Universidad de los Andes	Professional Practicum	LESSON PLAN TEMPLATE			
Name:	Elisa Duke	Grade:	5th	Date:	May 24
School:		Subject:	Natural Science		
Unit's name:	Unidad 2: Organización de los seres vivos. Sistemas del cuerpo humano.				

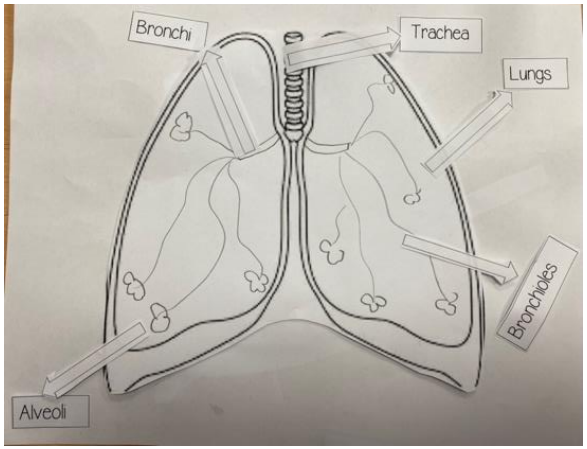
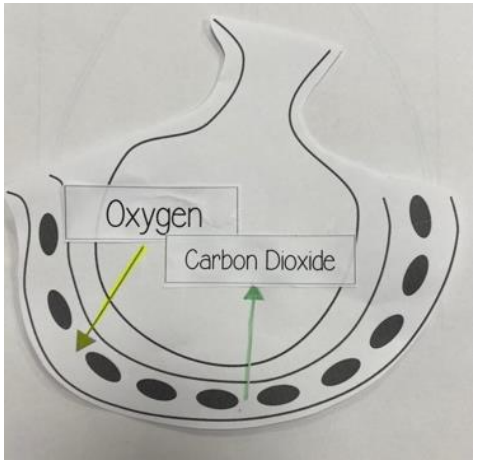
Class Vision

Unit's OA:	OA 4: Explicar la función de transporte del sistema circulatorio (sustancias alimenticias, oxígeno y dióxido de carbono), identificando sus estructuras básicas (corazón, vasos sanguíneos y sangre). Indicadores: • Identifican al corazón y vasos sanguíneos como estructuras a través de las cuales circula la sangre por el organismo. • Relacionan las estructuras musculares del corazón con su continuo trabajo de impulsar la sangre. • Identifican la existencia de vasos sanguíneos que llevan sangre al pulmón para eliminar el CO2 y absorber el oxígeno que luego es distribuido desde el corazón al resto del cuerpo. • Interpretan tablas y/o gráficos sobre frecuencia cardiaca, describiendo las variaciones del pulso con el ejercicio físico. • Predicen problemas que produciría la falta de sangre oxigenada en algún órgano. • Explican que el movimiento de la sangre permite el transporte de nutrientes y gases a todo el organismo.
Class objective:	Students will be able to illustrate the gas exchange by creating a model using the key vocabulary (lungs, trachea, bronchioles, bronchi, alveoli, oxygen and carbon dioxide)

Conceptual knowledge (ideas, definitions, knowing)	Procedural knowledge (steps to develop the ability – knowing how to)
- Organs of the respiratory system and their function (lungs, trachea, bronchioles, bronchi, alveoli). - Oxygen. - Carbon Dioxide. - Connection between respiratory system and circulatory system. - Gas exchange. - Function of the respiratory system and circulatory system. - Key vocabulary (lungs, trachea, bronchioles, bronchi, alveoli, oxygen, and carbon dioxide).	- Illustrate - Model

End of class assessment

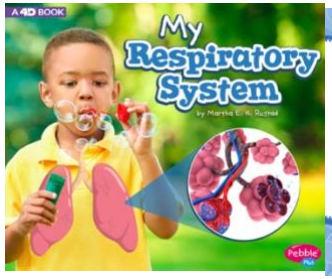
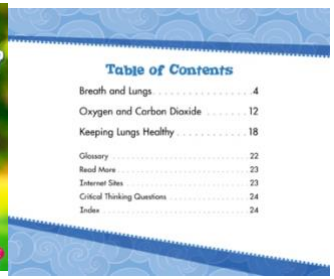
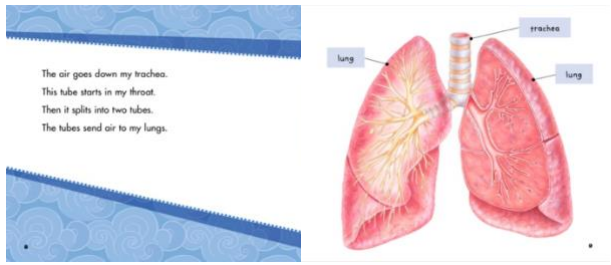
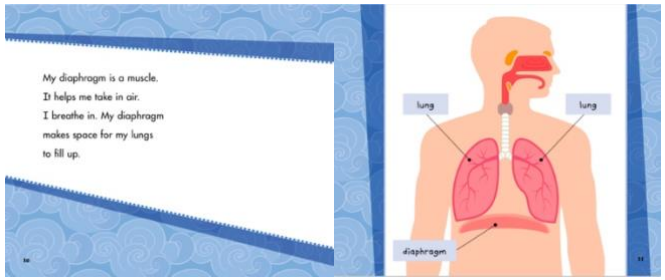
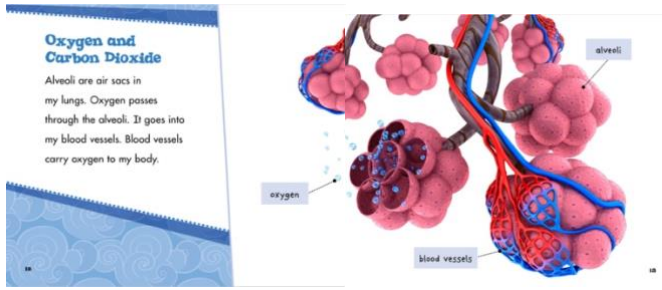
The end of class assessment is the model of the lungs and the model of the gas exchange in the alveoli.

