



BURKE FROM HOME

HOME



ALL AGES! BEST FOR GRADES 2-8

LAND ACKNOWLEDGEMENT

The Burke Museum stands on the lands of the Coast Salish peoples, whose ancestors resided here since time immemorial. Many Indigenous peoples thrive in this place—alive and strong.

WHAT'S INSIDE

- Learn about two important Indigenous building styles in the Pacific Northwest and how environment influences engineering.
- Animals build homes too! Go for a walk to look for signs of animal neighbors, then try your hand at helping a crafty creature decorate its home.
- Reflect on what “home” means to you and design an object label for something that is meaningful in your own home.

INTRODUCTION

The structure of a house and the items within tell a story about the people who live there. Many Tribes across the United States build traditional homes called longhouses. The materials used and the overall structure varies, depending on the environment and resources where the Tribe is from, but regardless,



The Community Building at Celilo Village east of The Dalles, Oregon is modeled after a traditional tule mat longhouse.

the longhouse is the center and heart of the people. In the Pacific Northwest, the longhouse has many names: longhouse, cedar plank house, smoke house and lodge. Traditionally these buildings would house multiple families and be a place for social and ceremonial gatherings, including, hosting neighboring Tribes. Today, Tribes throughout the Pacific Northwest continue to gather in community centers built like these traditional homes. Both traditional and contemporary methods and materials are used to construct them. These buildings are examples of living traditions!

Washington Tribes, tipis are not a traditional home, but they are for the Tribes of the Great Plains region (a region of tallgrass prairies west of the Mississippi River and east of the Rocky Mountains). However, tipis have been, and continue to be, an image associated with all Native Americans, especially in popular culture. Native American communities and cultures are rich and diverse, and so are the traditional homes built by their ancestors. Let's learn about some of the traditional homes of Native communities in the Pacific Northwest!

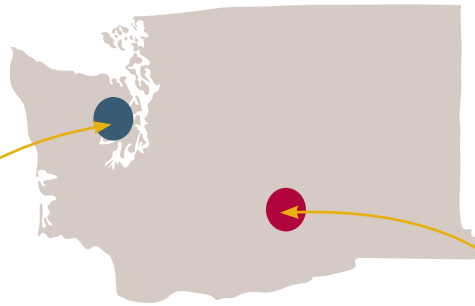
Tribes throughout the Pacific Northwest have shared information, stories and their experiences about home engineering with the Burke Museum. In this packet we will be sharing some with you and will name the Tribes they come from. We encourage you to continue your learning of Native American cultures by reaching out to your local Tribe for more resources. [Learn More](#)

TRADITIONAL HOME ENGINEERING

Designing a home requires thinking about what resources and building materials are available nearby, what the weather is like, and how long the home will need to stay up. The traditional homes of Indigenous communities in the Pacific Northwest are rooted in their surrounding environments and climate.

Today, most Native people do not live in traditionally engineered homes, but Native communities continue to build tribal centers and museums using both traditional and contemporary engineering techniques and materials. Oftentimes, these community buildings and gathering spaces are built in the style of traditional homes.

The cedar plank house and tule mat house are two important Indigenous building styles in the Pacific Northwest. Let's compare two buildings: the Suquamish Tribe's House of Awakened Culture in Suquamish, Washington, and the Yakama Nation Cultural Heritage Center north of Toppenish, Washington.



SUQUAMISH TRIBE'S HOUSE OF AWAKENED CULTURE

Cedar Plank House



YAKAMA NATION CULTURAL HERITAGE CENTER

Tule Mat House

PAUSE AND REFLECT

- What do you notice about these two buildings?
- How are they similar or different from one another?
- How are they similar or different from your home?
- Why might these buildings be designed the way that they are?

Take a moment to think about your own home. What does it look like? Who lives there with you?

Let's take a closer look at the cedar plank house and tule mat house designs.

