

School Beats STEAM Project Plan for Grades 6-8

Instructions: School Beats STEAM has taken the initiative to outline its Project Based Learning Components below. This is a PBL project planning sample designed to assist in your application process by providing information required for integrating School Beats into your Grant Program.

Project

PBL Component	Description
Project Title	School Beats STEAM
Project Idea (Discuss the reason behind choosing this issue/question as a beginning point for inquiry.)	To promote Science, Technology, Engineering, Arts, and Math through entrepreneurial curriculum influenced by popular culture and designed to address the needs of 21 st century learners.
Driving Question (Open ended; employs higher order thinking skills, evokes curiosity)	How do the STEAM disciplines affect popular culture?
Grant Objectives Addressed	<i>(THIS INFORMATION IS PROVIDED BY YOU. IT WILL COME DIRECTLY OUT OF YOUR GRANT)</i>
Academic Subjects	<p>Core Academic Subjects: Reading, Writing, Mathematics, and Science</p> <p>Program Sciences: Linguistics, Acoustics, Cymatics, Kinesiology, and Physics</p> <p>Auxiliary Academic Subjects: Technology, Engineering, and Performing Arts</p>
Standards to Address (Write out the Domain and Cluster, then include the numbers of individual standards that will be explicitly taught/reinforced by the project.)	<p>Every lesson in School Beats STEAM is aligned to Common Core Standards as well as Next Generation Sunshine State Standards. There are a total of 87 pages of Common Core alignments for 6-8 alone. Provided below is a listing of a few standards addressed in a single lesson:</p> <p>Reading: Informational Text CCSS.ELA-Literacy.RI.6.4, CCSS.ELA-Literacy.RI.6.5, CCSS.ELA-Literacy.RI.6.7, CCSS.ELA-Literacy.SL.6.1, CCSS.ELA-Literacy.SL.6.2, CCSS.ELA-Literacy.SL.6.4, CCSS.ELA-Literacy.SL.6.5, CCSS.ELA-Literacy.SL.6.6, CCSS.ELA-Literacy.RI.7.4, CCSS.ELA-Literacy.RI.7.5, CCSS.ELA-Literacy.RI.7.6, CCSS.ELA-Literacy.RI.7.7, CCSS.ELA-Literacy.RI.8.4, CCSS.ELA-Literacy.RI.8.5, CCSS.ELA-Literacy.RI.8.7</p> <p>English Language Arts: Speaking & Listening CCSS.ELA-Literacy.SL.7.1, CCSS.ELA-Literacy.SL.7.2, CCSS.ELA-Literacy.SL.7.4, CCSS.ELA-Literacy.SL.7.5, CCSS.ELA-Literacy.SL.7.6, CCSS.ELA-Literacy.SL.8.1,</p>

CCSS.ELA-Literacy.SL.8.1a, CCSS.ELA-Literacy.SL.8.1b,
CCSS.ELA-Literacy.SL.8.1c, CCSS.ELA-Literacy.SL.8.1d,
CCSS.ELA-Literacy.SL.8.2, CCSS.ELA-Literacy.SL.8.4,
CCSS.ELA-Literacy.SL.8.5, CCSS.ELA-Literacy.SL.8.6

English Language Arts: Language

CCSS.ELA-Literacy.L.6.1, CCSS.ELA-Literacy.L.6.3,
CCSS.ELA-Literacy.L.6.4, CCSS.ELA-Literacy.L.6.5,
CCSS.ELA-Literacy.L.6.6, CCSS.ELA-Literacy.L.7.1,
CCSS.ELA-Literacy.L.7.3, CCSS.ELA-Literacy.L.7.4,
CCSS.ELA-Literacy.L.7.5, CCSS.ELA-Literacy.L.7.6

Mathematics: Ratios & Proportional Relationships

CCSS.Math.Content.6.RP.A.3, CCSS.Math.Content.6.RP.A.3a,
CCSS.Math.Content.6.RP.A.3d, CCSS.Math.Content.7.RP.A.3

Mathematics: The Number System

CCSS.Math.Content.6.NS.A.1, GCCSS.Math.Content.6.NS.B.2,
CCSS.Math.Content.6.NS.B.3, CCSS.Math.Content.6.NS.C.6,
CCSS.Math.Content.6.NS.C.6b, CCSS.Math.Content.6.NS.C.8,
CCSS.Math.Content.7.NS.A.1, CCSS.Math.Content.7.NS.A.1c,
CCSS.Math.Content.7.NS.A.1d, CCSS.Math.Content.7.NS.A.2,
CCSS.Math.Content.7.NS.A.2b,
CCSS.Math.Content.7.NS.A.2c, CCSS.Math.Content.7.NS.A.3

