Game Title	Division Derby
Game Type	___x___ Web-Based Game _____ App-Based Game

When choosing a game to be used in the classroom, many things need to be considered in order for the game to be an effective classroom tool. The game play, navigation, interface tools, educational content, Bloom's Taxonomy, Thoughtful Education strategies, differentiation of instruction, teacher guidance, and resources must all be considered. The following rubric can be used to evaluate games and simulations for use in the elementary classroom.

Explanation of Points

19-27: Game has value on multiple levels and can be used in the classroom for student learning enhancement. The game uses teacher resources, Bloom's taxonomy, current and proven research-based education practices. It also has teacher resources and supplements to help integrate the game into the classroom. This game also scaffolds and differentiates play for all learners including ELL students, Exceptional Education learners, below grade level, on level, and above level learners including Gifted Students. It also requires the student to use a variety of strategies and skills in order to complete the goals and objectives. It is also user friendly, tracks student progress, and engages students on multiple levels.

10-18: Game meets at least 5 categories of criteria. It can be used in the classroom as a supplement but not as the main lesson. It uses some research-based education practices and provides some material to be used in lesson plans and game play. The teacher may still need to bring in additional material to integrate the game in the classroom. It engages students' on a few levels and is mostly user friendly. Tracks some student progress but does not gather data. Game may differentiate for some students, but not all students. Students may use 1-2 strategies in order to complete game play but not a variety of skills.

0-9: This game should not be used in the classroom or for learning purposes.

Evaluation Rubric for Educational Game

Criteria	1 Needs Improvement	2 Satisfactory	3 Exemplary	Score
Game Play	Game is not age appropriate. There is questionable language or action. The story is not simple and easily understood. Goals and objectives for the student are unclear or not displayed. The game demographic is not the student's age level. There are too many choices and the student does not have control over their path. Dialog is not simple or understood between the students and the characters in the game. Instructions are hard to follow or not easily understood. Graphics and sounds are not aligned with the game or the story of the game. There is not an easy way for a student to recall information needed for game play. There is no tutorial mode or instructions given for game play.	Game is age appropriate for majority of target demographic. There is no questionable language or actions to be taken by students. The story is somewhat simple and easy to understand. Goals and objectives for each level are clear and attainable for the student to achieve. Game attempts to integrate different levels of learning and student ability levels. Graphics and sound mostly go with game play but may have a few "empty" screens and sounds. Sounds do not always match up with screens or may be slow in loading. Some game screens may have "extra" items but does not interfere in game play. There is a place for students to collect and store items and can easily recall information needed for game play throughout. There is a short tutorial mode that explains most of the navigation and game play.	Game is age appropriate. There is no questionable language or action. The story is simple and easy to understand. Goals and objectives for each level are explicit to the student's learning abilities. Storyline and character interaction is easily understood. There are limited choices and at least two-three different outcome paths. Students have control over which direction and path their character can take. Dialog between students and characters or instructions are simple for student to understand. Graphics and sound work with the game and there are no "extras" unless needed in the levels of game play or the simulation. There are places for students to store tools and items collected or a place to drop items no longer needed. Students have the option to go through a tutorial mode to understand game play and navigation.	2
Summary of Game Play	Division Derby is an educational multi-player racing activity that allows students to practice their division facts. This game is an appropriate game for students in the third grade, because they are beginning to learn their multiplication and division facts. This game puts their fact fluency for division to the test. The visual of the horse running around the track, speeding up for correct answers or slowing down for wrong answers, as well as the sound effects of the horse, encourage students to be faster and more accurate with their answers. Additionally, once a round is complete, a "Results" screen is displayed, with the students place value, accuracy, and missed questions for students to study before playing again. This game did not have a short tutorial for students to play to learn the navigation and rules of the game, so the score was taken down one point, to a 2.			
Navigation	The student struggles with navigation which does not allow for easier game	Navigation is somewhat intuitive for the student or age group. Tools and	Navigation is intuitive to the age group. Tools and buttons are within	2