SUQUAMISH TRIBE'S HOUSE OF AWAKENED CULTURE

Cedar Plank House

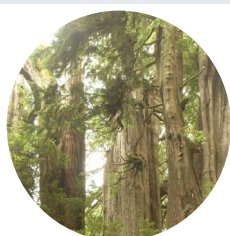


ENVIRONMENT

Cedar plank houses are a tradition of Coast Salish cultures whose ancestral lands are near the Salish Sea. The rainy climate supports thriving forests full of wood for building.

MATERIALS

Cedar trees are a key natural resource for Coast Salish people. Cedar wood is lightweight, strong, and rot-resistant.



STRUCTURE

Cedar poles form the foundation of a cedar plank house. Cedar beams form the roof. Cedar planks cover the outside of the house.

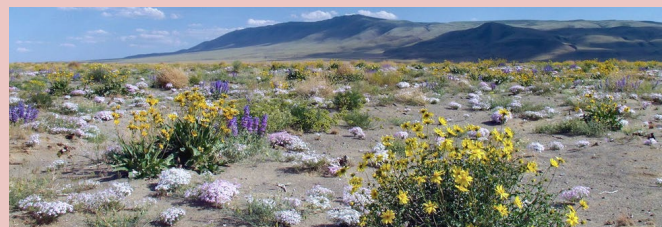


UNIQUE FEATURES

Although cedar houses are designed to be permanent, and keep rain out, they can be taken apart and moved if needed.

YAKAMA NATION CULTURAL HERITAGE CENTER

Tule Mat House



ENVIRONMENT

Tule (pronounced: too-lee) mat houses are a tradition of Plateau cultures whose traditional lands are east of the Cascade mountains. The dry, sunny climate is perfect for grasses and other shrubs.

MATERIALS

Tule grass grows in shallow water like marshes and lakes. It is a long thin grass with a spongy interior.



STRUCTURE

Dried stalks of tule grass are woven into mats. Mats are layered over a cone-shaped frame.



UNIQUE FEATURES

Tule houses can be easily taken apart to move with the seasons, mats can be added or removed to control temperature inside.

It's your turn to be an engineer! In this activity you will design a house and build a model of your design. Models can be a helpful tool when designing a real building, and are also helpful for learning about buildings that already exist! (Recommended for ages 7+)

Step 1:
PURPOSE

UNDERSTAND YOUR BUILDING'S PURPOSE. Take a moment to decide who the building is for and how they will use it. You could design a home for people or animals. Ask yourself: How many people or animals will live here? A single individual, an entire family, or will it need to hold thousands of living creatures, like a beehive?



A model of a cedar plank house from the Burke's Education Collection.

Step 2:
LOCATION

THINK ABOUT THE LOCAL ENVIRONMENT. Consider where the home is going to be built and the climate of that place.

Ask yourself: Does the building need to be water-resistant because of rain? Very warm because of snow? Will the building work for every season? Or will the person or animal that lives there need a different kind of home for different seasons of the year?

Step 3:
MATERIALS

GET TO KNOW YOUR MATERIALS. Gather together some different materials you have available for building your model. Some possible building materials you might have available: Brick blocks, wooden blocks, pipe cleaners, construction paper, Lincoln Logs, popsicle sticks, toilet paper rolls, paper towel rolls, string, tape, glue, paper grocery bags, cardboard, etc.

Do some different tests to understand each material's properties, or characteristics. Can you bend or squish the material? Is it really strong, or does it break easily? Which material is the most abundant?



A model of a tule mat house from the Burke's Education Collection.

Step 4:
DESIGN

DESIGN YOUR HOME. Now that you've thought about all the different factors for your home, sketch out a design on a piece of paper. This will be your blueprint for building your model.

Step 5:
BUILD

TIME TO BUILD! Now it's time to construct your model home. Use the sketch you made in the previous step as a guide and reminder of the final design you are building.

SHARE YOUR WORK!

Take a picture of your model home and share it with family and friends.

