# **Educators' Open House 2020**

Please join us for any of our online programming on Friday, October

This virtual worksheet will take you through many of the museum's online resources. You can hit the back buttons and return to this sheet throughout your day.

We suggest you open the links in new tabs (right click on a link to do so), so that you can keep this page open as you explore. You can skip any pages that do not interest you, and go back and forward as much as you like.

23: https://beatymuseum.ubc.ca/events/event/online-open-house-2020/	
Thank you!	
Contact Information	
O Full Name	
Email address	
What city/neighborhood do you teach/study/work in?	
O Which grade(s) do you teach?	
O Which subject(s) do you teach?	

## Field Trip Pre-Planning

Which of the following types of resources interest you?
Virtual Field Trips
Video
Lesson Plans
Worksheets
Immersive Photos
Preparing for an in-person Field Trip
Visiting a museum that's too far away to see in person
Help with specimen identification
Podcasts and audio resources
Other:
What might your learning outcomes be when using the Beaty Biodiversity Museum's online resources?

The Beaty Biodiversity Museum is on the traditional, ancestral and unceded territory of the Musqueam people. We thank the Musqueam for their ongoing partnership with the museum in furthering our understanding of culturally diverse ways of knowing our world. Their website, <a href="musqueam.bc.ca">musqueam.bc.ca</a> is an incredible resource to learn more, we also recommend visiting them if you are able to.

with the Musqueam First Nation. Open this page to get started!	
Find the elk page. Listen to Morgan speak about the importance of this animal for building the sturgeon harpoon.  What qualities do elk possess that make them a good choice of material?	
Find the sturgeon page. Click "play" on the immersive image. You can make it full screen, and click and drag the image. Imagine you are in the river with these animals. What do you notice that is different about the sturgeon from the salmon and eulachon?	

There are many more places to visit in this online exhibit. Take the time to explore as thoroughly as you like!

When you are ready to move to the next page, click "next"

The Beaty Museum strives to incorporate unappropriated First Peoples' perspectives and partnerships within our museum collections, exhibits, and activities.

The BC curriculum aims to include Indigenous ways of knowing into teaching and learning. We understand the importance of bringing this content into the classroom and therefore have compiled resource materials that facilitate implementation and build greater understanding of First Peoples' knowledge and perspectives on biodiversity.

To find some of our favourite links, please visit our resource page: <a href="https://beatymuseum.ubc.ca/learn/educator-resources/first-peoples/">https://beatymuseum.ubc.ca/learn/educator-resources/first-peoples/</a>
List one resource from this page that is new to you:
Virtual Tour
Our newest resource is an immersive virtual tour of the museum. You can click through different 360 degree photos of the museum, and imagine you are walking around inside. Click on the info boxes for close up pictures, information, and to listen to our audio tour. Explore the museum online: <a href="https://beatymuseum.ubc.ca/visit/virtual-tour/">https://beatymuseum.ubc.ca/visit/virtual-tour/</a>
We recommend using virtual tours before in-person field trips to help your students feel more comfortable and oriented to the space.
Start by clicking on "immersive". Click through the arrows to walk through the door and into the museum. Experiment with the navigation buttons, if you click on "guide" you can zoom into a collection quickly.
As you explore, share a view of the museum you particularly enjoy.  Click the "share view" button on the bottom right corner of the screen.
This is our newest online feature! Please let us know if you have any questions or run into any issues while you explore.

Fossils

<b>Collections are the heart of the museum.</b> With over 2.2 million specimens, a lot of work goes into organizing, record-keeping, and specimen care.
While not every piece of information about every specimen is on the internet, there is a plethora of information on
thousands of specimens on our collections database. You can find information about locations, species, collectors,
dates, and more! Open the collections database page: <a href="https://bridge.botany.ubc.ca/herbarium/index.php">https://bridge.botany.ubc.ca/herbarium/index.php</a>

This is a database, which organizes data into an easy to understand format. Think of each page of the database as one line on a spreadsheet. The fields are the column headers. Researchers can download large sets of data, or look at one page at a time.

