

START Here!

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#AlInEducation



WEEK Three The Blob Opera

Week 3: Arts and Culture with Google Blob Opera

Welcome to Week 3! After the energy of drawing and training models in the past two weeks, this week takes a more relaxing, musical turn. With Google Blob Opera, students get to explore music, voice and creativity through an AI experiment that brings opera singing blobs to life. This week is all about play, improvisation and appreciating global music traditions, while still reflecting on how AI and humans can collaborate in fun and unexpected ways.

Theme: Exploring Voice, Music and Human–AI Collaboration

Anchor Tool: [Google Blob Opera](#)

Use iPads if possible a computer or laptop will also work.

Core Concept: AI can be trained on human voices to generate playful and creative music. Students learn about pitch, harmony, cultural traditions, and musical storytelling through interactive experimentation.

Timings: 45-60mins per day

1. AI models vocal ranges, not real singing

Blob Opera doesn't actually "sing" like humans do. It was trained on recordings of real opera singers and uses AI to predict how voices might sound at different pitches and vowel sounds.

2. Harmony comes from combining voices

By moving more than one blob, you hear how different notes interact. The AI blends them smoothly, letting you explore the basics of harmony and composition.

3. AI can represent global music traditions

Blob Opera includes songs from around the world. These are simplified versions, but they help us hear how AI can share and celebrate different traditions.

4. Improvisation shows AI as a creative partner

When you play freely with the blobs, the AI responds instantly. It doesn't know "happy" or "sad," but you can use pitch, pace and harmony to tell musical stories and express feelings.

5. Performance helps us reflect on Human–AI collaboration

Recording your Blob Opera gives you a chance to share your creation. Reflection shows how AI supported your creativity, while the ideas, choices, and meaning still come from you.

Day 1 – Introduction to Blob Opera & Vocal Ranges

Goal: *Introduce students to the Blob Opera Machine Learning Opera Song experiment, explore vocal ranges, and begin discussions about how AI can model human singing voices.*

1. CLASS DISCUSSION: Ask: What do you know about opera? Have you ever heard a soprano or bass voice? What might happen if we asked AI to sing for us?

2. WATCH [Making BLOB OPERA with David Li](#) (2.30min)

Highlight: The AI doesn't "sing" like humans. It was trained on four professional opera singers and predicts how those voices might sound at different pitches and with vowel sounds.

3. DEMONSTRATE (10 minutes)

[Project Blob Opera](#) on the smart board.

Drag blobs up and down to change pitch.

Move blobs left and right to shift vowel sounds.

Combine blobs to hear harmonies. Briefly explain the four voices:

Soprano (high female voice)

Mezzo-soprano (medium female voice)

Tenor (high male voice), **Bass** (low male voice)



4. DISCUSSION

What differences do you hear between the four blobs? Does the AI seem to "know" what it's singing, or is it following patterns? How does this feel different from listening to a real singer?

5. STUDENTS work in pairs on devices.

Task: Experiment with each blob voice. Create a 20–30 second sound sequence using all four blobs. Encourage students to notice how their actions (dragging) affect the output.

6. REFLECTION [Flow Writing](#)

Students complete a 5-minute flow writing task in their journals:

Keep your pencil moving, no stopping, no erasing, no worrying about spelling.

What did you enjoy? How did the voices sound? What would you like to do next?

CORE UNDERSTANDING:

AI can be trained on real human voices to model pitch and vowel sounds. By experimenting with Blob Opera, we explore the basics of vocal range and harmony.

Day 2 – Explore Harmony with Blobs

Goal: Students will use Blob Opera to create simple melodies, explore harmony, and understand how combining pitches creates pleasant sounds (consonance) and tense or clashing sounds (dissonance).

1. WATCH

[Science of Sound: Consonance & Dissonance](#) Minnesota Orchestra (2.30min)

2. DISCUSSION

Which sound felt smooth? Which one sounded tense or clashing?