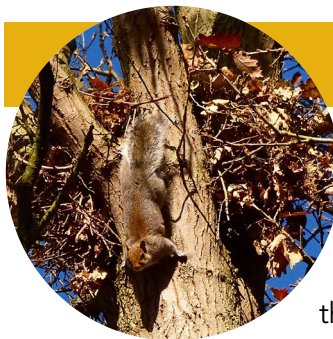
The Burke Museum would love to see what you create too! Ask an adult to help you post your photo to social media with **#BurkefromHome**.

Humans might not be your only neighbors! Have you noticed any of *these* homes in your neighborhood?



BIRD NEST

Birds build their nests in many different places - in trees, on buildings, on the ground covered in grasses or on top of tall poles—just to name a few spots! They can be made of a variety of materials.



SQUIRREL DREY

Some squirrels live in hollowed out dens inside tree trunks. Others, like this squirrel, live in a pile of leaves and twigs high up in the tree branches, called a drey.



RABBIT WARREN

Rabbits burrow underground to build their home. Rabbits like to connect their burrows with tunnels. These big underground networks are called warrens.



ARTHROPOD TUNNELS

Insects and arthropods, like this pill bug, chew tunnels in soft wood and burrow under rocks and logs to make their homes.



WASP NEST

Wasps may be an undesirable neighbor to some, but their diet of smaller insects helps to reduce pests around gardens and farms. Social wasp species build nests by chewing wood fiber into a pulp and molding that into a hanging cluster of hexagonal cells.

Reduce, reuse, recycle!
Birds, squirrels, rabbits and other small animals will often use recycled materials like fur, hair and paper to build their homes. Some will even reuse homes built by other creatures!

WILD ANIMAL NEIGHBORS

Other animals make their homes near people too, such as snakes, mice, raccoons, foxes, opossums, bats, coyotes and frogs. What other animals have you seen or heard near your home?



COLLECTION CONNECTION

Similar to the way pill bugs burrow into logs, the teredo species of clam burrows into pieces of wood in the ocean! This fossil in the Burke's Education collection shows the preserved trails of teredo clams from millions of years ago!

Take a walk around an outdoor space near you.
Using your knowledge of animal homes, see if you can find the following things.

- Signs of animals around your home.* You might find plant leaves with nibble marks, scratches or holes in the ground, or even scat (that's animal poop!).
- Two living materials* that animals could use to build their homes.
- Two non-living materials* that animals could use to build their homes.
- An animal that flies.*
- An animal that crawls.*
- Bonus!* A neighborhood animal's home! (Just look—don't disturb!)

REMEMBER!
Animals like their privacy too. Be a good neighbor—don't pick up or pester any animals that you find on your walk!

