

## **Bony Creations: Crafting a Clay Model of Bones**

Wan Nordini Hasnor Wan Ismail  
Dr Suraya Sulaiman  
Roz Azinur Che Lamin  
Faculty of Pharmacy  
UiTM Cawangan Pulau Pinang  
Kampus Bertam

Email: nordini.hasnor@uitm.edu.my

### **Abstract**

The lab activity titled "Bony Creations: Crafting a Clay Model of Bones" is designed for Diploma of Pharmacy students aiming to deepen their understanding of the skeletal system. This hands-on activity provides an engaging and interactive experience for students to create a three-dimensional model of bones using clay. By utilizing clay as a medium, students can explore the various structures and components of bones while developing their artistic skills. The activity promotes critical thinking, spatial awareness, and anatomical knowledge as students carefully sculpt and assemble the different bones of the human body. Through this creative approach, students gain a comprehensive understanding of bone structure and function, reinforcing key concepts covered in their coursework. This lab activity serves as a valuable educational tool that enhances students' learning experience and encourages a deeper appreciation for the complexity and beauty of the skeletal system.

**Keywords:** skeletal system, three-dimensional model of bones

# BONY CREATIONS: CRAFTING A CLAY MODEL OF BONES

## ABSTRACTS

The lab activity titled "Bony Creations: Crafting a Clay Model of Bones" is designed for Diploma of Pharmacy students aiming to deepen their understanding of the skeletal system. This hands-on activity provides an engaging and interactive experience for students to create a three-dimensional model of bones using clay. By utilizing clay as a medium, students can explore the various structures and components of bones while developing their artistic skills. The activity promotes critical thinking, spatial awareness, and anatomical knowledge as students carefully sculpt and assemble the different bones of the human body. Through this creative approach, students gain a comprehensive understanding of bone structure and function, reinforcing key concepts covered in their coursework. This lab activity serves as a valuable educational tool that enhances students' learning experience and encourages a deeper appreciation for the complexity and beauty of the skeletal system.

## 1.0 OBJECTIVES

### Objective 1: Improve Skeletal System Understanding

Diploma students learn about the skeletal system in the lab. Students may visualise and manipulate bones, joints, and their placements by building a clay model of bones. This hands-on method helps pupils understand bone structure and function.

### Objective 2: Enhance Artistic and Spatial Skills

Students' aesthetic and spatial awareness are the second goal. Clay bone models need precision, observation, and skill. This project helps students draw bone shapes, sizes, and textures. This goal encourages inventiveness and workmanship pride.

## 3.0 USEFULNESS

The practise of making bone models out of clay is extremely beneficial in anatomy labs for diploma students. It takes a hands-on, interactive, and entertaining approach to anatomy, allowing students to get a better grasp of the skeletal system and its various elements.

## 4.0 NOVELTY

One non-technology novelty of constructing bones models using clay for diploma students during anatomy lab is the incorporation of a collaborative group activity. Instead of constructing individual models, students can work together in small groups to create a larger, more comprehensive bone model. This collaborative approach offers several benefits which include:

- teamwork and communication
- division of labour
- peer learning
- problem-solving skills
- increased engagement



## 5.0 COMMERCIALISATION POTENTIAL

The development and sale of pre-packaged clay **Anatomy Kits** is a prospective commercialisation opportunity arising from diploma students constructing bone models with clay during anatomy lab.

These packages would contain all the necessary materials, instructions, and templates for students to create their own 3D models of skeletal structures. The packages could be tailored to the curriculum and educational objectives of diploma programmes in healthcare or anatomy.

## 2.0 ADVANTAGES

**Enhanced Tactile Learning:** Students can mould and form bone structures with clay. Kinesthetic learning engages several senses and improves anatomy comprehension.

**Cost-effectiveness:** Clay is a cheap, readily available material for 3D bone sculptures. This lets low-budget schools give children great learning tools.

**Customizability:** Clay is easy to shape. Students can make customised bone models to examine certain skeletal parts, fractures, or anomalies.

**Visualisation:** Clay 3D bones models show anatomical structures. This visual tool helps pupils visualise bone locations, sizes, and orientations.

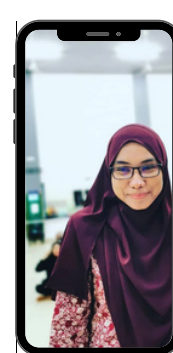
Clay is **durable and reusable** when properly stored and maintained. This lets educational institutions reuse anatomy lab models.

Clay 3D bone models **stimulate student collaboration**. They can make models, discuss anatomy, and learn from one other.

**Error Correction and Exploration:** Clay's pliability lets students readily change and fix their creations. Students can edit models to better grasp complex anatomical structures, encouraging experimentation.

Clay is **non-toxic** and safe for educational usage. Clay poses no health concerns to students, making learning safe.

## 6.0 INVENTORS



Wan Nordini Hasnor Wan Ismail  
nordini.hasnor@uitm.edu.my  
012 350 5380



Roz Azinur Che Lamin  
roz.azinur@uitm.edu.my



Suraya Sulaiman (Dr) 019 278 9885  
suraya.sulaiman@uitm.edu.my  
012 472 5776

Faculty of Pharmacy  
Universiti Teknologi MARA Cawangan Pulau Pinang (Bertam Campus)

Surat kami : 700-KPK (PRP.UP.1/20/1)

Tarikh : 20 Januari 2023

Prof. Madya Dr. Nur Hisham Ibrahim  
Rektor  
Universiti Teknologi MARA  
Cawangan Perak



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PROF. MADYA DR. NUR HISHAM IBRAHIM  
REKTOR  
UNIVERSITI TEKNOLOGI MARA  
CAWANGAN PERAK  
KAMPUS SERI ISKANDAR