EMPHASISE: Real instruments can do both consonance and dissonance. Blob Opera, because of its AI training, mainly sticks to consonant sounds.

3. TEACHER DEMONSTRATION on Smart Board

Use the tutorial model, moving one blob up and down to create a melody line (main tune). Add more blobs and listen as harmony builds. Introduce terms, pleasant sounds (consonance), notes that sound smooth and calm together. Clashing sounds (dissonance), notes that feel tense or bumpy together.

EXPLAIN Blob Opera was trained on opera singers, so it “prefers” harmony (consonance). It rarely makes strong clashes (dissonance).

4. STUDENT HANDS-ON Activity

In pairs, students: Create a 20–30 second Blob Opera piece. Begin with one blob carrying the melody line. Add other blobs to explore harmony. Share with another pair and compare sounds.

5. CLASS DISCUSSION

Did your Blob Opera sound smooth or clashing? Why do you think Blob Opera was designed to stay mostly harmonious?

Connect to AI: Because it was trained on opera singers, the AI leans toward consonance, showing how training data shapes outcomes.

6. REFLECTION – [Flow Writing](#)

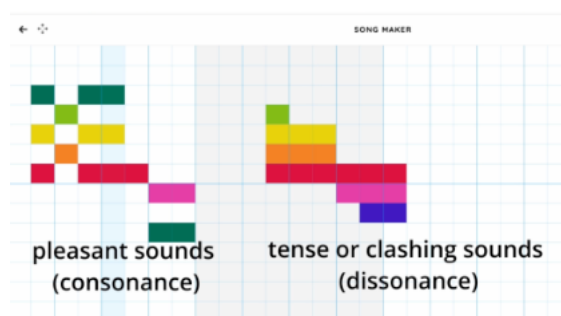
Same as Week 1 Reminder: Keep your pencil moving, don’t stop, don’t erase. What did you enjoy? What was tricky? What would you like to try next? When I added more blobs, the sound became... Harmony feels like...

9. EXTENSION if you’re up for it!

Go to [Chrome Music Lab – Song Maker](#)

Challenge: Create one short consonant (smooth) pattern. Create one short dissonant (clashing) pattern.

WATCH the [songMaker-Harmony Video 30sec.](#)



CORE UNDERSTANDING

Harmony is created when different pitches combine. Real instruments can make both consonance and dissonance, but Blob Opera’s AI was trained to produce mostly consonant harmonies. This shows how AI’s training shapes what it can and cannot do.

Day 3 – Go on a Blob Tour Around the World

Goal: *Students will discover cultural diversity in music through Blob Opera’s “World Tour” feature, exploring how AI can share and celebrate global traditions.*

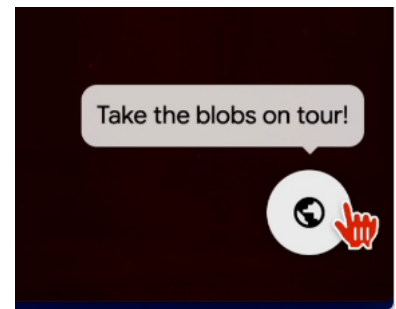
1. DISCUSSION

What kinds of music have you heard from around the world? How do songs from different countries sound different? Why might people make music in different ways?
Write responses on the board.

2. WATCH & Discuss

WorldTour Blobs Which city’s performance stood out to you? Why? Did any sounds seem familiar from another culture?

Highlight: Blob Opera draws on cultural styles to adapt the blobs’ singing, amazingly creative for an AI tool!



3. TEACHER DEMONSTRATION

Launch Blob Opera, select “**World Tour**”. Navigate through 3–5 cities (e.g., Paris, Mexico City, Seoul, Cape Town). Ask what musical elements they notice (rhythm, tone, style).

Prompt: How does this compare to the AI’s default harmony? Most students will say it sounds much the same as the default.