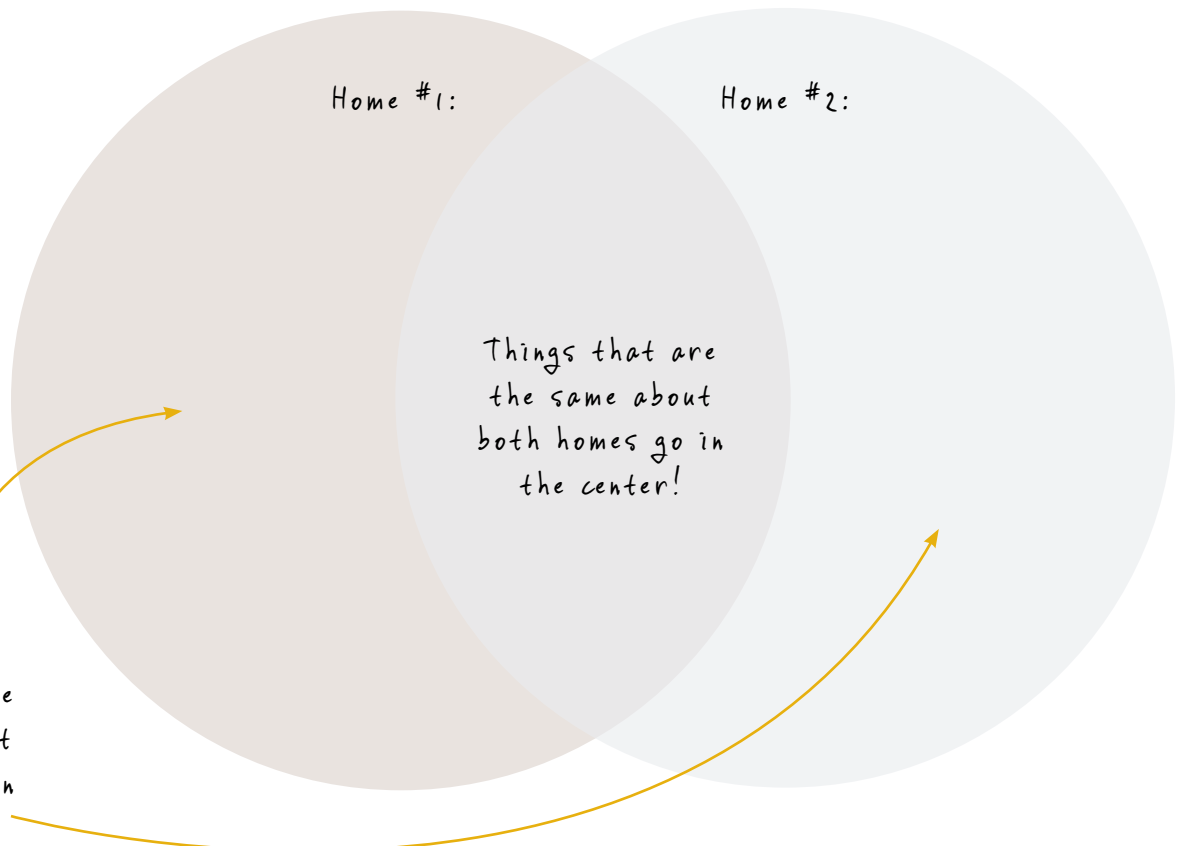
HOW MATERIALISTIC!

Animals make good use of the materials in their environment to build their homes.

- What materials did you notice being used in the animal homes above?
- Do humans use any of these same materials for building homes?
- What other similarities or differences did you notice between the different animal homes above?
- What other similarities or differences do you notice between the animal homes above and human homes?

Bonus!
MAKE A VENN DIAGRAM

Pick two of the animal homes on page 5, and draw a venn diagram to document their similarities and differences!



We've learned about some animal neighbors and the homes they make using resources in their environment. Let's meet one more animal that takes sourcing materials from its environment to a whole new level!

A HOME SERVES A PURPOSE


Many animals make homes that provide them with protection from the things that might harm them.

- A rabbit's warren provides a place to escape from predators.
- A bird's nest provides a safe, warm place for its young to grow and develop.

In these examples, animals build an external structure to stay safe, but what if you could use your own body as your protective home? **That's what decorator crabs do!**

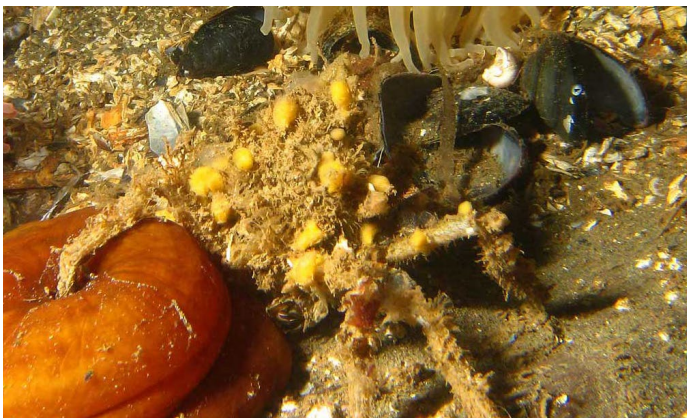
These clever creatures have special hooks, called setae, that cover their backs. The setae act like velcro, allowing the crab to attach found materials, such as bits of seaweed or sponges, to its body in order to camouflage, or blend in with its surroundings. This makes it harder for predators, like octopus, fish and marine mammals, to see them. Some of these crafty crabs will even put stinging anemones and toxic algae on their backs for added protection.


