



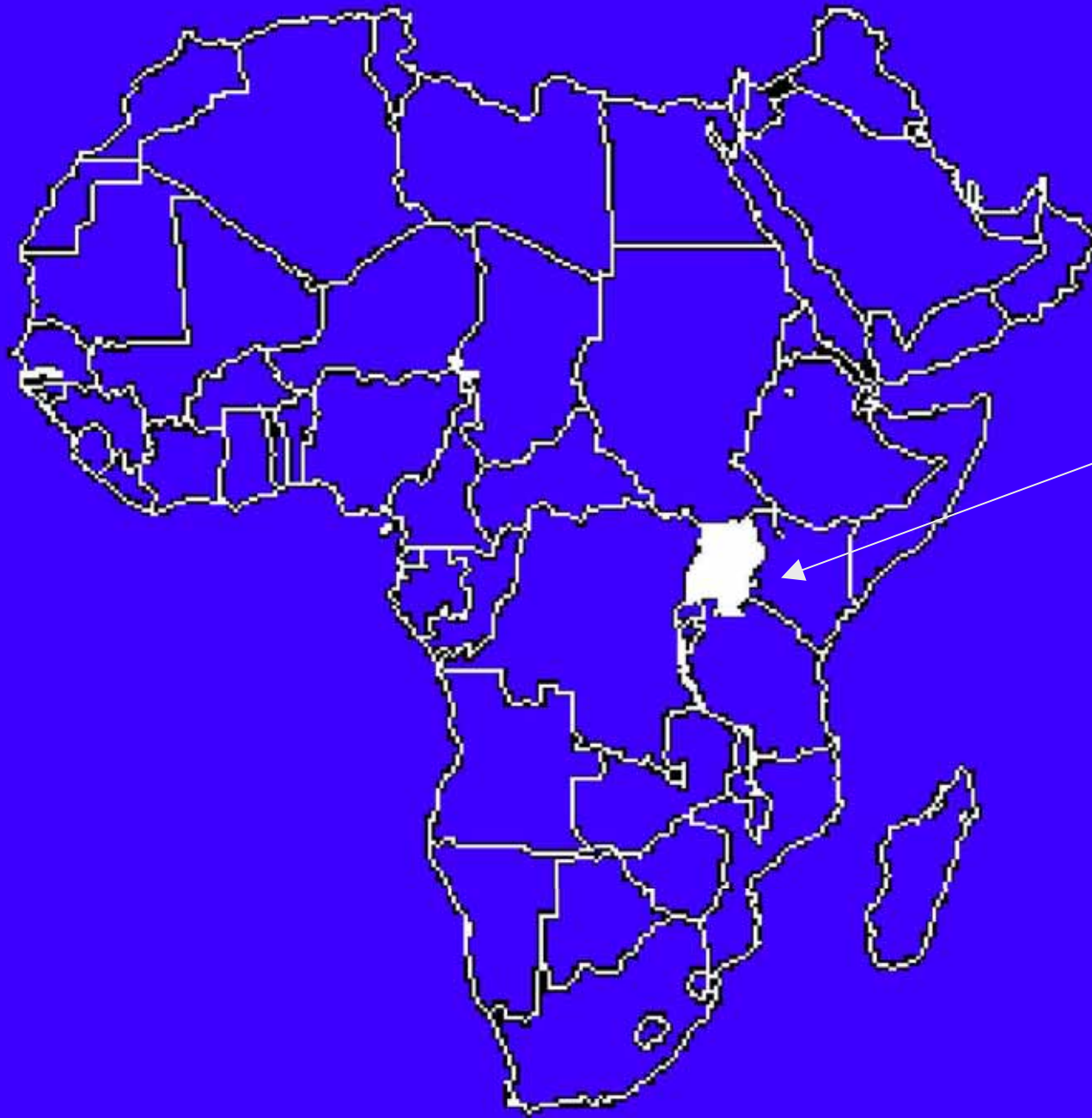
ウガンダにおける活動

大阪府立成城工業高等学校
情報技術科教諭 三野光雄



1. はじめに

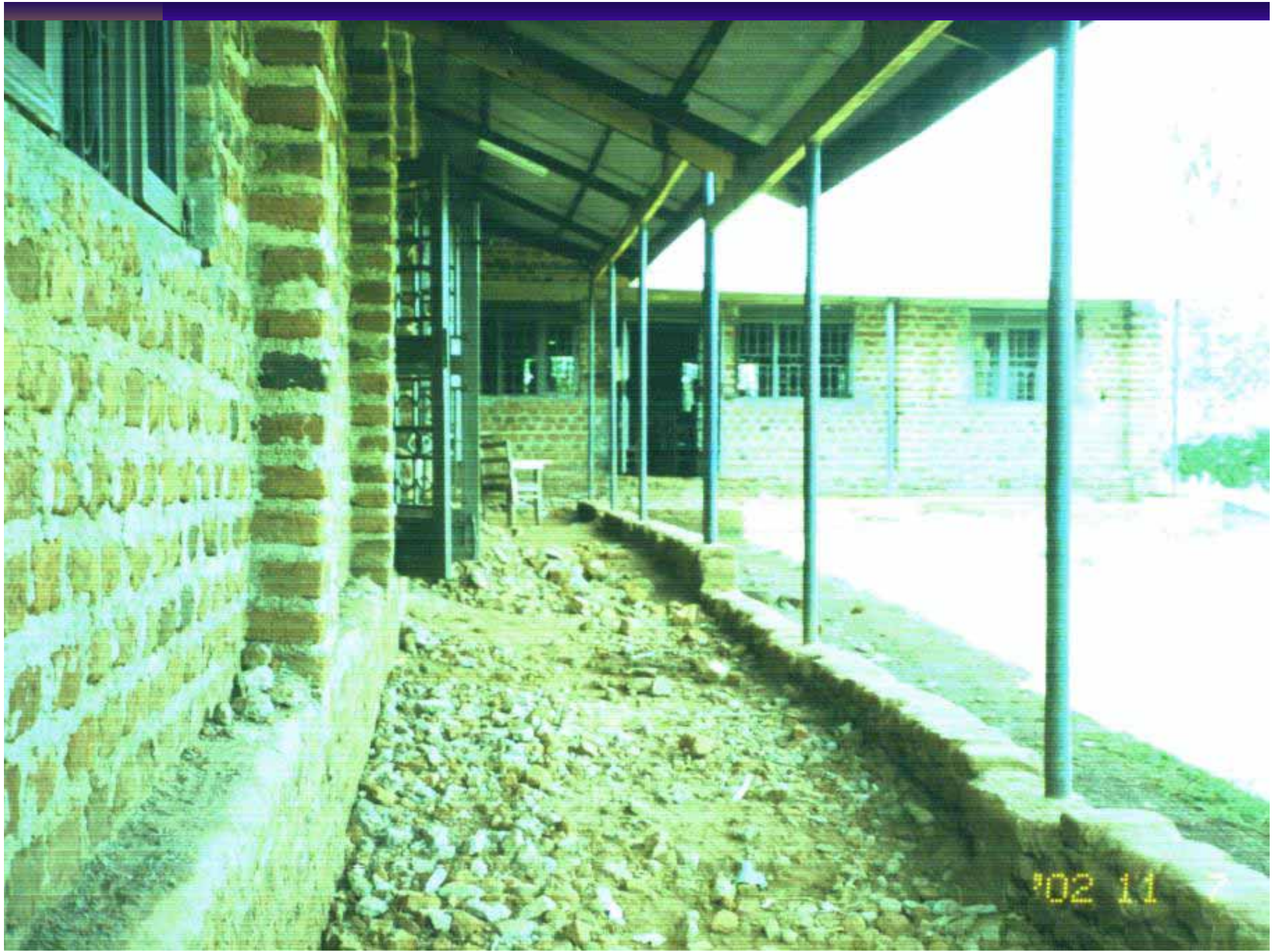
- 活動期間 2002年7月から
2004年3月まで
- 活動場所 ウガンダ共和国
ジンジャ小学校教員養成学校
- 職 種 理数科教師
新規、後任なし