Teacher Note: That’s correct, Blob Opera was trained to always harmonise smoothly. The cultural songs change the tune, but the harmony stays the same. This shows the limits of AI’s design.

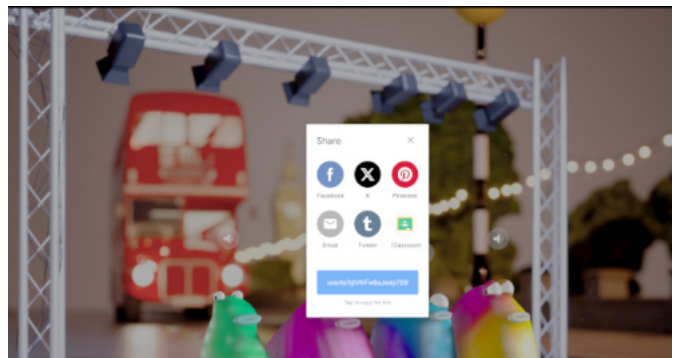
4. HANDS-ON ACTIVITY EXPLORE THE WORLD TOUR

In pairs, students: Explore World Tour. Check out all the cities and music at each city. Pick a favourite city. Note any unique musical details for that city. (e.g., rhythm, style, mood). Select your favourite tune from your favourite city and press the record button.

5. SAVE

Press the share button and copy the link, open a Google Doc, call your Google Doc “Blob Opera Experiment.” Paste in your link.

Optional: Research what traditional music from that city sounds like, look at instruments or styles.



6. CLASS DISCUSSION

Invite students to share their recorded clips. What made your chosen city’s performance special? Did Blob Opera capture the cultural “feel” well or does it simplify it?

Emphasise: AI can introduce global music, but often in a stylised or simplified form.

CORE UNDERSTANDING:

Music reflects cultural traditions. AI tools like Blob Opera can share and celebrate these traditions, but they often simplify or stylise them based on training data.

WEEK Three The Blob Opera

Day 4 - Improvisation & Final Composition

Goal: *Students will use Blob Opera to improvise freely, explore different moods and sounds, and then compose and record a melody they enjoy, with an artist statement explaining their creative choices.*

1. DISCUSSION

What makes music fun to listen to? Do you prefer high or low voices, fast or slow music? Why? Write ideas on the board.

2. IMPROVISATION

Students working in pairs explore Blob Opera freely. Encourage them to try: High and low pitches Moving blobs together vs separately. Quick vs slow changes. Turning voices on & off.

Challenge: Create a short melody you like.

4. MUSIC CREATION CHALLENGE

Students work in pairs. Think about how to use pitch, pace and harmony to create your music.

Task: Create a 20–30 second mini-opera. Use Blob Opera to build a short melody you enjoy listening to. You might need to try a few different versions until you get it just right.

Share: Once you have completed your melody share it with others in your group.

5. RECORD

Your final Blob Opera creation. Using the record button. Press the share button and copy the link, paste your link into your “Blob Opera Experiment.” google doc.

6. WRITE

A short Artist Statement: What did you like about your melody. Describe your melody and the choices you and your partner made.

7. REFLECTION – [Flow Writing](#)

The melody I liked most today was... I chose these sounds because... AI helped me by...

NOTE SUCCESS CRITERIA is in the reference section or [download here](#).

CORE UNDERSTANDING:

AI can be a creative partner in music-making. It gives students tools to experiment, improvise, and record melodies they enjoy, even without traditional instruments or notation.

Lesson 5 – Performance Showcase: Sharing Blob Opera Creations

Goal: *Students will share their Blob Opera compositions with the class, listen to their peers' work, and reflect on how AI supported their creativity and musical choices.*

1. WHAT MAKES A GOOD AUDIENCE?

Performers: Be confident, introduce your piece and play your recording.

Audience: Listen respectfully and give constructive feedback, such as what you liked and suggestions for improvement.

