This is an additional unit for DreamBIG Teaching and Learning Resource 2021.
You can access a full copy of this resource at: http://tiny.cc/DreamBIGFest

MUSIC R–6: SPACE-IOSITY – THE CURIOUS NIGHT SKY!

Space-iosity – The Curious Night Sky!
This unit has an accompanying Drama unit of the same name in the DreamBIG Teaching and Learning Resource 2021.
You can access the drama unit and a full copy of the resource at: http://tiny.cc/DreamBIGFest

AUSTRALIAN CURRICULUM: THE ARTS

ACHIEVEMENT STANDARDS – Learning Area: The Arts

Years 5–6 Music *...explain how ideas are communicated in artworks (music) they make and to which they respond.*

... describe characteristics of artworks from different social, historical and cultural contexts that influence their art making.

... structure elements and processes of arts subjects to make artworks that communicate meaning. ... work collaboratively to share artworks for audiences, demonstrating skills and techniques.‡

IDEAS FOR ASSESSMENT

Adapt and differentiate as appropriate to the year level and learners' diversity.

- Collaborate effectively to create an ostinato soundscape, inspired by images and demonstrate music skills and techniques that communicate meaning about the contexts that influenced the piece.
- Explain and describe, either in writing or orally, how ideas have been used to communicate meaning. Use music specific language.

EXAMPLES OF KNOWLEDGE AND SKILLS

Students will focus on the use and awareness of the elements of music, building on the knowledge and skills developed previously.

Years 5–6

Elements of music

Rhythm

- simple metres and time signatures $\frac{2}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ bars and barlines
- semibreve 𝅝 minim 𝅗𝅥 crotchet ♩ crotchet rest 𝄽 quaver ♪ , 𝅘𝅥𝅯𝅘𝅥𝅯 and associated rests

Pitch

- Pentatonic
- Recognising pitch sequences,

Dynamics and expression

- Smoothly (legato), detached (staccato), accent

Form

- Ostinato

Timbre

- Acoustic, electronic sounds; voice and instrument types

Texture

- Contrast within layers of sound

Skills (including aural skills)

- Identifying and notating metre and rhythmic groupings
- Singing and playing independent parts against contrasting parts
- Recognising instrumental and vocal timbres and digitally generated sounds
- Listening to others controlling volume and tone in ensemble activities.‡

RESPONDING AND VIEWPOINTS

Facilitate opportunities for class reflection, feedback and discussion on a range of questions. Adapt these suggestions as appropriate for your learners:

- What did you notice about others' performances that you would like to include in your own?
- What did this music performance make you think about and why?
- What sounds or musical phrases did you notice?
- What instruments were used in the music and how was their sound made?
- *Societies and cultures:* What does our music tell us about the cultural context in which it was made? Would people have been able to create music like this 100 years ago or more? How do you know?
- *Forms and elements:* How is the music work structured/organised or arranged? How did the music change? How many different sections are there in the music?
- *Evaluations:* How did the music make you feel and why?
- *Meanings and interpretations:* Does the music convey meaning? How did it make you feel? How does the music communicate meaning? How did we indicate tempo and dynamic changes in our music? How did we show emotion/mood or atmosphere?‡

MUSIC R–6: SPACE-IOSITY – THE CURIOUS NIGHT SKY!

INQUIRY QUESTION

Using an integrated arts approach, how can I support students to:

- understand how a musician may generate creative ideas for a composition?
- **be curious** about space, planets (ie Mars), space travel, robotics, using the elements of music?
- respond to their curiosity by interpreting images, sounds and speech using music elements?

LEARNING EXPERIENCES THAT ENGAGE, CHALLENGE AND SUPPORT

Space-iosity – The Curious Night Sky!

This unit would complement studying the solar system in class, enabling further research integrated with other Learning areas.