	play. Tools and buttons are not within easy reach and so students cannot navigate easily. There is no audio option available to read students dialog or other game information if needed. Students are given a generic avatar to play game. Too much thought is required to navigate game pathways causing interruption in game play for the student.	buttons are simple but may not be easily reached by all students. There is some thought required by students to navigate but it does not interfere in game play. Students have more than once choice if the Avatar is a generic one. They can customize the Avatar somewhat. Audio is available only in some parts of the game. Tools and buttons are somewhat intuitive and do not interfere in game play.	easy reach of students. Minimum thought required by students to use tools to navigate their Avatar through game screens and interact with game characters. Audio available for lower level learners and ELL students. Tools and buttons are intuitive to the student playing so as not to interfere in game play or thought process.	
Summary of Navigation	Navigation to play Division Derby is very simple since the question and answer choices display directly on the screen, under the horses racing. No additional keys are necessary for students to be successful at this game. Students simply click the correct answer found in the blue boxes. If students prefer, they can enter the key 1,2,3, or 4 to choose the correct answer as well. One suggestion to improve this game would be to add audio for students of lower level and ELL students. For this reason, this category scores 2 points.			
Interface Tools	Keyboard and other navigational tools are complicated or hard to use through the screens and levels. Uses keyboard letters or keys that are too spread out interfering in game play and natural flow of the game. There are no hints or ways to indicate to students' important information.	Medium difficulty in keyboard and mouse controls. Allows some point and click action to move through screens but may need the keys such as W, S, A, D in order to move forward, backward and left and right. May require the student to practice more with the controls in order to navigate the game. There is a hint box available in some parts of the game such as new levels or new quests. Tutorial can be repeated but may interfere in game play.	Easy keyboard or mouse controls to move through screens and levels. Uses point and click and indicator arrows for important information and has a "hint" box students can use to prevent frustration and allow students to stay engaged in game. Hint box needs specific types of items collected to use which are indicated in the game tutorial. Hint box must "reload" in order to use.	3
Summary of Interface Tools	The interface tools of Division Derby are quite easy to navigate. The questions and answer choices display directly on the screen, under the horses racing. Students can simply click on the correct answers or use their keyboard to input 1, 2, 3, or 4 to choose their answers. There is not a hint button on this game, but due to the nature of the game, I do not feel that it is needed. For this reason, this category scores 3 points.			
Educational Content	Game has no educational content or concepts that integrate into teachers' planned curriculum. Game is not aligned with Educational Standards.	Game has some educational value and can be identified as a useful tool in some content areas. Game may be somewhat aligned with educational standards. Teacher may need to pull supplemental material in order to	Game is clearly aligned with educational standards. Teacher can easily integrate game into lesson plans and classroom activities.	3

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		integrate game into lesson plans and classroom activities.		
Summary of Educational Content	This game is directly aligned with educational standards. ABCya.com also includes a feature for teachers to easily see which standards are covered by Division Derby. The standards that ABCya provides are common core standards, but they are easily connected to SC standards. Standard alignment made easy!			
Bloom's Taxonomy	Only the lower levels of Bloom's taxonomy are used. These include remembering, understanding, and applying.	Some higher-level Bloom's taxonomy is addressed but game is mostly middle to lower level Bloom's. These include applying, remembering, understanding, and some evaluation and analyzing of game situations in order to solve problems and combine multiple pieces of information in order to complete game. Does not allow students to create items or completely customize their Avatar.	The higher order thinking skills of Bloom's taxonomy are required for students to play the game. These include evaluating, synthesizing, and analyzing multiple pieces of information and multiple parts of the game in order to solve problems. Allows students to create items including their Avatar to engage students.	1
Summary of Bloom's Taxonomy	Division Derby is all about fact fluency. For this reason, on Bloom's taxonomy mostly applying, remembering, and understanding are used mostly. Students do not create items or customize any avatars. However, every game has a purpose.			
Thoughtful Educational Strategies	There are no thoughtful education strategies integrated into game play and other research-based strategies are not used	Some thoughtful education strategies are used and integrated into the game play. May introduce students to new concepts such as word relationships but does not allow comparison between relationships.	Thoughtful Education strategies and other researched based criteria are subtly integrated into game play such as being introduced to new concepts and ideas using comprehension strategies in relation to Bloom's taxonomy. These may include new vocabulary concepts, word and situation relationships and comparing a new situation to a previous situation.	2
Summary of Thoughtful Educational Strategies	While playing Division Derby, students will need to apply their foundations of learning their division facts to be successful. This game is meant to be a practice game, instead of a way to introduce new concepts. There are games that allow for this, but this game wouldn't be used for that purpose.			
Differentiation of Instruction	Game play only has one level of play and does not allow for multiple or diverse groups of students the ability	Game play has two or three levels of play and allows for some multiple or diverse groups of students the ability	Game play allows for students to work on multiple levels and platforms to solve problems and resolve situations	2