ウガンダ

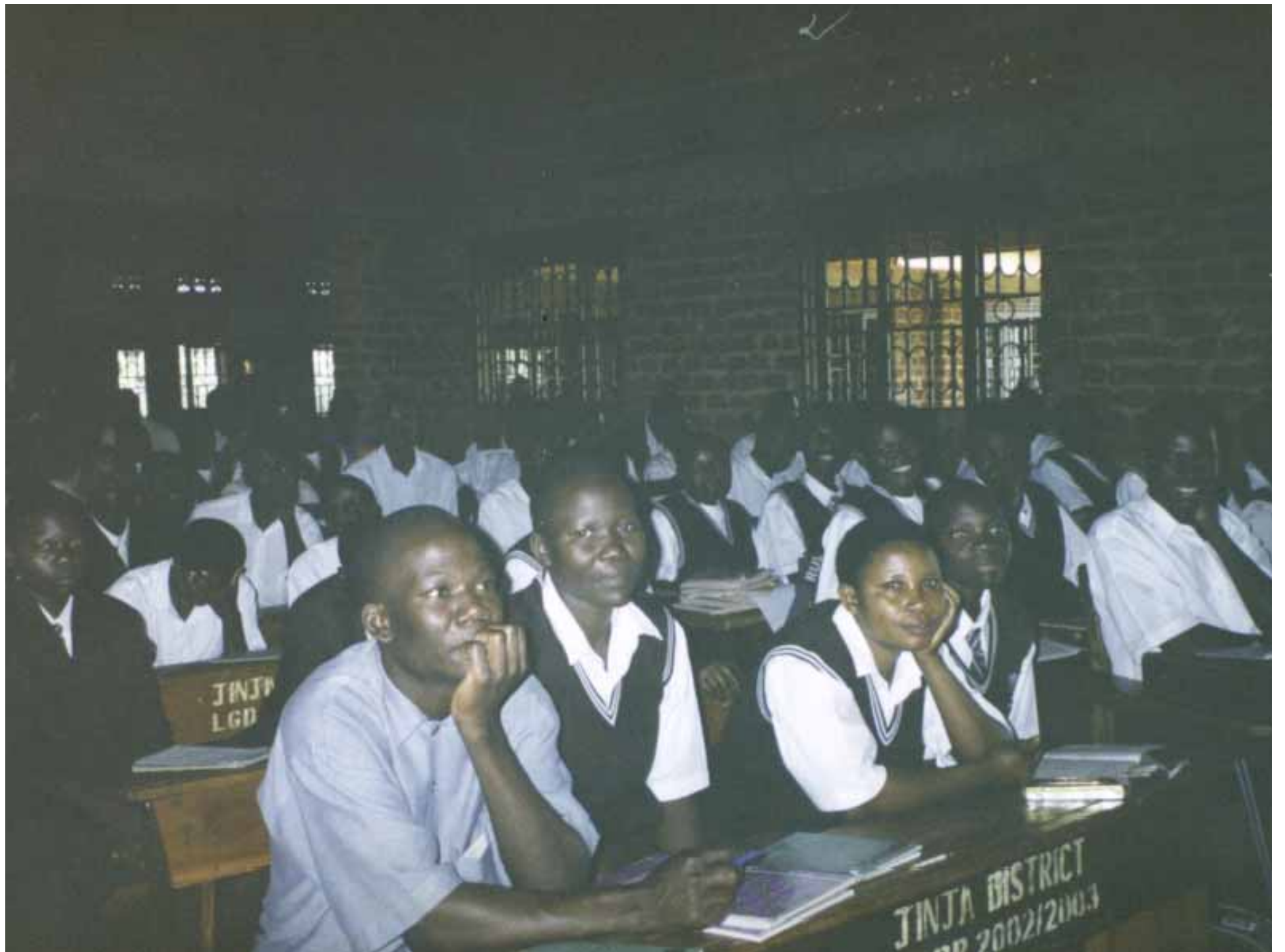
ジンジャ小学校教員養成学校













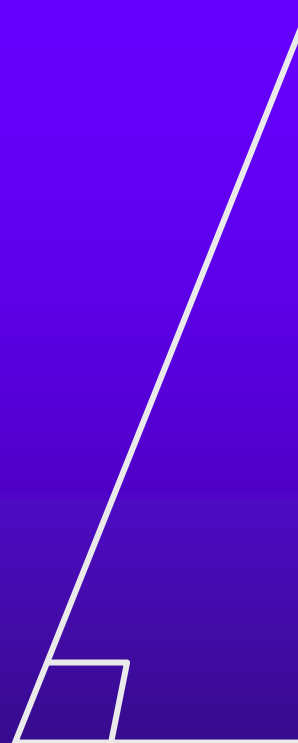
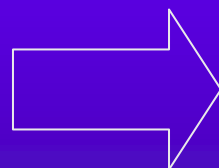
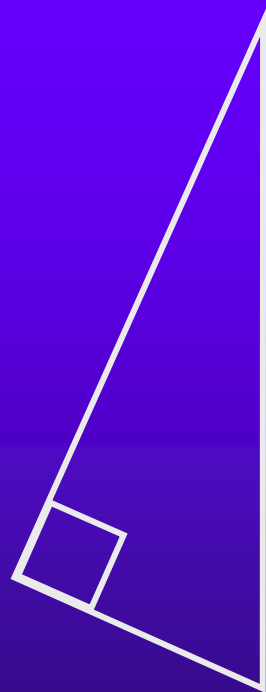


2. 配属先の概要

- 小学 中学 小学校教員養成学校
教員資格国家試験
- 2年制、共学、生徒数360、教員数14、
1クラス80人
- 音楽、体育、国家試験で活躍
- お金がない
- 全国的に理数科が弱い



