

## *Recreation Committee*



It's that time of year again! The school recreation committee is getting ready to meet and decide on a long range plan for upcoming afterschool activities. Before the programs can begin, the board must hire a group of student coaches for each activity open to students across the district. The committee has decided that two of the following activities will be included in this year's course offerings. The list consists of: football, basketball, and dance. In order to make the most appropriate selection, the board has asked students to collaborate on the following task.

Each team will research and prepare a composition that will introduce a patterned play, or choreographed dance step to display their knowledge of the curriculum and how it applies to mathematics.

The team will present the dance and/or play to both a panel of their peers and board committee that will judge each team's final product. The presentation must include a lesson plan that will accurately illustrate the movements, vocabulary, calculations and transformations.

May is National Physical Fitness and Sports Month, the perfect time to reinforce the value of exercise, teamwork and physical activity for better health. Go to [www.idecorp.com](http://www.idecorp.com) and click on "Resources" to see more about this problem-based task, which is accompanied by an analytic rubric.

*Rubric for Recreation Committee*

	<b>Novice</b>	<b>Apprentice</b>	<b>Practitioner</b>	<b>Expert</b>
<b>Research</b>	Includes 2 of the following: <input type="checkbox"/> contains mathematical components to dance and/or sport plays <input type="checkbox"/> list of transformations and the measurements <input type="checkbox"/> two sample problems for each transformation <input type="checkbox"/> proper citation of sources	Includes 3 of the following: <input type="checkbox"/> contains mathematical components to dance and/or sport plays <input type="checkbox"/> list of transformations and the measurements <input type="checkbox"/> two sample problems for each transformation <input type="checkbox"/> proper citation of sources	Includes the following: <input type="checkbox"/> contains mathematical components to dance and/or sport plays <input type="checkbox"/> list of transformations and the measurements <input type="checkbox"/> two sample problems for each transformation <input type="checkbox"/> proper citation of sources	all of <i>Practitioner</i> plus-examination of at least one combination of transformations

<b>Mathematical Content</b>	<p>Includes 3 of the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> identifies the movements to be measured</li> <li><input type="checkbox"/> labels provided for rotations, reflections, translations and symmetry</li> <li><input type="checkbox"/> gives a numbered, step-by-step procedure for making the correct measurements</li> </ul>	<p>Includes 4 of the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> identifies the movements to be measured</li> <li><input type="checkbox"/> labels provided for rotations, reflections, translations and symmetry</li> <li><input type="checkbox"/> gives a numbered, step-by-step procedure for making the correct measurements</li> <li><input type="checkbox"/> presents calculations</li> <li><input type="checkbox"/> presents accurate geometrical argument explaining &amp; supporting designed procedure</li> </ul>	<p>Includes the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> identifies the movements to be measured</li> <li><input type="checkbox"/> labels provided for rotations, reflections, translations and symmetry</li> <li><input type="checkbox"/> gives a numbered, step-by-step procedure for making the correct measurements</li> <li><input type="checkbox"/> presents calculations</li> <li><input type="checkbox"/> presents accurate geometrical argument explaining &amp; supporting designed procedure</li> </ul>	<p>all of <i>Practitioner</i> plus- 3 additional examples where transformational geometry is used in real life applications</p>
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<b>Measurements &amp; Calculations</b>	Includes the following; <input type="checkbox"/> uses pre-determined scale to make calculations for transcription	Includes the following: <input type="checkbox"/> accurate calculations for: rotations, translations, and reflections	Includes the following: <input type="checkbox"/> uses pre-determined scale to make calculations for transcription <input type="checkbox"/> accurate calculations for: rotations, translations, and reflections	all of <i>Practitioner</i> plus- includes 2 vector movements with accurate calculations
<b>Transcription of Steps/Plays</b>	Includes 3 of the following: <input type="checkbox"/> 5 or more progressive, defined movements <input type="checkbox"/> illustrations mirror each movement <input type="checkbox"/> measurements included next to each illustration <input type="checkbox"/> labels provided for each illustration <input type="checkbox"/> 5 or more lines of copy indicating step by step instructions for movement	Includes 4 of the following: <input type="checkbox"/> 5 or more progressive, defined movements <input type="checkbox"/> illustrations mirror each movement <input type="checkbox"/> measurements included next to each illustration <input type="checkbox"/> labels provided for each illustration <input type="checkbox"/> 5 or more lines of copy indicating step by step instructions for each movement	Includes the following: <input type="checkbox"/> 5 or more progressive, defined movements <input type="checkbox"/> illustrations mirror each movement <input type="checkbox"/> measurements included next to each illustration <input type="checkbox"/> labels provided for each illustration <input type="checkbox"/> 5 or more lines of copy indicating step by step instructions for each movement	all of <i>Practitioner</i> plus – 6 or more defined movements Illustrations to match created on the computer

<b>Mechanical Criteria</b>	Includes 1 of the following: <input type="checkbox"/> accurate use of technical vocabulary <input type="checkbox"/> contains 1-2 errors in grammar, punctuation, or spelling <input type="checkbox"/> organized presentation	Includes 2 of the following: <input type="checkbox"/> accurate use of technical vocabulary <input type="checkbox"/> contains 1-2 errors in grammar, punctuation, or spelling <input type="checkbox"/> organized presentation	Includes the following: <input type="checkbox"/> accurate use of technical vocabulary <input type="checkbox"/> contains 1-2 errors in grammar, punctuation, or spelling <input type="checkbox"/> organized presentation	all of <i>Practitioner</i> plus- <input type="checkbox"/> complete accuracy in spelling & grammar <input type="checkbox"/> written in lesson plan format
<b>Presentation (Group)</b>	Includes 2 of the following: <input type="checkbox"/> graphics and color are used to enhance presentation <input type="checkbox"/> all group members to contribute both the creation and delivery <input type="checkbox"/> choreographed sequence is demonstrated <input type="checkbox"/> use of technical vocabulary	Includes 3 of the following: <input type="checkbox"/> graphics and color are used to enhance presentation <input type="checkbox"/> all group members to contribute both the creation and delivery <input type="checkbox"/> choreographed sequence is demonstrated <input type="checkbox"/> use of technical vocabulary	Includes the following: <input type="checkbox"/> graphics and color are used to enhance presentation <input type="checkbox"/> all group members to contribute both the creation and delivery <input type="checkbox"/> choreographed sequence is demonstrated <input type="checkbox"/> use of technical vocabulary	all of <i>Practitioner</i> plus – simulated sequence is presented using multimedia resources