

Willow
Learning Activities



These learning activities have been designed to provide ideas for exploration and creativity, based on the Year of the Plant texts found on our website.

Each package begins with a series of comprehension questions about the text, designed to help students understand and hopefully to pique their interest about the plant in question! There follows a series of learning activities which can be used as written, or as a springboard for further study around the subject.

We encourage educators and students to create their own learning using our ideas. For example, in the case of the Science and Social Studies presentations, questions are provided as a starting point but students are free to create a presentation by following their own line of intellectual curiosity.

Finally, we encourage you to take these classes outside! Using the First Nations principle of learning being rooted in a sense of place, many of these plants can be found in your local area. Learning about these plants, their uses and their importance to many groups of people, we hope that a deeper connection may be made to the the student's sense of identity, family and responsibility.



## **Willow Learning Activities - Article Questions**



# Read the willow article and answer the questions below to learn about this fascinating tree.

Find the article here: <a href="https://vancouverchinesegarden.com/wp-content/uploads/2020/05/Willow.pdf">https://vancouverchinesegarden.com/wp-content/uploads/2020/05/Willow.pdf</a>

Curriculum Links:

Curricular Competencies (Science, Indigenous Knowledge and Perspectives): Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal interest

Express and reflect on a variety of experiences and perspectives of place

Curricular Competencies (SS) Use Social Studies inquiry processes and skills to ask questions; gather, interpret, and analyze ideas; and communicate findings and decisions

1. Willow is in the Salix genus. Genus is a biological category, or family. Where are plants in the Salix genus most commonly found?

2. How are plants in the Salix genus characterized?

**Branches:** 

Roots:

Bark:

Flowers:

Seed:

- 3. What are willow cuttings used for?
- 4. Why is willow chosen for manufacturing boxes, furniture, toys and boats?



5. What characteristics of willow mean they are often planted on river banks?

## **Willow Learning Activities - Article Questions**

6. Willow is described as a "staple" in Indigenous medicine. What does that mean?

7. How do we know that the Ancient Assyrians, Egyptians and Greeks used willow as a medicine?

8. How was willow important in the development of modern medicine?

9.Look at these two pictures and answer the questions about them by reading the text:



Festival name:

From which culture:

What is this festival about?

How is willow used?



Festival name:

From which culture:

What is this festival about?

How is willow used?



## Willow Learning Activities - Science

#### **Science | Willow Presentations**

- 1. Select one of the topics below, or choose your own topic about the willow tree to create a project.
- 2. Use the space below to make notes from the article to start your research.
- 3. Present your findings in a way you think best, for example: a powerpoint presentation, a written paper, a poster or some other way.

#### Curriculum Links:

Curricular Competencies (Science): Make observations aimed at identifying their own questions about the natural world.

Communicate ideas, findings, and solutions to problems, using scientific language, representations, and digital technologies as appropriate.



## Willow Learning Activities - Science

#### a) Catkins

Curriculum Links:

Curricular Competencies (Science): Make observations aimed at identifying their own questions about the natural world.

Communicate ideas, findings, and solutions to problems, using scientific language, representations, and digital technologies as appropriate.



The willow is in a group of trees that have flower clusters called catkins. Explore catkins. What are they? Which trees have them? What do they look like - are they the same on each tree?

Find out if catkins are used for anything by different cultures around the world, for example by First Nations peoples or others.

Catkins are long, cylindrical flowers without petals, and they are often found on trees in the early spring before the leaves have started to grow. In the Chinese culture, they are often displayed at New Year as a symbol of wealth and growth.

If you are able to, see if you can find some catkins and take a look at them closely under a microscope. Record your observations.



## Willow Learning Activities - Science

#### b) Modern Medicines and Traditional Remedies

Curriculum Links:

Curricular Competencies(Science): Apply First Peoples perspectives and knowledge, other ways of knowing, and local knowledge as sources of information

Express and reflect on a variety of experiences and perspectives of place



Willow bark contains salicin, the main ingredient in aspirin. Can you find other examples of elements of the natural world being used to create modern drugs?

