INTONATION PRACTICE

Intonation or playing in tune is the most difficult thing that any ensemble deals with. It is especially harder for younger players like yourselves who are still often concerned with getting the right notes and rhythms. But good intonation is as important a part of a successful performance as the things that are written on the page of music. But the difficult part of this is recognizing when intonation problems exist and how to fix them.

Before we begin our discussion on how to use a tuner, we must accept certain facts about playing in tune:

1. **Your instrument is not, never has been nor ever will be in tune with itself**. In other words, you will never be able to find the correct placement of your mouthpiece, tuning slide or head joint that will enable you to play every note in tune.
2. **When your tuning note is in tune, that is the only note that is in tune**. This is sort of a restatement of the previous fact. But it is important that you understand it.
3. **Certain notes will be consistently out of tune.** You must be able to identify them, and learn what steps need to be taken to fix them.
4. **A tuner is a device that can assist you in learning what the tuning tendencies of certain notes are.** They come in many shapes and sizes. They range in price from $15.00 to over $3000.
5. **But, tuners are only tools that we use to help train our EARS.** Ultimately, you can only learn to play in tune when you know what it sounds like to be in or out of tune and how to fix it.
6. **To play in tune, you must constantly listen to yourself and all of the other musicians around and adjust to match them.** You must always be aware of tuning. Every note is a potential tuning disaster. The more attention you pay to tuning, the better you will become at playing in tune and the less tolerant you will become of notes outside the pitch center.

TUNING CHARTS

The best way to determine the tuning characteristics of your instrument is to complete a tuning chart (attached to this packet). Tuning charts allow you to actually see what the tuning tendencies are for certain notes on your instrument.

Instructions

1. You must do this with a partner. You do not have to find someone that plays the same instrument as you, but two people are required to do this accurately.
2. Tune your tuning note(s). Adjust your instrument so that note will be in tune (Brass- tuning slides, woodwinds- mouthpieces or joints)
3. Look at the notes on the tuning chart. Play one note and hold it until your partner can get a reading from the tuner.
4. You should not be able to see the tuner while you are playing.
5. Each note should be played at mezzo-forte.
6. Your partner will write under the note whether you are:

a. Very Flat (--)
b. Flat (-)
c. In tune (o)
d. Sharp (+)
e. Very Sharp (++)

Usually a reading of + or – 20 indicates being very sharp or very flat.

4. Play each listed on your tuning chart. Do not rush through it. Make sure that you get an accurate reading for each note.

Once you have completed the chart, look back over it and see if you can identify some patterns.

Things to look for on your tuning chart

1. **Is your tuning note in tune?** If not, then you have a problem playing with consistency. Either your embouchure (shape of your mouth) changes, the position of your instrument changes, or the quality of air changes, from note to note. This must be addressed with practice.
2. **Find the notes that are particularly problematic- that is Very Sharp (++) or Very Flat (- -).** These are the notes that you must concentrate your efforts. We will address this in a moment.
3. **Find the notes that are in tune.** These are good reference points or places that you can be sure are usually in tune. You do not really know the tuning tendencies of your instrument if you do not also know which notes are in tune.

What do I do now that my tuning chart is complete?

The first thing we must do is learn what adjustment we must make to play in tune. The type of adjustment you make depends on what instrument you play. The following is a list of strategies that you can use for your instrument to bring out-of tunes notes into pitch.

Flutes

Flat (low) notes- 1. Raise you head- this will open up the tone hole which will raise the Pitch.
2. Roll you flute away from you- same concept as above
3. Venting- opening keys that do not affect note but will raise the pitch.

Sharp(high) notes- 1. Lower your head. This will close the tone hole slightly which will lower the pitch.
2. Roll you flute toward you- same concept as above.
3. Shading- Closing keys that do not affect the note, but will lower the pitch.

Flutes, cont.

