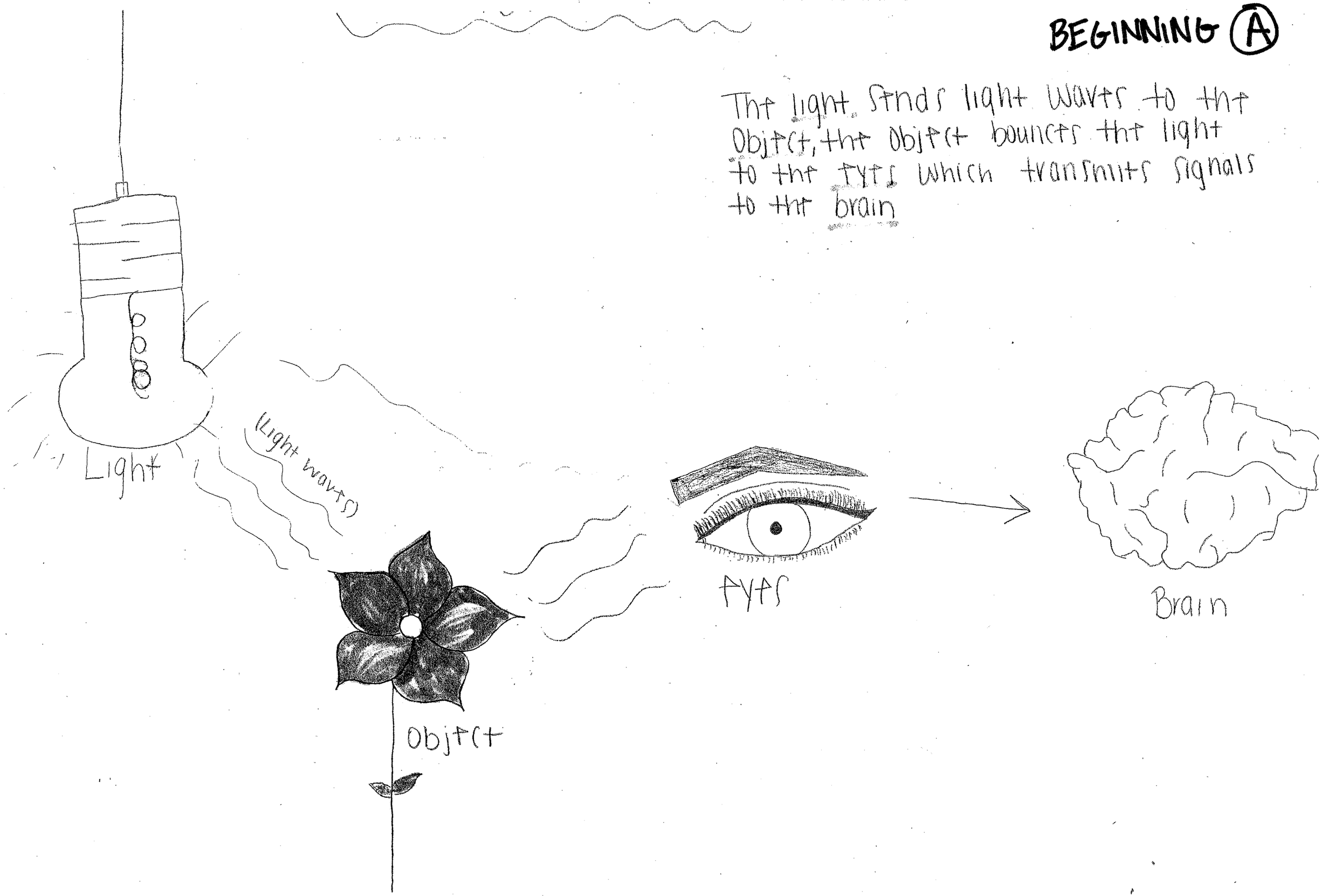
BEGINNING (A)

The light sends light waves to the object, the object bounces the light to the eyes which transmits signals to the brain