TEACHER (prepares in advance)

- See Resources list, for images, **audio** and **video** clips, musical instruments and computer work-stations/music software required.
- Download examples of images and sample answers for lesson 1 at: http://tiny.cc/DreamBIGFest

LESSON 1 – EXPLORE IMAGES OF MARS

Image 1 – Vocalise and move

TEACHER shows students one of the images from the NASA website Image Galleries (prepared earlier).

STUDENTS in pairs, explore and respond to the following questions:

1. What do you notice about the image?
2. What does it make you curious about?
3. In what ways could you match these ideas with movement?
4. What sounds could you **vocalise** to represent this image?

NB Discussion may be supported by the *See, Think, Wonder* and/or the *Think, Pair, Share* 'Thinking Routines',[1] Project Zero, Harvard University.

TEACHER:

5. Facilitate class sharing of responses and invite students to demonstrate with vocalisations and actions.
6. Allow all students to do this simultaneously, before dividing into two groups.
7. Ask one group to **observe** the other group perform/explore; then swap roles.
8. Elicit from students whether they saw or heard some new **interpretations** of the image; discuss possible reasons for the **different perspectives**.

Image 2 – Transfer to props

Show another image from the NASA image gallery.

- Repeat the 4 questions and the sharing of actions and vocalisations. This time, students use a variety of props (eg scarves, balls and hoops) to extend and transfer their ideas.

Image 3 – Transfer to percussion

Show another image from the NASA image gallery.

Repeat the 4 questions and the sharing of actions and vocalisations.

- Invite students to **transfer** their movement and vocal ideas about the image to a **non-melodic** (**non-tuned percussion**) instrument, selecting an instrument they think can best match their sound. Provide students time to explore different options.
- Once settled, again invite students to share these with the class.
- Reflect and respond to them.

LESSON 2 – EXPLORE SPACE SOUNDS

Sounds – Listen and discern

TEACHER:

Play through some examples of the sound **recordings** from the NASA website (prepared earlier). Encourage students to highlight the two different types of sounds: **Speech** Clips, where there is talking, and **Sound** Bytes, where there is no talking but audio capturing a space-related sound.

As they listen to each example, encourage discussion:

1. What can you **hear**?
2. What does it make you think curiously (wonder) about?
3. What do you think is making those sounds?
4. What do you **imagine** might be happening?

Sounds – Movement

Once students can **identify** the difference between the sound bytes and the speech clips, select and re-play one of the sounds, this time adding the following question:

5. How could you **move** to this sound?
   Invite students to **dramatise**, exploring unique and curious ways that they might represent the sounds through movement. Do this as an entire class.

Sounds – Vocalise

Re-play the sound and ask students to think about ways in which they could **imitate** and explore what they hear vocally:

6. How can you use your **voice** to **represent** the sound?
   Provide students with space and time to **explore**, then share by dividing the class into two groups and viewing each group's ideas.

Encourage discussion and feedback, adapting the **reflection** questions from the previous lesson?

Sounds – Transfer to percussion

Re-play the sound. The task now is for students to:

7. **Transfer** the vocalisations/chant/idea to a non-melodic instrument, selecting an instrument that they think can best match their sound.

Provide students time to explore different options. Once settled, students **share** these with the class.

NB Discussion may be supported by the Listening: *Ten times Two*[2], Artful Thinking, Project Zero, Harvard University.

1. http://pz.harvard.edu/resources/see-think-wonder
   https://pz.harvard.edu/resources/think-pair-share
2. https://pz.harvard.edu/resources/listening-ten-times-two

TEACHER CUES
Using the sounds prepared earlier from the Resources list, here are some suggested **examples** with possible responses:

Speech clip
JFK: We Choose the Moon with Apollo 11 Launch

- *Curious statements:* (Deliberately left blank for you)
- *Movement,* eg crouching down and then bolting up high (small, medium, big to lift off!)
- *How to represent it through other sounds/ non-melodic percussion,* eg suspenseful build-up to the voice counting down '3.2.1', students could use a tambour (or similar) to recreate the feeling of the countdown 3.2.1 with a 'drum' roll that starts softly, and gradually gets louder ...