THERE ARE OVER 900 KNOWN SPECIES OF DECORATOR CRABS found in oceans worldwide. Look for the map symbol on the pictures below for some examples of crabs that are found in coastal waters along Washington State.



CAN YOU FIND EACH CRAB HIDING IN THE PHOTOS BELOW & ON THE NEXT PAGE?

Look closely, their camouflage might fool you! Then, check out [this video](#) to see how decorator crabs deck themselves out in the first place.



Can you spot the graceful decorator crab (*Oregonia gracilis*)? 



Believe it or not, there's a crab in there! You might meet this small seaweed crab (*Notomithrax minor*) off the coast of Southern Australia.

FUN FACT!
As the decorator crab grows, it must molt by shedding its old shell, or exoskeleton, and growing a new one. The new shell now needs to be decorated, so the crab will remove decorations from its old shell to adorn the new one. How's that for recycling!?



This spider crab (*Cyclocoeloma tuberculata*) from Indonesia is a master of disguise.



Is that a masking crab (*Loxorhynchus crispatus*), or a clump of seaweed? Look closely and you might spot some small anemones on its back.



COLLECTION CONNECTION

Decorator crabs aren't the only creatures who adorn their bodies with materials from their environment. Check out these carrier snail shells from the Burke's Malacology (shell) collection. Carrier snails cement shells, rocks and other small debris to their shells as they grow. These ornaments stick out like spikes or spines—protecting the snail from would-be predators.



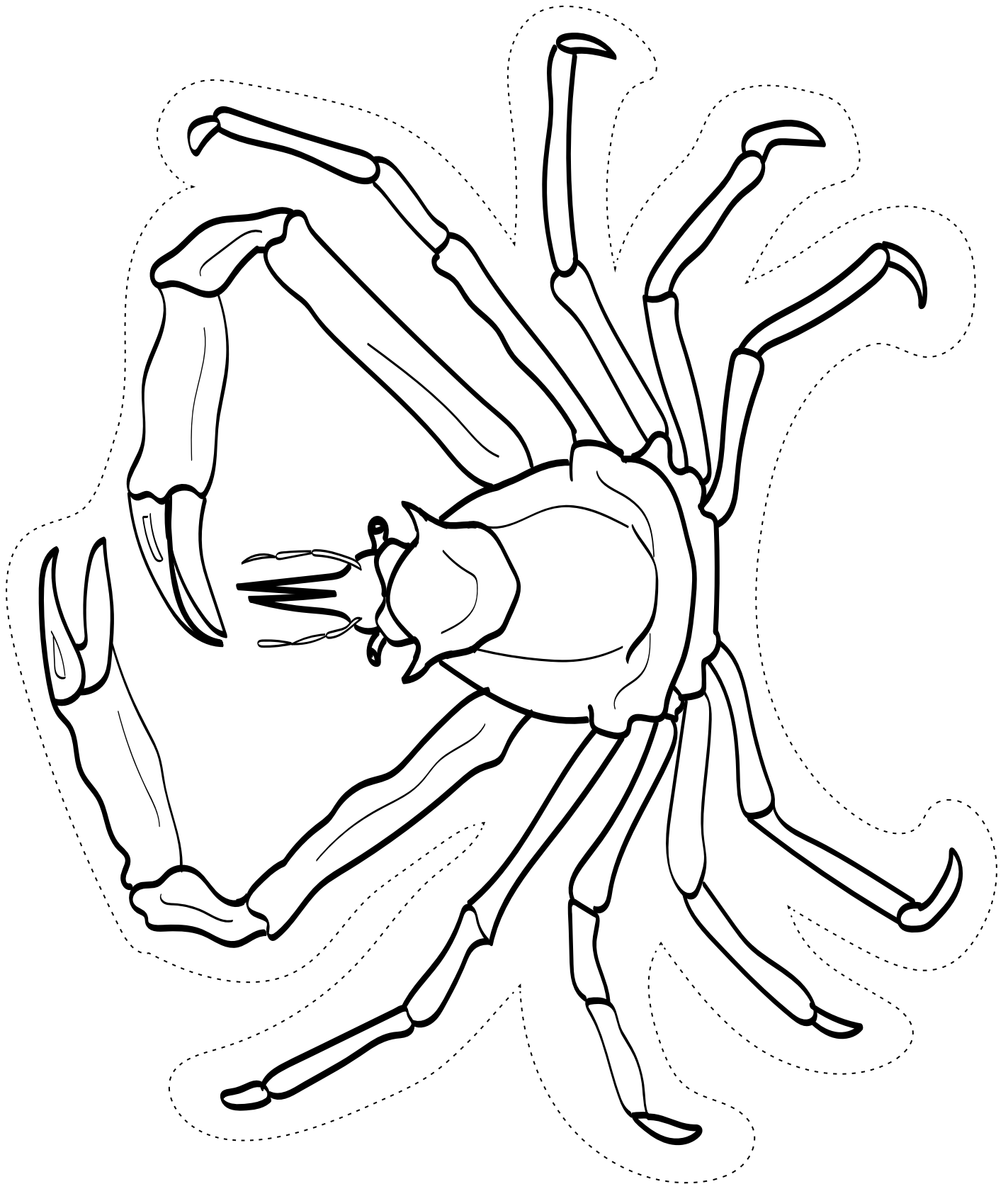
NOW IT'S YOUR TURN!