斜辺はどれ？





3. 赴任当初のとまどい

- 時間、約束、貸し借りにルーズ
- 教員の様子
- 学校の概要がつかめない
- 電気のない生活

半年くらいで慣れてしまった



4. 配属先での活動

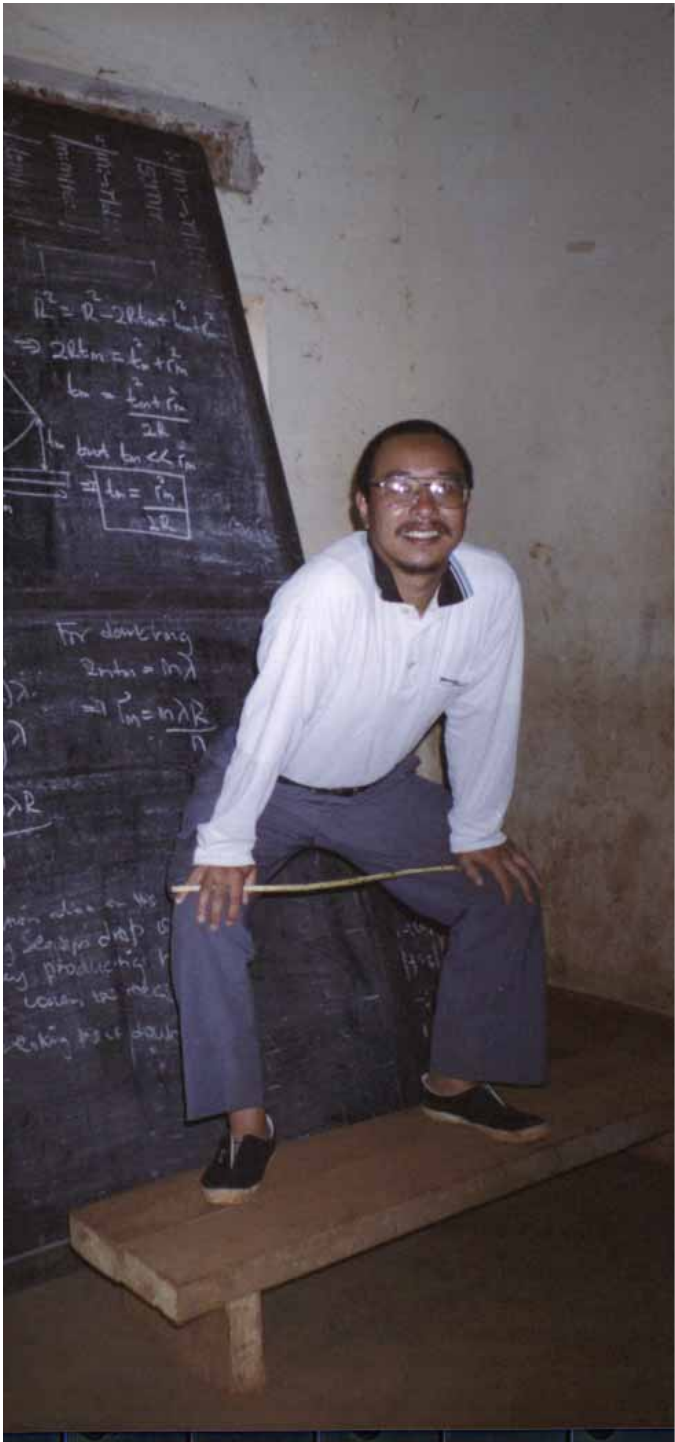
- 授業
- 黒板の修理と製作
- 図書室の整備と本棚の製作
- コンピュータの指導
- サイエンスフェア
- 講義録・問題集