Each collection in the database is a little different. Click on a group that seems interesting to you. Which did you choose? Algae **Bryophytes** Fungi Lichen Vascular Plants Avian (bird) Herpetology (reptiles, amphibians) Mammals Fish Entomology (insects, arachnids) Dry Marine Invertebrates (hard bodies: shells) Wet Marine Invertebrates (soft bodies, eg: worms)

You'll see many fields that you can use to search. Try typing in one of th records did your search find?  If you're not sure what to try, try entering your birth month or year, or the city	
Click on one of the rows to pull up the database page for that one specine extra notes. Click around in the database, make new searches, and see winteresting thing you found in your search:  Please note that our vertebrate databases are having issues displaying photos at the Thank you for understanding!	vhat you can find. Tell us one
How do you think biodiversity researchers might use these big sets of da	ata?
How could you use these sets of data in your classroom?	

Feel free to take your time exploring the databases! When you're ready to move on, click "next".

#### Sometimes, data on it's own doesn't give you the full picture.

The Spencer Entomological Collection has high-quality photos of all species in their main collection. This website is very helpful to work through specimen identification, and allows you to observe very tiny features of insects, arachnids, and other terrestrial arthropods. This collection focuses on BC and Yukon species.

Visit the Spencer Entomological Gallery here: <a href="https://www.zoology.ubc.ca/entomology/">https://www.zoology.ubc.ca/entomology/</a>. Along with the photos, you can learn more about their research and notable collections.

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### Let's work through an insect identification together.

This is the specimen you are searching for:

**Start in the main collection of the entomology gallery.** You'll see photos of families, this might be the hardest step. What is this type of insect? A lady bug! There are other common names, including lady bird beetles. This should help you.

Look through the photos and click on the groups that you think are the best match for the insect above. You can go back if you click on a group that doesn't match. You can also explore the other beautiful insects on each page.

What insect do you think this is? What features helped you?



If you were curious about the identification of the ladybug, it's a *Coleomegilla maculata* (also known as the spotted lady beetle, pink spotted lady beetle, or twelve-spotted lady beetle)! It's in the Coccinellidae (ladybugs) family within the Coleoptera (beetles) order.

Discovering identities and naming species is one type of research called taxonomy. The museum is next door to the Biodiversity Research Centre, an interdisciplinary building focused on understanding biodiversity through many concepts, such as climate change, evolution, ecology, taxonomy, genetics, mathematics, geography, microbiology, and more!

Our Researchers Revealed exhibit showcases a diversity of researchers, topics, methods, and places. Open up the Researchers Revealed site: <a href="https://www.zoology.ubc.ca/~biodiv/rr/">https://www.zoology.ubc.ca/~biodiv/rr/</a> If you have trouble with this webpage, you can find the videos on our youtube playlist.
Find Dr. Mei Seito in the list of researchers. Watch the video featuring her work with killer whales. Imagine you are helping her and her team on the research boat. What questions would you want to ask her?
Go back to the main Researchers Revealed page. Choose a topic that you are the least familiar with, and watch one of those videos. Which one(s) did you watch?
How could you use Researchers Revealed to introduce biodiversity scientists to your classroom?

Keeping past exhibitions online allows us to share them more widely, add on additional layers, and revisit images and stories.
Open up the Beaty Museum's online exhibitions webpage: <a href="https://beatymuseum.ubc.ca/exhibits/online-exhibitions/">https://beatymuseum.ubc.ca/exhibits/online-exhibitions/</a> . You'll see some exhibitions we've already explored, like Researchers Revealed, and some that are new.
Click on one that interests you and see what's inside!
Which online exhibition did you explore?
Next Spring
Sea/Life
100 Years, 100 Treasures
Biodiversity Research Photo Competition
Centennial Timeline
What is your take-away message from this exhibition?

#### Downloadable Resources

The Beaty Biodiversity Museum has a wide variety of downloadable lesson plans, in-museum activities, colouring pages, and more, all downloadable for free from the educator resources webpage. They cover a range of grades, topics, activity styles, and lengths.

Visit the educator resources webpage: <a href="https://beatymuseum.ubc.ca/learn/educator-resources/">https://beatymuseum.ubc.ca/learn/educator-resources/</a>
Open up the Pre and Post Visit Activities page. Choose "Research and Discovery Based Activities" to find our comprehensive lesson plans. Open some of the PDF resources. Which of these resources looks intriguing to you?

