BIOLOGICAL PSYCHOLOGY: LOCALISATION OF BRAIN FUNCTION

BRAIN FUNCTIONS ARE **LOCALISED**. DIFFERENT BRAIN AREAS CARRY OUT DIFFERENT FUNCTIONS.

HOW DO WE KNOW?

THREE METHODS FOR INVESTIGATING THE BRAIN.

Aidan Sammons psychlotron.org.uk

POST-MORTEM STUDIES LOOK AT **PHYSICAL STRUCTURE.**

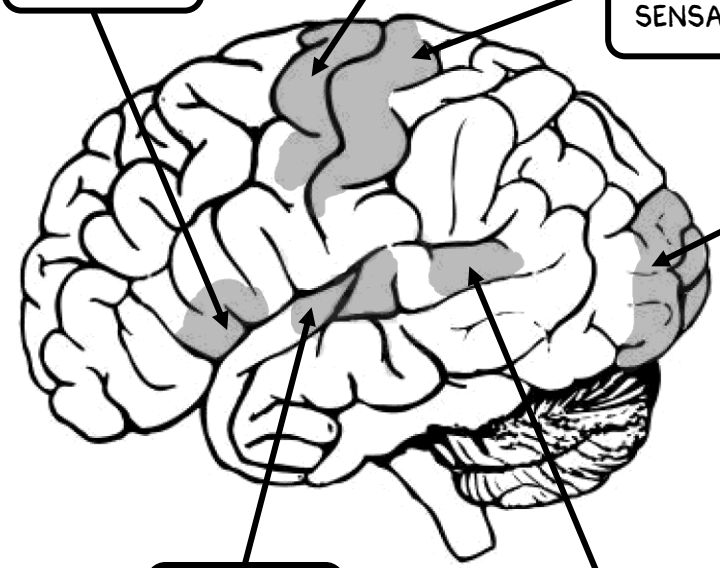
THE BRAIN IS EXAMINED PHYSICALLY **AFTER A PERSON'S DEATH**. FEATURES CAN BE LINKED WITH WHAT WAS KNOWN ABOUT THEM WHILST ALIVE.

PAUL BROCA FOUND **BRAIN DAMAGE** IN A PATIENT WHO WAS UNABLE TO SPEAK.

BROCA'S AREA: SPEAKING

MOTOR CORTEX: MOVEMENT

SENSORY CORTEX: SENSATION



VISUAL CORTEX: VISION

AUDITORY CORTEX: HEARING

WERNIKCE'S AREA: UNDERSTANDING LANGUAGE

AN **EEG** LOOKS AT **ELECTRICAL ACTIVITY.**

ELECTRICAL ACTIVITY FROM **GROUPS OF NEURONS** IS RECORDED AS A TRACE ON PAPER.

WHEN THE **RETINA** IS EXPOSED TO A FLASH OF LIGHT, THE EEG TRACE IN THE **VISUAL CORTEX** CHANGES IN RESPONSE.

A **PET SCAN** LOOKS AT **GLUCOSE CONSUMP-TION.**

MORE GLUCOSE IS CONSUMED IN AREAS WHERE THE BRAIN IS MORE **ACTIVE**. THE SCANNER SHOWS RELATIVE ACTIVITY LEVELS AS **DIFFERENT COLOURS**.

WERNICKE'S AREA 'LIGHTS UP' WHEN PEOPLE **LISTEN TO SPEECH**.