黒板塗り

隊員支援経費を利用





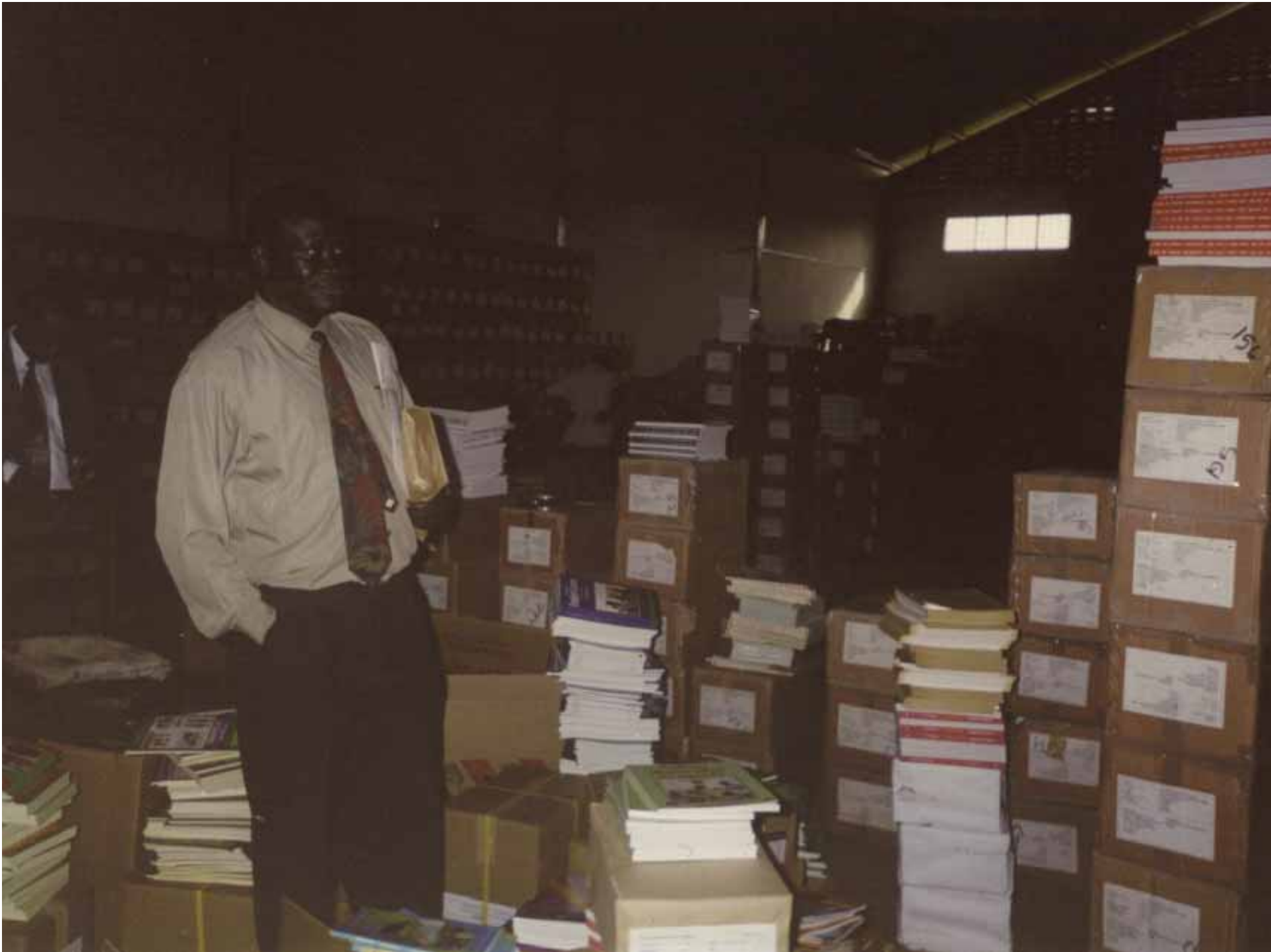


図書室の整備

隊員支援経費を利用

BEFORE





材料の用意





製作風景



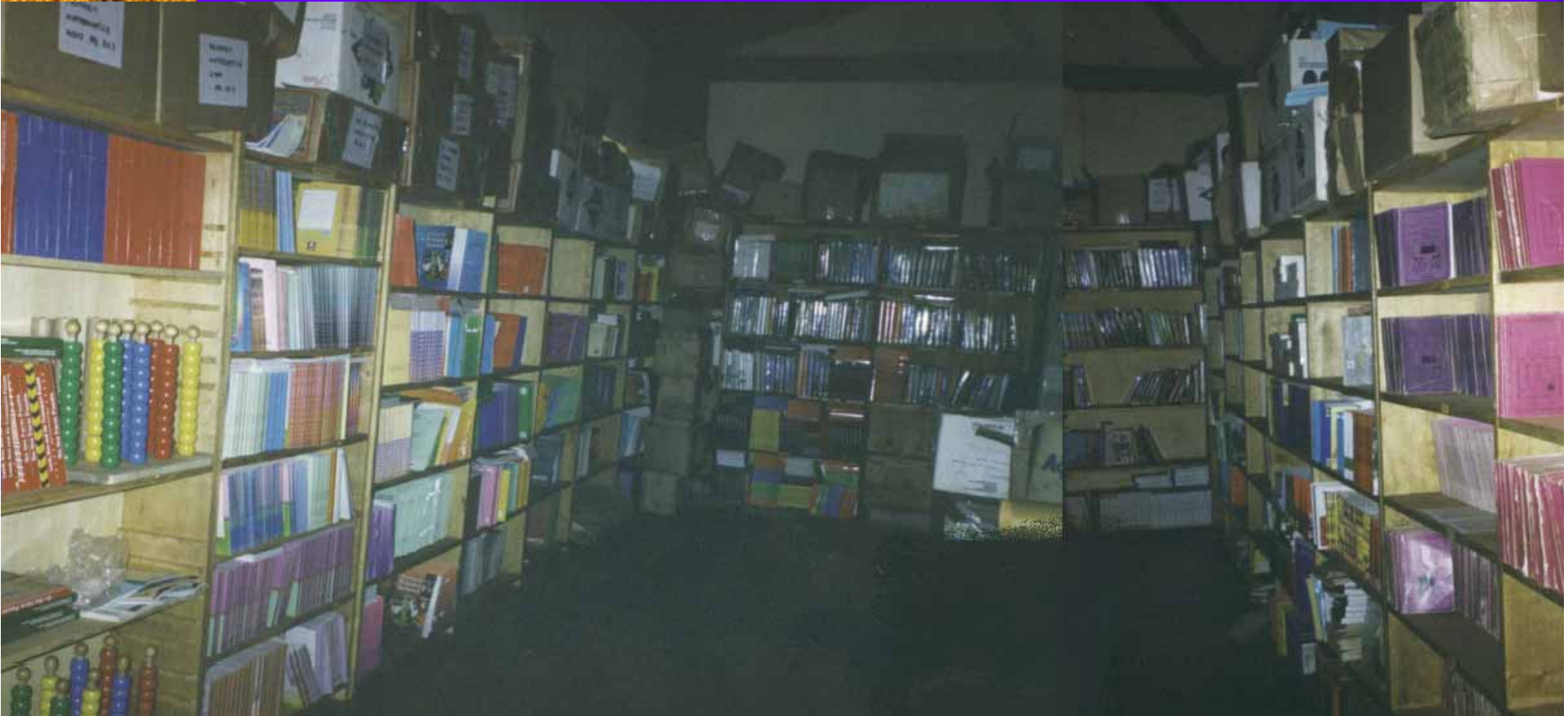


完成!





AFTER





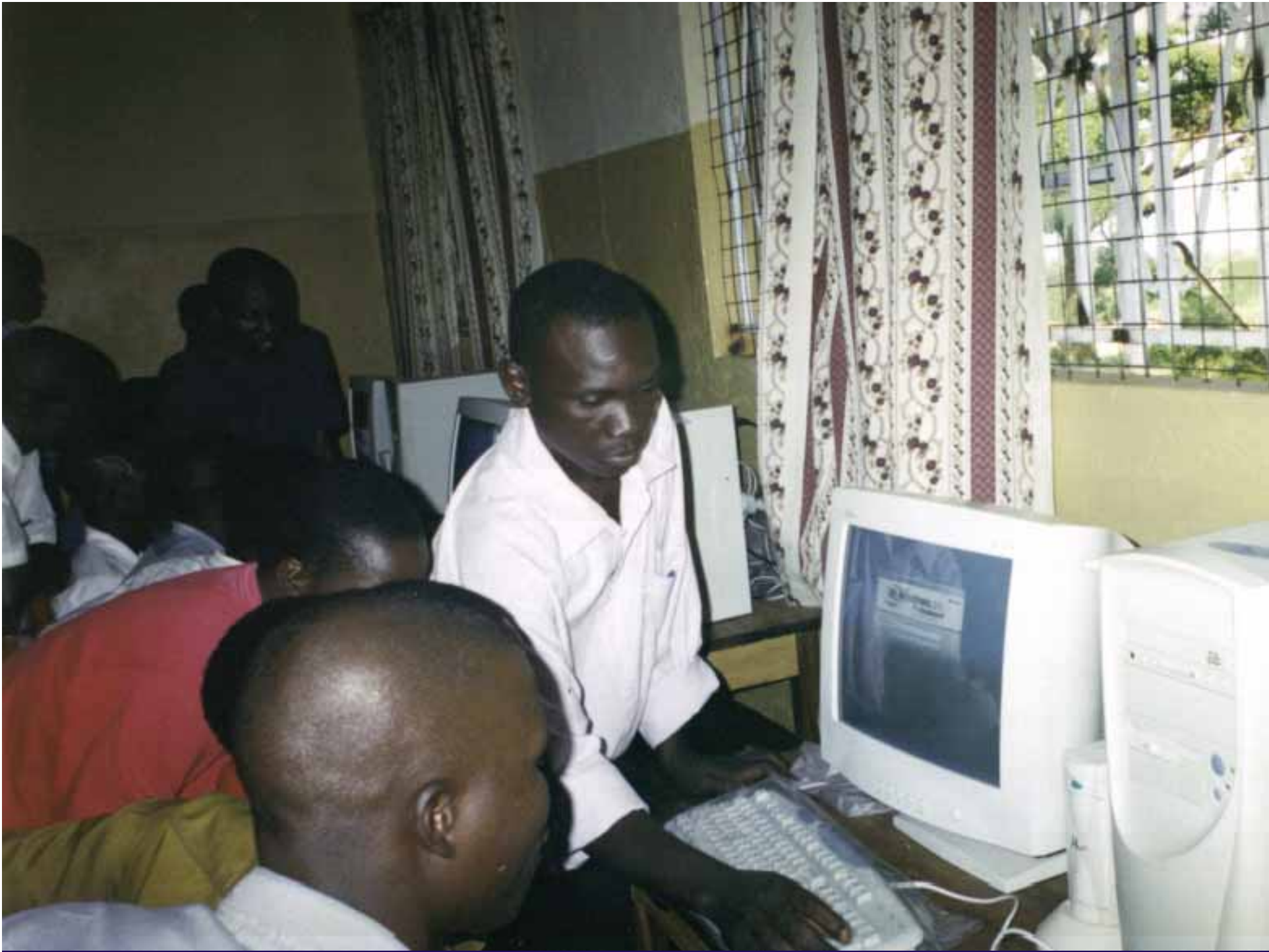




コンピュータの指導

隊員支援経費を利用









サイエンス・フェア

サイエンス・フェア発表グループ

YEAR ONE

J-1 : Respiratory System and Diseases

J-2 : Plants (Flowering Plants)

J-3 : Plants

J-4 : Ears

J-5 : Magnetism and Electricity

J-6 : Parts of a Plant

J-7 : Diarrhoea

J-8 : Digestion System and Teeth

J-9 : Heat Transfer

J-10 : List of Living Things

J-11 : Electricity (Making Battery Cells)

