Musical Interaction and Autism



Music is a powerful means of communication. It provides a means by which people can communicate even if they speak different languages. It can also provide human contact and interaction for anyone who finds communication difficult.

Music and communication are intrinsically linked, both encourage people to engage reciprocally and emotionally.

Music Therapy is one means of this, Janet MacLachlan, who was Head Music Therapist for Nordoff Robbins, in Scotland wrote in 2016 that for autistic children, music can improve:

- communication skills
- social development
- self-expression
- emotional support
- cognitive development
- empowerment
- creativity.

However, unlike other therapies, music is accessible and available to all practitioners to use in their everyday practice to support autistic children.

Why do we need to use music?



The corpus callosum is the structure that connects the two hemispheres of the brain. When listening to music, neurons are activated in the corpus callosum that stimulate both sides of the brain at once.

Research suggests that people with autism are more likely to have ‘perfect pitch’. Perfect pitch is the "the ability to recognise the pitch of a note.” This is without a reference point.



Studies show that listening to soothing music lowers blood pressure and boosts immune cell count while reducing levels of stress hormones. Think about times you have switched off listening to your favourite music or playing or singing. Your mind goes into flow which reduces anxiety.



Nonverbal communication. Music needs no words, we can move, dance or just listen to it.

Complexity of language:

What we say, why we say it, how we say it.



- Both words and notes are ever isolated to give meaning. Both have breaks, tones and pitches which are integral to our comprehension, and these can affect the meaning of them.

Music and autism differences:

Social Understanding and Communication:

- Encourages vocalisation
- Turn taking
- Shared enjoyment
- Nonverbal communication



Social understanding and communication.

Flexibility, Information Processing and Understanding:

- Interest
- Attention
- Vocabulary retention
- Repetition



Flexibility, information processing, and understanding.

Sensory and Physical:

- Improves sensory integration
- Multisensory
- Can calm or invigorate
- Reduces anxiety



Sensory processing and integration.

So, when you are planning, think about the Orff approach:

- Say: combine speaking with singing
- Sing: students are taught by rote
- Dance: there is no need to stay still!
- Play: improvise and join in

The Orff Schulwerk, or simply the Orff Approach, is a developmental approach used in music education. It combines music, movement, drama, and speech into lessons that are similar to child's world of play. It was developed by the German composer Carl Orff (1895–1982) and colleague Gunild Keetman during the 1920s.



Musical Interaction and Autism

1. Engaging in interaction

AET Progression Framework Activities

1.1 Responds positively to familiar adult
1.2 Seeks attention from familiar adult
1.3 Shares attention focus with adult
1.4 Engages in interactive exchange with adult

Varied instruments, 2 sets of each if possible.

Put the instruments in a central location- so perhaps on a number of small mats on the floor.

When pupil approaches and plays with an instrument, you can join them and play with them alongside or with. When commenting on their play, keep language simple or be silent.



Step 1: Copy rhythms, sounds, vocalisations of the child as they are playing with the instruments. Do this from a distance if necessary and slowly move closer.

Step 2: Sit on mat yourself and explore the instruments, wait for the child to approach. Play quietly.

Step 3: Have a variety of Nursery Rhyme or song symbols in a bag and join in songs together!

2. Making requests

AET Progression Framework Activities

2.1 Makes request for an item
2.2 Refuses an item / activity
2.3 Makes request for interaction to continue /stop
2.4 Requests help
2.5 Requests information / asks a question

Friendly Sabotage:

Put the instruments in clear sight but out of reach of the child



Turn Taking:

Bubbles

Song: This is the way we blow our bubbles, blow, our bubbles, blow our bubbles This is the way we blow our bubbles, Blow, blow, blow. This is the way we pop our bubbles, pop our bubbles, pop our bubbles This is the way we pop our bubbles Pop, pop, pop . **Here we go round the mulberry bush tune.**	*Say/sing: Your turn to blow. Sing the song again.* Progress to Extend by getting child to request more, by 1. Looking 2. Gesturing 3 Co-assisting signing, 4. Signing 5. Verbal asking

Turn taking :