2. PAIR PREPARATION

Students rehearse with their partner: Decide who will introduce the piece. Check that the link is working. Review their Artist Statement (“What did I want to express with my melody?”).

3. PERFORMANCES

Each pair presents: Play their Blob Opera composition.

Reads their Artist Statement aloud.

After each performance: Audience gives 2-3 pieces of feedback (e.g., “I liked the way you used high voices”).

Optional: Audience can ask a couple of questions (“How did you choose your melody?”).

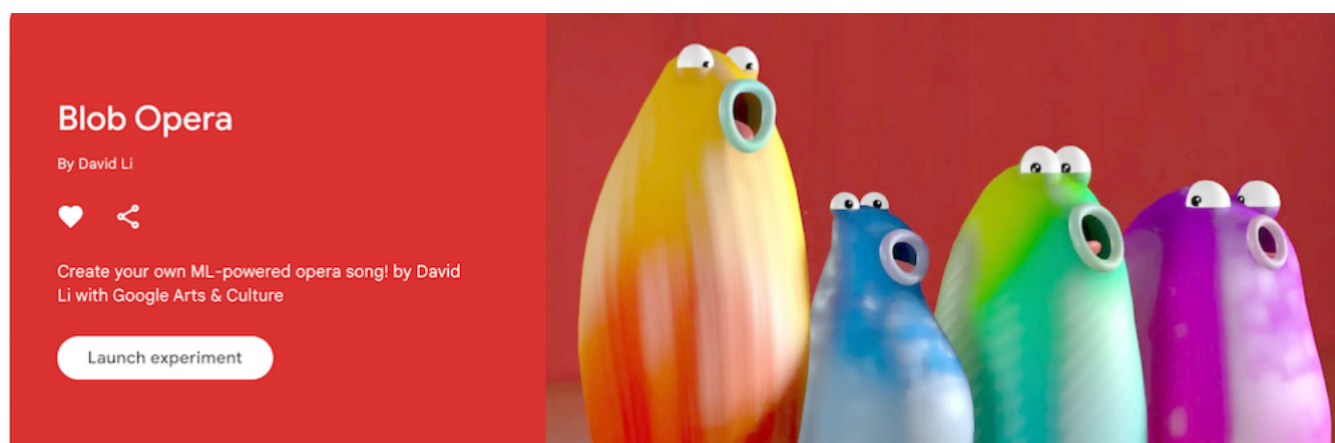
4. Reflection – [Flow Writing](#)

Brief Discussion: The part I liked most about sharing today was... The most interesting melody I heard was... AI helped us by... I enjoyed.... What would you like to do next?

Student write for 5-10 minutes as in previous lessons.

CORE UNDERSTANDING

Sharing our work helps us appreciate our own creativity and learn from others. AI gave every student the same tool, but the choices we made turned those tools into unique music.



Week 3 – Blob Opera NSW Syllabus Outcomes

This table links the activities from Week 3 with NSW K–6 syllabus outcomes for Stage 2.