P-A : Measuring π and

Proof for Pythagoras Theorem

P-B : Circulatory System

P-C : S.T.D.s

P-D : Environmental Conservation,

Soil Layer and Types of Soil

P-E : Properties of Air

P-F : Making a Weighing Scale and Seesaw

P-G : Spectrum

P-H : Measuring Voltage and Current

P-I : Crystallised Salt

P-J : Light (Sources of Light, Show How

Light Travels in a Straight Line)

T-1 : Germination of Seeds + Microscope

T-2 : Flowers

T-3 : Classification of Living Things

T-4 : Food

T-5 : Magnetism

T-6 : Lungs

T-7 : Food, Nutrition and Balanced Diet

T-8 : Dissecting Seeds, Fruits and Flowers

T-9 : Rain Formation

T-10 : Communicable Diseases

YEAR TWO

II-1 : Eyes

II-2 : Alcohol

II-3 : Electromagnet

II-4 : Refraction and Glass Block

II-5 : Endocrine System

II-6 : Digestion

II-7 : States of Matter

II-8 : Food Preservation

II-9 : Wind Sock and Rain Gauge

II-10 : Reproduction

II-11 : Rabbits

II-12 : Periscope

II-13 : ORS

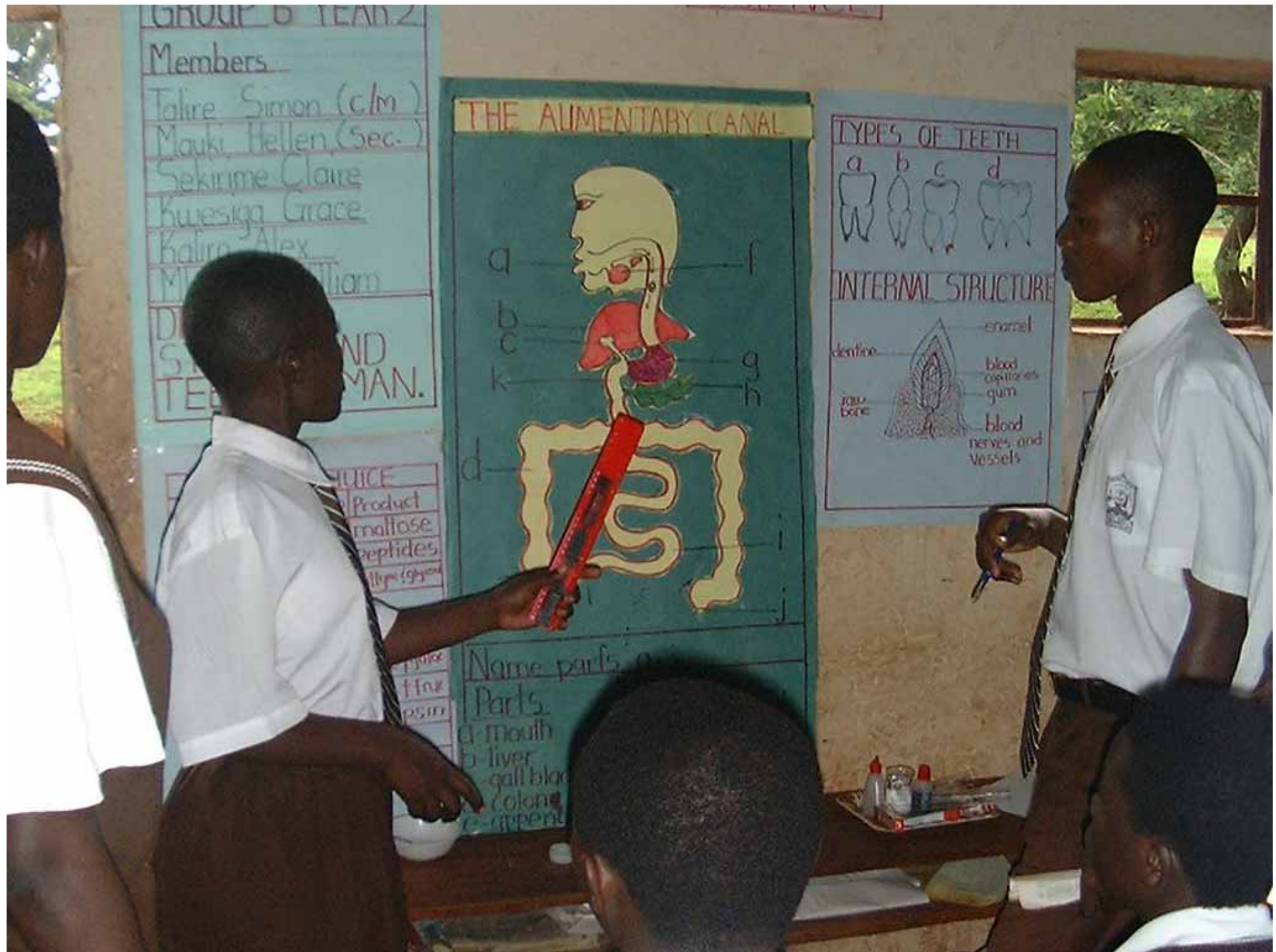
II-14 : Heart

II-15 : Soil

II-16 : Immunisation







GROUP B TEAM 2
Members

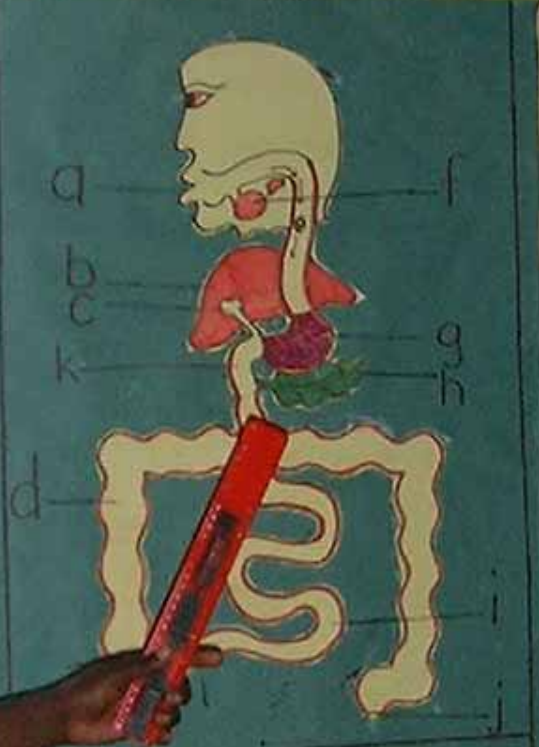
- Talire Simon (c/m)
- Mauki Hellen (Sec.)
- Sekirime Claire
- Kwesiga Grace
- Kalira Alex
- M... William

DI... AND
S... MAN.
TE...