Science and Technical Subjects: Key Ideas and Details

CCSS.ELA-Literacy.RST.6.2, CCSS.ELA-Literacy.RST.6.3,
CCSS.ELA-Literacy.RST.7.2, CCSS.ELA-Literacy.RST.7.3,
CCSS.ELA-Literacy.RST.8.2, CCSS.ELA-Literacy.RST.8.3

Science and Technical Subjects: Craft and Structure

CCSS.ELA-Literacy.RST.6.4, CCSS.ELA-Literacy.RST.7.4,
CCSS.ELA-Literacy.RST.8.4

Science and Technical Subjects: Integration of Knowledge and Ideas

CCSS.ELA-Literacy.RST.6.7, CCSS.ELA-Literacy.RST.7.7,
CCSS.ELA-Literacy.RST.8.7, CCSS.ELA-Literacy.RST.6.9,
CCSS.ELA-Literacy.RST.7.9, CCSS.ELA-Literacy.RST.8.9

Science and Technical Subjects: Range of Reading and Level of Text Complexity

CCSS.ELA-Literacy.RST.6.10, CCSS.ELA-Literacy.RST.7.10,
CCSS.ELA-Literacy.RST.8.10

(NGSSS) Music

MU.68.C.1.3, MU.68.F.1.1, MU.68.F.1.2, MU.68.F.3.3,
MU.68.S.1.7, MU.68.S.1.5, MU.68.S.1.3, MU.68.S.1.2,
MU.68.O.3.1, MU.68.O.2.1

<p>Personal Enrichment Categories</p>	<p>Students will learn to own and operate a record label/entertainment company while being enriched in areas consistent with the 21st CCLC federal legislation, including:</p> <ol style="list-style-type: none"> 1. Arts and music education 2. Entrepreneurial education (including fiscal responsibility) 3. Technology education 4. Character education (with topics including cultural diversity, community connection, improving honesty and confidence, reducing peer pressure, and anti-bullying) 5. Health and wellness programming 6. Programming for students with limited English proficiency 7. Opportunities to promote parental involvement
<p>Skills to be taught (Collaboration, Communication, Critical Thinking/Problem Solving)</p> <p>Identify and describe how these will be utilized.</p>	<ul style="list-style-type: none"> • Collaboration is a major element to the curriculum in that many of the projects require students to work within a group to achieve a common goal. • Communication is imperative to the collaborative process and because the curriculum is artistically based, students will have multiple methods of expressing themselves with and to others. • Thinking/Problem Solving is used in the analytical portion of the curriculum which requires students to assess profit and loss at their company as well as develop personalized marketing strategies for each School Beats artist. • Creativity plays a pinnacle role in the curriculum. Students will use their creativity to develop, perform, and interpret artistic works.
<p>Expected Duration of Project</p>	<p>20 weeks</p>
<p>Students Involved (#, grades)</p>	<p>20 students per group in grade levels 6-8</p>
<p>Staff Involved (#, specialties)</p>	<p>1 Enrichment Instructor per 20 students. No special certifications required.</p>
<p>Frequency of Project (# of days/week # of hours/day)</p>	<p>The curriculum is designed to be facilitated after school once a week over an 18 week semester period with two additional lessons to spare. Each lesson spans 45 minutes to an hour.</p>
<p>Entry Event (Designed to engage students' attention)</p>	<p>School Beats uses popular culture to create common ground in the academic environment. Students will have access to industry standard audio engineering equipment and software with which to produce, develop, and record their own original music. The School Beats Studio Work Station includes ProTools equipped</p>

with interface, MIDI Controller, Microphone, Studio Monitors, Headphones, and much more.

Week by Week Timeline of Key Tasks and Activities, as well as Enrichment Topics/Lessons
(Add as many weeks as necessary through the duration of the project.)

Week 1: Musicology

- Students will learn the function of a music producer.
- Students will learn the functions of production equipment.
- Students will learn the definition of Metronome.
- Students will learn the definition of Loop.
- Students will learn the definition of Quantize.
- Students will learn the definition of Audio Track.
- Students will learn the definition of Tone.
- Students will learn the definition of Note.
- Students will learn the function of a Sound Library.
- Students will create their own musical production.

Week 2: The Evolution of Production

- Students will learn the definition of hardware.
- Students will learn the definition of software.
- Students will learn the definition of scale.
- Students will learn the definition of chord.
- Students will learn the definition of octave.
- Students will learn the definition of modulation.
- Students will learn how technological advances have affected music production.
- Students will work with production equipment and software to complete an assigned task.
- Students will learn how specific sounds relate to the texture and volume of a beat.
- Students will work within a scale and specific time count.
- Students will compose 8 bars of music.

