

**BECAUSE  
OF THEM  
WE CAN**  
**BOX**  
**JUST FOR KIDS**

# BECAUSE OF DR. CHARLES DREW

AGES 5 - 8



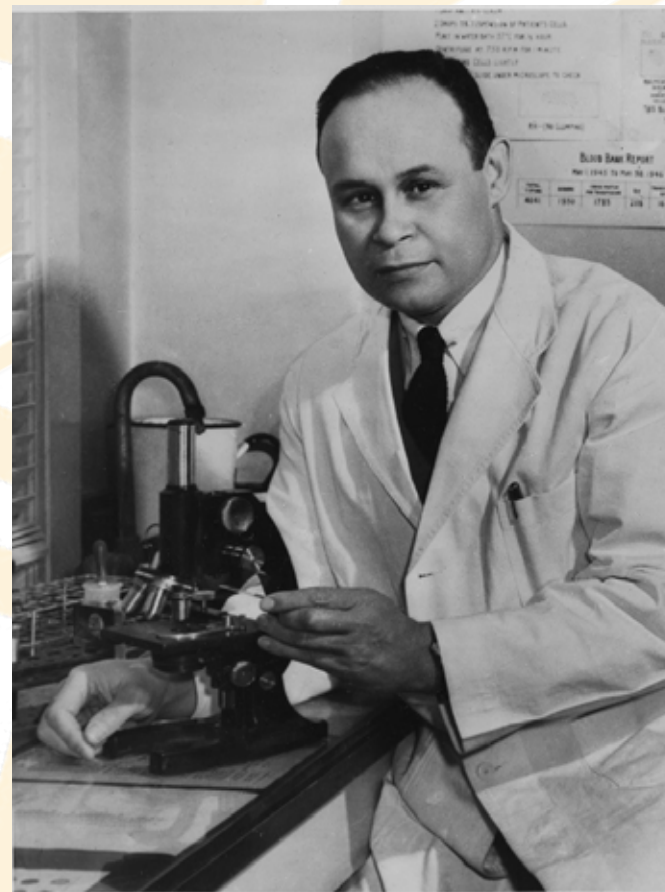
BOTWC MINI POSING AS  
DR. CHARLES DREW

**EXCELLENCE OF PERFORMANCE  
WILL TRANSCEND ARTIFICIAL BARRIERS  
CREATED BY MAN.**

-CHARLES DREW

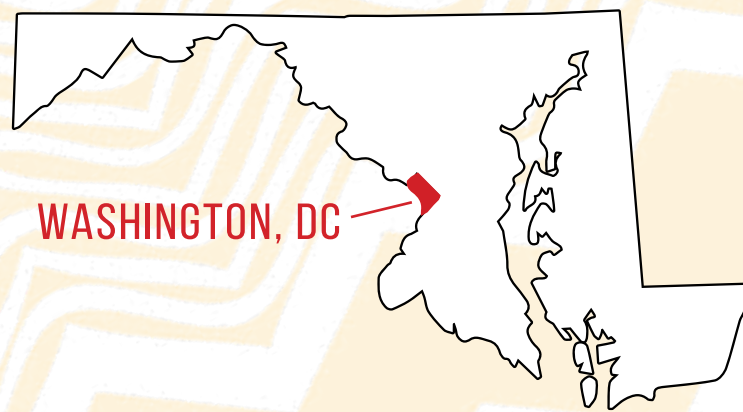
# DR. CHARLES DREW'S LIFE

DR. CHARLES DREW WAS BORN IN WASHINGTON D.C. IN 1904. HIS FATHER WAS A CARPET LAYER AND HIS MOTHER WAS A TEACHER. GROWING UP HE HAD TWO MAJOR INTERESTS: SPORTS AND BIOLOGY. HE FOLLOWED THROUGH WITH HIS LOVE OF **ATHLETICS** AND SCIENCE WHEN HE PLAYED FOOTBALL AND STUDIED **BIOLOGY** AT AMHERST COLLEGE. HE ALSO TAUGHT BIOLOGY AND COACHED FOOTBALL, AFTER GRADUATING, AT **MORGAN STATE UNIVERSITY**. MORGAN STATE UNIVERSITY IS AN **HBCU**.



