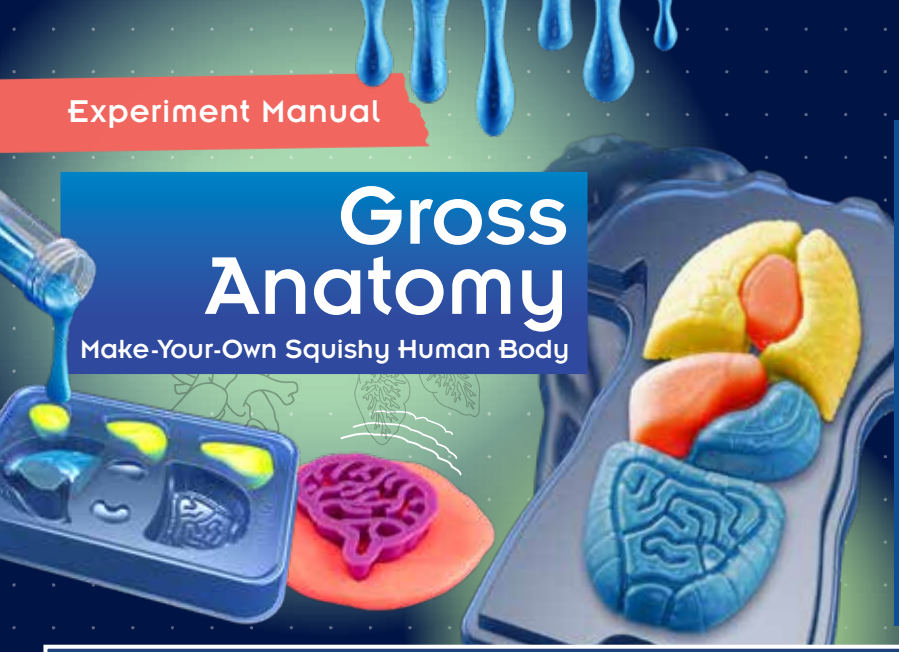
Experiment Manual

Gross Anatomy

Make-Your-Own Squishy Human Body

THAMES & KOSMOS



WARNING – Science Education Set. This set contains chemicals and parts that may be harmful if misused. Read cautions on individual containers and in manual carefully. Not to be used by children except under adult supervision.

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Editing: Ted McGuire; Additional Graphics and Layout: Dan Freitas

Distributed in North America by Thames & Kosmos, LLC.
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Phone: 800-587-2872; Web: www.thamesandkosmos.com

Distributed in United Kingdom by Thames & Kosmos UK LP.
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We reserve the right to make technical changes.

Printed in Taiwan

550032-02-130120

Kit Contents

- Measuring cup
- Spatula, scalpel, tweezers
- Transparent torso (bottom and cover pieces)
- Organ molding tray
- Brain stamp
- 2 Googly eyes
- Blue slime powder packet (7 g, No. 723085)
- Yellow slime powder packet (7 g, No. 721541)
- 2 Red slime powder packets (7 g, No. 721977)
- Pink putty (No. 723086)
- Anatomy poster
- Spherical storage container for putty

Do you have any questions?
Our customer service team will be glad to help you!
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FOREWORD

Dear Parents and Adults,

This experiment kit introduces your child to the exciting world of anatomy in a fun way. Learning science becomes a tangible, fun experience with slimy, hands-on experiments.

Please help and accompany your child during their experiments. Before starting the experiment, read the instructions together and follow all of the steps. In particular, make sure that your child works slowly and carefully and follows the safety instructions below.

SAFETY INFORMATION

WARNING! Not suitable for children under 3 years. Choking hazard — small parts may be swallowed or inhaled. Store experiment material out of the reach of small children and animals.
Keep packaging and instructions as they contain important information. This experimental set is for use only by children over 8 years. For use under adult supervision. Only carry out those experiments which are listed in the instructions.

Handling the slime powder and the finished slime:
Do not ingest. Avoid breathing dust. Do not get in eyes or into the mouth.
In case of contact with eyes and mouth: Rinse immediately with plenty of running water.
If swallowed: Wash out mouth with water, drink some fresh water. Do not induce vomiting. In case of doubt, seek medical advice without delay. Take the chemical together with the container with you.