Week 3: Bring the Bass

- Students will learn definition of Cymatics.
- Students will learn definition of bass.
- Students will learn definition of decibel.
- Students will learn the function of sonic vibrations.
- Students will learn the function of studio monitors.
- Students will learn to manipulate sonic waves.
- Students will further familiarize themselves with production equipment and software.
- Students will compose 8 bars of music.

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- Students will continue building a collaborative musical production.

Week 4: No Strings Attached

- Students will learn definition of staccato.
- Students will learn definition of legato.
- Students will learn definition of transpose.
- Student will learn definition of pitch bend.
- Students will compose 8 bars of music.
- Students will continue building a collaborative musical production.

Week 5: Synthesize Me!

- Students will learn definition of synthesizer.
- Students will learn definition of arpeggio.
- Students will learn definition of sampling.
- Students will learn about Robert Moog and the invention of the synthesizer.
- Students will learn about music sampling and its affect on the music business as a whole.
- Students will compose 8 bars of music.
- Students will continue building a collaborative musical production.

Week 6: The Art of 16 Bars

- Students will learn the definition of meter.
- Students will learn the definition of foot.
- Students will learn to identify iambic.
- Students will learn the definition of trochaic.
- Students will learn the definition of pentameter.
- Students will learn to identify iambic tetrameter.
- Students will learn to identify iambic trimeter.
- Students will learn to identify iambic hexameter.
- Students will learn the anatomy of a song.
- Students will learn to count syllabic rhythms.
- Students will participate in a cooperative executive decision.

Week 7: Hook Line

- Students will learn the definition of exploitation.
 - Students will learn the definition of verse.
 - Students will learn the definition of chorus.
 - Students will learn the definition of bridge.
 - Students will learn to cope with life events through artistic expression.
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- Students will learn to compose lyrics within a musical time count.
 - Students will create an original 8 bar musical composition.

Week 8: Your Piece of the Pie

- Students will learn the definition of lyricist.
- Students will learn the definition of metaphor.
- Students will learn the definition of double entendre.
- Students will learn the definition of simile.
- Students will learn to cope with life events through artistic expression.
- Students will learn to compose lyrics within a musical time count.
- Students will create an original 8 bar musical composition.

Week 9: Your Body Is An Instrument

- Students will learn the definition of fatigue.
- Students will learn the definition of dehydration.
- Students will learn how lifestyle affects health.
- Students will learn the function of a personal trainer/nutritionist.

Week 10: Place 2 Place

- Students will learn the purpose of tour.
- Students will learn the definition of choreographer.
- Students will learn the job function of a choreographer.
- Students will create original performance choreography.
- Students will enhance understanding of the relationship between a tour manager and an artist.

Week 11: Recording in Progress

- Students will learn the definition of interface.
 - Students will learn the function of an audio engineer.
 - Students will learn to assemble audio engineering equipment.
 - Students will learn the variations of microphones.
 - Students will learn the function of studio headphones.
 - Students will be able to identify microphone cables.
 - Students will be able to identify microphone stand.
 - Students will be able to identify a pop filter.
 - Students will be able to identify a shock mount.
 - Students will be able to identify a jack splitter.
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Week 12: Microphone Check

- Students will learn the definition of Gain.
- Students will learn the definition of Pad.
- Students will learn the definition of Peak.
- Students will learn the definition of Session.
- Students will learn the definition of Mono.
- Students will learn the definition of Stereo.
- Students will learn the functions of the studio interface.
- Students will learn the function of Phantom Power 48-Voltage.
- Students will learn the enable record function.
- Students will learn to manipulate microphone and headphone volumes.

Week 13: In Session

- Students will learn the definition of Lead vocals.
- Students will learn the definition of Background vocals.
- Students will learn the definition of Stack.
- Students will learn the definition of Punch.
- Students will learn the definition of Latency.
- Students will learn the definition of Adlibs.
- Students will learn to start a studio session.
- Students will learn to save data from a studio session.
- Students will learn to end a studio session.
- Students will learn the recording functions within the ProTools software.

Week 14: Mix It Up

- Students will learn how to duplicate a segment of audio recording.
- Students will learn the definition of Trim.
- Students will learn the definition of Consolidate.
- Students will learn the definition of Panning.
- Students will learn the definition of Measure.
- Students will learn the definition of Wave.

