Lesson 2-1 Mapping the Air Passages

A kinesthetic awareness of the air passages, including trachea, nose and mouth, will help students monitor the amount and the speed of the air on inhalation.

Objective: Students will be able to locate the following structures on a diagram: nasal passages, pharyngeal space, mouth, trachea, esophagus. They will understand the difference between throat (internal) and neck (external) which is groundwork for Unit 2-3.

Reconnect: Review the Balance Unit. Ask students to share how better balance has affected their breathing. Remind them to be aware of their whole body balance before each lesson in this unit.

Watch Video Lesson 2-1

Explorations - in class or at home:

Breathe in slowly through your nose. Journal about what you notice about the air you are inhaling - the amount, speed and temperature. Do the same thing with a quick breath.

Breathe in slowly through your mouth. Journal about what you notice about the air you are inhaling - the amount, speed and temperature. Do the same thing with a quick breath.

Discuss or journal about the differences of mapping the mouth as a space vs. a thing. How would the map of your mouth affect your breathing?

Think of a piece you've sung that has required either a slow or a quick inhalation. How can a heightened kinesthetic sense of your air intake affect this performance? Let your kinesthetic sense inform your inhalation so you know exactly how much air you need and how quickly you need it.

Evaluation:

What part of your body is the first to encounter air on inhalation? (nose and mouth)

Describe the nasal passages. (not just the nose on your face, between your facial bones)

Describe the mouth. (a space, not a thing, bordered by cheeks, roof and floor of the mouth, teeth and tongue)

What three things can the sensory receptors of the mouth and nose tell us about the air we inhale? (temperature, speed, and amount)

Why would knowing this information be important? (Different repertoire requires different kinds of breathing. Monitoring the amount and speed of the air on inhalation will ensure just the proper amount of air needed for a particular phrase and will create a proper tone and mood for the piece.)

Lesson 2-2 The Jaw and Tongue

Freedom of the jaw and tongue will make breathing and singing easier. This unit will also discuss diction as movement, in particular, movement of the tongue.

Objective: Students will be able to point to their temporomandibular joint (TMJ) and demonstrate movement there. They will also be able to describe the tongue, including its size, structure and function, and demonstrate its importance to diction.

Reconnect: Review the mouth, nose and pharyngeal space. Discuss any mis-mappings that have been discovered or new information that has been noticed. Practice some slow and quick inhalations together and find relevant places in your repertoire to apply this information.

Have paper and pencil ready for drawing if you choose.

Watch Video Lesson 2-2

Feel free to pause the video to explore.

Explorations - in class or at home:

Experiment with mis-mappings of the TMJ. Try to speak or sing with these mis-mappings. How is your diction affected? How is balance on the A-O Joint? Share a video of yourself with the class that shows that compares a mis-mapping with the truth.

Stick out your tongue and let it fall back into your mouth very slowly. Do this while noticing each part of the tongue, back, root, tip and blade. What do you notice?

Get to know the edges of your tongue by moving it along your teeth and sides of your mouth. There is no right or wrong way to do this. You are merely trying to awaken your kinesthetic sense of your tongue.

Try to intentionally release tension in your tongue and jaw. Give your neck muscles a massage and come to balance on your A-O Joint. These are all related.

Become aware of the movement of your tongue as you sing or say a phrase. Can you map the *movements* of your tongue for each vowel and consonant?

Evaluation:

What does TMJ stand for? (Temporomandibular Joint)

What is the mandible? (Jaw)

Locate the TMJ and demonstrate movement there.

Most muscles move bone, but the tongue is a muscle that moves _____. (muscle or itself)

Locate and label the four sides of the tongue (blade, tip, root and back)

Explain the importance of the tongue in diction (Diction is dependent on the movement of the tongue. If we become aware of that movement we can improve and be consistent in our diction.)