Song: P**lay the rainmaker play it do,** Then look who is next to you. My turn, your turn, time to swap, My turn your turn then we STOP. Play the rainmaker, play it do, Then look who is next to you. Say (Rhythmically) 'Who's Next to You?' Pause **Twinkle, Twinkle tune**	*Say/sing: Your turn to play. Sing the song again.* Progress to Extend by getting child to request more, by 1. Looking 2. Gesturing 3 Co-assisting signing, 4. Signing 5. Verbal asking

4. Listening and understanding

4.1 Responds to sounds
4.2 Understands single spoken word
4.3 Understands simple statement
4.4 Understands instructions

AET Progression Framework Activities

Find the same:

Initially choose very different sounding instruments while the child learns the game.

Have several pairs of instruments (you can add more as the children get accomplished at this) Have a barrier between you and the child. Slowly play the instrument and raise it as the child chooses the 'match'

Step 1: Match by vision and sound.

Step 2: Match by just sound.

Step 3: Child has pictures of the instruments and matches them to the sound (is then given the instrument to play.)

Stop and Go:



Choose an instrument.

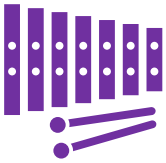
Have stop and go signs. When you hold the GO sign Child plays the instrument and stops when you show the STOP sign.

Mr Noisy and Mr Quiet:

Instruments: children play them when Mr Noisy is shown and hold instruments still with Mr Quiet



Using tuned percussion



Use rainbow colouring to label instrument

C D E F G A B C

Step 1: Play the tunes and sing.

Step 2: Call the colour as you play the tune.

Step 3: Help the child to play the tune by calling the colours

Step 4: Give child the colours

Tunes:

Twinkle Twinkle: CCGGAAG FFEEDDC GGFFEED GGFFEED CCGGAAG FFEEDDC

3 Blind Mice: EDC EDC GFFE GFFE GCCBABCGG GCCCBABCGG BCCCBABCGGGF EDC

Half a pound of tu'penny rice: CEDFEGEC CEDFEC CEDFEGEC ADFEC

5. Greetings

AET Progression Framework Activities

5.1 Responds to greetings / being addressed
5.2 Greets others

Good Morning

Resources: Bubbles

Step 1. Use Bubbles as an object of reference initially. Sit child in front of you. Sing Hello.

Hello Tommy, Hello Tommy

How are you? How are you?

It's very nice to see you!

Very nice to see you!

How do you do?

How do you do?

(Frere Jacques)

Show bubbles, ask would you like bubbles? Take visual or gestural then count 1-2-3 BUBBLES!

Child's turn- would you like to blow bubbles? 1-2-3 bubbles…. Then move on to next person.

Step 2: Use photos of the children and show the child a photo to ask who is next to sing hello.

Step 3: Bring the children into group to sing hello. Start this round the table- if it's easy, do this at snack time when the children are already sat round the table.

5. Group activities

AET Progression Framework Activities

5.1 Attends to focus of group
5.2 Participates in group activity
5.3 Is aware of self as part of group

Good Looking Games (Group):



Where is my hat?
Resources: A teddy or doll wearing a hat, Variety of teddies and dolls

Sing:
Who is wearing Teddy's hat?
Teddy's hat, Teddy's hat?
Who is wearing Teddy's hat?
Who can it be?
(Close eyes, no peeping)
Swap the hat and child indicates who is wearing it.
This can be extended to include the children and other adults in the room.

Extend to group activity:
Who Looks Different?
Resources: Children's photos.
Choice of hats, toy glasses, medals, feather boa, necklace.
Blindfold (if tolerated)
Show the children the item and allow them to try them on.
Hide the item. Choose one child to close eyes (no peeking)
Other children need to identify person wearing the hat.



Good Listening games:

Resources: toy and bed in box.

Place toy at bottom of box.
Ted is lying down, down low,
In his bed, in the bed,
Wake him up to say 'Hello!'
WAKE UP TED!
(London Bridge is falling down)

Extend to jumping up songs:

See the little bunnies sleeping

Dingle Dangle Scarecrow