Sound byte
Chorus Radio Waves within Earth's Atmosphere

- *Curious statement:* (Deliberately left blank for you)
- *Movement:* Bright bursts of high, fast movement
- *How to represent it through other sounds/ non-melodic percussion,* eg: Lots of high-pitched sharp sounds. This could then be transferred to a short, fast burst of taps on both the sides of a woodblock.

LESSON 3 – SPEECH PIECE (for Years 4–6)

TEACHER: Show students one of the following information clips about Mars, or similar:

- *Welcome to Mars – Video for Kids Space Camp* (prepared earlier)
- *Should We Go To Mars?*

Ask students to *Think, Pair and Share*[3] interesting facts from the clip about Mars, as well as any points that they became curious about.

Alternatively, support the discussion with the *Think, Puzzle, Explore*[4] Thinking Routine.

THINK, PUZZLE, EXPLORE

- What do you think you know about this topic?
- What questions or puzzles do you have?
- What does the topic make you want to explore?[5]

Facilitate class sharing and discussion, brainstorming and recording the facts and their 'wondering' ideas about Mars.

Select some of the words/ phrases. Encourage students to imagine and experiment with different ways of saying them, eg words such as: *Explore* – use **high** voices; **low** voices; scared-sounding voices; excited voices; alien-sounding voices; **robotic**-sounding voices.

Using a small drum, lead students with a **steady beat**. Encourage them to experiment with the words/ phrases and different ways of chanting them, and to see if they can speak and clap some of the words/ phrases **in time** to the beat.

Here are some possible words/ phrases with their **rhythmic combinations** to try:

1. *4th planet from the sun* (ta, ti-ti, ti-ti, ta)
2. *Long trip – 6 months!* (ta, ta, ti-ti, za)
3. *Really cold* (ti-ti, ta, za, za)

Once students are comfortable with these three examples, put them together by **layering** the three, all being **chanted** simultaneously in order to create a small piece. To do this:

- Divide the class into three groups.
- Assign each group one of the three phrases to chant as you bring them in.
- Begin with Group 1 chanting *4th planet from the sun* and keep **repeating** the **pattern**.
- Bring in Group 2 with *long trip – 6 months!* and keep repeating that pattern.
- Last, add Group 3 with *really cold* and keep repeating, until you stop them.

Add to the complexity by creating simple body **percussive** sounds. Try these actions for their respective rhythm:

Ta = pat on chest
Ti-ti = clap
Za = both hands in the air

Alternatively, students could **invent** their own moves, eg Ta = stomp, Ti-Ti = finger clicks and Za = jazz hands.

Group pieces

In smaller groups of 4–6, students create a version of the speech ostinato piece.

Facilitate the **process** by posing these questions:

