


Taking the highest educational and scientific requirements as a benchmark, SOMSO ${ }^{\circledR}$ has been manufacturing originals for 140 years. Their shape and functionality, as well as the fact that they can be dismantled, makes them the tried and tested basis for stimulating teaching. "Nature is our model" - this is the guiding principle for the realistic representation as the standard.

NATURE IS OUR MODEL


## SOMSO ${ }^{\circledR}$ SUN - A SYMBOL FOR QUALITY

The figurative logos of the SOMSO ${ }^{\circledR}$ Sun, SOMSO ${ }^{\circledR}$ and SOMSO ${ }^{\circledR}$-Plast, as well as the green base for our models, are nationally and internationally registered trademarks. Our manufacturing and delivery programme includes anatomical, zoological, botanical teaching models as well as medical training phantoms. Continuing development and on-going input by renowned scientists and experts, guarantees solid, up-to-date and educationally well-founded imparting of knowledge.

SOMS O ${ }^{\circ}$
MODELLE
SINCE 1876


## SOMSO ${ }^{\circledR}$ GUARANTEE

SOMSO ${ }^{\circledR}$, as a worldwide recognised manufacturer, provides a five-year warranty on service life and operational reliability of almost all models (subject to correct use), with the exception of medical training phantoms.


## 140 Years of experience

In 1876, Marcus Sommer Snr. founded in his home town of Sonneberg, Thuringia a factory for the manufacture of anatomical models, which back then were all made exclusively by hand. His son Fritz, his grandson Marcus Jnr., his great-grandson Hans, his great-great-grandson Louis-Benedikt have continued the company SOMSO MODELLE to its worldwide recognition today. Marcus Sommer Snr.

* 14.11.1845-† 21.1.1899

A family business of over 140 years is an incentive, as well as a responsibility, for the future, to continue the work of past generations. The tradition of the family business continues: the year 2007 saw the company being converted into a GmbH (limited liability company) and the fifth generation beeing appointed to the management board.


## DETAIL IN PRODUCTION

Manufacturing original SOMSO ${ }^{\circledR}$ Models requires a great degree of specialised hand work. Craftsmanship perfects the model. Technology and hand work form a rare symbiosis. SOMSO ${ }^{\circledR}$ Models therefore have that unique, single piece character of manufacture. This way their value exceeds that of a standard industrial product by far. SOMSO ${ }^{\circledR}$ Models are manufactured exclusively by highly qualified skilled employees in Sonneberg, Thuringia and in Coburg, Bavaria.


TAKING THE HIGHEST SOMSO ${ }^{\oplus}$

HAS BEEN

## Stimulating Lessons



Especially in biology classes, it is all about identifying structures and connections. Be it human, animal or plant - the better the model represents reality, the easier it is for the learner to comprehend, to understand. To comprehend means to touch, to look and the physical-material dimension is added to the intellectual dimension. SOMSO ${ }^{\circledR}$ Models are the ideal complement to dynamic and stimulating teaching.


BoS 15/14-A Willow Catkin

## IMPORTANT PRELIMINARY INFORMATION

1. $\mathrm{SOMSO}^{\circledR}$ Models are protected by copyright. In case of any replications of SOMSO ${ }^{\circledR}$ Models, we reserve the right to assert injunctive reliefs and claims for damages.
2. Close collaboration with scientific institutions ensures that SOMSO ${ }^{\circledR}$ Models are consistently developed in compliance with the current state of scientific knowledge.
3. Highly qualified teaching materials for school and science since 1876 SOMSO ${ }^{\circledR}$ Models are mainly made from virtually unbreakable SOMSO ${ }^{\circledR}$ Plast, provided all the numbers in the catalogue A 76/9.
4. The versions, dimensions and weights stated in the catalogue can change as a result of technical or scientific improvements. SOMSO ${ }^{\circledR}$ Models are supplied with model descriptions that are prepared by proficient scientists.
5. Functional models make biological processes more understandable. In this catalogue, all functional models are marked with an (F). All flexibly mounted skeleton parts of category QS are included under functional models. Functional models are subject to normal wear and tear, due to the nature of the material.
6. SOMSO ${ }^{\circledR}$ Models feature true-to-life representation technique, attention to detail and can be disassembled.
7. $\mathrm{SOMSO}^{\circledR}$ Models are manufactured by a highly qualified and skilled workforce - by hand and exclusively in Sonneberg and Coburg.

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The SOMSO ${ }^{\circledR}$-Museum at THE PARENT COMPANY IN Sonneberg, Thuringia
On the occasion of the company's 125th anniversary, the Sommer family opened the SOMSO ${ }^{\circledR}$ Museum at the parent company in Sonneberg, Thuringia in 2001. Ten stations, which are constantly updated, showcase the multifaceted model culture of more than 140 years of company history. For more information, visit www.somso-museum.de


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## AS $1 \cdot$ Male

 Muscle FigureAbout 1/2 natural size, made from SOMSO ${ }^{\circledR}$-Plast. Separates into 27 parts in total: cranium; brain (2); thoracic and abdominal wall; halves of the lung (2); heart (2); liver; stomach; duodenum, small and large intestines; right arm; left arm with four removable muscles; muscles of the leg (9); body. On a stand with green base. Height 86 cm , (figure 82 cm ), width 49 cm , depth 38 cm , weight 7.2 kg

LOOK OUT FOR THE ORIGINAL WITH THE SOMSO ${ }^{\circledR}$ SUN!



AS 3 .

## Male Muscle Figure

About $1 / 4$ natural size, made from SOMSO ${ }^{\circledR}$-Plast. Cannot be disassembled. On a removable green base. Height 53 cm (figure 50 cm ), width 33 cm , depth 15 cm , weight 1.5 kg


AS 4/1.
Torso with Head and Interchangeable Male and Female Genitalia

Natural size, made from SOMSO ${ }^{\circledR-P l a s t . ~ S e p a r a t e s ~}$ into 16 parts. On a green base. Height 92 cm (torso 88 cm ), width 40 cm , depth 26 cm , weight 12 kg


AS 4/1

AS $12 \cdot$ Torso of Young Man without Head
Natural size, made from SOMSO ${ }^{\circledR}$-Plast. Separates into 12 parts. On a green base. Height 71 cm (torso 67 cm ), width 39 cm , depth 26 cm , weight 8.7 kg



AS 16


AS $16 \cdot$ TORSO OF Young Man with Head

Natural size, made from SOMSO®-Plast. Separates into 12 parts. On a green base. Height 91 cm (torso 87 cm ), width 39 cm , depth 26 cm , weight 9 kg


AS 23/2 • TORSO with Head and Open Back

Natural size, made from SOMSO ${ }^{\circledR}$-Plast, with muscles on one side and interchangeable male and female genitalia. Separates into 20 parts. On a green base. Height 90 cm (torso 86 cm ), width 39 cm , depth 26 cm , weight 11.2 kg


AS 20/4 • Small Torso of Young Man without Head About $1 / 3$ natural size, made from SOMSO®-Plast. Separates into 7 parts. On a removable base. Height 28 cm (torso 26 cm ), width 17.5 cm , depth 14 cm , weight 1.7 kg
AS 20/5 B • Small Torso of Young Man with Head
About $1 / 3$ natural size, made from SOMSO®-Plast. Separates into 9 parts. On a removable base. Height 37 cm (torso 35 cm ), width 17.5 cm , depth 14 cm , weight 2.0 kg

AS 20/1 • Small Torso of Young Man with Head
About $1 / 2$ natural size, made from SOMSO®-Plast. Separates into 11 parts. On a green base. Height 52 cm (torso 49 cm ), width 21 cm , depth 18 cm , weight 3.15 kg



AS 23/2 separates

## BIOLOGY LESSONS.



BS 5 - Base of the Head
With removable, 8-part brain with arteries, natural size, made from SOMSO ${ }^{\circledR}$-Plast. 9 parts in total. On a green base. Height 22 cm , width 18 cm , depth 20 cm , weight 1.5 kg


Detail: nerve supply in the area of the parotid gland

## BS 9 .

Half of the Head
Natural size, made from SOMSO ${ }^{\circledR}$ Plast. Cannot be disassembled. On a stand with green base. Height 41 cm , width 18 cm , depth 22 cm , weight 1.3 kg


BS 6/1 • Median Section of the Head

Natural size, made from SOMSO®-Plast. In one piece, on a green base. Height 32 cm , width 23 cm , depth 4 cm , weight 1.3 kg


BS $18 \cdot$ Head with Muscles and Vessels
About 3/4 natural size, made from SOMSO ${ }^{\circledR}$-Plast. Separates into 5 parts: head, cranium, right and left half of the brain (2 parts). On a removable green base. Height 28 cm , width 18 cm , depth 19 cm , weight 1.9 kg


## BS $20 \cdot$ Brain

Natural size, made from SOMSO ${ }^{\circledR}$-Plast. Separates into 8 parts: frontal and parietal lobes (2), temporal and occipital lobes (2), brain stem (2), cerebellum (2). On a transparent base. Height 15 cm , width 16 cm , depth 17 cm , weight 1.1 kg


Natural size, made from SOMSO ${ }^{\circledR}$ - Plast. In median section, separates into 2 parts in total. On a transparent base. Height 15 cm , width 16 cm , depth 17 cm , weight 800 g


BS $22 \cdot$ Brain
Natural size, made from SOMSO ${ }^{\circledR}$-Plast. Separates into 4 parts. On a transparent base. Height 15 cm , width 15 cm , depth 17 cm , weight 1.1 kg

The brain and iTs details in a
 the Brain in 15 Parts

Natural size, made from SOMSO ${ }^{\circledR}$-Plast, after Prof. Dr. med. Dr. med. h.c. J. W. Rohen, Anatomical Institute of the University of Erlangen. On a green base. Height 23 cm , width 15 cm , depth 18 cm , weight 1.8 kg


## BS $24 \cdot$ Ventricular

 Cavities of the BrainNatural size, made from SOMSO ${ }^{\circledR}$-Plast, after a specimen at the Anatomical Institute of Würzburg. On a stand with green base. Height 23 cm , width 15 cm , depth 18 cm , weight 200 g

BS 25 disassembled


## MODEL of Brain with

Indicated Cytoarchitectural Areas
Natural size, made from SOMSO®-Plast, after Prof. Dr. med. Dr. med. h.c. J. W. Rohen, Anatomical Institute of the University of Erlangen. On a green base. Height 23 cm , width 15 cm , depth 18 cm , weight 1.8 kg


## BS 5/5 • Anatomical Sectional Model of the Head

Natural size, made from special plastic (combined with corresponding CT and MR imaging), after Prof. Dr. med. Dr. med. h.c. J. W. Rohen, Anatomical Institute of the University of Erlangen. The sections shown in the model are mounted on a vertical support so that they can be swivelled out individually and then compared with the respective CT or MR image. On a stand with green base. Height 34 cm , width 46 cm , depth 30 cm , weight 6.2 kg




BS 30


## BS $27 \cdot$ Nervous System

Relief model, about $1 / 2$ natural size, made from SOMSO ${ }^{\circledR}$-Plast. Schematic representation of the central and peripheral nervous system. In one piece, on a green base. Height 91 cm , width 32 cm , depth 6 cm , weight 5.5 kg
BS 30 .
Fifth Cervical Vertebra
Enlarged approximately 7 times, made from SOMSO ${ }^{\circledR}$-Plast. The model shows a cross section of the spinal cord with spinal nerves, spinal ganglion, vertebral artery and vein. In one piece, on a green base. Height 28 cm , width 40 cm , depth 10 cm , weight 1.6 kg

## BS 29. Cervical Vertebra (C VI) with Spinal Cord

Natural size, made from SOMSO®-Plast. Spinal nerves, spinal ganglion, and vertebral artery are shown. Spinal cord also shown in cross section. Cannot be disassembled. On a stand with green base. Height 14 cm , width 12 cm , depth 12 cm , weight 100 g

## BS 28/1 • Thoracic Vertebra (TH II) with Spinal Cord

Natural size, made from SOMSO®-Plast. Spinal nerves, spinal ganglion, spinal cord in cross section. Cannot be disassembled, on a stand with green base. Height 14 cm , width 12 cm , depth 12 cm , weight 200 g

## BS $28 \cdot$ Lumbar Vertebra (L II) with Lumbar Region of Spinal Cord

Natural size, made from SOMSO®-Plast. Nerve endings, filum terminale, and cauda equina of the spinal cord (also in cross section) are shown. Separates into 2 parts. On a stand with green base. Height 15 cm , width 12 cm , depth 13 cm , weight 200 g
BS $31 \cdot$ Spinal Cord with Vertebral Canal
Seen from the ventral side, natural size, made from SOMSO®-Plast. The model shows the brain stem and the spinal cord, as well as the nerve branches up to the coccygeal plexus. On the left side, the sympathetic trunk with its connections to the central nervous system is shown. Cannot be disassembled. On a green base. Height 90 cm , width 32 cm , depth 19 cm , weight 5.5 kg

## BS 32/37 • Spinal Cord in

Spinal Canal
Enlarged approximately 5 times. Section through the spinal cord enlarged approximately 10 times, made from SOMSO ${ }^{\circledR}$ Plast. Cannot be disassembled. Mounted on green base, with removable dust cover. Height 18.5 cm , width 32 cm , depth 9 cm , weight 600 g


BS 27


BS 31


BS 35/3


BS 35/1

## BS 35/1 • NeURON

Enlarged approx. 2.500 times, made from SOMSO ${ }^{\circledR}$-Plast. Structures visible under light and electron microscopes are taken into consideration, with separate, myelinated nerve fibre. In one piece, on a green base. Height 40 cm , width 28 cm , depth 14 cm , weight 1.5 kg


BS 36/2 • FUNCTIONAL Model of a Myofibril
Enlarged approx. 10.000 times, made from SOMSO ${ }^{\circledR}$-Plast. After Prof. Dr. med. Elke Lütjen-Drecoll and Prof. Dr. med. Dr. med. h.c. J. W. Rohen. In one piece and on a removable green base. Height 21 cm , width 14 cm , depth 16 cm , weight 400 g


## BS 35 • Neuron

Enlarged approx. 2.500 times, made from SOMSO ${ }^{\circledR}$-Plast. Consisting of nerve cell body and myelinated nerve fibre. Based on electron-microscope findings. Separates into 3 parts in total. On a removable transparent base. Height 22 cm , width 53 cm , depth 17 cm , weight 2.2 kg

## BS 35/3.

## Model of a Synapse

Enlarged many times over, made from SOMSO ${ }^{\circledR}$-Plast. Representation of neurotubules, neurofilaments, and synaptic vesicles as well as post- and pre-synaptic membrane structures. In one piece and on a removable transparent base. Height 21 cm , width 22 cm , depth 22 cm , weight 900 g


BS 36/1•Skeletal Muscle Fibre with Functional Model
Enlarged approx. 15.000 times, made from SOMSO®-Plast. After Prof. Dr. med. Elke Lütjen-Drecoll and Prof. Dr. med. Dr. med. h.c. J. W. Rohen. Separates into 3 parts, on a green base. Height 21 cm ,
width 26 cm , depth 18 cm , weight 1.7 kg



## BS 36•Transversely Striated Muscular Fibre with Motor End-Plate

Enlarged approx. 4.000 times, made from SOMSO ${ }^{\circledR}$-Plast. In one piece, on a green base. Height 20 cm , width 18 cm , depth 18 cm , weight 1 kg


BS 36/1 disassembled

SOMSO ${ }^{\circledR}$ MODELS FOR STIMULATING BIOLOGY LESSONS Thanks to the company's high standard of quality and the sense of responsibility towards young students both at schools and stunversities, SOMSO ${ }^{\circledR}$ Models are a reliable companion on their exciting journey of discovery through the miracle of the buman body.





DS $10 \cdot$ Section Through the Central Spiral of the Cochlea
Enlarged approximately 350 times, made from SOMSO ${ }^{\circledR}$-Plast. The scala vestibuli, the scala tympani, the cochlear duct with tectorial membrane, and the organ of Corti are shown. Cannot be disassembled. On a green base. Height 51 cm , width 48 cm , depth 5 cm , weight 3.8 kg


## DS $13 \cdot$ LabyRinth

Enlarged approximately 18 times, made from SOMSO ${ }^{\circledR}$-Plast. The superior semicircular canal and vestibule are open, showing the saccule and utricle. The cochlea separates longitudinally. 2 parts in total. On a stand with green base. Height 33 cm , width 24 cm , depth 18 cm , weight 800 g


DS 1 disassembled


DS 3 • EAR
Enlarged approximately 3 times, made from SOMSO®-Plast. Tympanic membrane with malleus and incus as well as labyrinth with stapes can be removed. 3 parts in total. On a green base. Height 21 cm , width 32 cm , depth 19 cm , weight 1.2 kg

## DS 1.

Ear with Pinna
Enlarged approximately 4 times, made from SOMSO ${ }^{\circledR}$ _ Plast. Separates into pinna, petrous bone (3), tympanic membrane, labyrinth (2), Eustachian tube. 8 parts in total. On a stand with green base. Height 41 cm , width 44 cm , depth 26 cm , weight 3.7 kg

## QS $69 \cdot$ The Three <br> Auditory Ossicles

Natural size, made from SOMSO ${ }^{\circledR}$-Plast. Malleus, incus, and stapes mounted under Plexiglas cover, removable from green base. Height 3 cm , width 12 cm , depth 12 cm , weight 80 g