What if a decorator crab could live in your backyard, neighborhood or local park? What materials in these environments could it use for camouflage?

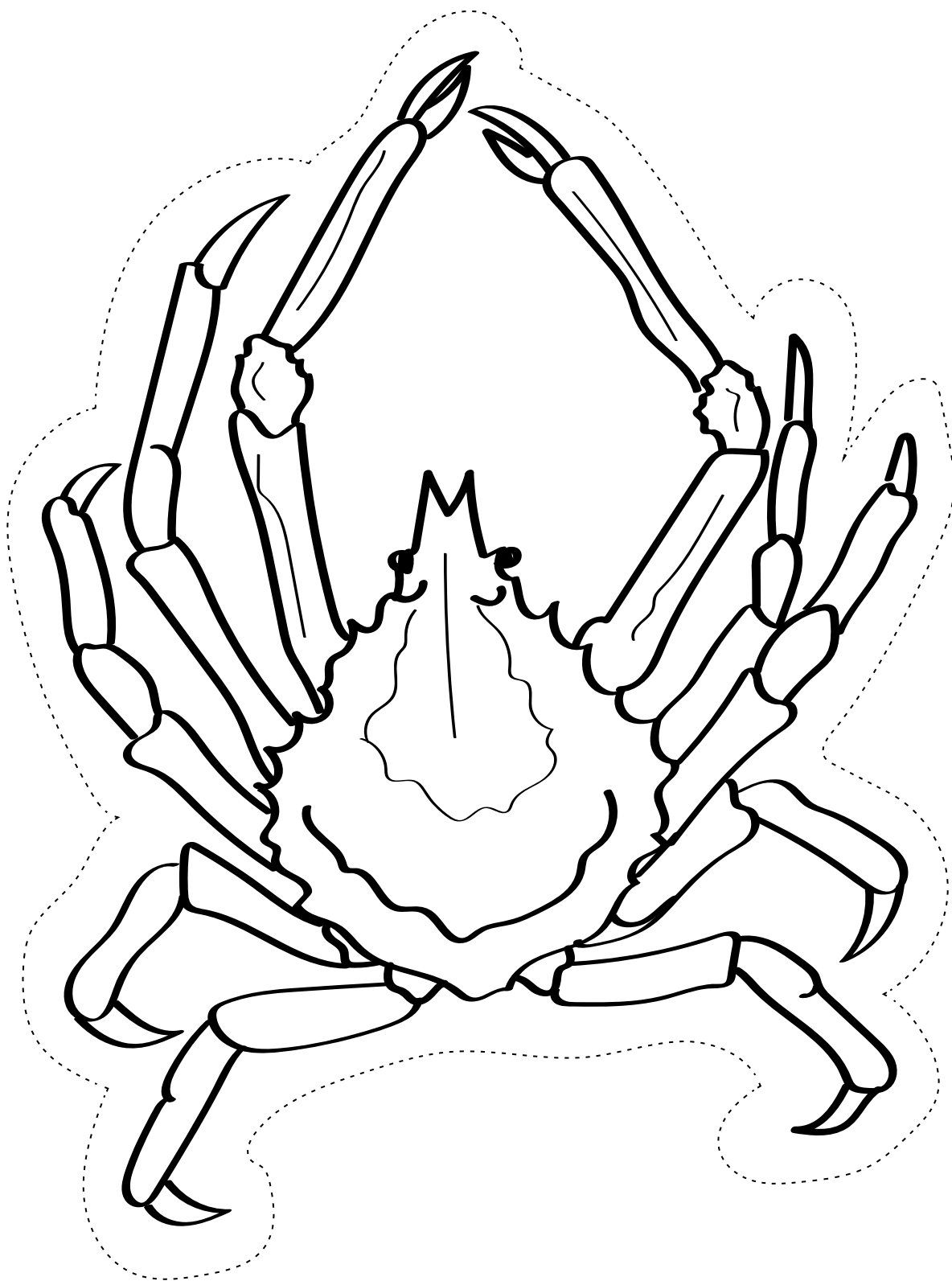
1. Print out or trace one of the crab outlines on pages 9-10 (or draw your own!).
2. Give it some camouflage! Go outside and find some materials to attach to your crab's body. Remember that the goal is to help your crab to "disappear" into its surroundings. What kinds of materials will help it to look like it's part of a rock or plant?
3. Once you've gathered some materials, it's time to decorate! Glue or tape your found materials onto your crab's body. As you decorate your crab, try to think about where it is going to live and what decorations will hide it best.
4. Place your crab outside in its new environment in plain sight. Don't completely hide your crab inside a bush or under a rock—remember that the camouflage you gave it should be enough to help it hide.
5. Challenge someone you live with to find your crab. Can they spot where it's hiding?