Other considerations: 1. As you play louder, your pitch will get sharper (pitch will go up)
2. As you play softer, your pitch will get flatter (pitch will go down)
3. Cold=Flat (low pitch)
4. Heat= Sharp (high pitch)

Clarinets and Saxophones

Flat (low) notes- 1. Firm corners- Creates more tension on the reed which raises pitch
2. Alternate Fingerings- Try different fingering for the same note.
3. Venting- opening keys that do not affect the note, but will raise the pitch.

Sharp (high) notes- 1. Open mouth- Think about saying "OH". This will pull the jaw down, creating less tension on the reed which lowers the pitch.
2. Alternate Fingerings- Try different fingering for the same note.
3. Shading- Closing keys that do not affect the note, but will lower the pitch.

Other considerations: 1. As you play louder, your pitch will get flatter (pitch will go down)
2. As you play softer, your pitch will get sharper (pitch will go up)
3. Cold=Flat (low pitch)
4. Heat= Sharp (high pitch)

Double Reeds

Flat (low) notes- 1. Use firmer lips, especially corners. Try more lip over teeth (less red showing)
2. Use faster (not louder) air.
3. Raise head or lower instrument (oboe only)
4. Put more reed in mouth.

Sharp (high) notes- 1. Use less lip over teeth
2. Loosen embouchure
3. Drop jaw
4. Put less reed in mouth.

Other considerations: 1. As you play louder, your pitch will get flatter (pitch will go down)
2. As you play softer, your pitch will get sharper (pitch will go up)
3. Cold=Flat (low pitch)
4. Heat= Sharp (high pitch)

Trumpet, Euphonium, Tuba

This group of instruments probably has the easiest time learning to play in tune because the pitch tendencies are pretty consistent from instrument to instrument. The following are some standard rules about the pitch tendencies of these instruments:

1. **Open Valve notes are generally in tune** (exceptions- open G on trumpet, open F on Euphonium and Tuba are a little sharp; and open E on trumpet, open D on Tuba/Euphonium are flat)
2. **2nd valve notes are usually in tune**- (exceptions- see above; add 2nd valve)
3. **1st valve notes are usually just slightly sharp** (exceptions 1st valve D on trumpet, 1st valve C on Tuba/Euphonium are flat)
4. **1st and 2nd valve notes are sharp** (exception- 1st and 2nd valve C# on trumpet, 1st and 2nd valve B natural on Tuba/Euphonium are in tune)
5. **2nd and 3rd valve notes are flat**
6. **1st and 3rd valve notes are very sharp**
7. **1st, 2nd and 3rd valve notes are very sharp (sharper than 1st and 3rd)**

Now that we have identified what the tendencies are for those notes, how do we fix them?

Flat (low) notes- 1. Tighten up the center of the lips slightly.
2. Alternate fingerings (3rd valve can be used instead of 1st and 2nd)

Sharp (high) notes- 1. Relax the center of the lips slightly
2. Alternate Fingerings

Other considerations: 1. As you play louder, your pitch will get sharper (pitch will go up)
2. As you play softer, your pitch will get flatter (pitch will go down)
3. Cold=Flat (low pitch)
4. Heat= Sharp (high pitch)

French Horn

Flat (low) notes- 1. Pull hand out of bell slightly
2. Alternate fingerings (experiment with fingerings on the other side of the horn Bb to F, F to Bb)

Sharp (high) notes- 1. Push hand farther into the bell
2. Alternate fingerings (experiment with fingerings on the other side of the horn Bb to F, F to Bb)

Other considerations: 1. As you play louder, your pitch will get sharper (pitch will go up)
2. As you play softer, your pitch will get flatter (pitch will go down)

French Horn, cont.