Do you or your family take herbal medicines? What are the pros and cons of taking herbal or traditional remedies versus modern medicine?

Willow bark has been used to treat pain and fever since ancient times. Knowledge of this traditional remedy was used in the development of aspirin in the 1890s when scientists found a way to synthesize salicylic acid.

Two very common drugs that also originated in the natural world include penicillin, which comes from mould, and caffeine which comes from coffee beans.

#### **Willow Learning Activities - Social Studies**

#### **Social Studies | Willow Presentations**

- 1. Select one of the topics below, or choose your own topic about the willow tree to create a project.
- 2. Use the space below to make notes from the article to start your research.
- 3. Present your findings in a way you think best, for example: a powerpoint presentation, a written paper, a poster or some other way.

Curriculum Links:

Curricular Competencies (SS):

Use Social Studies inquiry processes and skills to — ask questions; gather, interpret, and analyze ideas; and communicate findings and decisions



## **Willow Learning Activities - Social Studies**

## a) Cultural Uses of Willow

Curriculum Links:
Big Ideas (SS 7): Religious and cultural practices that emerged during ancient times have endured and continue to influence people
Curricular Competencies (SS 7-9, Indigenous Knowledge and Perspectives): Explain different perspectives on past or present people, places, issues, or events, and compare the values, world views, and beliefs of human cultures and societies in different times and places
Content (SS 7): Origins, core beliefs, narratives, practices, and influences of religions

The willow tree is used around the world in traditional, religious and cultural settings. Explore some of these cultural uses, myths and folklore that are linked to this tree.

Are there any festivals, holidays or traditions in your family that involve willow?

Willow has significance in cultures and traditions around the world from the Middle East to Europe, Asia to North America. In some parts of the world, willow was traditionally associated with the afterlife and ghosts, whereas in others its 'weeping' shape meant it was often associated with grief. In China, catkins or pussy willow are displayed as symbols wishing growth and wealth at New Year.





## **Willow Learning Activities - Social Studies**

#### b) Uses of willow in First Nations cultures.

Curriculum Links:

Content (SS 3): Cultural characteristics and ways of life of local First Peoples; aspects of life shared by and common to peoples and cultures; interconnections of cultural and technological innovations of local indigenous peoples (SS 7-9, Indigenous Knowledge and Perspectives): Explain different perspectives on past or present people, places, issues, or events, and compare the values, worldviews, and beliefs of human cultures and societies in different times and places

In British Colombia, many species of willow such as the Pacific Willow, Pussy Willow or Scouler's Willow are native to the area. First Nations people make extensive use of the willow, using it in everything from medicine to basket making.

Create a presentation that explores how First Nations people use willow. What characteristics of the willow make it a good tree for the various uses?

Option: Discover what other trees and shrubs are used by First Nations people in BC and why.



Pacific Willow



Scouler's Willow



## **Ginkgo Learning Activities - Arts Education and ADST**

**ADST: Willow crafts** 

Willow is not only useful as a traditional medicine and a lightweight wood for manufacturing things. It is also used in crafting to make items such as baskets, outdoor items like trellises and fences, and decorations.

Willow branches are very flexible and great for crafts. Try making something out of willow. If you are not able to find willow branches to cut, you can buy them in craft stores or online.



http://www.jonsbushcraft.com/basicbasket.htm

This web page gives easy step by step instructions how to make

a willow basket.

https://www.youtube.com/watch?v=qVIFrBLICrA

This video from Irish artist and basket maker Brendan Farren shows you how to make a fish decoration out of willow branches.

http://colorful-crafts.com/basic-willow-wreath-tutorial/
This shows you how to make a basic wreath out of willow that you can decorate in your own style.

