# TANZANIA INCLUSIVE VISION ORGANISATION (TIVO) "IN PURSUIT FOR INCLUSION"



## BLOCK A, PLOT 181 , KILIMANJARO STREET, KIHONDA WARD, BOX 2421 MOROGORO-TANZANIA.

www.tivo.or.tz

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Register as TIVO Club Member through www.tivo.or.tz/tivoclub

## TIVO CLUB: "PROMOTING 21ST CENTURY SKILLS"

## A GUIDE FOR PROJECT BASED LEARNING (PBL):

An Illustration of TIVO Club's tools to promote 21st century (Page 14 of TIVO Club Booklet accessible on www.tivo.or.tz/tivoclub).



## WHAT IS A PROJECT BASED LEARNING (PBL)?

**Project based learning** is teaching-learning method in which students learn by actively engaging in real-world and personally meaningful projects. Students work on projects that engage them in solving real world problems or describing complex things.

**Project exhibitions** is an opportunity for students to demonstrate their knowledge and skills by presenting to the public a product which results from their project. Project learning based develops deep content knowledge as well as **critical thinking**, **collaboration**, **creativity**, and **communication skills**.



## HOW TO DESIGN A PROJECT MODEL?

1. A Challenging Problem or Question
The project is framed by a meaningful problem to be solved or a question to answer, at the appropriate level of challenge.

#### 2. Sustained Inquiry

Students engage in a rigorous, extended process of posing questions, finding resources and applying information.

#### 3. Authenticity

The project involves learner's real-world context, tasks, tools and impact. The project speaks to personal concerns, interests, and issues in the learner's lives.

#### 4. Student's Voice & Choice

Students make some decisions about the project, including how they work and what they create, and express their own ideas in their own voice.

#### 5. Reflection

Students and teachers reflect on the learning, the effectiveness of their inquiry and project activities, the quality of student work, and obstacles that arise and strategies for overcoming them.

#### 6. Critique & Revision

Students give, receive, and apply feedback to improve their process and products.

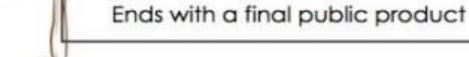
#### 7. Public Product

Students make their project work public by sharing it with and explaining or presenting it to people beyond the classroom (exhibition).



## ADVANTAGES OF PROJECT BASED LEARNING (PBL)

PBL Pathway	Traditional Instruction
Inquiry and instruction is student-led	Inquiry and instruction is teacher-led
Tends to cover more than 1 discipline	Covers 1 discipline
Learning extends beyond the classroom and has a public audience	Learning stays within the classroom
Students are given voice and choice options in learning process	Teacher dictates student tasks
Students are given a problem to solve	Students are told what they need to know
Typically occurs in groups	Typically occurs individually
Ends with a final public product	Ends with a test





## PROJECT BASED LEARNING IDEAS

Wherever you are thinking you do not have an idea, some of project models are proposed here under.

free electricity models

Hydraulic dam Model

mobile phone detector

Accident prevention system

Hand Pump Model

**Potato Battery** 

Heart model

Eye model

Kidney model

Brain model

Ear model

**Urinary System model** 

Oxygen-carbon dioxide model

**Blood Circulation model** 

Lungs Model

Plant cell Model

Animal Cell Model

**Respiratory Model** 

Digestive system Model

**DNA Model** 

air pollution model

factory model

Power Generator Electric model

Solar Panel Alarm Fire model

Windmill model

Simple Solar house model

Wind energy house model

Tortoise Model

Train Model

**Deforestation Model** 

Park model

my school model

**Rocket Model** 

River Model

Mountain model

Energy conservation model

Agriculture model

Transport model

Earth Model

**House Model** 

Farm Model

Volcano Model

Hydraulic project model

**Bridge Model** 

Disaster Management model

ATM model

Bubble machine model

project generator

Cooler project

Zero Gravity Project

**Solar Panel Projects** 

Vacuum cleaner projects

Village hut model

## PROJECT BASED LEARNING IDEAS

Wherever you are thinking you do not have an idea, some of project models are proposed here under.