Bonus! Challenge your friends and family, both near and far, to find your crab by taking a picture of your camouflaged crab in its new environment. Ask an adult to help you post it to social media using **#BurkefromHome**.

DECORATOR CRAB #1: *Oregonia gracilis*



DECORATOR CRAB #2: *Loxorhynchus crispatus*





Bill James (Lummi), a weaver and artist, shares one of his weavings at his home on the Lummi Reservation near Bellingham.

Home is the community and the people that you care about. You might have multiple places that feel like home. The stuff in our homes reflect who we are, our family and our community. Do you have an item in your home that means a lot to you?

At the museum, we put labels on collection pieces that include important information. Write a label for your special item that might include:

- What you call it.
- When or how you got it.
- A story or memory related to it.

Extend Further: Do you have more special things? Create your own museum at home and write labels for each piece in the collection. Take a picture of your special item or collection and share it with someone you care about and with us. **#BurkefromHome**

HOME IS DIFFERENT FOR EVERYONE

The items and experiences that mean the most to you may not be the same as the most important items and experiences for a friend, or even another family member.

Ask an adult: What is something that is special to them? Why is it important to them?

HEADING HOME SO SOON?

See below for some additional activity ideas and other resources for you to use at home.

TRIBAL RESOURCES

- Find out more about the [Suquamish Tribe's House of Awakened Culture](#) and the [Suquamish Museum](#).
- Find out more about the [Yakama Cultural Heritage Center and Museum](#).
- Check out some other [Tribal museums and cultural centers](#) in Washington state.
 - [Squaxin Island Museum](#)
 - [Makah Museum](#)
 - [Hibulb Cultural Center](#)
 - [Duwamish Longhouse](#)
 - [Wanapum Heritage Center](#). Listen to Wanapum elders Rex and Angela Buck talk about the importance of building the [Wanapum Winter Tule Mat Lodge](#).