	to play. The levels may be defined as Easy, Medium, and Difficult but does not allow students to move between them based on performance.	to play. Levels may be defined as Easy, Medium, or Difficult but there is very little scaffolding or difference in all three levels. Does not allow for movement between levels based on performance.	in the game. There levels may be defined as Easy (below grade level and simple directions); Medium (on grade level); and Difficult (above grade level and challenging) in order to engage students on multiple levels of performance. Scaffolding allows students to flow between difficulty levels based on their performance.	
Summary of Differentiation of Instruction	Students have the ability to play multi-player, join created teams that are also playing, or play an independent game. However, there are not different levels for students to play. Instead, students keep playing for a chance to improve on accuracy, time for place in the race, and recognize facts they need support with.			
Teacher Interface	No teacher interface allowing teacher to track student progress or get statistical information on students' comprehension of game concepts. No mini-lessons or the teacher interface interrupts game play and disengages student in game.	Interface allows teacher to look at progress of students but does not provide strategies or mini-lessons in order to help students through a difficult part of the game. Does not allow students to practice problem solving. The teacher needs to pull in additional information and create own lessons based on student trouble-spots in the game. Teacher may have to watch student play game in order to identify trouble-spots.	Interface allows cloud navigation to track student progress through game play and present teaching strategies to help a student through a difficult task or situation in the game play while still allowing the student opportunities to practice problem-solving. Shows teacher the specific mini-lesson that can be used to help a student at a particular level.	1
Summary of Teacher Interface	ABCya.com does not have a teacher interface for teachers to have access to student data. This would only be a practice game.			
Game Resources	Game has no teacher resources to be used with students in the classroom to help integrate game into lesson plans.	Some graphic organizers for student usage during gameplay. Instructions or Teacher Resource book included. May not include lesson plan activities for integration into classroom and teacher may have to pull in and create own resources.	Includes thoughtful education graphic organizers students can use during game play and mini-lessons that teachers can use to help students through a particular difficult concept. Supplements include videos and activities that can be used to integrate game into classroom lessons.	2
Summary of	ABCya does not provide specific lesson plan resources to teachers, but they do provide standards that are easily identifiable. For this			

Game Resources	reason, this game could be easily matched with a small group or mini lesson for integration into the classroom. Graphic organizers are not provided due to the nature of this game.
Total Score	18 Points Game meets at least 5 categories of criteria. It can be used in the classroom as a supplement but not as the main lesson. It uses some research-based education practices and provides some material to be used in lesson plans and game play. The teacher may still need to bring in additional material to integrate the game in the classroom. It engages students' on a few levels and is mostly user friendly. Tracks some student progress but does not gather data. Game may differentiate for some students, but not all students. Students may use 1-2 strategies in order to complete game play but not a variety of skills.

Points: Summary of Evaluation

Strengths:
ABCya's Division Derby is an excellent game for students to practice fact fluency. The math skill of division is a foundational skill that will allow students to be successful at so many other math skills. For this reason, very often teachers search for games for students to play to practice their facts. Division Derby is a great one! The strengths of this game lie within the easy to use navigation and the results screen that follows game play. As a teacher, I love how the question and the answer choices are displayed directly on the screen and no additional keys are needed. Also, it is very helpful that the students "Missed Questions" are presented for students to practice. In the classroom, I would have students write those facts down to practice before playing again. Another benefit to using ABCya.com is the easy access to indentify standards that the games match. This makes it very easy to search for games that are appropriate and useful to students.

Weaknesses:
Division Derby's weakness is tough to define. However, I do have a few concerns…
- Division Derby does not have a tutorial for students to learn the navigation of the game before actually playing.
- Audio of the questions and answers is not available for ELL or lower level students.
- There are no options to select a level. (Easy, Moderate, Hard)

These weaknesses could make it hard for a lower level or struggling student to be successful at playing.

Improvements:

As for improvements for Division Derby, I would look at the weaknesses that were identified. First, a tutorial or "test run" should be an easy addition to the game. It wouldn't need to be long; just 2-3 questions to show students what will be coming. In correspondence to this, a level system would help students be successful. Students could begin at easy, gain confidence and move to a next level when ready. Lastly, the addition to add audio to the questions and answer choices would benefit students that are ELL and lower level students. The last addition may not be needed for many, since it is a math fact fluency game but it would never harm a learner to hear the numbers too.

Overall, Division Derby is a great addition to student's fact fluency game play. The game allows students to practice their division facts, while pushing them to be more accurate and answer in a timely manner. I would not recommend assigning this game to students early in their division practice since it is a fluency game. This could discourage learners. Instead, think of this game as a practice round for students who understand the concept and need to gain fluency.