AFTER SAVING FOR MEDICAL SCHOOL, CHARLES DREW BECAME A DOCTOR AND MEDICAL **RESEARCHER**. HE WAS A **SURGEON**. A SURGEON IS A DOCTOR THAT HAS THE SKILLS TO PERFORM **SURGERY**. HIS RESEARCH IMPROVED THE WAY BLOOD IS STORED SO THAT IT COULD BE USED TO SAVE LIVES DURING **BLOOD TRANSFUSIONS**.

DURING WWII, DOCTORS SAVED MANY LIVES BECAUSE OF DR. CHARLES DREW'S RESEARCH. AS ONE OF THE MOST WELL-KNOWN FIGURES IN THE MEDICAL FIELD, CHARLES DREW **PROTESTED RACIAL SEGREGATION IN BLOOD DONATION**.



DR. CHARLES DREW STOOD UP FOR HIS BELIEFS WHEN HE RESIGNED FROM THE **RED CROSS**, BECAUSE OF THEIR BELIEF THAT BLOOD **QUALITY** WAS DIFFERENT BASED

ON **RACE**. HE DID NOT BELIEVE THAT BLOOD DONATIONS SHOULD BE DIVIDED BECAUSE OF RACE. HE STOOD UP FOR WHAT HE BELIEVED IN.

## #BOTWCCHALLENGE

LISTEN TO YOUR HEART!

FIRST, USE YOUR STETHOSCOPE TO FIND YOUR HEART BEAT - THIS SLOW, STEADY BEAT IS CALLED YOUR **PULSE**. NOW PUT ON YOUR FAVORITE SONG AND DANCE AS HARD AS YOU CAN! WHEN THE SONG IS OVER, LISTEN TO YOUR PULSE AGAIN AND HEAR HOW FAST YOUR HEART IS BEATING!

# READ & WRITE

1. WHAT ARE THREE FACTS YOU LEARNED ABOUT DR. CHARLES DREW?

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2. WHY DID DR. CHARLES DREW LEAVE THE RED CROSS?

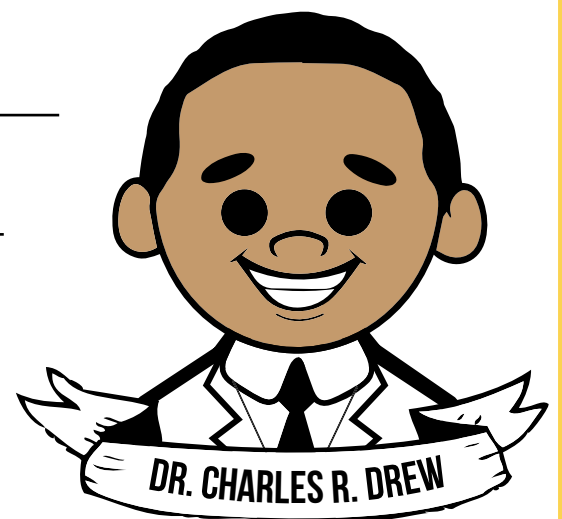
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## GLOSSARY

**SURGERY:** THE TREATMENT OF INJURIES OR DISORDERS OF THE BODY BY INCISION OR MANIPULATION, ESPECIALLY WITH INSTRUMENTS.

**SURGEON:** A MEDICAL PRACTITIONER QUALIFIED TO PRACTICE SURGERY.

**BLOOD DONATION:** THE PROCESS OF COLLECTING, TESTING, PREPARING, AND STORING BLOOD.

**ATHLETICS:** PHYSICAL SPORTS AND GAMES OF ANY KIND.

**BIOLOGY:** THE STUDY OF LIVING ORGANISMS.

**HBCU:** HISTORICALLY BLACK COLLEGES AND UNIVERSITIES.

**MORGAN STATE UNIVERSITY:** A PUBLIC HISTORICALLY BLACK (HBCU) RESEARCH UNIVERSITY IN BALTIMORE, MARYLAND.

**RED CROSS:** THE AMERICAN RED CROSS, ALSO KNOWN AS THE AMERICAN NATIONAL RED CROSS, IS A HUMANITARIAN ORGANIZATION THAT PROVIDES EMERGENCY ASSISTANCE, DISASTER RELIEF, AND DISASTER PREPAREDNESS.

