Making ideas visible: Sound to drawing
In our Reggio-inspired work you will often hear us use the phrase *making thinking visible or making ideas visible*. We focus on this concept in our work with the children to make their own ideas come alive and be more readable.

We value their efforts because it shows just how capable children are. Within these experiences we have in the studio and in the classroom, we help facilitate the dispositions that we value within our community: co-construction, collaboration, perspective, creative and abstract thinking, media to express ideas, teachers facilitating children to make their ideas more readable. These are just some of the things that are the backbone of project work.

In this experience the children listen to the sounds that they have heard in their music class and are asked to think about what the sound itself might look like. The children are given the different variations of markers and papers that they have investigated previously in order to think more deeply about material can support specific ideas: i.e. perhaps a skinner marker might be better for expressing a softer sound while a thick marker on thick paper might be better for suggesting a louder sound.
Again having children think about readability of their expressions and being more intentional.

In this document look at how children are able to express what they are hearing in a different language, drawing, think about the processes their brains have to go through to think in an abstract way. Is it the feeling? movement? variation? quality? rhythm? tone? vibration? What nuance of sound are they noticing? Remember this is not just about sound but about developing ways to develop these dispositions

“One sound is hanging on to the other.”
B makes his first idea visible but drawing a dot that represented each sound. The teacher suggest that he listen to it again while he draws it. Here B changes his representation to a mark, “It’s more like a circle,” and adds the pause in the sound (with two papers). B shows us that his theory is that each sound within the clip is a symbol. He hears the nuance of the pause.

(above B’s first idea)

B’s second idea re-thinks representing the pause in the sound
Although M is in a different group she has a very similar idea as B, that the circle represents each sound. She listens to the whole sound and listens intently adding each sound as well as the pause.

L, seeing and hearing M’s idea, adds M’s idea to her drawing. She first draws her own idea that the sounds are represented in lines, and then she adds M’s idea, a clever idea of putting their ideas together.
E represents the five sounds within the sound clip by using 10 notes. The teacher’s offer her a tool to rethink her idea, a pair of scissors. As she cuts the sheet into pieces, E listens to the clip again and quickly figures out that there are five sounds within the clip. E also invents that the sounds could even be played using different sounds like the E in her name or C sound. At right, E’s invention of a new sound using her previous one.
K describes a different sound as a “big, long and hard” sounding noise. K and E work together to put their ideas together for this drawing of the sound.

The two girls thought very carefully about representing each element. The line is the length of the sound, the squiggles over the line represent the “bigness” or the vibration of the sound, and the RRR represents the additional sound the girls hear as part of the sound.
A first shares that the sound is like the rain. As he begins to draw, he pauses and says “This is the rain.” The teacher offers, “What does the sound of the rain look like?” A pauses, thinks, and begins to add the dark line around the rain, “Not all the rain has sound...you can hear it when it hits the ground.” A adds a representation for the ground and even adds another dimension to his idea, “After it hits the ground, it dries up and it doesn’t have a sound. After a simple question like “What would the sound look like?” It is amazing all the details and nuances coming from A’s thinking.
Sound and tones and movement

At left, Dane makes visible his understanding of the two tones in the sound as a “back and forth” rather than a line, showing us that he understands that the sound is not just one tone. Jack also represents his idea in a similar way about the same sound but uses his fingers between the two dots, back and forth. (below) He also cleverly represents this movement by moving his head back and forth.
M’s theory is that this particular sound, sounds like a drum (at right the circles) the sound goes “up and down” (represented by the long line). L feels that the drum sound is more like dots, so she specifically chooses a thicker marker to show her idea. The teacher asks if they could put their idea together, but they are not sure how. The teacher then asks what happens if they combine their two symbols? The girls agree. First M draws a wavy line, which she deliberately makes to show her idea of the sound. The teacher asks L where her dots should go, around the line or on top of, to which L says, “On top!” L shows us through this small gesture that she purposely wants the symbols to be read together illustrating both of their ideas.
Kai has a very clever way of showing his idea of the sound. He not only draws the multiple dots as all the sounds, but he also picks up the paper and shows the teachers that for the first three sounds the paper tilts to the left and at the pause the paper then tilts to the right, as if the paper was an instrument playing the sound. Kai’s initial thinking does not show this idea, so the teacher asks him how he could make it so someone would know to tilt the paper, and at what time. K adds numbers to show the timing and arrows on both sides of the paper but it is still hard to read his idea. Kai then tries another strategy adding a stop sign between the two numbers, but realizes that it would tell the person to stop and not tilt the paper. The teacher suggests that maybe a friend could help (scaffold) his idea. E comes in to help K, offering him a double turn symbol in which K is very satisfied with.
Much like K’s idea, J hears the sound but the sound moving in a certain direction. Like K, J represents the sound with dots. He uses his pen then to make marks in the direction the sound is moving to the right. Josh is hearing that the sound clip is many sounds and is a long sound with many sounds within it. Very clever representation.
T says the sound reminds her of the blinds going up and down in her old house. E makes a very similar representation but adds the idea that there is a beginning, middle, and ending to the sound represented in three lines. The two girls accept each other’s theories and put their ideas together, taking turns to complete the new idea.
Like T and E, S and T also combine their similar ideas, accepting each other’s ideas quite readily.
S first draws a thick dot and a skinny dot to represent the two sounds she hears in the clip, while T draws a big circle to represent the one sound and the little dots inside to represent the smaller sound. S suggests that they use T’s big circle and little and big dots on the inside to represent the two different sounds. They both draw this out and then tape their drawings together, not only combining their ideas but literally connecting them together visually!
E hears two sounds within one sound, the vibration of the sound. “It sounds like a tiger and a plane.” After drawing the tiger and the plane the teacher again asks E if he could draw the actual sound. This is a wonderful window into his thinking as these sounds are different with one shorter than the other.