Lesson 2-3 Facial Muscles and the Trachea

Mapping facial muscles and their movement, in particular the muscles surrounding the lips, will contribute to better facial expression and diction. Distinguishing the roles of pharyngeal muscles in breathing and swallowing will help to free breathing and eliminate noisy breaths.

Objective: Students will be able to palpate the muscles of the lips and explain the importance of facial muscles in expression and diction. They will be able to properly identify trachea and esophagus on an image. They will be able to distinguish the role of neck muscles in swallowing vs. breathing.

Reconnect: Review balance at the A-O joint and freedom of the jaw and tongue. Remind students of the difference between throat and neck from Lesson 2-1. We will be referring to that in this lesson. It is always good to begin with a few slow or quick breaths and bring students to kinesthetic awareness of the breath.

Watch Video Lesson 2-3

Feel free to pause the video for more time to explore. The amount of information might start to become overwhelming at this point. Take all the time you need to discuss and implement.

Explorations - in class or at home:

Find images of facial muscles on the internet. Color them. Palpate them on your own face. Explore different ways to engage them, whether in singing or facial expressions.

Have your director lead you through some diction exercises. Can you map the movement of each vowel or consonant? Do this by Noticing the engagement of facial muscles and the movement of the tongue and jaw.

Give your neck muscles a massage. Swallow to notice your swallowing muscles. Inhale without letting any of those muscles work. Now create some tension or work on these muscles. How does it affect your inhalation?

After you have accomplished a free inhalation, see if you can sing or hum keeping your neck muscles equally free. No work needed for breathing or singing.

Move your head off balance and inhale. What do you notice in your throat? Now keep your head off balance and sing. Again notice the sensations in your throat. How do you think your pharyngeal space is affected?

Evaluation:

Have students identify the following structures on the handout: esophagus, trachea, larynx, hyoid bone, pharyngeal space, tongue.

Why are the muscles of the face important for diction? (Diction is movement and these muscles move your lips and cheeks. A good map will make them available to you.)

What happens when you constrict your neck muscles when you sing? (You are using effort where none is needed. Neck muscles aren't needed in breathing and singing.)

Why is good head balance important for singing? (An unbalanced head will compress the pharyngeal space which is important for resonance. It will also limit your ability to inhale freely.)

TRUE/FALSE:

The hyoid bone is connected by muscle to both the head and the arm structure. (TRUE)

The trachea is in front of the esophagus. (TRUE)

Lesson 2-4 The Lungs and the Diaphragm

An accurate map of where the air flows and how the diaphragm functions in the breathing process will help students to find effortless breathing.

Objective: Students will be able accurately describe the size and location of the lungs and diaphragm. They will be able to demonstrate the movement of the diaphragm on inhalation and exhalation by imitating it with their hands.

Reconnect: Review the following structures and discuss with students if they have had to remap any of them: nasal cavities, mouth, pharyngeal space, tongue, trachea, esophagus. Encourage them to be curious about how their maps affect their breathing. There may be many more changes to come.

Watch Video Lesson 2-4

Pause where necessary to take a longer look at a slide or discuss something.

Overall, this lesson may be a bit shorter because it is relatively straightforward. The information directly correlates with the next lesson on the ribs. You might want to consider combining lessons 2-4 and 2-5 for one longer lesson. This will emphasize that lungs, ribs and diaphragm work together.

Explorations - in class or at home:

Clarify the map of your lungs, in particular their size and position in the body, by looking at a variety of images. You can find them in books or on the internet.

How does mapping the size of the lungs affect your breathing? Discuss or journal about it.

Model the location and movement of the diaphragm with your hands. If any of this surprises you, share your thoughts with the class or journal about it.