Use finished slime carefully as it sticks to various materials such as clothing, carpet, and furniture. These can be cleaned with water. If the slime or putty comes into contact with fabric for a long time, it is difficult to remove, similar to chewing gum. Therefore, when experimenting, wear old clothes and experiment away from tablecloths and carpets. To store, always put the putty into the spherical storage container and close tightly.

Experiment area: The site should be free of obstacles, away from food, well lit, and well ventilated. A solid table with an easy-to-clean surface is suitable. Do not eat or drink in the experiment area. After experimenting, clean the workplace and equipment, and wash hands thoroughly.

Waste disposal: Substances in non-reclosable packaging (slime powder) should be used up (completely) during the course of one experiment, i.e. after opening the package. Empty packets and other residues should be disposed of with the household waste.

Have fun experimenting!

Ingredients for slime: Slime powder blue (7 g, No. 723085), main ingredients: Locust bean gum, guar gum, silica, and color pigment. Slime powder yellow (7 g, No. 721541), main ingredients: Locust bean gum, guar gum, silica, and color pigment. Slime powder red (7 g, No. 721977), main ingredients: Locust bean gum, guar gum, silica, and color pigment.

EXPERIMENT 1: MIXING THE SLIME

You will need

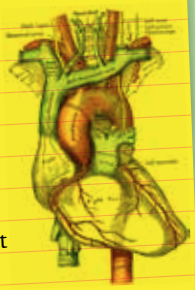
- **Red slime powder, measuring cup, spatula**
- *Water*

Here's how

1. Add 50 ml of water to the measuring cup and pour in a packet of red slime powder.
2. Stir slowly with the spatula until the mixture is even. This takes about two minutes.
3. Go directly to experiment 2 and follow the instructions.

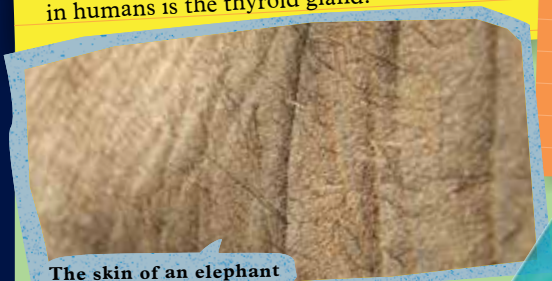
CHECK IT OUT

What are Organs?

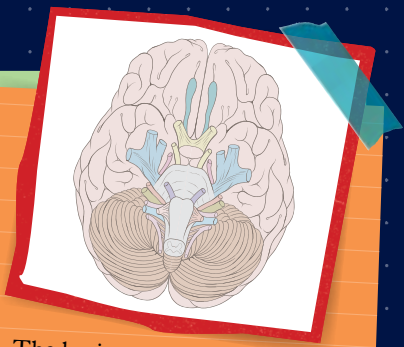


People, animals, plants — all living things have organs. Organs are specialized body parts with very specific tasks. The organs in different living things can have quite different functions.

By weight and area, the skin is the largest organ of the human body. The smallest organ in humans is the thyroid gland.



The skin of an elephant



The brain controls all of the body's functions. The lungs transport oxygen into the blood, which is pumped from the heart through the entire body via the arteries and veins.

The heart pumps up to 10,000 liters of blood through the body every day!

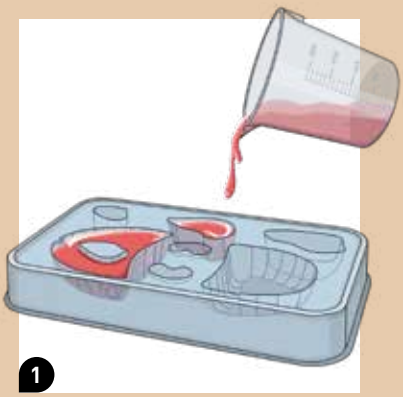
EXPERIMENT 2: MOLDING THE ORGANS

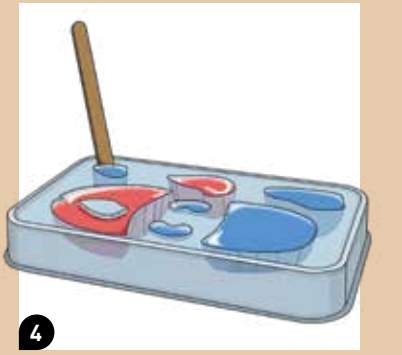
You will need

– Slime mixture from experiment 1, organ molding tray, blue slime powder, measuring cup, spatula
– Water