#### Floral arrangements with willow

Try creating your own arrangement with willow branches. Using willow in floral arrangements is very popular. Pussy willow arrangements are often created to celebrate spring. In China, pussy willow is displayed at New Year to symbolize growth and wealth, and decorations or wishes are often hung on the branches. Curly willow is popular in floristry and can be bought at craft stores.













#### Willow Learning Activities - Arts Education and ADST

## **Arts Education: Using charcoal**

Charcoal, a form of burnt wood, is one of the oldest artists' tools in the world: there is evidence that charcoal was used to create cave paintings 28 000 years ago. These days, artists use different types of charcoal including that made of willow wood.

Create a charcoal drawing using willow! Willow charcoal can be found in art stores or online.

#### Here are some tips and ideas:

- If you are new to charcoal, take some time to get to know how to use it. Experiment with different weight/thicknesses of lines and shadows and try blending before you start your drawing.
- Watch this video for more information: <a href="https://www.youtube.com/watch?">https://www.youtube.com/watch?</a> v=8GADVUB1xPY&app=desktop
- Willow charcoal comes in small sticks and is quite fragile so you cannot press hard to get an intense black colour. However, it is good for beginners and for making rough, preliminary sketches. Experiment with other tyoes of charcoal for different effects.
- Using charcoal can get messy so be prepared! Keep your sleeves off the paper to avoid smudging. Use a white eraser, or a special eraser called a kneaded eraser, to blend, create lines or erase mistakes.
- Try creating a picture of a willow tree. If you can't get outside to see a willow tree up close, use photographs in books or online.
- Another technique to try is to make a charcoal rubbing. Place a willow leaf under a piece of paper then rub to see the leaf's patterns appear.



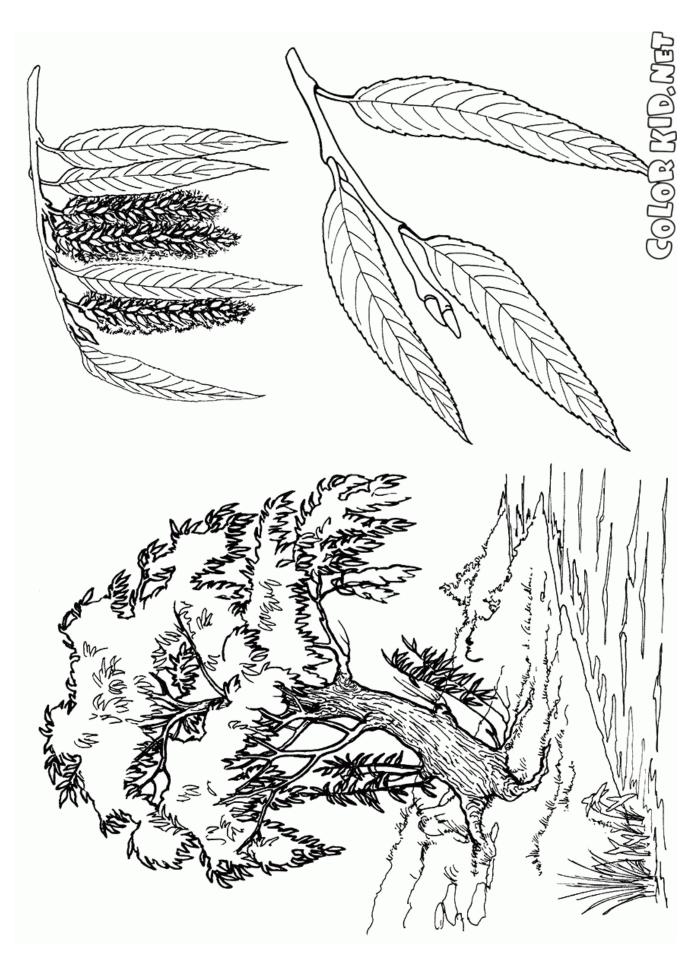
Learn more about two well known 20th century artists who used charcoal: Henry Moore

http://catalogue.henry-moore.org/search/charcoal Kathe Kollwitz

https://www.kollwitz.de/en/self-portraits-overview

## **Willow Learning Activities - Arts Education**

Here is a page for you to colour or use as inspiration.