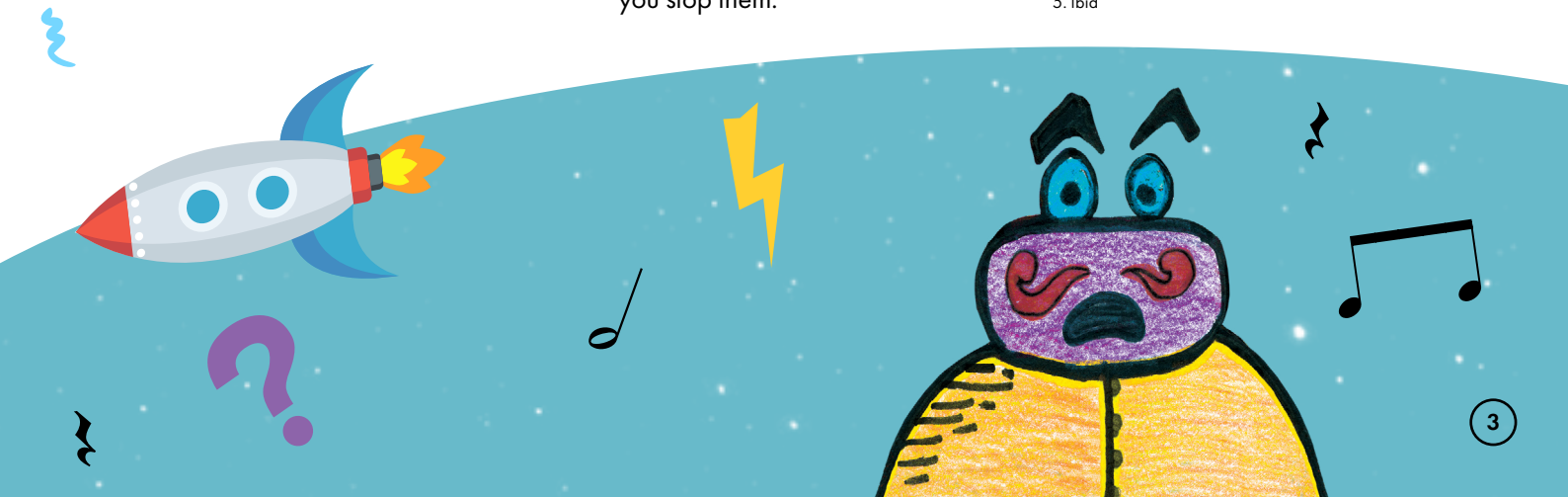
- **How** will your piece **start**? eg Might it start with a 3.2.1 blast off?
- Will you **use** just speech, body percussion, voices or all?
- When will you **enter** with your parts?
- **Who** will play/chant which parts?
- How will it **end**?

Each group can perform their versions for each other.

Follow up with reflective feedback and discussion as appropriate.

Possible extension: Students take the ostinato patterns and transfer these to **melodic** and **non-melodic** (un-tuned percussion) instruments. If transferring to melodic instruments use a **pentatonic scale** (CDE GA). Have some students keep some of the ostinatos on either: just C, or combinations of C and G. Others can be transferred to create short melodies with the combinations of any of all the notes.

3. Op cit., *Think, Pair, Share,* Project Zero
4. The *Think, Puzzle, Explore* thinking routine was developed as part of the Visible Thinking project by Project Zero, Harvard Graduate School of Education https://pz.harvard.edu/resources/think-puzzle-explore
5. Ibid



LESSON 4 – BRING IT ALL TOGETHER

STUDENTS form groups of 4–6 participants.

TEACHER invites each group to create a performance that reflects a particular image from the NASA website gallery.

Adapting for the age and ability level as appropriate, the group compositions must include all or some of the following elements:

R–2 (based on exploring images of mars and sound bytes)

- Reflective of the image provided
- Movement
- Vocalisations or melodic or non-melodic instruments

3–4 (based on exploring images of mars, sound bytes and speech piece)

All the above for R–2, plus:

- Use of an interpretation of a NASA sound bite or speech clip
- The speech piece chants/rhythms (motives) learnt or adaptations of these

5–6 (based on exploring images of Mars, sound bytes and speech piece)

- All the above for R–4, plus:
- Use of an interpretation of a NASA sound bite or speech clip
- The speech piece chants/rhythms (motives) learnt or adaptations of these
- An element of improvisation (according to their age/ability)

Reflection and review

Each group performs their space composition to the class.

Facilitate class feedback and discussion:

- What worked well in each group's performance?
- What did students like?
- What combination of instruments sounded effective?
- What suggestions are there for enhancements and further improvement?

Encourage students to use appropriate music vocabulary as appropriate to their year level when providing feedback.