Product
maltose
peptides
glycogen

Name parts of
Parts:
a- mouth
b- liver
c- gall bladder
d- colon
e- appendix

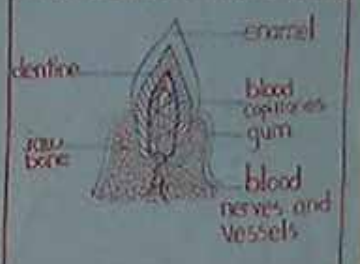
THE ALIMENTARY CANAL

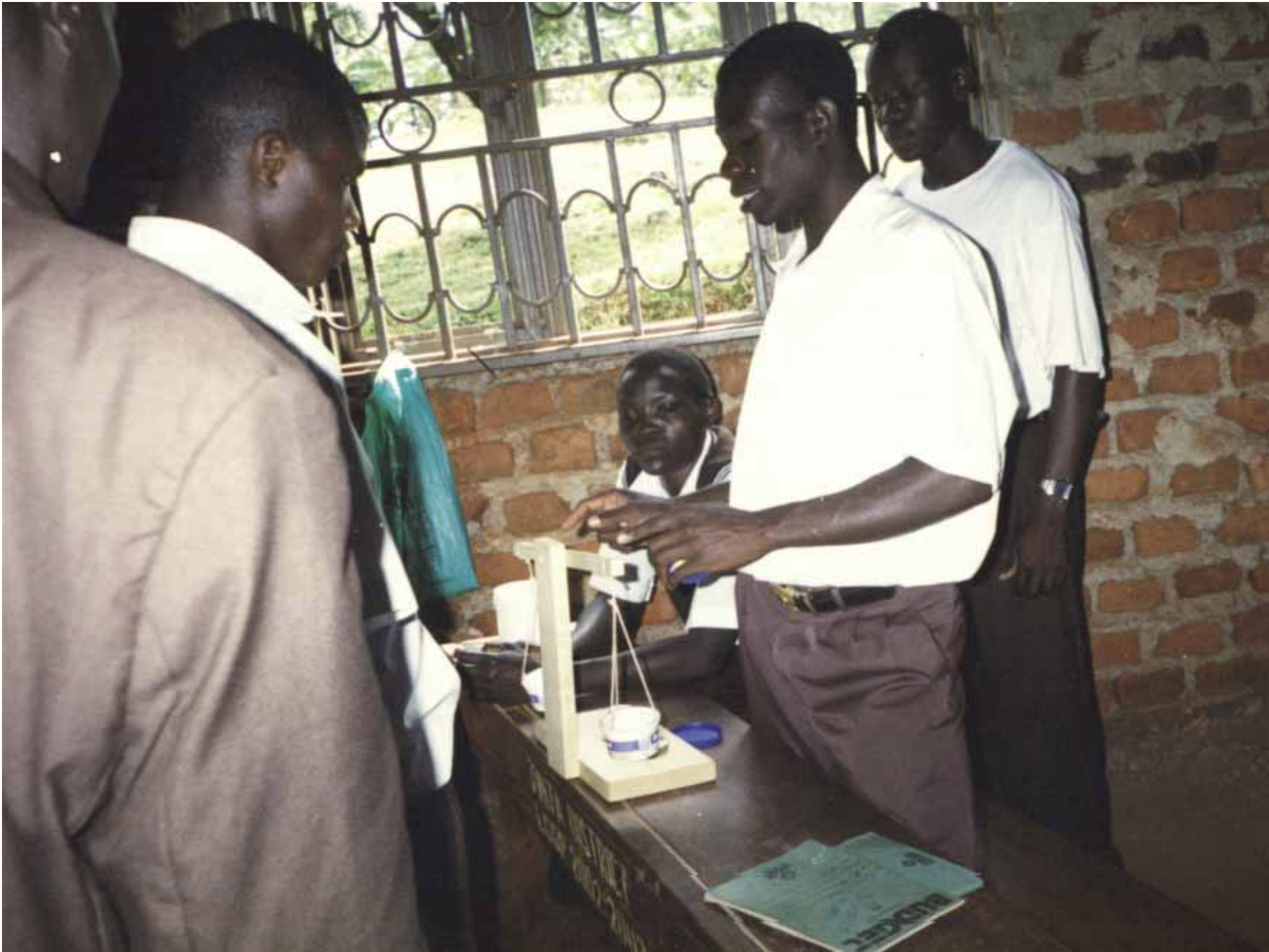


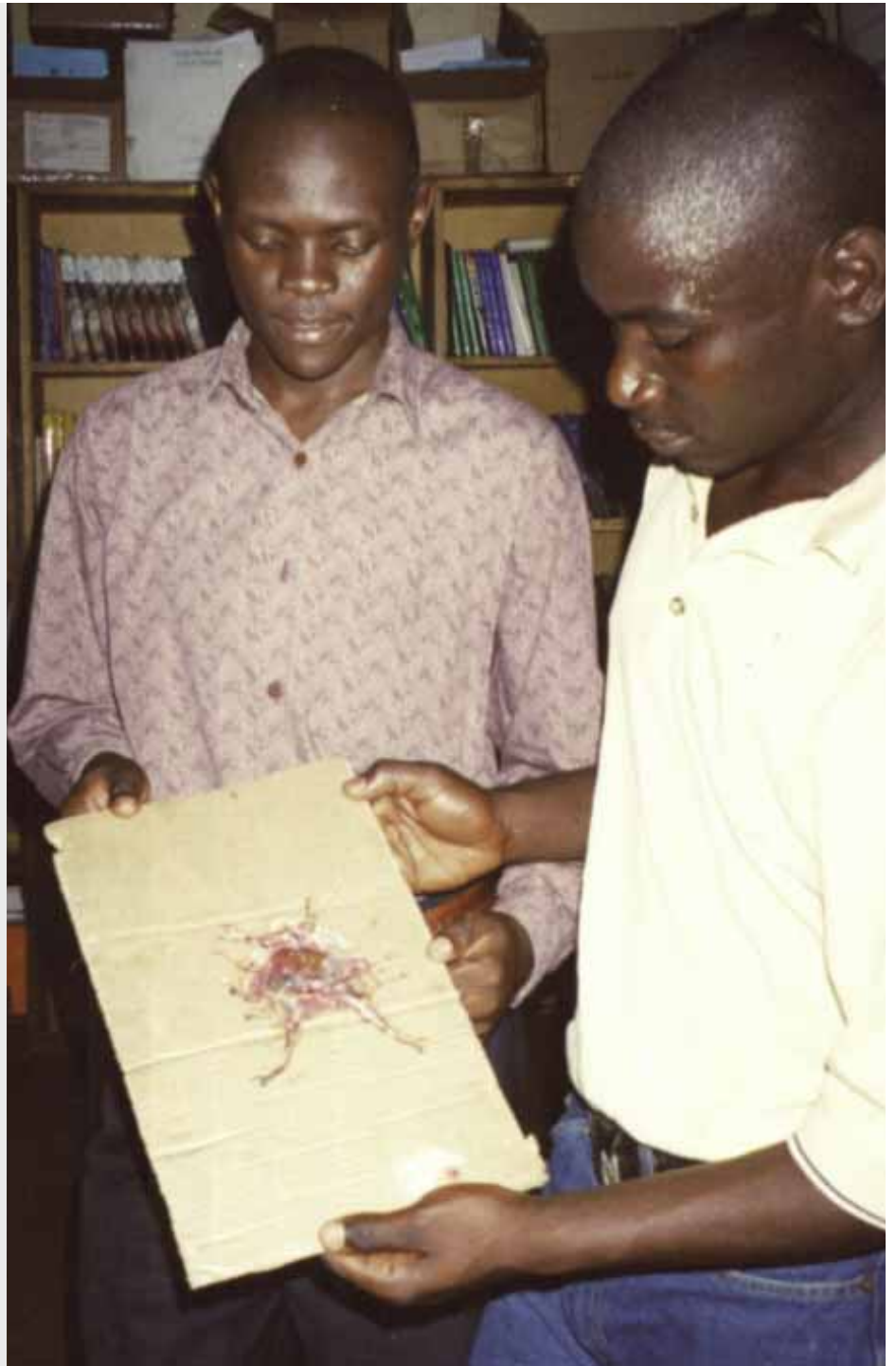
TYPES OF TEETH

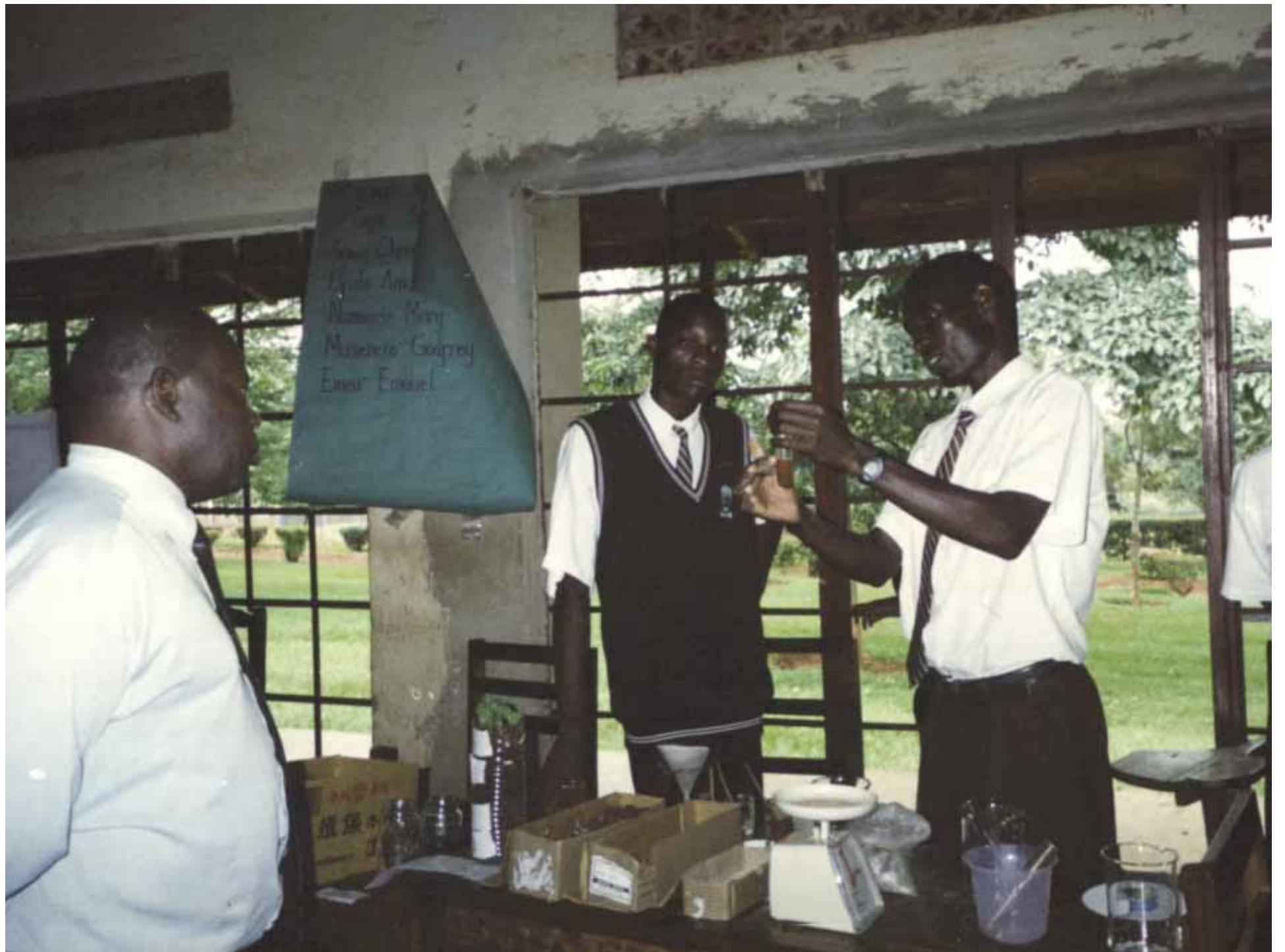


INTERNAL STRUCTURE











マス・フェア

GROUP III YEAR 1

PLACE VALUE

THOUSANDS	HUNDREDS	TENS	ONES	TENTH	HUNDRETH	THOUSANETH
8	4	5	1	3	2	6
s	d	c	b	a	x	y
What is the Place value of figure in box.				What is the Place value of the figure in box.		



IT GROUP-2

- ◊ KIBIRA DENIS
- ◊ NAMUTAMBA CHRISTINE
- ◊ NANKABIRWA ANNET
- ◊ NAMBI ANGELLA
- ◊ NENDE MOSES
- ◊ MWIIMA JAMES
- ◊ MWEBAZE JOTHAM
- ◊ NABIRYE ESTHER
- ◊ WERE ANNET

THE RELEVANCE OF MATHEMATICS - MEANS OF COMMUNICATION, THE USEFULNESS IN INDUSTRIES E.G. DESIGN.

Mathematics is a study that deals with numbers, forms, relations, quality and quantity.

Numbers:

E.g. Counting numbers: 1, 2, 3, 4, 5, 6, 7...

Even numbers: 0, 2, 4, 6, 8, 10...