#### **Willow Learning Activities - Answers**

1. Willow is in the Salix genus. Genus is a biological category, or family. Where are plants in the Salix genus most commonly found?

Moist soils in cold and temperate regions across the Northern Hemisphere.

2. How are plants in the Salix genus characterized?

Branches: long and slender

Roots: tough

Bark: charged with salicylic acid

Flowers: flowers that cluster into unique formations referred to as catkins

Seed: have long silky hairs

3. What are willow cuttings used for?

For propagation, or reproduction

4. Why is willow chosen for manufacturing boxes, furniture, toys and boats?

Willow wood is strong but pliant and lightweight

5. What characteristics of willow mean they are often planted on river banks?

Their thick interlocking root systems make them very effective at holding onto soil to prevent erosion

6. Willow is described as a "staple" in Indigenous medicine. What does that mean?

Willow is an important, or key, part of Indigenous medicine (or similar answers)

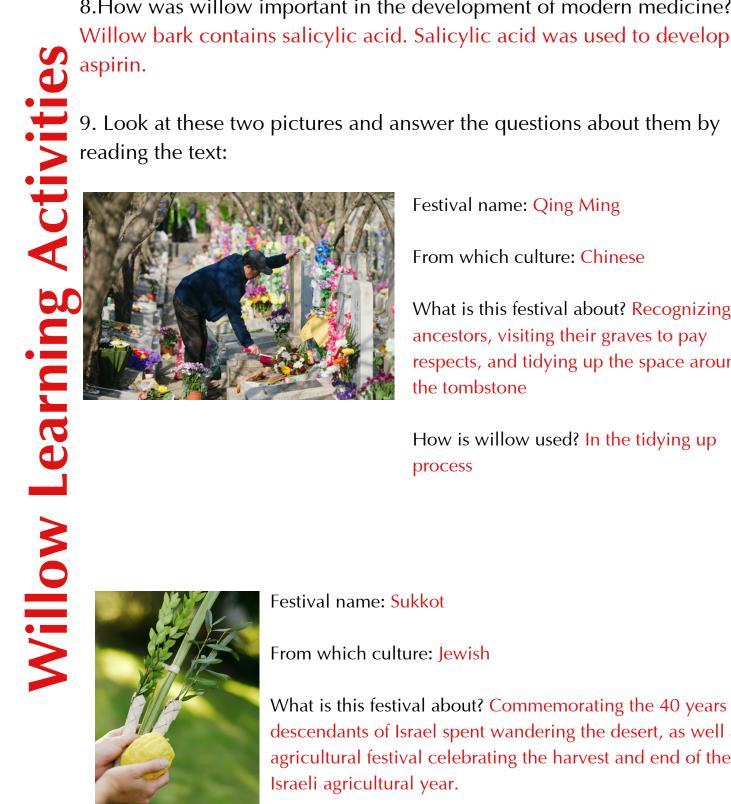
7. How do we know that the Ancient Assyrians, Egyptians and Greeks used willow as a medicine?

Medicinal uses of willow were mentioned in the texts of many ancient cultures such as those of the Ancient Assyrians, Egyptians and Greeks



#### **Willow Learning Activities - Answers**

8. How was willow important in the development of modern medicine? Willow bark contains salicylic acid. Salicylic acid was used to develop



What is this festival about? Recognizing respects, and tidying up the space around



What is this festival about? Commemorating the 40 years that descendants of Israel spent wandering the desert, as well as an agricultural festival celebrating the harvest and end of the Israeli agricultural year.

How is willow used? During the waving of the Four Species