GET COZY AT HOME WITH THESE VIDEOS

- Watch an [Anna's hummingbird build a nest!](#)
- [Decorator crabs sure know how to look good!](#)
- See a [tule mat weaving demonstration](#) from members of Coeur d'Alene Tribe of Indians
- Watch a [timelapse of the New Burke home being built](#). The building's design was inspired by Coast Salish longhouses.

PROUD
OF YOUR
HOUSE MODEL?
SUCCESSFULLY
CAMOUFLAGED
YOUR DECORATOR
CRAB?

WE'D LOVE
TO SEE YOUR
CREATIONS AND
HOW YOU'VE USED
THIS PACKET!

SHARE ON SOCIAL
MEDIA WITH
#BURKEFROMHOME

LOOKING FOR
MORE TO DO?
Continue to
[Burke from Home](#)
with weekly
activities

INTRO (p. 1)

Photo: The Community Building at Celilo Village, Courtesy of Akana

TRADITIONAL HOME ENGINEERING (p. 2-3)

Photo: Suquamish Tribe's House of Awakened Culture by Leonard Forsman (Suquamish)

Photo: Yakama Nation Cultural Heritage Center by Mary Jane Topash (Tulalip)/Burke Museum

Coast Salish v. Plateau (p.3)

Environment

Photo: Pacific coast, [Image](#) "The ocean from the Lake Ozette trail" by panachart is licensed under [CC BY 3.0](#)

Photo: Columbia plateau shrub-steppe, [Image](#) "Desert wildflowers at Hanford Reach National Monument" by Rich Steele is licensed under [CC BY-NC 2.0](#)

Materials

Photo: Cedar trees, [Image](#) "wtu039816, *Thuja plicata*" by Ben Legler/Burke Museum Herbarium

Photo: Tule grass, [Image](#) "wtu062227, *Schoenoplectus acutus*" by Thane Tuason is licensed under [CC BY 2.0](#)

Structure

Photos by Burke Museum

HOUSE IT GOING TO BE? (p. 4)

Photos by Burke Museum

NATURE'S NEIGHBORS (p. 5)

Photo: Bird nest by Devin Leatherman/Burke Museum

Photo: Squirrel drey, [Image](#) "Out of the Dray." by pete. #hwcp is licensed under [CC BY 2.0](#)

Photo: Rabbit warren, [Image](#) "Two Little Rabbits" by Let Me Show You What I See is licensed under [CC BY-NC-SA 2.0](#)

Photo: Pill bug tunnels, [Image](#) "DSC04973" by batwrangler is licensed under [CC BY-NC-ND 2.0](#)

Photo: Wasp nest, [Image](#) "DSC_0006" by cnycompguy is licensed under [CC BY-NC-ND 2.0](#)

Photo: Teredo wood fossil by Burke Museum

EXTREME MAKEOVER: CRAB EDITION (p. 7-10)

Photo: *Oregonia gracilis*, [Image](#) "Decorated crab at the Edmonds dock" by Dan Hershman is licensed under [CC BY 2.0](#)

Photo: *Notomithrax minor*, [Image](#) "Decorator Crab, *Notomithrax minor*, Bunurong Marine National Park, Victoria" by Michael Marmach/Museums Victoria is licensed under [CC BY 4.0](#)

Photo: *Cyclocoeloma tuberculata*, [Image](#) "Decorator Crab (*Cyclocoeloma tuberculata*)" by Bernard DUPONT is licensed under [CC BY-SA 2.0](#)

Photo: *Loxorhynchus crispatus*, [Image](#) "*Loxorhynchus crispatus* (Masking Crab)" by Jerry Kirkhart is licensed under [CC BY 2.0](#)

Photo: Carrier snail shells by Burke Museum

Decorator crab outlines by Katharine Canning/Burke Museum

COMMUNITY CONNECTION (p. 11)

Photo: Bill James (Lummi), a weaver and artist, shares one of his weavings at his home on the Lummi Reservation near Bellingham by Sven Haakanson, Jr. (Sugpiaq)/Burke Museum