MID-UNIT

A

Interpreted Image

Light source

Light waves

Light waves

Occipital lobe

e⁻

e⁻

e⁻

e⁻

e⁻

e⁻

Synapses in Neurons

Object

Light waves

Iris

Lense

Projected Image

Optical Nerve

Pupil

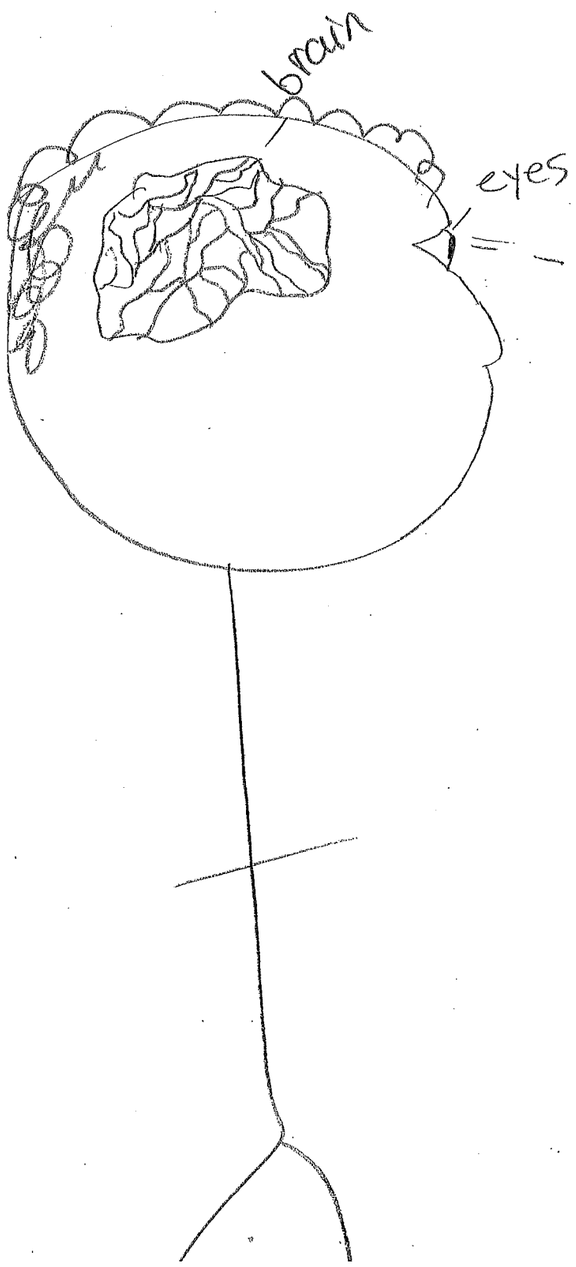
Rod

Cone

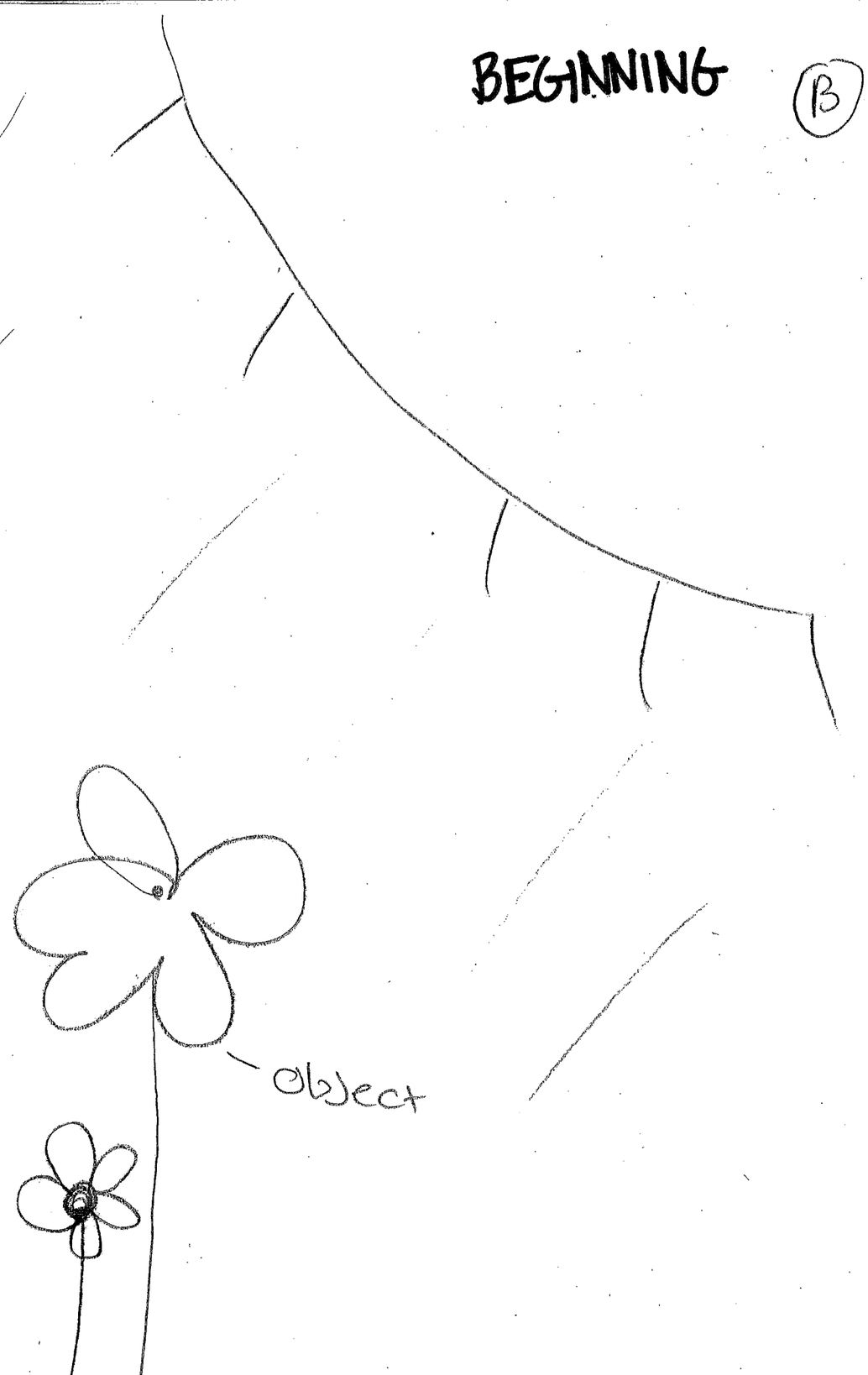
e⁻ to Optical Nerve

Reting

BEGINNING (B)



light



MID-UNIT

(B)

Light Source
(Sun)

Light-Light-Light-Light-Light

Light-Light-Light-Light-Light

Light-Light-Light-Light-Light

Retina

Cones

Rods

The Eye

The Brain

Occipital Lobe (Associated with VISION)