Evaluation:

When air passes through the trachea it goes into the _____. (lungs)

Describe the location of the top and bottom of the lungs. (Top - above the top rib. Bottom - at the bottom of the sternum)

TRUE or FALSE:

Some of our lungs lie alongside our supporting spine. (TRUE)

The diaphragm is a flat muscle. (FALSE - It is dome-shaped)

The diaphragm lies in a horizontal direction. (TRUE)

The diaphragm never loses its dome shape. (TRUE)

Describe the movement of the diaphragm on inhalation and exhalation.
(Inhalation - descends. Exhalation - ascends.)

Lesson 2-5 Rib Movement

Mapping rib joints and movement is essential to controlling the release of air.

Objective: Students will be able to demonstrate an understanding of rib structure and movement by showing visible and measurable improvement in their control of air on exhalation.

Reconnect: Review the structures previously mapped in this unit. Invite students to share journal entries and discoveries.

Ask students to keep all of these things in mind as they discover more about the movement of the ribs. As their breathing becomes easier or more efficient, does it change anything about what they have previously learned?

Exercise: Begin by having students stand, take a big breath and exhale slowly on an sss or sh. Have them time the length of their exhalation.

Begin Video Lesson 2-5

This lesson is immediately relevant to Lesson 2-4. Breathing is a coordinated movement of ribs, lungs and diaphragm. As always, pause to discuss or explore each movement that is demonstrated.

Activities - in class or at home:

Palpate a rib - can you determine where the bone ends and the cartilage begins? Can you feel the difference?

Practice varying sizes of breaths and notice the difference in the way your ribs move. Place hands on various places - front, sides, back. Is the movement equal in all these places?

Model rib movement with your hands as in the video - fingertips together.

Experiment with a long exhalation being controlled by a slow descent of the ribs. See who can make the longest exhalation. *Teacher note: Have students raise hands or sit down when they run out of air. This can be done with a very quiet hiss. You can call out times as students drop out.*

Try long and short inhalations and exhalations in different positions - lying, sitting and standing. Discuss or journal about what you notice. Share videos with the class.

Evaluation:

Have the students repeat the exhalation exercise at the beginning of the lesson. Compare the length of their exhalation. A longer, more controlled exhale indicates an improved understanding of the role of the ribs in breathing.

How many ribs connect on each side of the spine? (12 on each side)

Other than the top and bottom two thoracic vertebrae, how many vertebrae does each rib connect with? (2)

What connects the ribs to the sternum and to each other in front? (cartilage)

How can you control the release of air? (control the descent of the ribs)

Lesson 2-6 The Abdominal Wall

Free breathing depends on free and coordinated movement of the abdominal wall, front, sides and back.

Objective: Students will be able to describe the abdominal wall and explain and/or demonstrate its movement during breathing.

Reconnect: Review the movement of the lungs, ribs and diaphragm. Discuss journal entries or discoveries. Practice modeling the movement of the ribs and the diaphragm with the hands.

Watch Video Lesson 2-6

These next few lessons are presented by Licensed Andover Educator Lea Pearson. Her style is engaging and you will be asked to pause the video several times for consideration, exploration, interaction and/or journaling.

Activities - in class or at home:

Model the out and in movement of the abdominal wall with your hands. Coordinate the movement with your own breathing and abdominal wall movement.

Inhale and prepare to sing. Deliberately tighten your abdominal wall. Sing and notice the sound. Do the same thing trying not to hold tension in your abdominal muscles. Discuss or journal about the difference. Make a video to share with the class.

Inhale and prepare to sing. Do you notice tension or holding in any other part of your body? Can you let go of that tension just by noticing it? Discuss or journal about it.

Create work for your abdominal muscles by pretending to drink a milkshake through a very thin straw, as demonstrated in the video. Now allow your body to take a reflexive breath as demonstrated in the video. Discuss or journal about the difference.

Evaluation:

How do the abdominal muscles move in inhalation? (out / they release outward)

How do the abdominal muscles move in exhalation? (in / they contract inward)

Why is it important for the abdominal muscles to be free in breathing? (So the ribs can move and so that they don't interfere with the breathing reflex.)