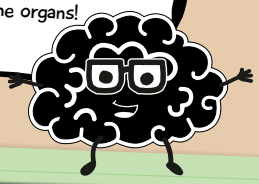
Here's how

1. One at a time, pour the mixture from the measuring cup into the organ molds in the tray. You can make about three or four organs with each packet of slime powder.
2. Mix the blue slime powder as described in experiment 1 and pour it into the remaining molds.
3. Allow the organs to harden for about one hour.
4. Take them out of the molds with the spatula and place them on an easily cleanable surface.

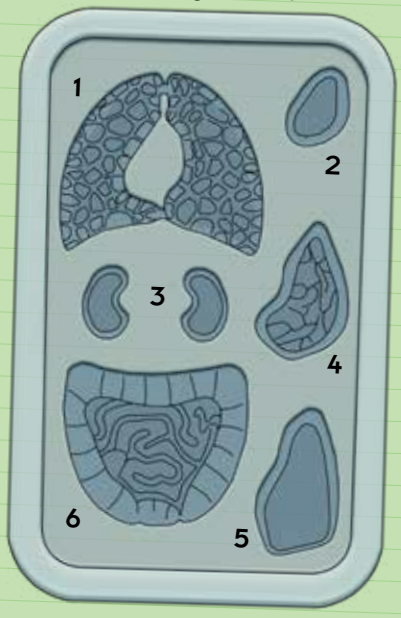




You will need
two packets of slime powder to make all of the organs!



Torso
The word torso is an anatomical term for the central part of the human body, where most critical internal organs are located.



Overview of the Organs

1. Lungs
2. Heart
3. Kidneys
4. Stomach
5. Liver
6. Large and small intestines

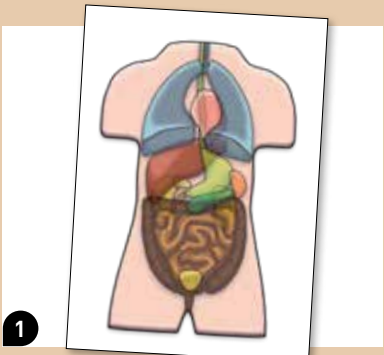
EXPERIMENT 3: ORGANS IN THE BODY

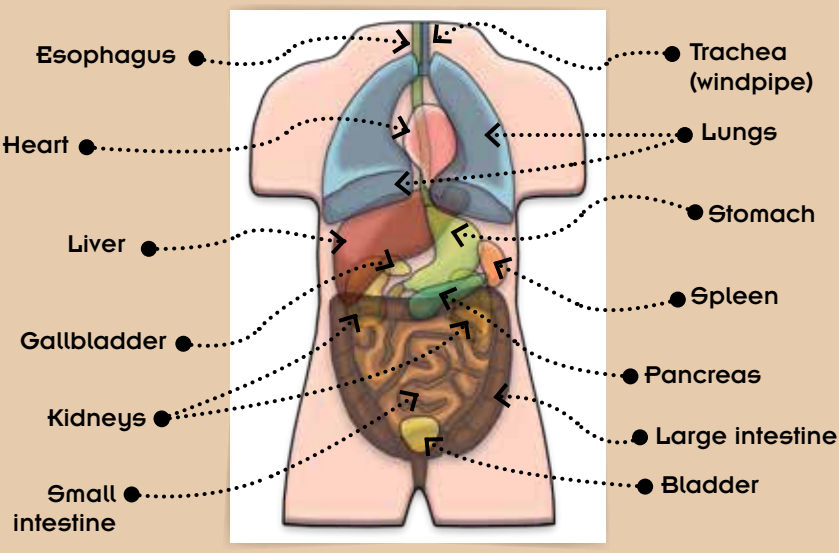
You will need

– Slime organs from experiment 2, transparent torso, anatomy poster

Here's how

1. Place the bottom piece of the transparent torso on top of the anatomy poster. Make sure that the edges of the transparent torso align with the outer edges of the image of the torso. You should be able to see all of the organs printed on the poster.
2. First, place the lungs in the spots indicated on the transparent torso.
3. Then place the two kidneys underneath.
4. Then place the heart and the other organs as shown on the poster.
5. Place the torso cover piece on top.