Light-Light-Light-Light-Light

Object

Optic Nerve

Light-Light-Light-Light-Light

Light-Light-Light-Light-Light

Light-Light-Light-Light-Light

Iris

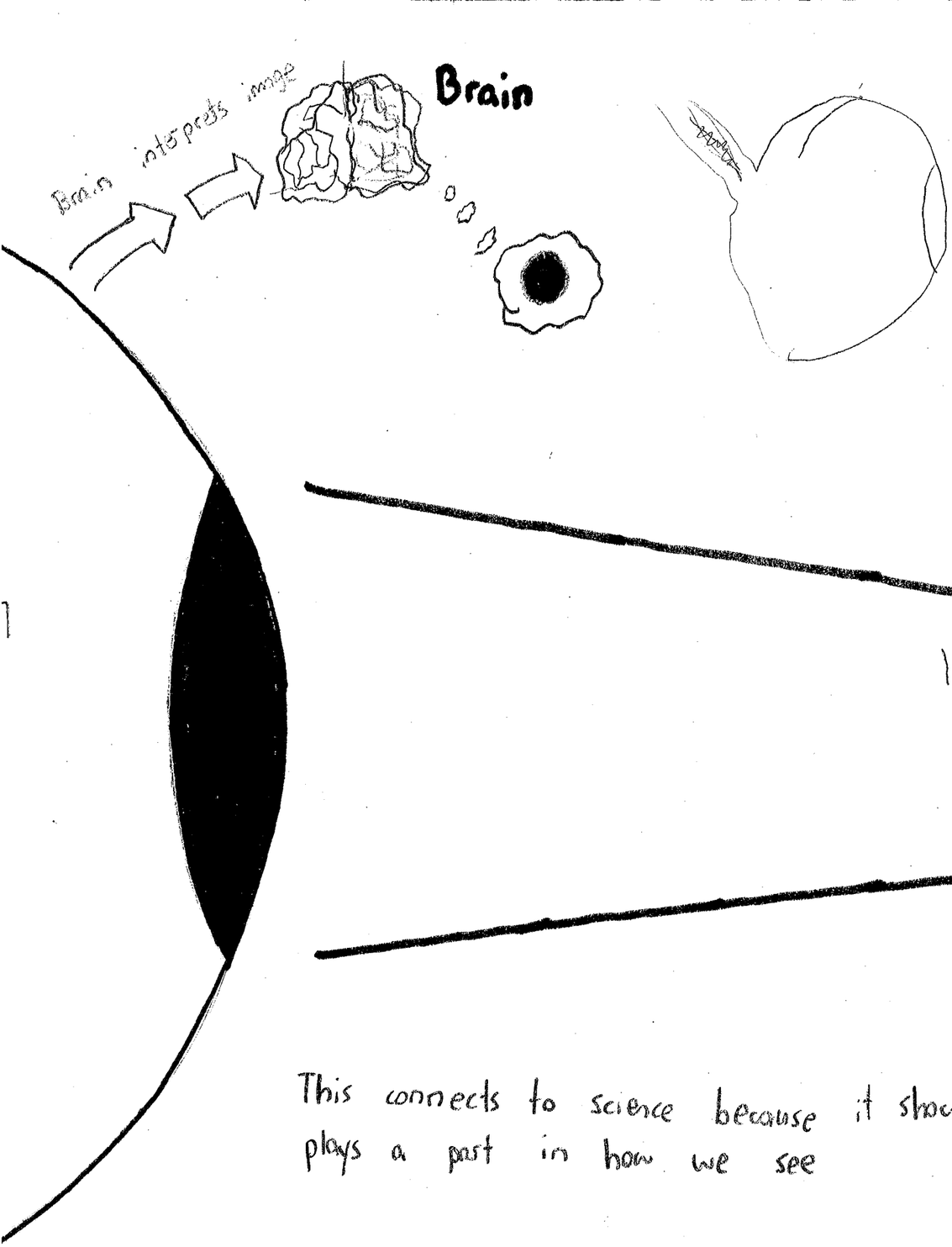
Lens

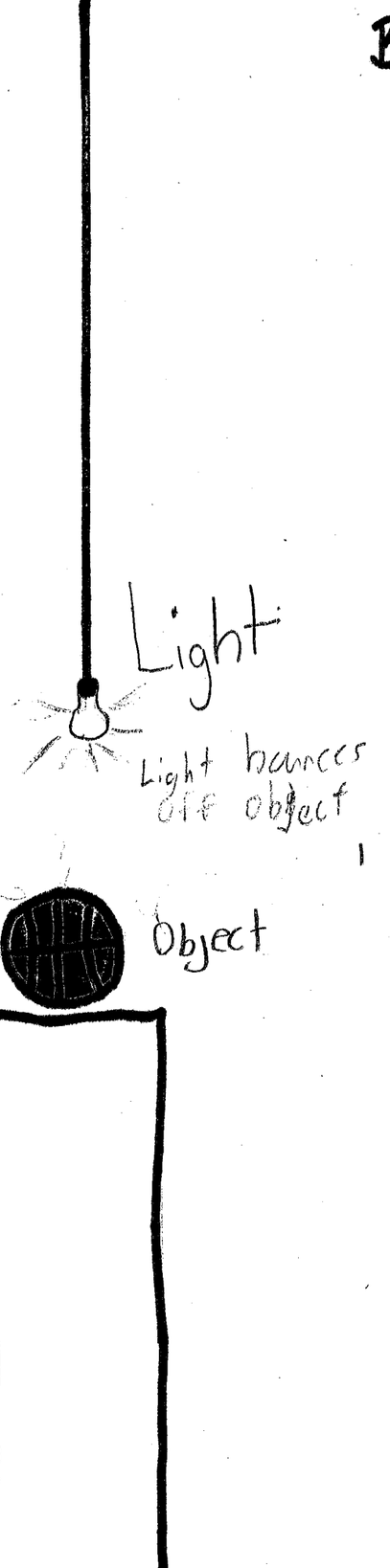
Pupil

Electrical Impulses

Light-Light-Light-Light-Light

BEGINNING





This connects to science because it shows how light plays a part in how we see

MID UNIT

The brain: when the message reaches the brain it takes the images from both eyes, flips them, and combines them to produce a picture.

- the Occipital lobe is the part of the brain that is connected to your vision, its where the images go.

electrical energy (e-)

- optic nerve: sends messages to brain

The Eye

Lens: focus's the light entering the eye.

those light waves then Hit the back of the eye

Flips image

pupil: allows light into the eye

Iris: expands and contracts the pupil to control the light entered

rods + cones.

What changes and moves in the process of vision in the eye would be that when you're brain is exposed to something new its neutrons grow new connections.

the retina: recives the light waves then turn them into electrical waves and send them through the optic nerve.

In class using the light box, I conducted an experiment where we looked in a dark box with a dim inside. We couldnt see it at first but when we opened a flap on the side and let light in, we were able to see it.