Lesson	NSW Stage 2 Outcomes	Focus
Day 1 – Vocal Ranges	CA2-MUS-01 – performs, uses listening skills and composes to communicate musical ideas, and describes ways the elements of music are used to convey musical ideas EN2-OLC-01 – communicates with familiar audiences for social and learning purposes, by interacting, understanding and presenting EN2-CWT-01/02/03 – plans, creates and revises written texts (imaginative, informative, persuasive) EN2-HANDW-02 – uses digital technologies to create texts ST2-DDT-02 – designs and uses algorithms, represents data and uses digital systems for a purpose EN2-11D – works collaboratively with others	Exploring vocal ranges, pitch, and how AI models voices
Day 2 – Harmony	CA2-MUS-01 – performs, uses listening skills and composes to communicate musical ideas, and describes ways the elements of music are used to convey musical ideas EN2-CWT outcomes – writes reflections on harmony and dissonance EN2-OLC-01 – communicates ideas clearly to peers ST2-DDT-02 – uses digital systems to create and present ideas EN2-11D – collaborates with peers	Creating simple melodies, experimenting with consonance/dissonance, reflecting in writing
Day 3 – World Tour	CA2-MUS-01 – performs and listens to music, identifying how musical ideas reflect cultures HS2-GEO-01 – explains how people care for Australia's environments and participate in Australian society, using geographical information EN2-OLC-01 – presents research findings EN2-CWT outcomes – short written texts on cultural traditions EN2-11D – group discussion and collaborative presentation	Exploring cultural diversity in music and connecting to global geography
Day 4 – Improvisation & Melody	CA2-MUS-01 – performs and composes musical ideas, describing elements of music EN2-CWT outcomes – writes artist statements EN2-HANDW-02 – uses digital technologies to create texts ST2-DDT-01 – uses a design process to create products to address user needs or opportunities EN2-11D – collaborative composition tasks	Improvising with AI and creating original melodies
Day 5 – Performance Showcase	CA2-MUS-01 – performs and communicates musical ideas EN2-OLC-01 – presents compositions to an audience EN2-CWT outcomes – reflective writing EN2-11D – works collaboratively and gives peer feedback ST2-DDT-02 – uses digital systems to record and share work	Sharing compositions, presenting, and reflecting on AI's role in creativity

TEACHER TIPS

- Keep activities playful and exploratory – Blob Opera is designed for fun experimentation. Use headphones where possible – subtle pitch and vowel changes are easier to hear.
- Encourage flow writing every day – it builds reflection skills and student voice
- Remind students: AI doesn't 'understand' music; it predicts patterns based on training data.
- When students say 'it all sounds the same,' validate that insight – it shows they understand AI's limitations.
- Encourage positive peer feedback – focus on what was enjoyable or unique in each performance. Link to real-world music – play a clip of actual opera or world music for comparison.

Takeaway for teachers:

Blob Opera shows AI as a playful creative partner, not something to fear. It helps students explore pitch, harmony and global music while learning that AI predicts patterns rather than "understanding" music.

WEEK Three The Blob Opera**Week 3 Blob Opera Lessons: Summary**

Day	Focus	Summary
Day 1 Vocal Ranges	Exploring voices and pitch	Students are introduced to Blob Opera, experimenting with pitch and vowel sounds. They learn about vocal ranges (bass, tenor, mezzo-soprano, soprano) and discover how AI predicts these sounds.
Day 2 Harmony	Consonance and dissonance	Students create simple melodies and harmonies, exploring consonance (smooth sounds) and dissonance (clashing sounds). They reflect on how Blob Opera always prefers harmony, showing AI's limitations.
Day 3 World Tour	Cultural diversity in music	Students use the World Tour feature to hear Blob Opera perform songs from different cities. They discuss cultural differences in music and research a short fact about one tradition.
Day 4 Improvisation & Melody	Creative play and composition	Students experiment freely with Blob Opera to create short original pieces. They focus on shaping sound, improvising and composing melodies with a partner.
Day 5 Performance Showcase	Presentation and reflection	Students perform their Blob Opera pieces for the class, write short artist statements about their creative choices and reflect on how AI supported their musical expression.

Day 4 - Success Criteria

This table outlines the success criteria for Day 4's Blob Opera lesson, helping students and teachers assess creativity, effort, and understanding. [Download Success Criteria BLM Here.](#)

Criteria	What Success Looks Like	Achieved (✓)
Exploration	I experimented with different pitches, voices, and speeds in Blob Opera.	
Melody Creation	I created a short melody (20–30 seconds) that I enjoyed listening to.	
Final Composition	I developed and recorded a 30–60 second Blob Opera piece.	
Artist Statement	I explained what I liked about my melody and why I made my choices.	
Reflection	I wrote about my experience using AI to create music.	
Collaboration	I shared my melody and gave positive feedback to classmates.	