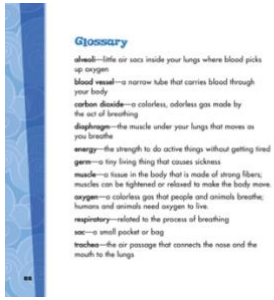
Expected answers of End of Class Assessment with possible errors
 
Errors: -Not knowing how to illustrate the gas exchange and the components of the lungs. -Not knowing how to identify the components of the lungs (lungs, trachea, bronchioles, bronchi, alveoli). -Not knowing that the oxygen enters to the body and blood, and that the carbon dioxide goes out of the blood and body. -Not knowing and understanding that the alveoli is inside the lungs. -Not being able to do the actual models (cut, paste , now were each part goes).

ULD principle:	Promote expectations and beliefs that optimize motivation (9.1) Promote understanding across languages (2.4) Build fluencies with graduated levels of support for practice and performance (5.3)
Collaborative work strategy:	Individual accountability (The activity includes an individual accountability component)

Class script			
CLASS MOMENTS	- Written in first person - Strategies - Teacher and students' key actions - Questions, exercises and expected answers (packets should be included as Annexes) - Always consider: motivation strategy (highlight in yellow), UDL strategy (highlight in light blue) and collaborative culture strategy (highlight in green)	Time 90 minutes	Rationale

ENTRANCE ROUTINE - Establish a procedure for entering the classroom in an orderly manner. - Get the attention of all students and greet them. - Ensure that students have the necessary resources for the class (spaces, materials, organization, supports).	The teacher asks the students to take out their pencil case and copybooks and sit down in silence so the lesson can start. The teacher says to the students that she will wait until there are in complete silence to start the lesson (once all the students are in silence the teacher says thank you and excellent work for being in silence so quick).	5 minutes	
ANTICIPATORY SET	Presentation of the agenda: First we will review a little bit about the circulatory system then you are going to read a short book about the respiratory system and take notes and finally you are going to do two models of the gas exchange, one of the lungs and one focused on the alveoli. Establishing norms and expectations: Remember to be respectful and kind throughout the whole lesson, share the materials and work as a team. Prior Knowledge activation: The teacher asks students what they remember about the respiratory system. The teacher shows the next video to students to refresh the content and students must take notes in their copybooks if they want. https://www.youtube.com/watch?v=X2YVt16Kxak All together they write the WALT (class objective) of the lesson and the teacher explains that is really important to learn about the gas exchange because it is part of the function of the respiratory system and with this, they will learn the connection the respiratory system has with the circulatory system.	20 minutes	I choose to create a discussion of what have we learned and watch a short video because they already learned about this, and this lesson is only for reviewing and refreshing the content.

DEVELOPMENT	No modeling because this is a content they have seen deeply, and this class is only for focusing more specifically on gas exchange. They have seen other models about this topic in previous lessons by using the natural science book and the ppt the teacher has shown. No guided practice because in previous lessons they have practiced a lot with the teacher about this content; this lesson is only to refresh and review the content. The teacher has scaffolded a lot the learning, now is the students turn to show their learning with the models. The teacher gives each group a short non- fiction book about the respiratory system, each group must read it and take notes of the important things in their notebooks.       	40 minutes	The book will help students be responsible for their learning because they must take notes. Also, the hands on activity is a fun and didactive activity that makes the content visible and helps the students represent the content in a more concrete way. First, they must illustrate the gas exchange in the lungs to understand and identify that the process is part of a whole – in this case is part of the respiratory system – then they must illustrate the gas exchange inside the alveoli to understand that the alveoli is the main responsible of this process.



The teacher remembers the students to write only what is most important and that they can highlight to be able to summarize the book.

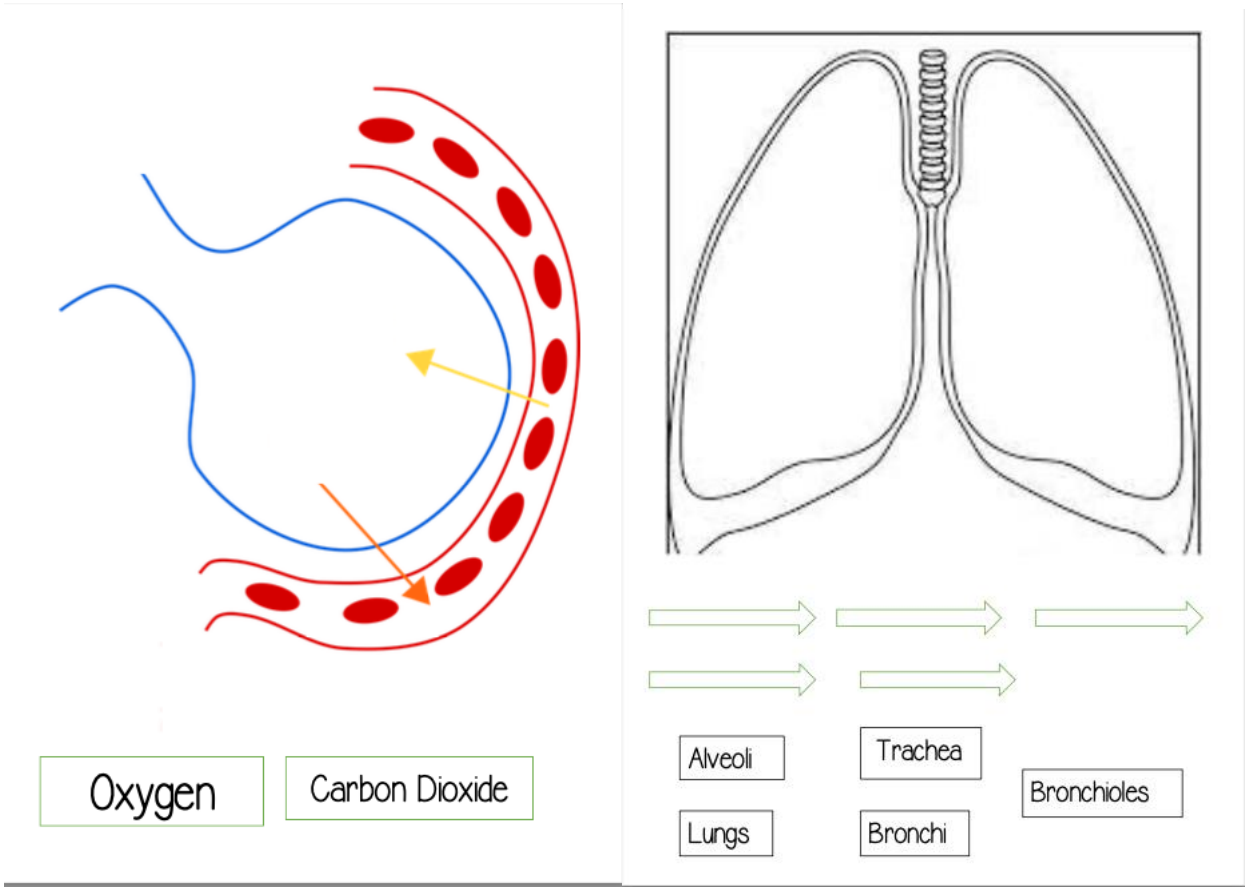
Hands on activity:

The teacher says to the students that she knows that they are going to do great in this activity because she knows they are experts about the content and remind them that they can use their notes and go back to the book when they think they need it. Promote expectations and beliefs that optimize motivation (9.1)

The teacher gives each students a paper with lungs and students must cut them and paste them in their copybooks. After, that they must draw the corresponding organs that are missing, color and tag those important organs (lungs,

trachea, bronchioles, bronchi, alveoli) Promote understanding across languages (2.4) that are part of the gas exchange. Individual accountability (The activity includes an individual accountability component)

Once they are ready with the lugs each student will receive a paper with an alveolus. They must cut it, paste it in their copybook and represent the gas exchange. With a green arrow show the exit of carbon dioxide and with a yellow arrow the entrance of oxygen. Individual accountability (The activity includes an individual accountability component) Promote understanding across languages (2.4)



Meanwhile all students work the teacher goes monitoring students work and gives feedback to the all the students about their work.

	The teacher projects lungs with augmented reality for students meanwhile they are working, so they have a clear view of how to paint and draw the organs responsible of the gas exchange.		
CLOSURE	The teacher checks the work of students by tagging the augmented reality lung that is projected with the help of students. Students must check their work. Teacher asks some questions meanwhile the students share their work: -What enters to the body and what goes out of the body? Why? -Are all organs of the respiratory system important on the gas exchange process? -Is the gas exchange process connected with another system we have learned about? -Mainly in which organ does the gas exchange occur? -How are you feeling about this content?	25 minutes	The class closure is a discussion and questions are used to see if students learned and understood the gas exchange process.