# MY BLOOD TYPE

**DIRECTIONS:** READ THIS SECTION AND UNDERLINE ANY IMPORTANT INFORMATION YOU COME ACROSS. WRITE YOUR THOUGHTS ANYWHERE YOU'D LIKE!

**BLOOD TRANSFUSIONS** ARE A LIFESAVING TREATMENT FOR MANY AMERICANS. BLOOD TRANSFUSIONS ARE NEEDED FOR MANY REASONS, INCLUDING SURGERY, AFTER ACCIDENTS, AND FOR PATIENTS THAT ARE SICK.

BLOOD CANNOT BE **ARTIFICIALLY** MADE, SO DOCTORS NEED **VOLUNTEER** DONATIONS. TO KEEP THE BLOOD SUPPLY SAFE, EVERY DONATION IS TESTED FOR BLOOD TYPE AND CHECKED FOR SICKNESSES.

WHAT ARE THE **COMPONENTS** OF BLOOD?

ALL BLOOD HAS:

- RED BLOOD CELLS
- WHITE BLOOD CELLS
- PLATELETS
- PLASMA

BUT NOT EVERYONE HAS THE SAME BLOOD TYPE. THERE ARE FOUR MAIN PARTS OF THE ABO BLOOD SYSTEM:

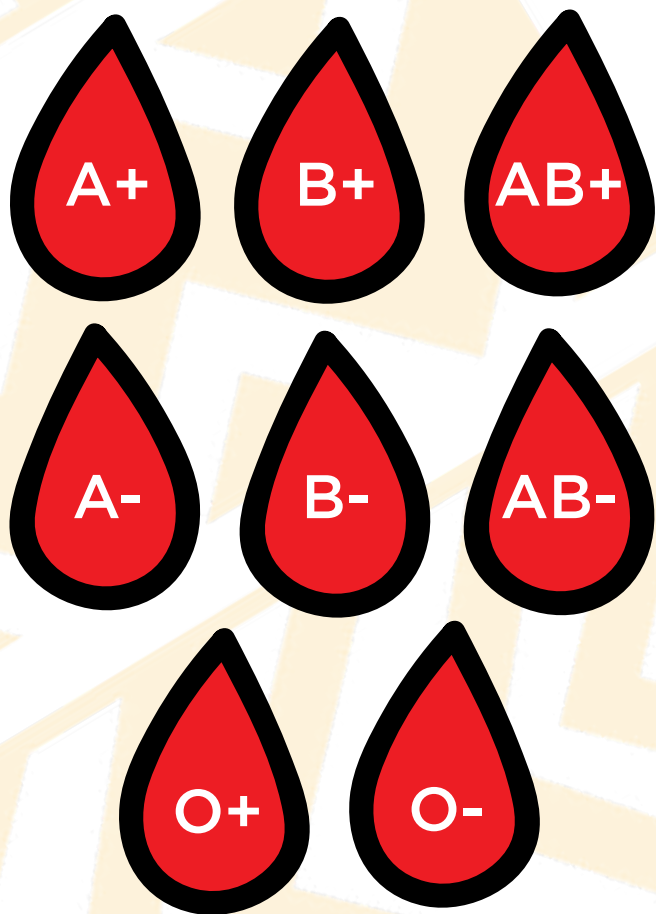
- **TYPE A:** THIS BLOOD TYPE HAS A MARKER KNOWN AS A.
- **TYPE B:** THIS BLOOD TYPE HAS A MARKER KNOWN AS B.
- **TYPE AB:** THIS BLOOD TYPE HAS BOTH A AND B MARKERS.
- **TYPE O:** THIS BLOOD TYPE HAS NEITHER A OR B MARKERS



