### **Exploring the Eye**

Did you take a picture of the retina in your eye with the Ophthalmoscope? Yes No

No

Yes

Did you try on the Pathology goggles?

Which eye condition do you think would be the most difficult to live with? Circle your choice below.



Health Promotion Officer **Ophthalmic Scientist** Software Engineer Optometrist / Optician















Blurry / **Blindness** 

**Loss of Acuity** 

Cataracts

Loss of binocular vision



Retinopathy





Macular

Degneration





**Tunnel Vision** 

Right or Left Side Blind

"if you can read this you don't need glasses!"

# Hearing

Tuning forks can be used to test outer hearing (by holding it near a patient's ear) AND bone conduction hearing (by placing it on the mastoid bone or the patient's head).

Did you test your hearing?



# Career Finder

Audiologist Musical Therapist





### Reflexes

Did you get a reflex response?



# Career Finder

Neurophysiologist Paramedic

IF YOU ENJOYED THE WOTZKSHOP, SCAN THE QR CODE TO CHECK OUT MOTZE COOL STUFF ON OUTZ WEBSITE!





#### **Career Finder Guide**

The careers in **GREEN** require The careers in **ORANGE** require 8-9 grades. 9-4 grades.

#### Check out episode 21 of MMTV!

With just a few clicks, discover the salaries & career routes through school, college, uni and apprenticeships for the careers in this workbook! www.medmav.co.uk/mmtv



Career Finder

Midwife

Nurse

Paramedic

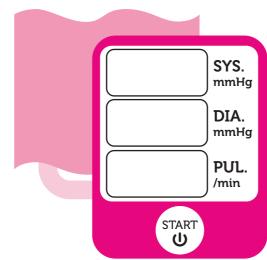
Doctor

### **BASIC MEDICAL OBSERVATIONS**

Height \_\_\_\_\_ cm

Temperature

Blood pressure monitor:



#### Pulse oximeter:

% **0**2 PUL. /min

What did you listen to with the stethoscope? Write it on the line below!



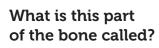
#### **Ultrasound**

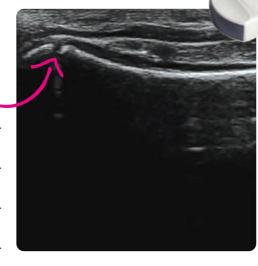
Are you going to grow taller?



# Career Finder

Cardiac Physiologist Physiotherapist Sonographer Hepatologist





The growth plates disappear between the ages of 13 & 15 for girls and 15 & 17 for Boys. However, in some boys and girls the growth plate doesn't close until 18-21 years old!!!

What parts of your body did you look at today? Circle them below!

Bones

Muscles

Carotid artery

Liver

Jugular Vein

Heart

Lungs

Kidneys

The gel is really important! It is the same density as our tissues and it helps transmit the sound waves into the body. The sound waves bounce off the different tissue boundaries and the probe detects the returning waves. These are converted into images by the main computer. Without the gel, the sound waves are reflected by the large difference in density between the probe and the air. In fact 99% of the sound waves are reflected back into probe and do not enter the body without the gel.

If you took some measurements, write them in the space below!



**Did you know** the frequency of the sound waves from an ultrasound machine is above 20,000 Hz. That is above our hearing range!

# **Pulse Doppler**

Did you hear your pulse?

**Triphasic** 

(3 sounds)



Monophasic

Diphasic (2 sounds)

(1 sound)

Career Finder Medical Engineer

Medical Physicist Midwife

Vascular scientist







# **Keyhole Surgery**

How guickly did you manage to complete the shoelace challenge? seconds

# Career Finder

**Operating Department** Practitioner (ODP) Surgeon

Career Finder

Haematologist

Medical Engineer

Nurse

Phlebotomist

### **Blood vessels Infrared Vein Scanner**

Did you see your veins?

Phlebotomy

Yes	No



Yes No

Did you take some blood from Andy?

SCAN THIS QR CODE TO SEE HOW THE VEIN SCANNETZ WOTZKS!





Who uses this kit?

Cardiac Physiologist

Paramedic

Cardiologist

## **Recording an ECG**

Calculate your heart rate from your ECG

Number of spikes \_\_\_\_\_ x 12 = \_\_\_\_ bpm

Label the PQRS and T parts of the trace below!



SCAN THIS QR CODE TO WATCH AN INTERZYIEW WITH A CATEDIAC DHYSIOLOGISTI



### Did you know?

Some software and the coding that is required in the NHS can be considered a medical device. This is because they can impact a patient's treatment!

If you like coding, you could be a Computer Scientist in the NHS.







How would you describe your heartbeat?