Air pollution model

Water pollution model

Water cycle model

Noise or sound pollution

model

Acid rain model

rainwater harvesting model

photosynthesis model

solar system model Global

warming Model

Zoo Model

Wall clock craft model

respiratory system model

Street light model

water sources model

forest model

insect forest model

Small bar magnets

water turbine model

wave model

transformer model

electric circuit model

wind energy model

day and night model

Water Alarm Model

water turbine model

winter season model

desert model

Solar city model

wind village model

House with fire alarm

**Eclipse models** 

House with garden

street light model

Solar street light model

Automatic Water level

controller model

**Drip Irrigation Model** 

Dam working model

**Projector Model** 

**Room Heater Model** 

Steam power model

Garbage Energy Model

City cleanliness model

Water Filter Model

Magnetic Crane Model

**Natural Gas Extraction** 

Model

Water to Fuel and Fuel to

Water Model

**Smart City Model** 

Airport Model

**Communication Model** 

Electric circuits model

traffic light model

seed germination

working model

greenhouse effect

model

summer season model

Eco house model

Drone Model

Phases of Moon Model

Free energy generator

models

oxygen cycle model

Railway crossing model



## SAMPLE MODELS FOR STUDENTS' PROJECTS

Science exhibition part 1 @kidsvillakindergarten8219 – YouTube

<u>Paper Lamp Making at Home | Paper Lantern Tutorial Very Easy | DIY Festival decoration Ideas - YouTube</u>

How to make A Toy Road Roller At home (science Project for school) - YouTube

<u>How to Make a Bike - Amazing DIY Electric Bike - YouTube</u>

<u>DIY birthday card | Special greeting card for birthday □ | father's day craft ideas | tutorial – YouTube</u>

<u>DIY: Pop up Card tutorial: Flower - Pop Up card Mother's Day - 3D - Paper flower - YouTube</u>

Noun Working Model | | English Language Exhibition | | Types of nouns | | English Grammar #noun #nouns – YouTube

English project on parts of speech | TLM | art Integrated cbse projects ideas | NEP | grammar – YouTube

How to decorate project file cover page and border | File decoration ideas | College DIY project file - YouTube

(919) How To Make Mini Flour Mill Form Cardboard at Home! DIY Flour Machine – YouTube

(919) save environment working model | inspire science project | diy | howtofunda | dc motor | solar panel - YouTube

(919) How to make a mini washing machine using cans #tractor #howto #pvc – YouTube

(919) making Mini Bike recycling/#cycle@viratstarHd #bicycle – YouTube

(919) How to make water dispenser at home – YouTube

(919) How to build a Smartphone Projector – YouTube

(919) How to make the FIFA World Cup tournament best player golden ball award #goldenball #fifa #qatar2022 – YouTube

(919) How to make trophy at home | Bottle trophy | Trophy design 2 – YouTube

62 School Project Ideas | Ereading Worksheets

40+ Best School Project Ideas for Students to be Creative (kidzrio.com)

50+ STEM activities for any classroom - Primary.pdf

school project model ideas - Bing images

SCHool project model ideas HOWTOFUNDA - Bing video

(919) Top 4 Brillantes Proyectos para hacer en Casa con Materiales Básicos – YouTube

(919) Awesome mini concrete mixer using cans - YouTube

### **TASK**

In a group of 3-5 learners, propose a project model, identify required materials, propose time frame for accomplishing your model, choose a teacher mentor for your project, start your project.

### **SEND**

Before you send your concept make sure you have registered as TIVO Club Member through www.tivo.or.tz/tivoclub

Send your **concept note** to TIVO Club headquarters through the following email <u>info@tivo.or.tz</u> then **CC** to <u>inclusivetanzania@gmail.com</u>. Your concept should be on one page and detailed as follows;

- i. Title: Title of the project model
- ii. **Problem:** What problem does your proposed project attempt to solve?
- iii. Materials required: List them and tell if all materials are accessible in your premises.
- iv. Timeframe: When do you expect your project to start and end?
- **v. Scope:** What can be solved by your project idea/what cannot be solved by your project idea?
- vi. Participants' Names: Names of learners involved in the project
- vii. Mentor Teacher: Your mentor teacher with his/her contact

NB: Briefly, explain what help do you need from TIVO to have your project model done (this is a part of the concept page).



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