THESE PARTS MAKE UP EIGHT BLOOD TYPES. BELOW, YOU'LL FIND A TABLE WITH ALL OF THE EIGHT POSSIBLE BLOOD TYPES. **READ THE PARAGRAPH ON THE NEXT PAGE AND WRITE ONE FACT YOU LEARNED ABOUT EACH BLOOD TYPE, ON THE RIGHT SIDE OF THE TABLE.**

BLOOD TYPE	FACTS
O NEGATIVE	
O POSITIVE	
A NEGATIVE	
A POSITIVE	
B NEGATIVE	
B POSITIVE	
AB NEGATIVE	
AB POSITIVE	

# BLOOD TYPES



THERE ARE SPECIAL TRAITS ON YOUR RED BLOOD CELLS THAT MAKE UP YOUR BLOOD TYPE. THESE TRAITS ARE CALLED **ANTIGENS**. THERE ARE TWO TYPES OF ANTIGENS THAT BLOOD CAN HAVE: A ANTIGENS AND B ANTIGENS. HAVE YOU EVER GROUPED YOUR CRAYONS BY COLOR? JUST LIKE YOU GROUP YOUR CRAYON BOX, THESE ANTIGENS ORGANIZE BLOOD INTO FOUR GROUPS: **A, B, O, OR AB**. YOUR BLOOD IS IDENTIFIED AS **TYPE A** IF IT ONLY HAS A ANTIGENS. YOU WOULD HAVE **TYPE B** BLOOD IF IT ONLY HAS B ANTIGENS. **TYPE AB BLOOD** HAS BOTH A AND B ANTIGENS AND **TYPE O** BLOOD HAS NEITHER A NOR B ANTIGENS. CERTAIN BLOOD TYPES CANNOT DONATE BLOOD TO OTHERS. FOR EXAMPLE, IF YOU HAVE **B POSITIVE** BLOOD YOU CAN GIVE BLOOD TO **B POSITIVE** AND **AB POSITIVE**. IF YOU HAVE **O NEGATIVE** BLOOD YOU CAN GIVE TO ALL BLOOD TYPES!

## MEDICAL RESEARCH CHALLENGE!

YOU MAY HAVE NOTICED THAT THERE MIGHT NOT BE ENOUGH INFORMATION IN THIS PARAGRAPH TO FINISH THE CHART ABOVE! AH HA! WE WANT YOU TO BE A MEDICAL RESEARCHER, LIKE DR. CHARLES DREW AND DO SOME DIGGING USING AN INTERNET SEARCH ENGINE (GOOGLE, YAHOO) USING YOUR COMPUTER OR PHONE! (ASK YOUR PARENT/GUARDIAN, FIRST!) THERE ARE SOME BONUS QUESTIONS, BELOW.

WHAT'S MY BLOOD TYPE? (YOU MIGHT NEED TO ASK YOUR PARENT/GUARDIAN.)

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WHAT'S SOMETHING I LEARNED ABOUT MY BLOOD TYPE?

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# COLORING ACTIVITY

## AORTA

THE MAIN ARTERY THAT CARRIES BLOOD AWAY FROM YOUR HEART TO THE REST OF YOUR BODY.

## RIGHT ATRIUM

RECEIVES BLOOD FROM THE VEINS AND PUMPS IT TO THE RIGHT VENTRICLE.