Odd numbers: 1, 3, 5, 7, 9, 11, 13...

For



Rectangle



Triangle

relations:

Below are pairs of co-ordinates; (1, 2), (2, 4), (3, 6), (4, 8), (5, 10).

Show the relationship between the co-ordinates and

represent on the number line



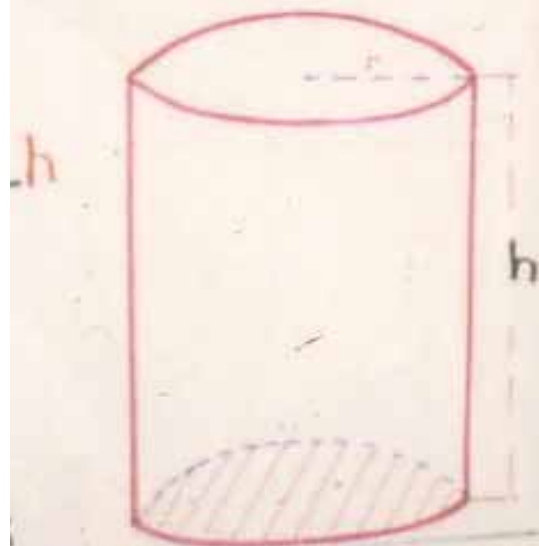
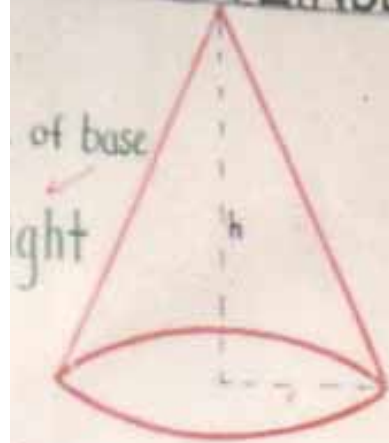
Numberline representation



Relevance of Maths

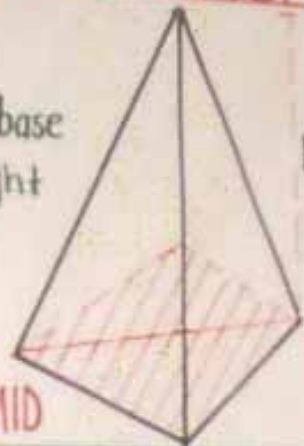
- It promotes problem solving situations.
- To be able to count and do calculations.
- To know about money and simple calculations.
- To be able to measure and do calculations.
- To be able to recognize know some of their properties.
- It helps in studying other sciences.
- It is a means of communication.
- It can be used on labels, price tags.
- Branding of goods.
- Buying and selling of goods.
- While telephoning, we use numbers.
- When using a computer.
- When using a typewriter.
- When forming reports, we use math numbers.
- When tailors are taken they use math numbers.