TRUE OR FALSE

The abdominal muscles are only in the front of the body. (FALSE - They are around the entire body, 360 degrees.)

The abdominal muscles are connected to your breathing structure. (TRUE)

The amount of movement of the abdominal muscles depends on the kind of breath you need for the phrase. (TRUE)

Lesson 2-7 The Pelvic Floor

The muscles of the pelvic floor must be springy and responsive to the movements of breathing.

Objective: Students will be to explain where the muscles of the pelvic floor are and why their movement is important for free breathing.

Reconnect: Review the location (360 degrees) and movement of the abdominal wall. Remind the students that the abdominal wall moves in response to the lungs, ribs and diaphragm.

Watch Video Lesson 2-7

Lea Pearson presents a shorter lesson with good information. You may want to include more explorations or the 2-8 review video with this lesson.

Activities - in class or at home:

Inhale and prepare to sing. Tighten the muscles of the pelvic floor. What else do you notice that is tight?

Inhale and prepare to sing. Tighten the abdominal muscles. Did you pelvic floor muscles tighten as well?

Inhale a large breath noticing all the movement of the ribs and the abdominal wall. Can you sense the muscles at the floor of your torso contract downward?

Exhale slowly and with controlled descent of the ribs. Can you let your abdominal wall and pelvic floor spring back without interference or extra tension or holding?

Imagine that you are about to walk on stage and you are very afraid and nervous. What happens in your body? How might this affect your singing? Discuss or journal about it.

Evaluation:

Why is it important not to hold the muscles of the floor of the torso when singing? (They need to respond to the movement of the diaphragm pushing down on the contents of the abdomen, as the abdominal wall expands out.)

TRUE or FALSE

The muscles of the pelvic floor descend as the diaphragm descends. (TRUE)

The muscles of the pelvic floor should stay at their lowest place when exhaling. (FALSE. They should spring back up as the diaphragm releases up.)

Lesson 2-8 The Movement of Breathing

The movement of breathing can be practiced in fun and engaging ways.

Objective: Students will further understand the movements of breathing, ribs, diaphragm, abdomen and pelvic floor, by participating in these hands on activities to be done in class or at home, individually or in a group.

Watch video 2-8

Note: This lesson is meant to be a review and to offer engaging explorations which can be done along with the video, or after watching, in class or at home. Students can submit videos of their own explorations.

Since this video reviews previous material, there are no additional explorations or evaluations suggested.

Lesson 2-9 Balance and Breathing

Balance of the Body is critical for free breathing.

Objective: Students will review the places of balance from Unit 1. They will understand and be able to demonstrate the way balance and breathing are connected.

Watch video 2-9

Note: Lea Pearson reviews the places of balance in this lesson in a little different way. She takes the students through many explorations. This video calls for your students to be up and active. The explorations are reviewed in the slides at the end of the video for reference.

Explorations: (all demonstrated on the video)

Pretend you have a crayon on your head and draw circles on the ceiling moving from your ankles. Notice what happens in your whole body as you go on and off balance. Feel the security of being completely grounded on the floor at the ankle joint and arches of the feet.

Find your hip joints by finding the crease in your leg as you sit. Remember balance at the hip joint is really about movement there. Lock the hip joints and notice what happens to the abdominal wall.

Go on and off balance at the knee joint, locking and unlocking there. Notice what happens in the rest of your body.

Find the lumbar spine by imagining it right behind your belly button. Review balance through the front of the lumbar spine by arching your back and bending forward. Do this both standing and sitting.

Find your A-O joint by walking your fingers along the edge of your jaw to just below your ears. Point in to the joint. Listen to the change in your voice as you go on and off balance at the A-O joint.

Swing your arms and notice the movement of your collarbone. Find a place of balance for your arm structure that feels wide across the body and settled.

Evaluation: Because there is no new material in this unit there are no evaluation questions. It is suggested you evaluate students for this unit by their participation in the explorations.