Board/Authority Authorized Course Framework Template

SCHOOL DISTRICT NO. 73
(Kamloops-Thompson)

School District/Independent School Authority Name: School District No. 73 (Kamloops-Thompson)	School District/Independent School Authority Number (e.g. SD43, Authority #432): SD73
Developed by: Kash Dhaliwal	Date Developed: Dec 6, 2018
School Name: South Kamloops Secondary School	Principal's Name: Walt Kirschner
Superintendent Approval Date (for School Districts only):	Superintendent Signature (for School Districts only):
Board/Authority Approval Date:	Board/Authority Chair Signature:
Course Name: Video Game Maker 12	Grade Level of Course: 12
Number of Course Credits: 4	Number of Hours of Instruction: 120

Board/Authority Prerequisite(s):

Video Game Maker 11

Special Training, Facilities or Equipment Required:

Instructor should have a computer or video game industry background, or experience in a similar area. Facilities should include a Windows based computer lab. Additionally, 2D art generation software and digital game making software need to be installed on all computers.

Course Synopsis:

Video Game Maker 12 is the next phase from Video Game Maker 11, in which students further develop their proficiency in technical areas. They may focus on a particular genre of game or a hybrid of genres according to interest or assignment.

Students will be expected to take a leadership role if sharing the class with Video Game Maker 11 students.

Students will complete a number of projects at a higher level of complexity than those in Game Maker 11. Since much of game development will be independent, a higher level of self-responsibility is expected.

Assessment will be continuous through a variety of teacher initiated evaluation processes. The course promotes a "professional" approach to the completion of chosen goals and will allow students to create a portfolio to showcase their work.

Goals and Rationale:

Video Game Maker 11 was an introduction to the field of video game creation. Several different game genres were introduced and practiced; however, 3D and multiplayer games were not covered at this level. Video Game Maker 12 has been developed for those who wish to learn the 3D games genres and to add Multiplayer options. Also, like professional software houses, students must learn to successfully work in teams to create a fully finished product. Additionally, students are not only expected to exercise a high degree of self-motivation and responsibility in completing team projects, but to utilize skills and experiences to aid new students introduced into Game Maker 11.

Aboriginal Worldviews and Perspectives:

Understanding indigenous cultural sensitivity in the development of games is imperative and opportunities to explore aboriginal perspectives within the Art and Game Design are significant. This is a heavily project-based course with numerous opportunities to explore topics of personal or societal interest. Students will be encouraged to both incorporate aboriginal artistic elements in their projects as well as to explore culturally relevant topics.

Some of the First People Principles of Learning closely tied to this course include:

Learning in a holistic, reflective, experiential and relational

Learning is embedded in memory, history and story

Learning involves patience and time

Learning requires exploration of one's identity

Course Name: Grade:

BIG IDEAS

Game design and storyboarding are different from game consumption and requires a distinct skillset and understanding of game structures.	Personal design choices require self-exploration, evaluation and refinement of skills.	Programming is a fundamental aspect of video game development.	Understanding the theory of fun as a learning process.	Programming tools and technologies can be adapted for specific purposes independent of programming language.

Learning Standards

Curricular Competencies	Content
Students are expected to do the following:	*Students are expected to know the following:*
It is expect that students will be able to: • Demonstrate an understanding of constructing various game genres. • Demonstrate a firm understanding of the Game Maker interface. • Identify the different techniques used to create various genres. • Demonstrate a firm understanding on how to produce a variety of visual affects using the Game Maker program. • Demonstrate their skills by helping students who are new to Game Maker. • Identify how one creates 3D textures and objects using 2D sprites. • Identify what is necessary to move characters in a 3D environment. • Demonstrate an understanding of 3D, by creating a simple 3D game with the Game Maker program. • Identify what is involved in creating a multiplayer game using the Game Maker program. • Demonstrate an understanding of multiplayer by creating a simple multiplayer title. • Demonstrate the ability to work with others to design and complete a video game genre(s) of choice. • Develop sprite(s) at a higher and more professional level. • Develop a game title that is fully interactive. • Develop an immersive story line draws in the gaming audience. • Develop a software title that is fun to play with high replay value.	-Understand graphic technology and interaction techniques -Formal structure design of games and good game development through game architecture and the connection with hardware and software -Class creation within the context of programming language objects that require both variables and functions -Structure of design, sequence and flow control statements including conditionals, looping structures and game loops -Programming language constructs to support input/output, logic, decision structure, and loops -Fundamental art elements -Principles of animation -Industry terminology -Integration of 2D art design and 2D game engine - Strategies to predict effects of code modification - Translation of design specifications into source code - Tools to aid in the development process - Inline commenting to document source code - Use of test cases to detect logical or semantic errors - Computational thinking processes - Appropriate use of technology and etiquette

Big Ideas – Elaborations

None

Curricular Competencies – Elaborations

None

Recommended Instructional Components:

- Direct instruction through lecture and class discussions on various course topics that include history, game play and design. Step by step instruction will be based on illustrating functions of Game Maker's interface.
- Student will be exposed to videos, internet sites, and old arcade classics to expand their knowledge of videogame history, and to reinforce what makes an excellent game.
- Indirect instruction by the students through inquiry, induction, problem solving. They will research websites directly, evaluate old arcade classics, and the new creations of their classmates.
- After being progressively introduced to new Game Maker features, students will try these independently.
- Analysis of other commercial arcade/computer games.
- Self-assessment, skills based assessment, formative feedback

Recommended Assessment Components: Ensure alignment with the Principles of Quality Assessment

Due to the nature of this course, evaluation is ongoing. Each unit builds on principals mastered from previous units. Successful completion of each unit is necessary for success. The value of each unit is proportional to unit length and complexity. Theory covered throughout the course will be assessed by quizzes and tests that are multiple choice, matching, short answer and through practical evaluation of work. Student created games will be evaluated using a criteria based rubric that covers topics such as graphics, sound, character movements, theme, game play, level design, playability, etc. Prior to working on a game-project, students will complete and hand-in a draft for evaluation. Drafts will include game theme, storyline, levels and game design. Prior to game completion, students will be presented with an evaluation rubric, first permitting students to polish evaluated criteria and later to complete a self-evaluation. Instructors are to consider student's self-evaluation while assessing their finished work.

Learning Resources:
- Game Maker (Program)
- Photoshop or PhotoDraw (Drawing Program)
- Book: Awesome Game Creation
- Book: Basic Game Design and Creation for Fun & Learning.
- Book: The Game Maker's Apprentice
- Graphicsgale (art program…great for sprite creation).
- Gamemaker Forums provide important information regarding the gamemaker program. Here, game designers are more than willing to provide information and technique.
- The gamemaker program, forums, school-discounted software licenses, teacher lessons and other aids will be found at the following website: www.yoyogames.com

Additional Information:

This is a beginning course that should help student's discover if their interest in video games is stronger than simply playing them. One computer per student is essential to make this course work. There are several Game Making Programs available for the PC; however, Game Maker is quite powerful, affordably priced, and offers useful teaching resources.