Lesson Title:	Subject:	Grade(s):
Blender Introduction - Layout /	Digital Media / Graphic Design (ADST)	8-12
Name:	**Date:**	**Lesson #**
		1.1

Rationale:
(lesson context and reasons why lesson matters)
These lessons are intended to provide a basic understanding of the Blender software, enabling students to use these basic understandings to allow them to develop greater skills and 3D modeling in future projects.

Curriculum Connections : https://curriculum.gov.bc.ca
Core Competency
Creative Thinking
Curricular Competency
Identify appropriate tools, technologies, materials, processes, and time needed for production. Construct prototypes, making changes to tools, materials and procedures as needed Identify and assess skills needed for design interests, and develop specific plans to learn or refine them over time.
Content:
Methods and principles of 3D Graphic Design 2D, 3D, Audio, and video digital media editing tolls, including paid, freeware, open source, and cloud-based solutions. Tools and techniques for image manipulation

Learning Intentions	Activity	Assessment
Students Will be able to:		
Understand the basics of Blender, identify the tools necessary to use the program and begin creating basic shapes, resizing, rotating and scaling them.	Students will be taught the basics of Blender, and will then have to create a snowman with eyes, a nose, and be facing the camera.	Formative: Teacher will evaluate student progress through walking around and ensuring students are focused and working on activity.

Prerequisite Concepts and Skills:
For student success
Basic understanding of shapes

Materials and Resources with References/Sources:	
For Teacher	For Students
Computer Projector Blender (Free Software)	Computer Blender (Free Software)

Differentiated Instruction (DI):
Accommodations
Students may be able to create shapes or play with the program at their own pace. As this is introductory, much of the Blender program at this stage is exploratory

Organizational/Management Strategies:
Anything special to consider?
It is highly recommended to have a projector in a spot where all students are able to view and see the content easily. It is strongly suggested that teachers familiarize themselves with Blender prior to teaching any lesson to reduce teacher frustration / confusion. Teacher should create succinct steps when discussing new programs such as Blender

Concrete plans or instructions should be considered beforehand.

Possible Aboriginal Connections / First Peoples Principles of Learning
http://www.bced.gov.bc.ca/abed/principles_of_learning.pdf https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca/files/pdf/aboriginal_education_bc.pdf
Learning takes patience and time.

Lesson Activities		
Teacher Activities	Student Activities	Pacing
Introduction		
Teacher prepares Blender Software and projector to begin class. Once students are settled, take attendance making note of who is not available for this introductory lesson.	Students take their seat and log into their computers. Students will raise hand / provide attendance. *Teachers may have students complete daily task/activity to settle the class prior to or during attendance.*	5-10 mins
Body		
Teacher will grab students attention and inform them of what the focus of the day is: - Introduction to Blender - How to add shapes into program - Basic navigation and understanding of Blender Teacher will ask students to open Blender. Teacher will discuss and demonstrate the following within Blender: - How to create a new project and what to expect when you do - Discuss each of the "viewpoints" - **Discuss**	Students will listen and understand what they're expected to learn for today's lesson.	<5 mins

- Zooming
  - Scroll Wheel on Mouse
  - Magnifier in Corner (Click and Hold)
- Orbiting
  - Hold scroll button down and move mouse
  - Click and hold left button down in X/Y/Z Map top right hand corner
- Panning
  - Shift + Mouse Wheel + Move Mouse
  - Hand Gizmo top right hand corner
- Views
  - Use Top Right Hand X/Y/Z Map
 	
Tool Bar
 	
- Select Tool
- Move Tool
- Rotate Tool
  - Hula Hoops
- Scale Tool
  - Do not Scale through middle inside hoop! A bit too advanced for beginners.
- Cursor
  - Used when adding objects into Blender (Origin point)
  - If one wishes to reset, hold shift+s and click on 'Snap to World Origin'
	As the teacher demonstrates, students are expected to follow along, raising their hands and stopping the teacher when necessary.	5-10 mins
		
		5-10 mins

Ask Students to play with the cube! Teacher to walk around and see how they're doing.	Students will move the cube around the 3D Viewpoint, playing with some of the methods demonstrated to get a feel for the program. Students will raise their hand if they have any additional questions.	5-10 mins
Modifier Keys with G Key, R Key and S Key (In addition with Z, X and Y Keys!) - Be aware of the perspective you're in when using these modifiers. - Adding in a third modifier (a number) will move, rotate or scale the cube a certain way.		5 mins
Add Objects - X to delete (or backspace) - Add Icon top left hand corner - Practice adding, scaling and rotating objects		5 mins
Activity: Create a snowman! Using UV Spheres, and cones and a plane, students are to create a snowman! Teacher may show the snowman they've made (Snowman Image). Students are encouraged to try to add more to the snowman, such as arms, or a smile!		5 mins
Teacher will go around the classroom and ensure that students are beginning to create their snowman. Teacher is to answer any issues students may have, and encourage them to use the shortcuts if need be.	Students will begin adding in objects and creating their snowman the best they can. Students may want to get creative, adding objects such as arms or a mouth to their	20-30 mins

Before the end of the class, teacher will demonstrate how to save their file to provide any additional time necessary in the following class. Teacher will also state that they're going to want to complete and finish their Snowman, as we will come back to it at another time. - File → Save As	snowman, however at this time, such additions are not necessary Students will be sure to save the file to their personal profiles or computers as instructed by the teacher.	5-10 mins
Closure		
Teacher will ask students to log off their computers, push in their chairs and prepare for the next lesson.	Students will log off their computers, and prepare for their next class.	<5 mins

Post Lesson Reflections: