



Revision

Respiratory Block



Anatomy Practical team - Med 439

Four stations

First one:

- 1- Identify the rib and what is the side?
- 2- Two questions about radiology.

Second station:

It could be:

- Identify the conchae, meatus (and what is drain in), palate, paranasal sinuses.
- Identify the opening or the elevation.
- Identify the epiglottis, or one of the folds.

Third station:

About the hilum and the impressions of the lung.

Fourth station:

About mediastinum (one nerve, one artery, one tube, and the vein)



Ribos

THE RIBS

First rib



- The shortest, Flat, Broad.
- Two surfaces:
Superior (rough), Inferior (Smooth).
- Two borders:
Inner (concave), Outer (convex).

Second rib



- Has costal groove (short).
- The tuberosity is **superior**.

لو حطيتها على الطاولة كل الطرفين بيلمسون الطاولة.

Typical ribs (3-9)



- Costal groove (for intercostal nerves & vessels) is inferior.
- Two borders: Upper (blunt, rounded), Lower (Sharp).

لو حطيتها على الطاولة بتشوف طرف يلمس الطاولة والطرف الثاني مرتفع عنها .. مستحيل الاثنيين يكونو مع بعض مرتفعين او مع بعض يلمسون الطاولة.

How can you determine the side ?

First step: Posterior and Anterior.

All the ribs have the same ends:

- Head contains facet followed by neck is **POSTERIOR**
- Flat end is **ANTERIOR**

Second step: Superior and Inferior.

1st ribs:

The rough surface is **SUPERIOR** and the smooth surface is **INFERIOR**

2nd ribs:

The tuberosity is **SUPERIOR**

Typical ribs:

The rounded border is **SUPERIOR** and the sharp border and the costal groove is **INFERIOR**

Then you can know if it's left or right

How to differentiate between the ribs?

S
U
M
M
A
R
Y



When you see a short, flat rib and the surfaces are upper and lower that is the **first rib**.
But when the surfaces are not clear " if it's upper & lower OR inner & outer " and there is costal groove in the inner that is the **second rib**
Finally, **the typical ribs** are long, the surfaces are Outer & Inner.

Identify? And determine the side.

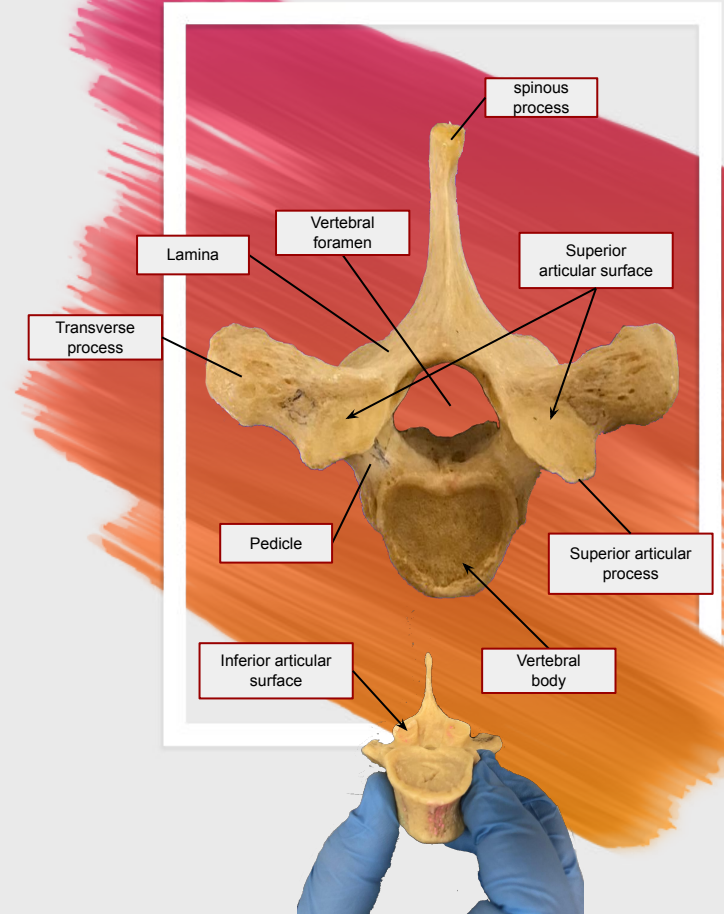
Thoracic vertebrae

Girl's doctor: In case there is a question of vertebra in the exam it will be "Identify" And There is ONE ANSWER:

Typical thoracic vertebra

common features:

- The body is medium sized, somewhat heart-shaped and has two costal Vertebrae demifacets on each sides (superior,Inferior) which receive the heads of the ribs.
- also the transverse processes have facets that articulate with the tubercles of the ribs.
 - spinous process (long hooks sharply downward)
 - Vertebral foramen (circular), pedicle, lamina.



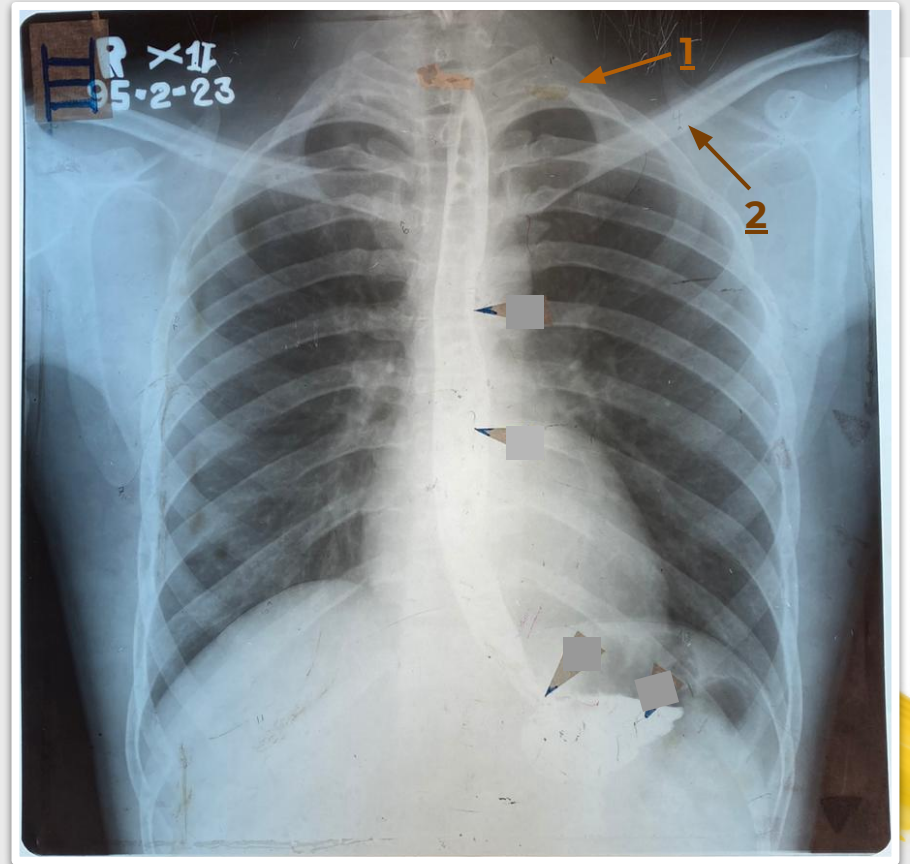


Radiology

2 questions

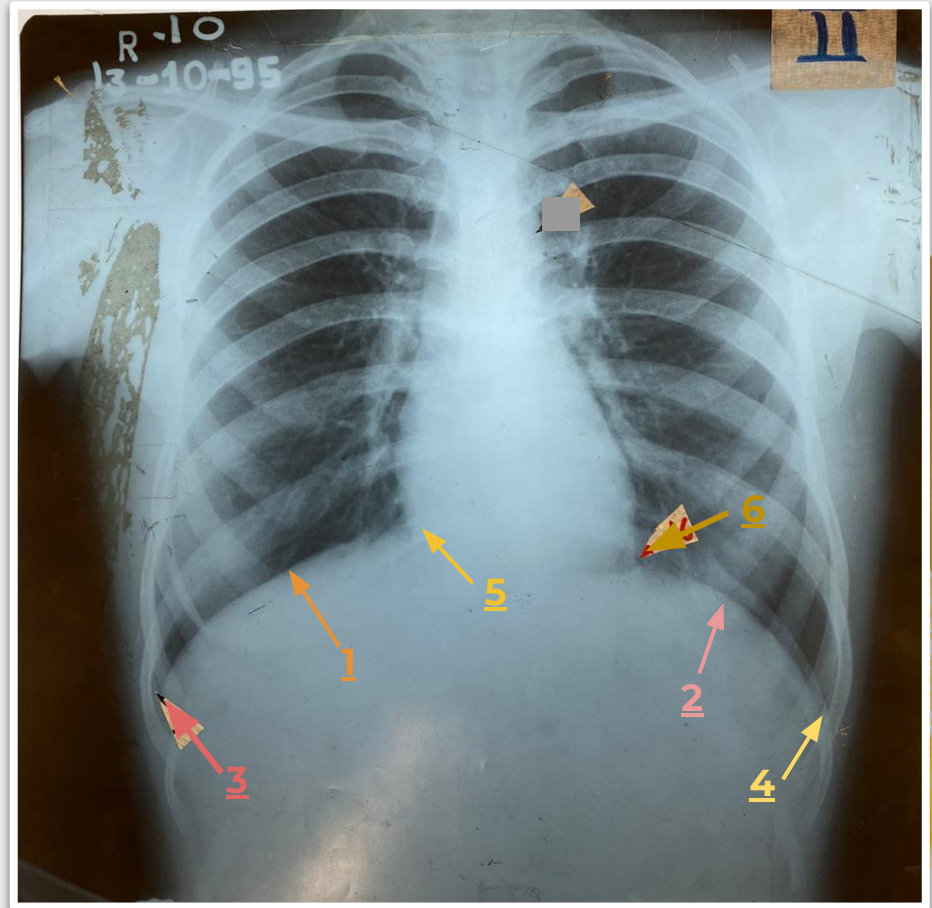
Bones

1-First Rib
2-Clavicle



- 1-Right dome of Diaphragm
- 2-Left dome of Diaphragm
- 3-Right Costodiaphragmatic angle
- 4-Left Costodiaphragmatic angle
- 5-Right Cardiophrenic angle
- 6-left Cardiophrenic angle

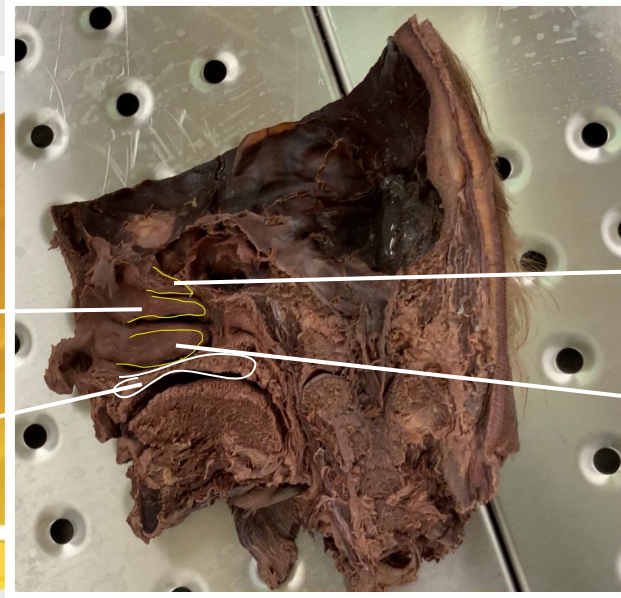
Don't forget to write the side "Left or right"



A graphic featuring three horizontal brush strokes in shades of red and orange. A white rectangular frame is centered over the strokes, containing the text "Nasal cavity" in white. The background is a light gray gradient.

Nasal
cavity

Lateral wall of nasal cavity



Superior nasal
conchae

Inferior nasal
conchae

أكبر وحدة وتحتها على طول
Hard palate

Middle nasal
conchae

Hard
palate

أفضل أنكم تميزونه هو
بعدها تبدأون العد من عنده
عشان تتأكدون أنكم ماشين
صح مو مخر بطين

Lateral wall of nasal cavity



Inferior meatus
receives secretions
from the
nasolacrimal duct



Middle meatus
receives secretions from
middle ethmoidal,
maxillary, frontal & the
anterior ethmoidal
sinuses



Superior meatus
receives secretions from
posterior ethmoidal
sinus

If there is question
about meatus it should
be followed by "What is
drain into?"

Paranasal sinuses & The floor





Pharynx

Nasopharynx

Structures in the nasopharynx:

1. The opening of the auditory tube:

تقدرون تحددونها من خلال أنكم

تحددون الـ Inferior conchae

وبعدها تمشون على امتدادها لحد ما توصلون للفتحة

2. Tubal elevation:

راح تكون فوق الفتحة مباشرة

It is not difficult at all!
Opening or Elevation





Larynx

Single cartilages

1. Epiglottis

Folds

They look like lips

2. Vestibular fold

3. Vocal fold



The image features three horizontal brush strokes of varying colors: a dark red stroke at the top, a medium red stroke in the middle, and an orange stroke at the bottom. The strokes have a textured, painterly appearance with visible brush bristles. A white rectangular frame is superimposed over the center of the strokes, containing the word "Lung" in a clean, white, sans-serif font.

Lung

How to Answer Properly

1- Start with identifying the side.

- Check the number of lobes.

If it has 3 lobes then it is the right lung, however if it has 2 lobes only then it is the left lung.

على الأغلب ما يجي سوال في الاختبار يطلب تحددون السايڊ لكن ضروري تعرفونه عشان تكتبونه عند كل إجابة في ال

hilum & impressions

2- After you've identified the side, bear in mind that:

- If it's the **Right** lung, you will find openings of: **2 bronchus, 1 artery, 2 veins.**
- If it's the **Left** lung, you will find openings of: **1 bronchus, 1 artery, 2 veins.**

3- Now you need to differentiate each opening.

- Openings for bronchus is cartilaginous (ملمسها قاسي وناشف).
- Opening for the pulmonary artery is soft.

نفترض طلعت لكم الـ lung اليمين، اول شي المسوا وطلعوا الفتحات القاسية الـ bronchus وعددهم بيكون ٢، وبين فتحتين البرونكس هذي بتحصلون فتحة الـ artery محشور بينهم، اذا يا دفعة يا بطة نستنتج أن الفتحتين الباقيات اللي تحت مرره ومن قدام مرره بتكون للـ vein.

الحين نفترض طلعت لكم الـ lung اليسار، نفس الشي المسوا وطلعوا فتحة الـ bronchus القاسية، فوقها على طول بتحصلون فتحة الـ artery. والـ veins عادي بنفس مكانهم ماتغيروا (أو بطريقة أسهل هذولي أصلاً مترتبين، فوق اول شي الأرتري وتحت البرونكس وتحت على طول الإنفيرور فين وعاد اللي باقي هو السوبيرور فين) "

ملاحظة: الارترى والفيين اصلا بعد ما يدخلون الرئة يتفرعون الى فروع اصغر وهذا شي طبيعي، هذا يخلينا احيانا نشوف اكثر من فتحة للارترى او الفيين بس تكون متقاربة لدرجة واضح انهم بالاصل نفس الارترى او نفس الفيين لكن مع تشريح الجسم انقصت الرئة من داخل شويه وطلعت الفروع ما طلع الارترى او الفيين الاصلى لحاله.

Pulmonary Artery

What is left is the
artery

Right Lung



محشور بين
برونكس فوقه
وبرونكس
تحتہ

Left Lung



Bronchus

It is best to feel for the cartilage on the borders of each hole to find the bronchus

Right Lung



لا تنسى
اليمين عندها
٢ برونكس

Left Lung



Superior & Inferior Pulmonary Vein

After distinguishing the bronchus,
the veins are found most anterior
and inferior to the bronchus

Right Lung

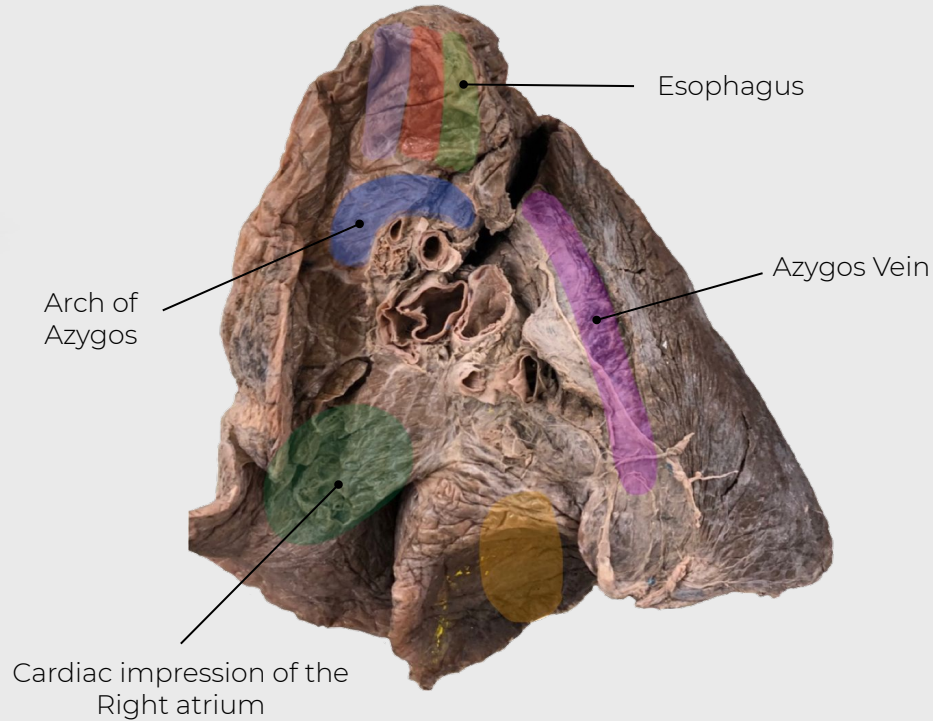


Left Lung

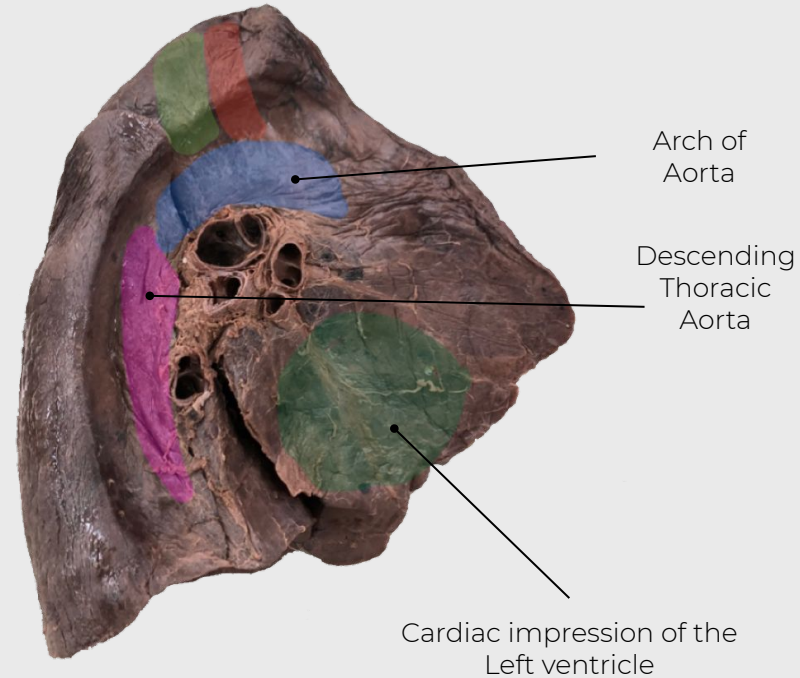


I M P R E S S I O N S

Right Lung



Left Lung





Mediastinum

One nerve, one tube, one artery



VEINS

Azygos vein

أكثر شيء يميزه أنه ملتصق على
thoracic vertebrae
ويكون فقط ع الجهة اليمنى من الجسم





NERVES

بيكون واضح جدًا يا بحيث ينمسك النيرف عند
Neck, then you will write VAGUS
أو ينمسك نيرف متصل مع الـ
Diaphragm, then you will write PHRENIC

Vagus nerve

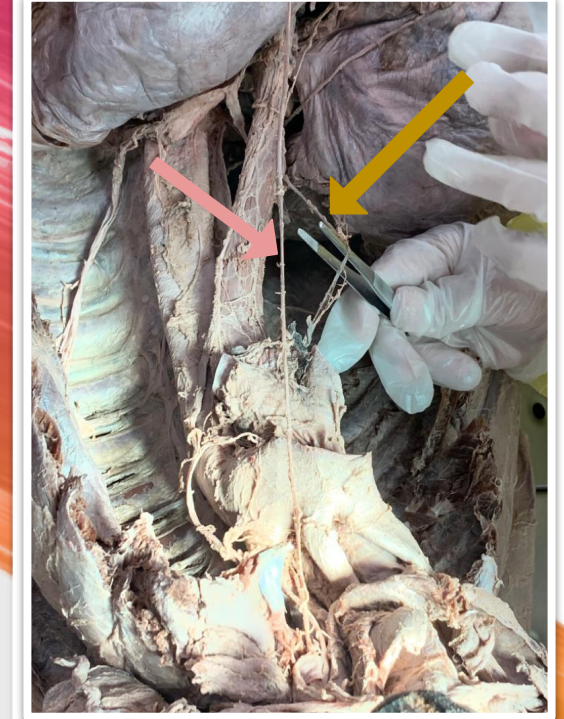
(C10)

“ Short, Start from the neck “
“ and penetrate trachea “

Phrenic nerve

(C3,C4,C5)

“ Long, contentious at the
diaphragm “



Don't forget to write the side “ Left or right “



ARTERIES

Ascending aorta

Cut from the specimen and most likely we won't see it

Arch of aorta

Descending aorta

Directly behind the esophagus



Arch of the aorta gives rise to 3 arteries:
From right to left

1

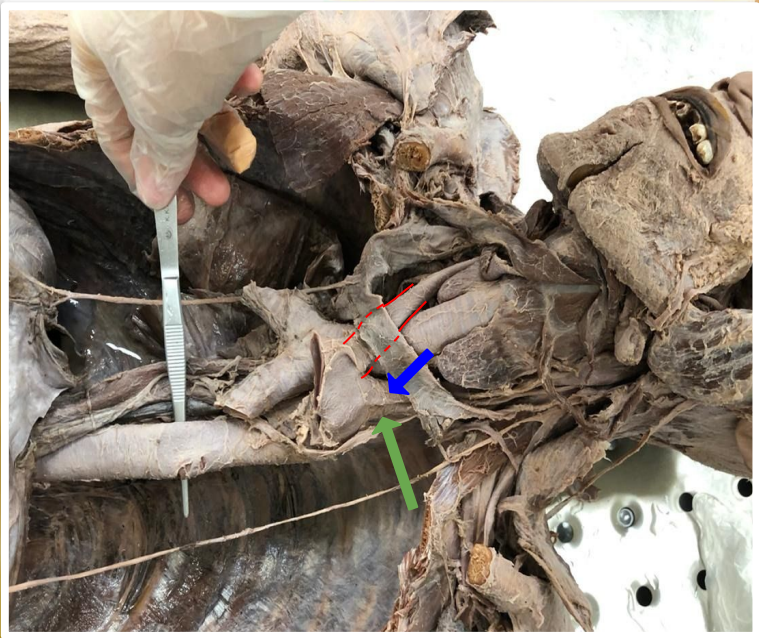
Brachiocephalic
artery "Right"

Left common
carotid artery

2

3

Left subclavian
artery





TUBES



Esophagus Muscle

تيوب ناشفة وموجودة في اليسار فقط يتكون
Descending aorta

And if there is structure only in the right side and collapsed, it's azygos vein



Trachea

Rings of cartilage, white, Anterior

Right "main,
primary, principal"
bronchus

Left "main, primary,
principal"
bronchus

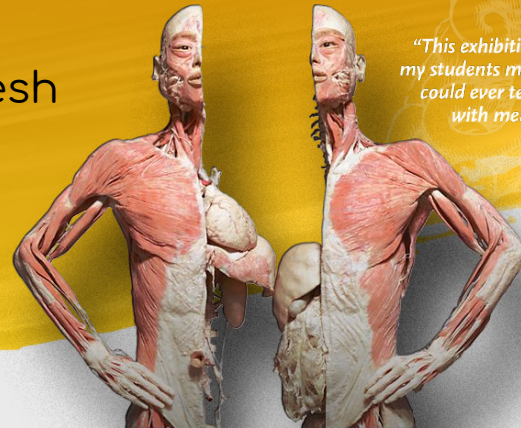
Don't stop until you are proud.

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- Abdulrahman Addweesh
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Team Leaders:

- Renad Alhomaidi
- Bassam Alasmari



"This exhibition taught my students more than I could ever teach them with mere words."