TfEL TIPS

2.1 Create safe conditions for rigorous learning; Develop democratic relationships.

2.2 Build a community of learners; teach explicit skills needed for teamwork.

2.4 Challenge students to achieve high standards with appropriate support.

3.4 Model and reinforce processes for giving and receiving feedback.

FURTHER IDEAS

- Older students could write their own guided movement stories and then share or perform these for the class.
- Construct graphic scores of their pieces. Other groups could then try and interpret them.
- In groups, use DAW (Digital Audio Workstation) software (eg MixCraft or Garage Band) to import the image they used and record their performance. Follow up by creating a digital sound story of their work, adding (audio) copyright-free clips from the NASA website.
- Record the final performances and use them for peer-review, self-assessment and/or student achievement for assessment.
- For a melodic composition, students use the C pentatonic scale (CDE GA) to write and perform their own melodic compositions to the chant developed.
- Watch the video *Life on Mars–Adventure Story about Discovery–Read aloud* https://www.youtube.com/watch?v=CWbFPt9IsPU and ask students to create their own soundscapes to accompany the story. Older students could create a digital media arts piece, using images from the story and DAW software.
- Using the images from the mars NASA image gallery https://www.nasa.gov/mission_pages/mars/images/index.html students create sound stories to accompany the images, or a series of them.

  Students could also use DAW software to create a digital media arts piece using a variety of sound clips and images to tell a story of their curious journey to Mars.
- Music technology: Record elements of their rhythmic compositions. Use these to create a backing track that is then played to accompany the chant (either live or pre-recorded).

Science / The Arts / English Year 5

Earth and space sciences (ACSSUO78)

Creating literature (ACELT1612, ACELT1798) settings, characterisation

Develop a dance, a drama, puppets, a media art work, or create a text based on personalising each planet. Start with the suggested video clips below. Investigate facts and the 'emotional vibes' attributed to each planet. What is their story? Was Holst really inspired to write a symphony (sophisticated soundscapes?) after learning about astronomy?

Episode 6: The Planets by Gustav Holst, 27 May 2020, Classics Explained.
https://www.youtube.com/watch?v=iqCx07wv1Pk

Aboriginal Astronomy: Behind the News, 24 Oct 2016,
https://www.youtube.com/watch?v=Wv8hKMj6ikA

RESOURCES

Download examples of images and sample answers for lesson 1 at: http://tiny.cc/DreamBIGFest.

At this same link, find resources. See the accompanying unit in DreamBIG Teaching and Learning Resource 2021, Drama R–8, Space-iosity, resources list.

NASA Mars images
https://www.nasa.gov/mission_pages/mars/images/index.html

JFK: We Choose the Moon with Apollo 11 Launch, MP3, Apollo and Mercury, NASA
https://www.nasa.gov/mp3/590325main_ringtone_kennedy_WeChoose.mp3

Chorus Radio Waves within Earth's Atmosphere, MP3, Beeps and Bytes, NASA
https://www.nasa.gov/mp3/693857main_emfisis_chorus_1.mp3

NASA audio from historic spaceflights
https://www.nasa.gov/connect/sounds/index.html

Welcome to Mars – Video for Kids Space Camp, 16 Jul 2013, Andrew Rader
https://www.youtube.com/watch?v=9I7HFpkYB9M

Should We Go To Mars? 13 Feb 2018, SciShow Kids
https://youtu.be/vphJ6WyuxGk

NASA media usage guidelines
https://www.nasa.gov/multimedia/guidelines/index.html

Children's books

Story Time from Space Videos, Story Time from Space
https://storytimefromspace.com/library/

- Wide variety of non-melodic and melodic instruments
- Devices to play sound files, project images
- Pens, paper, pencils
- Scarves, hoops
- Wide selection of balls of varying sizes

Be Curious AT DreamBIG CHILDREN'S FESTIVAL

I Wanna Be A Musician!: Adam Page

Adelaide Guitar Festival: On The Road

Grandmothers Songs: Vonda Last

Neon Dreams – A Song Writing Party!: Northern Sound System

Project Ludwig: Australian String Quartet and Sandpit

We Come from Far Far Away: NIE Theatre

WHOOSH!: Sensorium Theatre

Wolfgang's Magical Musical Circus: Circa Contemporary Circus

Zooom!: Patch Theatre Company

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