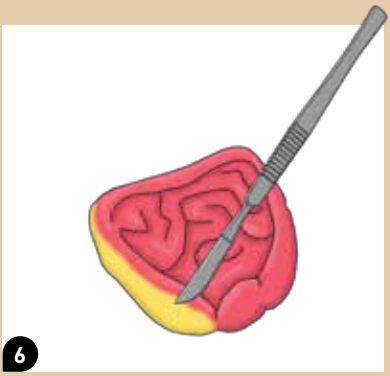
EXPERIMENT 4: COLORFUL ORGANS

You will need

– **Red slime powder, yellow slime powder, measuring cup, spatula, scalpel, tweezers, organ molding tray**
– *Water*

Here's how

1. Mix the packet of yellow slime powder as described in experiment 1.
2. Pour the mixture into the organ molds so that each cavity is about half full.
3. Mix the red slime powder and pour the mixture into the molds.
4. Let the organs harden for about an hour.
5. Remove them from the molds with the spatula and place them on an easily cleanable surface.
6. Now take the scalpel and tweezers and conduct some investigations. Can you cut the organs carefully and precisely?



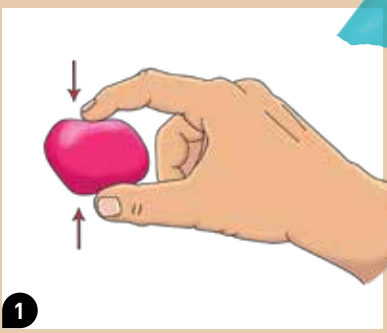
EXPERIMENT 5: SQUISHY BRAIN

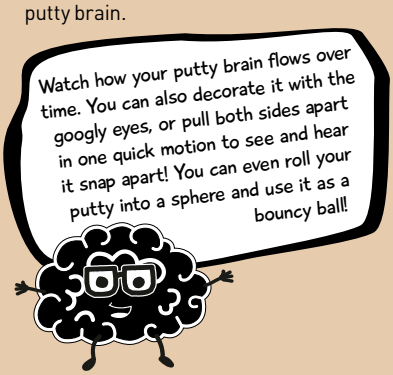
You will need

– Pink putty, brain stamp, scalpel, googly eyes

Here's how

1. Take the putty out of the packaging, form it into a ball, and squeeze it between your fingers. How does it feel compared to the slime?
2. Press it flat on a clean, smooth surface.
3. Then place the brain stamp in the middle of the flattened putty and push it down forcefully.
4. Peel the putty brain out of the stamp and lay it down in front of you.
5. Now have fun experimenting with your putty brain.





Remember: So that your putty doesn't dry up and harden, always return the putty to its spherical storage container after experimenting.

CHECK IT OUT

How can we see inside the body?

CHECK IT OUT

THE BRAIN

The brain is the central processing unit of the body. It processes all sensory perceptions and stores a lot of important information.

The brain consists of 100 billion nerve cells. They transmit information at an unbelievable speed of 360 kilometers per hour, or 224 miles per hour!

The human brain weighs about 1400 grams, or 3 pounds. The sperm whale has the largest brain in the world, weighing 8500 g (19 lb). The brain of a mouse is just 0.4 g (0.01 oz).

Today there are some technological devices with which doctors can look into the body. Wilhelm Conrad Röntgen discovered x-rays in 1895. X-rays can be used to make bones visible on films, because the x-rays pass through soft flesh but they are blocked by harder objects like bones.

Sonography, also called ultrasound, is also used to examine organs. This method is so harmless that even fetuses can be examined.