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EARTS 6106

## Module 7 - Creative Content Rationale

### **Part A: Academic Content**

For this assignment, I have based my creative and academic content around the Joy2Learn module entitled *At the Piano*, featuring Alan Gampel. I intend to design a Primary 3 (grade 3) unit on instrumental music, using the Joy2Learn videos about the piano as an introduction. The overarching goal of the unit is for students to engage in the creative process through exploration, design and construction. Students will create their own instrument (string, percussion or wind), and then use it to improvise or perform original compositions.

Although this is primarily a music unit, I will also be integrating important science and visual arts standards. Before designing their instruments, students will have to explore the concept of sound, which is a key component in the science unit on energy. Students will need to observe and investigate different sounds using a variety of sources (ex. rubber bands, glass bottles, metal pans, plastic containers, etc.) They will study the creation of sound waves (ie. high vs low pitch, and loud vs soft). In the Joy2Learn video, Alan Gampel demonstrates that sounds are made when objects vibrate, like the strings on a piano or guitar. He also explains that soundboards help the sound to resonate, making it last longer. Once students have a general understanding of sound energy, they will begin to design an original musical instrument using scientific knowledge to explain their creative process. Students are encouraged to explore methods of changing pitch and loudness in their designs, much like the pedals on the piano, which serve to either extend or prolong vibration, or soften the sound.

Once students have drafted a scientific design, they will then have to construct it using visual arts materials, which is part of the craft unit. Students will have to think of an innovative design for their final product. They will also have to take into consideration which materials will resonate best for their instrument (ie. cardboard, paper mache, plastic, wood, reused or recycled products, etc.)

Once the instruments have been constructed, students will present their product to the class by playing an original melody or improvising based on a mood or emotion.

Each component of the creative process will be assessed separately. For example, the science teacher will be able to deliver lessons on sound energy during science class, and will evaluate the instrument design as a summative assessment using a rubric or checklist. Likewise, the visual arts teacher will deliver instruction on crafting, and will evaluate the final product using a different set of criteria. Finally, the music teacher will assess the presentation/demonstration of the instrument as a summative performance. Most importantly, each teacher will conduct formative assessments and observations over the course of the unit, and will provide ongoing feedback to support student progress and development. Teachers can also provide opportunities for self-evaluations and peer assessments throughout the creative process.

### **Part B: Curriculum Standards**

In the chart below, I have included citations from the Bermuda Ministry of Education curriculum standards on music, science and visual arts that pertain to the content I will be addressing in my unit.

Subject: Music

Module D: Instrumental

Grade: Primary 3 (grade 3)

Taken from Bermuda Ministry of Education Primary Music Curriculum

<http://www.moed.bm/resources/Curriculum%20Library/Curriculum%20-%20Primary%20School/Music/Primary%20Music.pdf>

**P3 MU-D 3.1** create music through improvisation (p.9); use made instruments and create a melody (p.142)

**P3 MU-D 3.4** design original music compositions; create music around mood or emotion (p.9)

Subject: Science

Module E: Energy in our Lives

Grade: Primary 3 (grade 3)

Taken from Bermuda Ministry of Education Primary Science Curriculum

<http://www.moed.bm/resources/Curriculum%20Library/Curriculum%20-%20Primary%20School/Science/Science%20primary.pdf>

**P3 SC-E 1.2** use scientific knowledge to explain common themes in science and to show the connections between science and other disciplines (p.7); recognize that sound travels through a medium; identify that sounds are made when objects vibrate; identify a variety of sources of sounds (p.126)

**P3 SC-E 2.2** design and conduct a scientific inquiry to collect valid and reliable data to test a law, theory or hypothesis (p.8); explore methods of changing pitch and loudness of sound (p.126)

Subject: Visual Arts

Module D: Craft

Grade: Primary 3 (grade 3)

Taken from Bermuda Ministry of Education Primary Visual Arts Curriculum

<http://www.moed.bm/resources/Curriculum%20Library/Curriculum%20-%20Primary%20School/Visual%20Arts/Visual%20Arts.pdf>

**P3 VR-D 2.5** evaluate connections between visual arts and other disciplines (p.8)

**P3 VR-D 3.2** create original art from ideas and contemporary social themes (p.9)

## Part C: Rationale

I do not believe in wasting student's time or energy. Everything they do throughout the school day should be meaningful and ought to substantially enrich their growth and development. When I designed this unit, I thought about making efficient use of student energy. By integrating arts (music and visual arts) and science content into one final product, students will essentially accomplish three culminating tasks in one. Although each teacher will be assessing different outcomes, the learning process in one subject will reinforce the concept in another. Students will therefore be transferring knowledge and developing competencies through the creative process. In their article, Burton et al. refer to these competencies as 'habits of mind'. "This term captures more fully the flexible interweaving of intuitive, practical, and logical modes of thought that characterizes arts learning" (Burton et al., 2000). In order to design, construct and play an original instrument, students must exercise their creative thinking skills and apply them to a scientific problem, thereby making meaningful cross-curricular connections. Competencies and not content is the key (Burton et al., 2000).

This unit is intended for primary 3 students, between the ages of six and seven years old, who are full of energy and imagination. I want to provide these youngsters with fun, memorable experiences that will allow for creativity while they carry out the challenging task of designing an instrument. I believe that integrating music and visual arts with science curriculum will engage and motivate students to take risks and think creatively. In a study done by two Lesley University professors, they found that "the immersion in the arts and the creative process stimulates improved interest in and engagement with content resulting in enhanced academic outcomes" (Bellisario, 2012). In addition, when delivering lessons in core subjects like math, science and language arts, "teachers report that students find more relevance in material, are more likely to develop a sense of ownership of their learning, and are more deeply invested in their learning when learning in, through and with the arts" (Bellisario, 2012). Therefore, the arts element of this unit not only supplements the science content, but encourages students to think deeply and make profound connections through the creative process.

## References

Bellisario, K. & Donovan, L. (2012). *Voices from the field: Teachers' views on the relevance of arts integration*. Cambridge, MA: Lesley University. Taken from [www.lesley.edu/WorkArea/DownloadAsset.aspx?id=4658](http://www.lesley.edu/WorkArea/DownloadAsset.aspx?id=4658)

Burton, J. M., Horowitz, R. & Abeles, H. (2000). Learning in and through the arts: The question of transfer. *Studies in Art Education*, 41(3): 228-257. Taken from <http://artsedge.kennedy-center.org/champions/pdfs/Learning.pdf>

Gampel, Alan. *At the Piano*. Joy2Learn Foundation. Taken from <http://joy2learn.org/atthepiano/>