Week 15: Special Blend

- Students will learn the function of digital a plug-In.
 - Students will learn the function of a digital equalizer.
 - Students will learn to manipulate frequency.
 - Students will learn the definition of Hertz.
 - Students will learn the definition of Compression.
 - Students will learn the function of reverb.
 - Students will learn how to prevent digital delay.
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- Students will learn the definition of Master Track.
 - Students will learn the definition of Bounce.
 - Students will learn the definition of Two Track.

Week 16: Someone Has To Be In Charge

- Students will learn the definition of Repertoire.
- Students will learn how to compose a bio.
- Students will learn the job function of an A & R at a record label.
- Students will learn what is included in the contents of a press kit.
- Students will create their own press kits.

Week 17: Larry The Lawyer

- Students will learn the role of a marketing department at a record label.
- Students will learn the definition of publicity.
- Students will learn the definition of demographic.
- Students will deliver a marketing presentation.
- Students will select the student candidates for a School Beats record deal.

Week 18: Count My Stacks

- Students will learn the obligations associated with running an entertainment company.
- Students will learn the job function of the finance department at a record label.
- Students will create a budget.
- Students will learn the job function of the legal department at a record label.
- Students will create a recording contract.
- Students will learn the job function of the marketing department at a record label.
- Students will create a marketing campaign.

Week 19: Supply In Demand

- Students will learn the obligations associated with running an entertainment company.
 - Students will learn the job function of the finance department at a record label.
 - Students will create a budget.
 - Students will learn the job function of the legal department at a record label.
 - Students will create a recording contract.
 - Students will learn the job function of the marketing
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	<p>department at a record label.</p> <ul style="list-style-type: none"> • Students will create a marketing campaign. <p>Week 20: Let's Make A Deal</p> <ul style="list-style-type: none"> • Students will present their artist showcase. • Students will present their completed recording contract template and review the terms and conditions that were successfully negotiated. • Students will present the marketing campaign they developed and address strategic planning. • Students will present the overview of the corporate budget they developed for the record label and address risk and potential as it applies to each artist.
<p>Presentation Methods and Audience</p>	<p>School Beats is a program that seeks to present a positive image of success, promote shared values, and provide common ground between parents, teachers, and students. Principles and skills mastered in the academic environment are purposed to be applied socially amongst family, friends, and community.</p>
<p>Expected End Result/Product</p>	<p>The ultimate outcome of the School Beats Curriculum is each student group effectively facilitating the business and artistic operations of their entertainment company. Students will have complete and developed promotional artwork, interclass distribution, inventory records, original music compositions, contract templates, production budgets, and job titles.</p>
<p>Connection(s) to Regular School Day</p>	<p><i>We encourage you to provide this information as it is specific to your site and how your program will specifically integrate the curriculum with school day activities and instructors.</i></p> <p><u>Helpful premise information would be the fact that School Beats is designed in accordance with federal education benchmarks for the following subjects:</u></p> <p>Science Technology Engineering Artistic Expression Mathematics Language Arts</p>
<p>Adult Family Member Literacy and Involvement</p>	<p>Parents and extended family of students will be the audience, clients, and customers for many of the projects developed by School Beats students. For example; in Unit 4, Lesson 5 students will perform the original songs that were produced, composed, and recorded within the curriculum. Parents, friends, and family are the intended audience, critics, and customers for this activity.</p>
<p>Educational Research that supports the project *</p> <p>Please site the source and provide a</p>	<p>Christenson, P. G., & Roberts, D. F. (1998). It's not only rock & roll: Popular music in the lives of adolescents. Cresskill, NJ: Hampton Press.</p> <p>➤ This is a compilation of research studies assembled by</p>

short description of its relevance.

two professors of communication, one from Lewis & Clark College and one from Stanford University. The research compendium documents the wealth of research on the topic of how music influences the education and lives of American youth. For instance, one student shows that youth spend between four and five hours a day listening to music and watching music videos--at least as much time as they spend watching television and more than they spend with their friends outside of school.

Shams, L., & Seitz, A. R. (2008). Benefits of multisensory learning. *Trends in Cognitive Sciences*, 12 (11), 411-417.

- The professors from the University of California, Los Angeles Department of Psychology, present findings as to how multisensory learning environments affect 21st century learners. The authors conclude that “multisensory-training protocols can better approximate natural settings and are more effective for learning.” (<http://shamslab.psych.ucla.edu/publications/tics2008-reprint.pdf>)

Passman, D. S. (2009). All you need to know about the music business. RosettaBooks, LLC.

- The research presented in this book covers the entrepreneurial opportunities and job functions within the artistic community. Such research and understanding is integral to the overall success of the School Beats curriculum and associated learning activities.