best pieces from the Why to How Podcast, where YSC's Stuart<br>McKelvie interviews science fair alumni, taking a deep dive into their passion for<br>STEM.   |               |
| 13:09     | 16:10 | Alumni Stories  | CWSF has been happening for the last 59 years and over this course of time we<br>have developed an incredible Alumni network across the world. We caught up with<br>some of them to find out what they are up to now. Many of them had well wishes<br>to share with this year's Finalists.   |               |
| 13:15     | 16:16 | Pollinators   | In this video you will meet Sophie from the Alouette River Management Society in<br>Maple Ridge who will talk about bees and butterflies. You will learn about their life<br>cycle, the roles of certain bees in the hive and how they maintain a hive. This video<br>has a corresponding activity. If you pre-registered as a class or individual, this<br>activity was provided in your Resource Booklet. If you are a CWSF Finalist you will<br>find the downloadable worksheet in the finalist activity section of the event<br>platform.  |               |
| 13:38     | 16:39 | CWSF School Visits  <br><i>Visites scolaires à l'ESPC</i>   | Meet Chantal McAlpine, principal at École Cité-Jeunesse in Trenton, who will show<br>us how she got her teachers and students excited with STEM! These students and<br>teachers started their journey way before the CWSF by using our lesson plans and<br>getting acquainted with the Smarter Science framework.   <i>Rencontrez Chantal</i><br><i>McAlpine, directrice de l'École Cité-Jeunesse à Trenton, qui nous montrera</i><br><i>comment elle a réussi à soulever l'intérêt de ses enseignants et ses élèves pour les</i><br><i>STIM! Ces élèves et enseignants ont commencé leur parcours bien avant l'ESPC en</i><br><i>utilisant nos plans de leçons et en se familiarisant avec le cadre Éducasciences.</i>  |               |
| 13:44     | 16:45 | Talk with an Astronaut  | Astronaut Dr. Robert Thirsk sits down with Cyril Mani, CWSF 2021 Ambassador<br>Team Member, to answer questions submitted from schools across the country.   |               |
| 14:11     | 17:12 | A tour of the University of<br>Ottawa's particle accelerator  | Normand St-Jean gives us a quick tour of Canada's only accelerator mass<br>spectrometer at the University of Ottawa's Advanced Research Complex, which<br>they use to perform critical analysis on radioisotopes and carbon dating   |               |
| 14:27     | 17:28 | Why Earth Sciences - UNB  | The Department of Earth Sciences at the University of New Brunswick provided the following videos, which explore the many reasons why students choose Earth Science and where career paths in Earth Science can take you.  |               |
| 14:35     | 17:36 | Finalist Highlight Video - Natural<br>Resources   <i>Vitrine sur les finalistes -</i><br>« <i>Resources naturelles »</i>                    | CWSF projects address eight challenges. The following video showcases five of this year's Natural Resources projects. English and French projects are highlighted in this video.   Les projets de l'ESPC relèvent huit défis. La vidéo suivante présente cinq des projets « Resources naturelles » être de cette année. Les projets y sont en anglais et en français.  |               |
| 14:42     | 17:43 | Pelling Lab   | Andrew Pelling talks about the inspiring work that he does at the Pelling Lab in this TED video.   |               |
| 14:49     | 17:50 | Ottawa Virtual Tour Video   | Take a virtual tour of some of Ottawa's coolest spots. Silver Linings Productions produced this video for the CWSF Finalists but we wanted to also share it with you, the CWSF TV Viewers.   |               |
|           |       |   |  |               |

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Hands on Science I *Sciences les mains à la pâte* 



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Our Regions I Nos régions

Featured Alumni I Nos anciennes et anciens