* Input: the transverse light waves comeing directly from the sun to the eye and bouncing off the object
* Flow: the light waves passing through the pupil and lens, then sending a message through the optic nerve to the brain.
* Output: Your brain piecing the pictures together and creating an image

Step 1. Source of light: In this case its the sun. Light is radiant energy that travels in transverse waves

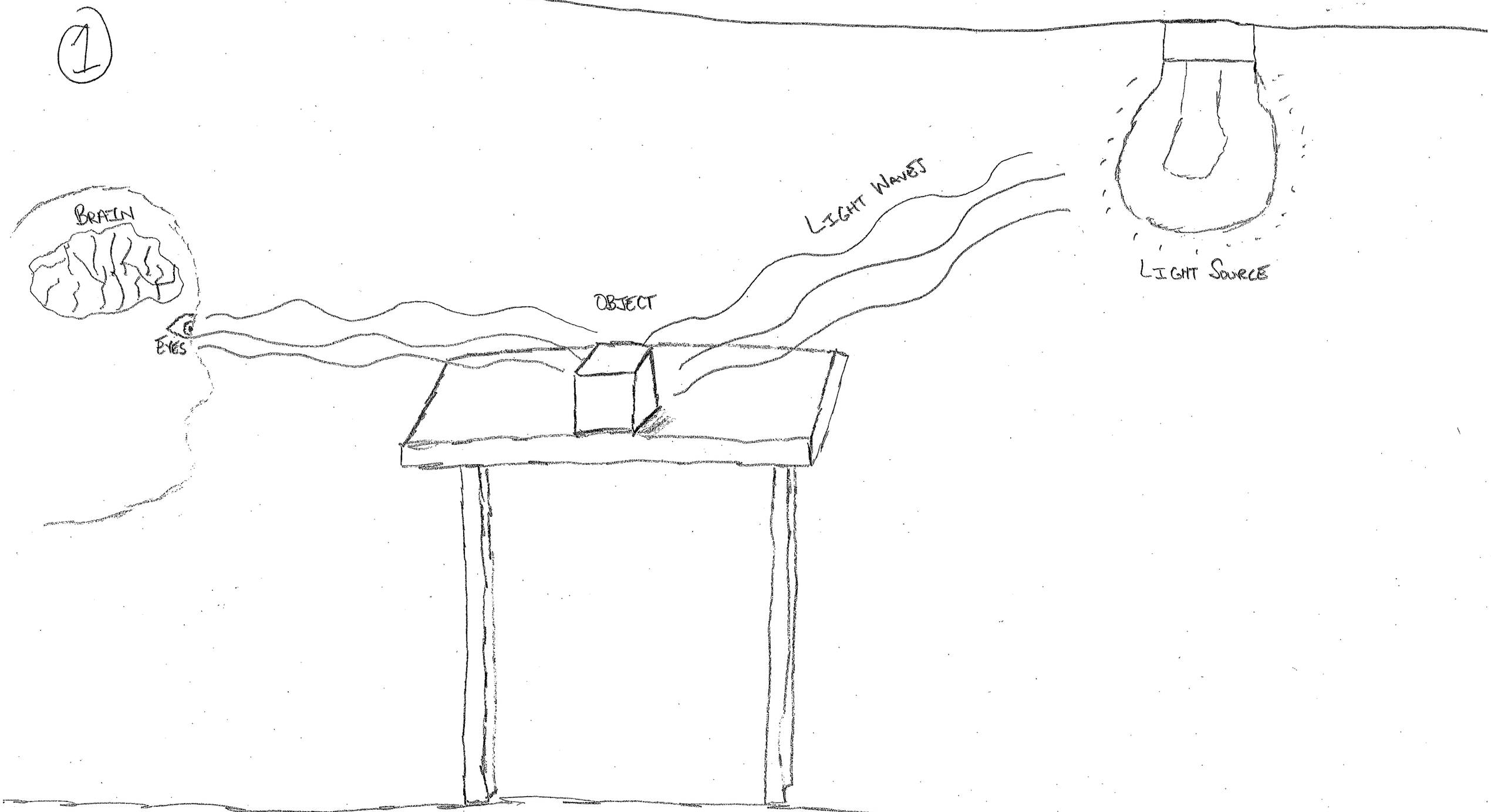
some light goes directly to the eye

transverse light waves

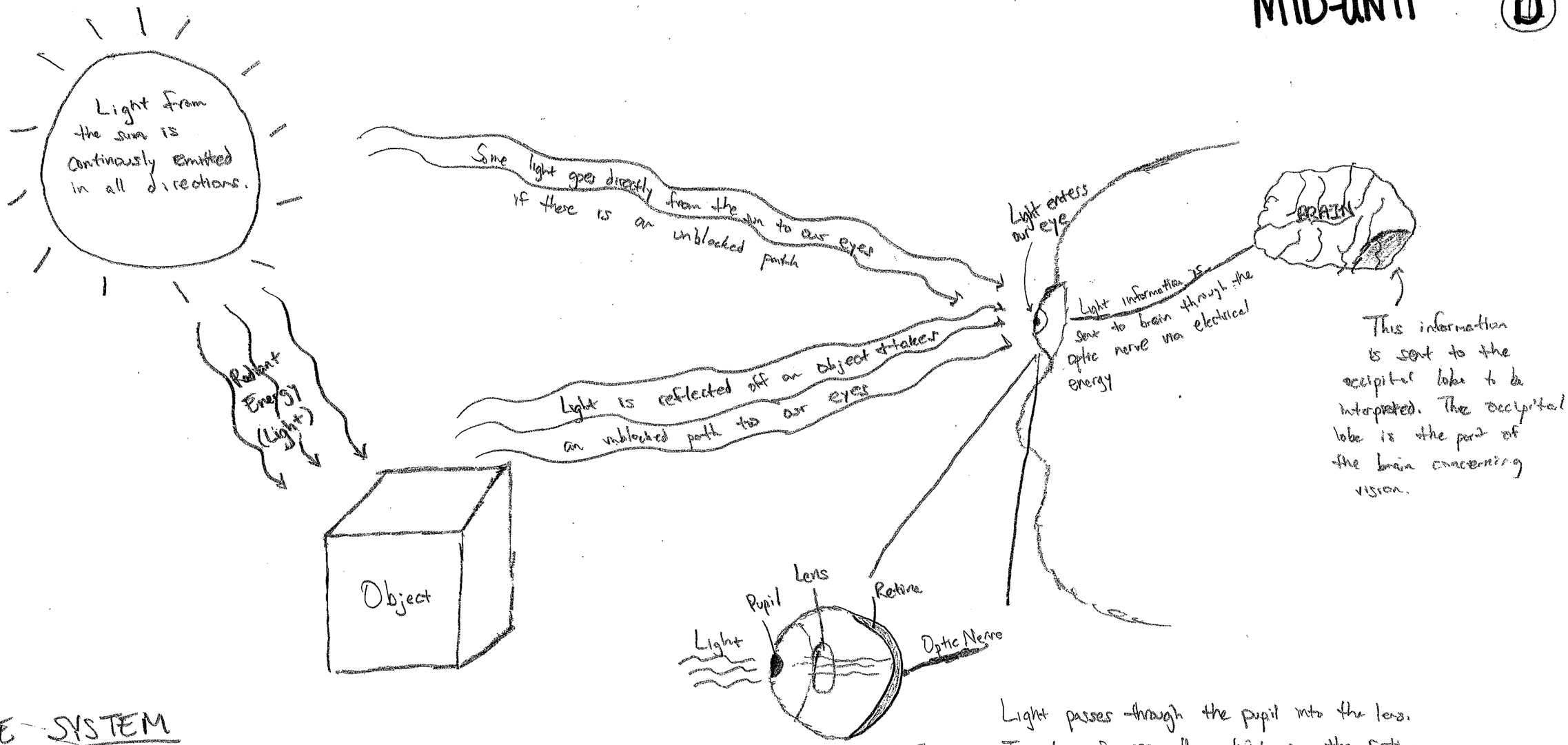
Step 2: the object. In this case its a tree. the light bounces off the tree and enters the eye

BEGINNING (D)

(1)



MID-UNIT



MODEL OF EYE (ENLARGED)

THE SYSTEM

Input: Light from the sun bounces off an object & enters our eye.

Flow: Light moves through the pupil+lens & is recieved by the retina.

Output: The retina gives this information to the optic nerve, which transmits it to the brain through electrical impulses

Light passes through the pupil into the lens. The lens focuses the light on the retina. The retina receives the light & gives the information to the optic nerve. The optic nerve sends that information to the brain, where it is recieved & interpreted.

KEY COMPONENTS

Light → Light information → Electrical Impulses

Object → Pupil → Lens → Retina → Optic Nerve → Brain