

ARTS INTEGRATION LESSON FRAMEWORK (ARTS/OTHER DISCIPLINE)

Title: Finding Patterns in life		Grade: K-2
Subject/Content Area & Art Form: Science, Social Studies, Music		Lesson Duration: Varied
Driving Question: Patterns are everywhere, in the stars, moon and in the music people create. Where can you find patterns that are predictable?		
Connected Objective: At the end of this lesson, students will know how patterns can be identified and predicted, be able to identify patterns in science and music, and create a pattern using rhythm and small percussion.		
Subject/Content Area Objective Students will know: How to identify patterns in natural phenomenon. Students will be able to: Create a diagram or chart which demonstrate the pattern in nature.		Art Form Objective Students will know: How to identify patterns in music by listening for repeated sections and sounds that mark a certain dance move. Students will be able to: Create a musical piece that demonstrates a repeating pattern and use either standard or improvised notation to document their music.
Subject Area Standard(s): Social Studies CC.1.R.I.3, CC.1.R.I.7 Science <u>K-ESS2-1</u> Use and share observations of local weather conditions to describe patterns over time. <u>1-ESS1-1</u> Use observations of the sun, moon, and stars to describe patterns that can be predicted. <u>2-ESS2-2</u> Develop a model to represent the shapes and kinds of land and bodies of water in and area.	Art Elements: MU:Cr2.1.K b.With guidance, organize personal musical ideas using iconic notation and/or recording technology. MU:Cr2.1.1 b.With limited guidance, use iconic or standard notation and/or recording technology to document and organize personal musical ideas. MU:Cr1.1.2 b.Generate musical patterns and ideas within the context of a given tonality(such as major and minor) and meter (such as duple and triple).	21st Century Skills: (Choose skills that apply to lesson) <input type="checkbox"/> Creativity & Innovation <input type="checkbox"/> Critical Thinking & Problem Solving <input type="checkbox"/> Collaboration & Teamwork <input type="checkbox"/> Communication <input type="checkbox"/> Cross-cultural Understanding
Formative Assessment(s): Create a chart, diagram or model that demonstrates patterns in nature.		Summative Assessment(s): Create a musical piece that follows natural patterns. Notate the music using either traditional notation or the natural model, chart or diagram.

Lesson Materials/ Preparation:

- Science materials
- Internet connection to watch Melodic Planet video
- Paper, poster or other writing surface for diagram, chart or model, music notation
- Musical instruments- variety of small percussion

Lesson Steps/Strategies for Learning

● Introduce:

When teaching the historical concept elements of culture, read sections of *What the World Eats* by Faith D'Aluisio. Have students use text features to describe cultural connections between different countries.

Resource:

- *What the World Eats* by Faith D'Aluisio

When teaching the historical concept of cultural diffusion, read *14 Cows for America* by Carmen Agra Deedy. Have students use the illustrations and details in the text to describe the key ideas of Kenyan culture.

Resource:

- *14 Cows for America* by Carmen Agra Deedy

- **Engage: Watch the Melodic Planet video interview with Danny Richardson and Rich Senegal. Focus on the section on music composition from 13:33-18:02 and look for patterns in the regalia decoration (art) from 24:15-27:10. Write a chart or diagram to show the patterns. (See below for an example)**

● Build Knowledge: Science

- **K:** Students will observe and measure weather across days, weeks and months to determine local weather patterns. Such patterns could include the relative number of days of different types of weather conditions in a month; the change in the relative temperature over the course of a day; and that certain months have more days of some kinds of weather than do other months.
- **1st Grade:** Identify patterns including:
 - -stars are not seen during the day, but are seen at night
 - -the moon can be seen during the day and night, but the sun can only be seen during the day
 - -the sun is at different positions in the sky at different times of the day, rising in one part of the sky and setting in another part of the sky
 - -the moon is at different positions in the sky at different times of night, rising in one part of the sky and setting in another part of the sky
- **2nd Grade:** develop a model that identifies the relevant components, including components that represent both land and bodies of water
 - identify and describe relationships between components using a representation of the specific shapes and kinds of land and specific bodies of water within a given area
 - use given model to describe the patterns of water and land in a given area.

- **Build Knowledge: Music**
- Create a picture of one of the songs in the video. The picture or chart should include that the song starts at a high pitch and then gets progressively lower. The picture should also include a marker for the honor beats- when one person hits the drum louder and off beat from the other drummers.
- Look up “powwow songs” on youtube and choose a video to watch. Did the song follow the same or a similar pattern? If not, make a new picture or chart to show the flow of this new song.

- **Deepen/Assess Understanding: Using the chart or diagram which shows a pattern in nature, assign a sound to each marker. Using musical instruments, play the sounds as a musical piece, repeating the music several times to demonstrate that it is a repeated pattern.**

- **Apply: Record the piece and share with the class.**

- **Reflect: What patterns were common? Unique? Which sounded best as a musical piece?**

EXAMPLES:

Kindergarten: Have students draw a picture of each season, winter, spring, summer, fall. Assign an instrument to each season with a simple pattern that is the same on each instrument. Play through the pattern several times to demonstrate how the seasons rotate through the year. You can listen to Antonio Vivaldi’s composition “The Four Seasons” as an extension.

1st Grade: Using a model of the earth, moon and sun, assign a sound to each. Small groups should create a repeated pattern on each instrument assigned to each of the celestial objects. Patterns for each should sound a little different (or very different). Each instrument should play their pattern according to the rise and fall of the assigned planet/star. Dynamics can also be used to show planets/star moving closer and further. Play through the rise and set several times to demonstrate a pattern. You can also play Gustav Holst’s composition, “The Planets” as an extension.

2nd grade: Have small groups of students draw a map of their neighborhood. (See <http://www.nea.org/tools/teaching-with-maps.html> for ideas). They should then draw a route they want to take, making at least 3 stops. Students assign a sound or instrument to each stop, and one instrument to play a walking beat. Students play their composition by having one student play the walking beat throughout while other students add each instrument as the walker comes to them. Students decide the tempo, whether instruments play one at a time or together, and what their walking beat sounds like. They should play through their route at least twice to demonstrate it as a repeating pattern.