Sound coming from the lion is short and curvy

The sound coming from the plane is a longer sound that goes up into the air
Both C and E choose to first replicate the sound with their mouths, one of the strategies that is offered by the teachers before drawing. In this instance, C makes three distinct sounds also using his hand, another language to illustrate these sounds as he listens to the clip. E uses her feet and then her shoulders to make the movements of what she hears instead of a sound with her mouth. C goes on to draw a representation for each sound he hears and has created with his mouth. E decides to represent the movements she has made to represent the sound and includes C's idea within her drawing.

(below) stomping feet  (below)shoulders moving up and down  (below) C’s mouth making the movement  (below) C’s drawing
T carefully thinks about this idea of vibration and expresses different aspects of it. Below T chooses the thinner marker to fill the paper like that of the vibration. He also adds two darker places. The one on the left is where the sound begins and the one on the right is where it ends.

E thinks about the sound of the rain—she sticks in parts sort of like the beginning middle, and end, but thinks about ways to express each part she hears. (Below her explanation)

“The sounds that bump together.”

“The longer sounds.”

“The sprinkley sounds.”
S and P listen to the same sound of the thunder drum. This is a long sound that, like their drawings, sounds as its moving. S first represents this sound using both hands and feet, both together creating this bigger sound.

S and P decide to try using another strategy the teachers have offered closing your eyes and moving the pen with the sound. A way to help the child just focus on the feeling of the sound and their hand.

S draws three aspects of the sound that he hears. The line is moving back in forth to represent the vibration. The length represents how long the sound is, and the arrow pointing down represents that S hears the sound as “descending.”

P moves his hand in quick movements accented by dots. In his representation you can feel the movement of the sound.
Like P and S, L and M both choose to try closing their eyes and moving their markers to the sound, again allowing them to focus on the feeling of the pen moving to the sound. Although in different groups, one can see that both children had similar ideas about the same sound and were able to capture the movement of the sound accented by the dots, which are the smaller sounds.
Above, T recreates the sound she hears using her mouth to first create the sound. Then are carefully draws the sounds within the sound and te length of the sound as it travels back up and ends where it has started. This idea of sound beginning and ending in the same place is something that we saw again in J's idea were he drew the sound traveling in a full circle, using his finger to carefully trace, how to read his sound. J, like T, first uses his mouth “shhhhhrrrp!”

T adds that the theory that sound goes back into your brain after you hear it when it ends.
Following the sound, X first re-creates the sound with his hand on the table. While listening to the sound, he moves his marker back and forth to represent the variation in sound. His marker stops as the sound stops. X points out that the beginning and end of the sound is quieter and shows the nuance that he has made to show this idea.
J illustrates an idea about sound traveling. She first illustrates her mouth re-creating the sound “of the wind”, then draws the sound going outside and doing a loopty-loop before it comes back to her. This idea is similar to the previous page of sound traveling back to where it has begun.

E relates the sound that she hears to a river, “the sound is like music,” E says. After drawing the river, E adds the notes representing the sound much like her sister did who was in a separate group.
Our last group shows again wonderful thinking as all the children truly made their ideas and thinking visible.

C and L have very similar ideas about this particular sound clip. They hear two different sounds and both use an additional symbol for the stop in the sound clip where it ends. Together they combine their ideas using thick and thin lines to show the two different sounds, and both contribute to the last curvy line, which is the stop. They take turns making the lines. Amazing collaboration combining their ideas and materials to express specific ideas.