Verizon Thinkfinity Integration Plan

General Information	
Name: Amber Schriner	District/School or Organization: COVA
Subject Area/Topic: Math	Grade Level(s): 3-5

Part 1 – List the appropriate standards (State or National Standards for Content, Technology or 21st Century Skills) and one or more related Verizon Thinkfinity learning object(s) aligned to the standards.

State or National Standards; 21st Century Skills	Title and URL for Learning Object
Algebra 3-5 1. Model problem situations with objects and use representations such as graphs, tables, and equations to draw conclusions. 2. Represent and analyze patterns and functions, using words, tables, and graphs. 3. Describe, extend, and make generalizations about geometric and numeric patterns.	Petals Around the Rose game http://illuminations.nctm.org/Lessons/Petals/Petals.htm

Part 2 – Determine instructional elements - *Integration*

A. Which type of learning object is this?	B. Where will I use this learning object in the instructional cycle?	C. Which instructional strategies will I employ?
Learning Object for Teacher Use ☒ Online (requires a computer) ☐ Offline (no computer required) Learning Object for Student Use ☒ Online (requires a computer) ☐ Offline (no computer required)	☐ Opening Motivational Activity ☐ Central Focus of Lesson Plan ☐ Research Tool for Students ☐ Closure Activity ☐ Assessment Tool ☐ Remediation Tool ☒ Enrichment Tool	☒ Direct instruction ☐ Indirect instruction ☐ Experiential learning ☐ Independent study ☐ Interactive instruction ☐ Other Notes: Visit http://olc.spsd.sk.ca/DE/PD/instr/index.html for more information on the instructional strategies listed.
Notes: I am an online teacher and will be teaching all components of each lesson online.		

Part 3 – Plan for student success - *Implementation*

A. How will I configure my classroom for the learning activity?	
Classroom Configuration: ☐ Computers not needed - printable resource ☐ Whole group instruction, using a projector and / or interactive white board ☐ Whole group activity, with small groups using mobile laptops simultaneously ☐ Small group, using classroom computers or mobile laptops as rotating stations ☐ One to one, using classroom computers or mobile laptops as rotating stations ☐ One to one, in a computer lab setting ☒ One to one, with individual student laptops ☐ Other	Notes:

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B. How will I manage implementation?	
Classroom Management: ☒ General computer rules / procedures ☐ Specific directions for activity ☐ Helping Hands ☐ Other	Notes:

C. What additional considerations will support successful implementation?	
☐ Software ☐ Hardware ☒ Supplemental Materials ☐ Other	Notes: Access to their online school, Progress in Mathematics book (to review previous strategies,) and the Virtual Classroom (Elluminate.)

Part 4 – Develop the student learning activity

A. Describe the learning activity. What will students be asked to do with the learning object(s)?
In my virtual classroom, I will show my students the actual game by accessing the URL. Once the students can see the virtual dice, I will begin my instruction. I will start the game by giving them the "hints" and telling them that they can use all problem solving strategies that they have been taught in the past, to find the "rule" to this game. The students will be continually reminded of the "hints" as well as see the dice roll many times. They will be asked to watch the "learning object" closely and take notes of the different answers to each roll of the dice. Once the students figure out the "rule," they will raise their hand. When a student raises his/her hand, I will roll the dice again and have that student tell me what they think the answer is. If they are correct, they will continue "helping" me to give the answers to the other students. If they are incorrect, I will tell them that they had a good guess, but to keep on trying. I would not allow the students to tell each other the actual "rule." I want all of my students to come up with it themselves. I would continue playing until the students have tried out many of their different strategies. I would encourage students to share the strategies that they are working on with the rest of the class (by typing them into the chat window for all to see.) If many students were not able to come up with the "rule," then I would encourage them to think about it at home and I would come back to this game in our next math lesson.
Explain how the learning activity you've described will support students' development of 21st Century Learning and Innovation Skills. My students will be able to come up with strategies to solve this particular problem. They will do this after watching the interactive dice roll and the rules appear one by one on their computer screen. I would offer help by giving them the "hints" outlined in the lesson (repeating the title, asking different students how they are coming up with answers, recommending that they draw a table or picture, have them record the numbers and answers each time the dice are rolled, etc.) The students are using technology as a tool to help them learn how to problem solve in a variety of ways.
Explain how the learning activity you've described will support students' acquisition of current, accurate and up-to-date information in core subject areas. The students will be able to work through the problem solving strategies that they've learned up to this point (record data, draw a picture, guess and check, keep an organized list, consider a simpler problem, etc. in order to come up with plausible ideas.

B. Describe how you will differentiate the activity to meet the diverse needs of your students.
I will allow ample time for students to process information. The students will score points based on thinking and strategies utilized, not getting the correct answer.

C. Effectiveness – What indicators will I expect to see / hear from students that will inform me about the effectiveness of the learning activity?
I will stop the activity after a few minutes and ask for students to let me know what strategies they are trying out and if they are successful in coming up with possible outcomes. I will be looking for the problem solving strategies that the students have been taught to be accessed and utilized. I want to actually see students working on charts, drawing pictures, making a list of the 5 dice and what the answers are, guessing and checking to see if the ideas that they have could really work, etc.) I want to see the students working hard to find the "rule." I want to hear the students coming up with a variety of ideas (adding sums of dice together, taking the difference of the dice, adding every other die, etc.)

Part 5 – Consider the bigger picture

Describe how this learning activity fits within a lesson or unit plan to meet objectives that will be assessed. NOTE: Information about additional learning activities or materials that will be used to complement this learning activity may be included.
I will have introduced problem solving strategies in the weeks previously. The students should be equipped with many strategies that they can implement. In the previous lessons, we would have worked on solving story problems using strategies such as: drawing a picture, using formulas, hidden information, using a model/drawing, organizing a list, and finding a pattern. They will use this learning activity as a tool to facilitate deeper thinking. Once, the students have come up with the answer, they will be asked to come up with their own "rules" of a similar game to be used on their peers. Doing the "Petals on the Rose" activity, having the students brainstorm their own rules for a similar game, and breaking the students into groups to share their ideas will take about 60 min (the equivalent of one math lesson.)