AND CYLINDER



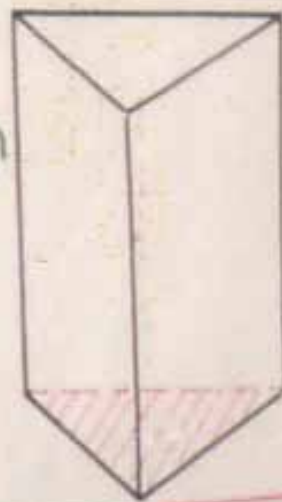
PYRAMID AND PRISM

3. Volume
 $= \frac{1}{3} \times \text{area of base} \times \text{height}$



PYRAMID

4. Volume
 $= \text{Area of triangle} \times h$



PRISM

GROUP 8

- 1 Kagoya Emmaculate
- 2 Tusubira Thomek
- 3 Ikalo Samuel
- 4 Yungula Loy
- 5 ...sajasuobi W
- 6 ...mbue Zain
- 7 ...George
- 8 ...
- 9 ...
- 10 Ntegeka
- 11 Booza



DERIVING FORMULAE FOR AREA

GROUP 6
MEMBERS
ABDALLA MUHAMED
FRED GEORGE
JOSEPH HATJ
LDWR
ESAL FLOW
STEVE AGN
LYE
KEN

CIRCLE

$W = r$

$L = 2\pi r$

Area of A triangle

① Area of $A = L \times W$
 6×4
24 square

But in A there are 2 Δ s
 \therefore Area of $\Delta = \frac{\text{Area of } A}{2}$
 $\frac{L \times W}{2} = \frac{1}{2} LW$
 $\frac{L \times W}{2} = \frac{1}{2} bh$

where $L = \text{base}$ and $W = \text{height}$

AREA OF A RECTANGLE

2 Sides A & B
 full we shall have 140 boxes
 $A = \text{width}$
 $B = \text{length}$
 horizontally \times No of box that side
 $\times B$
 $\times W$

講義録冊子

17. Energy-3

(4) Light Energy: a form of energy emitted by luminous objects like the sun, visible part of the electromagnetic spectrum

- **Spectrum** (Spectral colours) The seven spectral colours in order of increasing frequency:
red, orange, yellow, green, blue, indigo, violet
R O Y G B I V

White light is mixture of spectral colour

- **Primary Colours** : Red, Green, Blue

Our eyes detect three primary colours and our brain recognise **secondary colours**

Eg, yellow = R + G, magenta = B + R

cyan (peacock blue) = G + B, white = R+G+B

- **Luminous objects** emit visible light. **Non-luminous objects** produce no light. But we can see them because of reflected light from luminous objects.

(a) White object reflects all spectrum of light.

(b) If an object absorbs all spectrum of light and no reflection, it is black. (c) An object which reflects R and B and absorbs 5 spectrum is yellow.

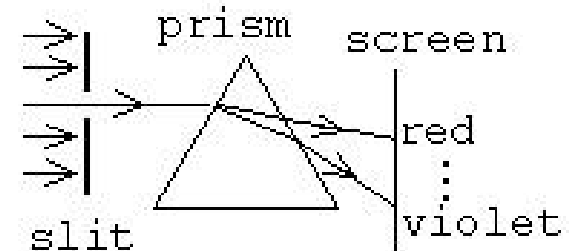
- Light travels straight line.

- Light travels very fast. **light speed: 300,000km/s**
= 7.5 times going around the earth in a second.

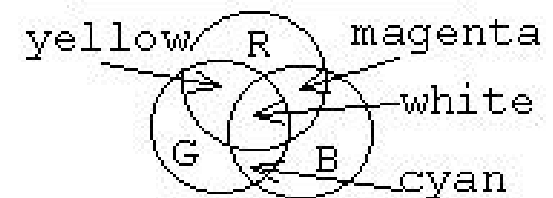
- Light can travel through a vacuum.

- Light behave like a wave but the other time like a stream of particles.

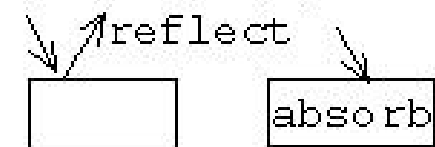
dispersion of light



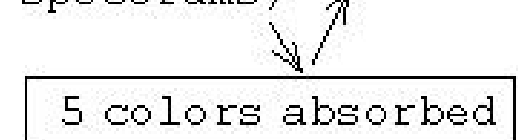
Additive mixing



(a) white (b) black



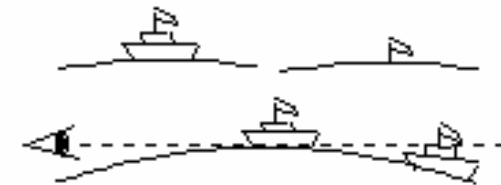
white (seven spectrums) (c) yellow (R+G)



23. The Earth-1

(1) Characteristics of the Earth

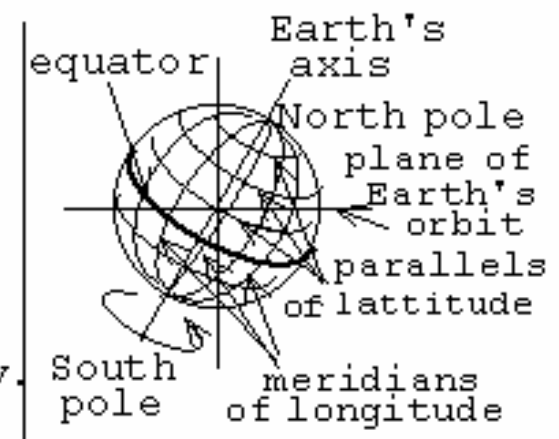
-**Shape:** The earth is curved (not flat) because when a ship goes away, its body disappears and you can see only the sails before it completely goes out.



The earth is like a sphere, but slightly flattened at the poles.

-**Size:** Its radius is about 6,400km, its circumference is about 40,000km.

-**Spin:** The earth turns (rotates) on its axis. It takes 24 hours for one complete turn. That is why the sun, moon, stars seem to go around us every day. Also **day & night** are caused by the rotation of the earth on its axis.



-**Revolution:** The earth goes around the sun (The earth is the 3rd nearest planet from the sun). It takes 365.26 days to orbit the sun completely.

The leap year has an extra day to adjust the

365-day calendar. As the earth moves on its orbit, the earth's axis leans at an angle of $23\frac{1}{2}^\circ$. That causes **seasons** every year on the earth.

-**Location:** A point on the earth's surface is defined by latitude and longitude. The **latitude** is its distance from the equator in degrees (north or south). The **longitude** is its distance around the earth's circumference in degrees (east or west). The **altitude** is the distance above sea level.

-**Surface:** The earth looks blue because 75% of its surface is covered



5 . 最後に



'02 11 8



ありがとうございました