3. Cold=Flat (low pitch)
4. Heat= Sharp (high pitch)

Trombone

Flat (low) notes- 1. Pull slide in.
2. Tighten up the center of the lips slightly. (esp. on 1st position notes)
3. Alternate positions

Sharp (high) notes- 1. Move slide out
2. Alternate positions

Other considerations: 1. As you play louder, your pitch will get sharper (pitch will go up)
2. As you play softer, your pitch will get flatter (pitch will go down)
3. Cold=Flat (low pitch)
4. Heat= Sharp (high pitch)

Practicing with a tuner

We have now (through our tuning charts) discovered which notes tend to be out of tune, and we also know how to fix them. So how do we use a tuner to help us practice?

There are several ways to use tuners that can help us reinforce good tuning habits.

1. **LONG TONES**-
   A. Place your tuner on your stand and play through any set of long tones (Foundations Book, Major scale in whole notes, a technical exercise one note at a time, etc).
   B. Watch how your tuner reacts on each note and **listen**.
   C. Make the necessary adjustment to play each note in tune and **listen**
   D. Make marks above the notes (if it is a written exercise) indicating what adjustment you have to make to play that note in tune.
   E. Go back and play through the exercise again. See if you can play through it, making the necessary adjustments, and keep the your instrument in tune with the tuner. **Remember to listen as well as look at the tuner**.

2. **TUNING WHILE PLAYING A PIECE OF MUSIC-** This one is a little strange, but it is definitely something that can help you.
   A. Set up your tuner on your stand next to whatever piece of music you will be working on.
   B. Play through the piece stopping periodically on a random note and holding it out. **LISTEN**
   C. Check your tuner to see if you are in tune on that note. If not, make the necessary adjustment to bring that note into tune and **listen**

D. Place a mark over that note so that you will remember what adjustment to make the next time you play it.
E. Go back through the passage again, stopping on the same note. **Listen** and check the tuner to see if you have made improvements.

Using these techniques make seem a little tedious at first, but quickly you will begin to develop the necessary habits to play in tune more frequently. You will begin hearing the differences in playing in and out of tune.

PLEASE NOTE: In every instruction where you play, the command of listening was given. **IT IS NOT ENOUGH TO DEPEND ON YOUR TUNER TO ESTABLISH YOUR PITCH CENTER. YOU MUST LEARN WHAT IT SOUNDS LIKE TO PLAY IN TUNE WITH YOURSELF AND THOSE AROUND YOU.**

PLAYING IN TUNE WITH OTHERS

Ultimately, this is the goal. We must have a group of people who are each equally aware of playing in tune with one another. It is everyone's responsibility to make the necessary adjustments to play in tune with one another. You must know the tuning tendencies of your instrument, but that is only a start. We must also learn to **listen** to the people all around us to match them, and they need to listen to match us.

1. **Learn what it sounds like to be out of tune with someone.** Most of the time you will be able to hear this in "beats" or pulses. The faster the pulse, the farther away from being in tune we are with one another.
2. **When you hear that a note is out of tune, DO SOMETHING!!!** Even if it is the wrong adjustment, at least it is an effort. Doing nothing and hoping that it fixes itself will never get it done.
3. **Communicate with the people around you.** There is nothing wrong with talking with the people around you about pitch. If you hear something really wrong, ask the person next to you, "Is that you are me?" At least it will get both of you listening and making the necessary efforts to fix it.
4. **Practice with each other-** If there is a particular section that you cannot get into tune, schedule a time during your recess, before or after school to work on it together. Use the strategies listed under **PRACTICING WITH A TUNER** to help you learn the passages.
5. **Be flexible-** Two people out of tune with each other are just that. It is not a case of one person being more correct than the other. People must always work together to make it right for everyone. Insisting that you are right and everyone else is wrong just doesn't get it done. In fact, it is better to **ALWAYS ASSUME YOU ARE WRONG.** Then at least one person is always trying to get intonation problems fixed.

CONCLUSION

This guide is not the answer to all intonation problems. Those will simply never be fixed. But this can be a good place for us to start. We must become aware of bad intonation the same way that we are aware of wrong notes and rhythms. This is one of the major differences between being a good player and a great player. We will all continue to work on these skills to help us become a better ensemble.