Explore the educator resources webpage in more detail! When you are ready to move to the next page, click "next."

Since we cannot gather safely as groups in the museum at this time, we have moved some of our tours and programs online. We've also made sure our Beaty Box program is safe for you to bring specimens into your classroom.

- If you're teaching remotely, or looking for a virtual group tour, you can book a private Online Tour or Program!
- Explore our <u>learn page</u> for more information, and our <u>booking information</u> page for rates, times, and tech requirements.
  - o Book an Online Museums Collection tour and virtually explore the six collections that make up the museum: Tetrapods, Marine Invertebrates, Herbarium, Entomology, Fish, and Fossils. Discover stories about BC species, biodiversity research, and different specimens in the collection and how they relate to each other. This online tour is appropriate for all groups including elementary, secondary, post-secondary, families, friends, children's and social groups.
  - Starting September 2020, <u>Beaty Boxes</u> are available for schools to rent (must pick up from Vancouver, BC). In addition to our Beaty Boxes, you can book a guided program that explores <u>Sketching (all ages)</u> or <u>Adaptations (grades 3-7)</u> that works with your classroom Beaty Box.
  - o Groups of teachers can book a private <u>Online Teacher Tour</u> to learn about our digital exhibitions, resources, collections, programs, and more! This session is free of charge and appropriate for educators looking for a group development session.

Which online program, tour, and/or Beaty Box could complement your classroom's learning this	year?
How likely is it that you will book a Beaty Museum virtual tour or program for your classroom this Please write a number from 0 (not likely) to 10 (extremely likely).	s year?
How likely is it that you will book a virtual tour or program with another organization for your cla year? Please write a number from 0 (not likely) to 10 (extremely likely).	ssroom this

We work closely wit	th the Pacific $\hbar$	<b>∕</b> luseum of Eart	h, located a sh	ort, one-minute	walk away	from the I	Beaty
Museum.							

The Pacific Museum of Earth is Vancouver's premier Earth Science museum. Located in the Department of Earth, Ocean and Atmospheric Sciences at the University of British Columbia, they provide an educational window into a wide range of topics including atmospheric science, oceanography, geology, environmental sciences, geological engineering, and planetary science.

Visit their learn website to get started: <a href="https://pme.ubc.ca/learn/">https://pme.ubc.ca/learn/</a> Learn about their virtual tours, resources, podcasts, recipies, and more!
Click on Quarantine Conversations, and find an earth sciences topic that sounds interesting. Click through to listen to a portion of one of the podcasts.
The Quarantine Conversations podcast series aims to show what it's like to be an Earth, Ocean, or Atmospheric Scientist. There's a lot of diversity under that umbrella, and not all of their scientists wear lab coats. Join them monthly to learn about the talented faculty, staff, and students at UBC and beyond.
Have you used podcasts in your classroom before? How could you incorporate Quarantine Conversations?
The Beaty Biodiversity Museum and Pacific Museum of Earth offer a joint field trip, Earth Experience. You can book a virtual program at both museums for a discounted rate. Visit both museums in one day, or spread them out over the school year.
Visit <a href="https://beatymuseum.ubc.ca/learn/group-booking-information/">https://beatymuseum.ubc.ca/learn/group-booking-information/</a> for more information.
Field Trip Planning
Now that you've seen many of the Beaty Biodiversity Museum's online resources, how might you incorporate these into your classroom or future learning plans?
Think pre/post, preparing yourself and students, resources, classroom links, assessment

Which resource(s) are you most likely to use?	
Are there any logistics you need to consider to implement these resource.  Think about technology, booking, materials, etc.	es?
How likely are you to use one or more of the online resources at the Beat explored today? Please write a number from 0 (not likely) to 10 (extremely limited by the contract of the online resources at the Beat explored today? Please write a number from 0 (not likely) to 10 (extremely limited by the contract of the online resources at the Beat explored today?	
How likely are you to recommend one or more of these online resources. Please write a number from 0 (not likely) to 10 (extremely likely).	to a friend or colleague?
We hope you enjoyed spending your time learning about our online resort is there anything you'd like to share with us?	urces!
Thank you! If you have any questions or comments, please email program	ns@beatymuseum.ubc.ca