## RIGHT VENTRICLE

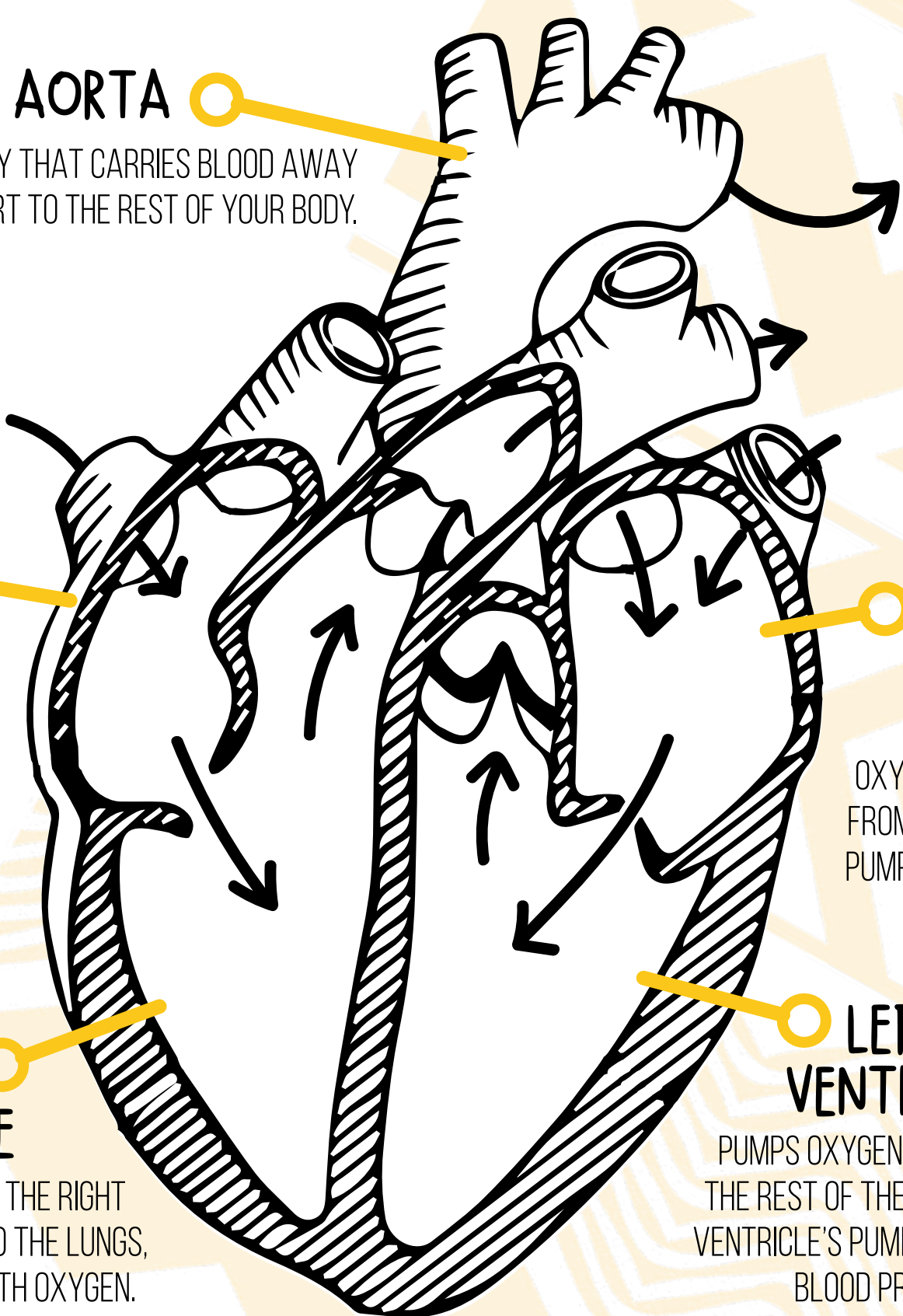
RECEIVES BLOOD FROM THE RIGHT ATRIUM AND PUMPS IT TO THE LUNGS, WHERE IT IS LOADED WITH OXYGEN.

## LEFT ATRIUM

RECEIVES OXYGENATED BLOOD FROM THE LUNGS AND PUMPS IT TO THE LEFT VENTRICLE.

## LEFT VENTRICLE

PUMPS OXYGEN-RICH BLOOD TO THE REST OF THE BODY. THE LEFT VENTRICLE'S PUMPING CREATE OUR BLOOD PRESSURE.



## TAKE THE PLEDGE

**I WILL HONOR**  
THE SACRIFICES OF  
MY ANCESTORS.

**I WILL BELIEVE**  
IN ME.

**I WILL PURSUE**  
MY DREAMS.

**I WILL HELP**  
OTHERS ALONG  
THE WAY.