DS 5 disassembled


Inner ear of DS 5 disassembled

DS 5 • EAR
Enlarged approximately 3 times, made from SOMSO ${ }^{\text {®-Plast. Separates into } 6}$ parts. On a green base. Height 21 cm , width 32 cm , depth 19 cm , weight 1.5 kg


ES 1.
Set of Teeth of an Adult
Natural size, made from SOMSO ${ }^{\circledR}$-Plast.
Consisting of 32 artificial teeth in a transparent box that can be opened.
Height 4 cm , width 13 cm , depth 9 cm ,


ES 4/1.
Lower Jaw of an 18-Year-Old

Enlarged approximately 3 times, made from SOMSO ${ }^{\circledR}$ Plast. 6 parts in total. On a stand with green base.

Height 34 cm , width 34 cm , depth 18 cm , weight 1.6 kg

ES 11 .

$$
\text { ES } 11
$$



Five Models of Teeth
Enlarged approximately 8 times; each model mounted on a stand with green base, made from SOMSO ${ }^{\circledR}$-Plast. Weight 2.2 kg
As INDIVIDUAL MODELS:
ES 11/1 - LOWER INCISOR
ES 11/2 - Lower Canine
ES 11/3 - Lower Molar with One Root ES 11/4 - Lower Molar with Two Roots ES 11/5-First Upper Molar with Three Roots

ES 22 .
Model of a Set Of Teeth Enlarged approx- imately 3 times, with large toothbrush to demonstrate tooth brushing, made from SOMSO®-Plast. After an original at the Bundeszentrale für gesundheitliche Aufklärung (Federal Centre for Health Education) in Cologne. Height 14 cm , width 19 cm , depth 25 cm , weight 1.3 kg


Enlarged approximately 2 times, made from SOMSO ${ }^{\circledR}$-Plast. The larynx can be disassembled, the epiglottis is elastic and movable. The crossing of the windpipe and the oesophagus can be easily demonstrated. Separates into 2 parts, on a green base. Height 40 cm , width 28 cm , depth 9 cm , weight 1.6 kg 8 times, made from

## FS $8 \cdot$ Tongue

Natural size, made from SOMSO ${ }^{®_{-}}$ Plast. Median section with one part of the lower jaw removable. Separates into 3 parts. On a stand with green base.
Height 14 cm , width 12 cm , depth 12 cm , weight 300 g


ES 14 •
Development of a Set of Teeth
Natural size, made from SOMSO®-Plast. Representation of halves of the jaw, cannot be disassembled. On a stand with green base. Height 24 cm , width 33 cm , depth 11 cm , weight 700 g


ES 8 •

## Molar Tooth With Caries

Enlarged approximately


## GS 7 .

## LARYNX

Enlarged approximately 2 times, made from $\mathrm{SOMSO}^{\circledR}$ Plast. Separates into 2 halves medially. Removable parts are: right thyroid cartilage, cricothyroid muscle and thyrohyoid muscle. The inner and outer laryngeal muscles, the relief of mucous membrane, artery and nerve supply and the cartilaginous skeleton can be demonstrated. Separates into 5 parts in total. On a stand with green base. Height 22 cm , width 12 cm , depth 12 cm , weight 700 g


GS 6 .
Cartilages of the Larynx
Functional model, enlarged approximately 2.5 times, made from SOMSO ${ }^{\circledR}$-Plast. Arytenoid cartilage, vocal folds and epiglottis are flexibly mounted. Cannot be disassembled. On a green base. Height 28 cm , width 12 cm , depth 14 cm , weight 700 g

GS 10 •
Functional Model of the Larynx
Enlarged approximately 3 times, made from SOMSO® ${ }_{-}$ Plast. The opening and closing of the glottis, the variation in tension of the vocal chord and the change of position can be demonstrated in an intuitively accessible way. This model can not be disassembled. On a green base. Height 33 cm , width 18 cm , depth 18 cm , weight 1.5 kg


GS 6-Opening of the Glottis


GS 6 - Closing of the Glottis


GS 10 - Tilting of the Thyroid Cartilage


GS 10-Rotational Movement of the Arytenoid Cartilage


## 12



## Anatomy of the Thorax

Natural size, made from SOMSO®-Plast. Separates into sternum, organs of the neck, right lung (3), left lung (2), heart (7), bronchial tree, base model. 17 parts in total. On a green base. Height 52 cm , width 39 cm , depth 26 cm , weight 7.1 kg (bronchial tree: for HS 21 height 31 cm , width 21 cm , depth 18 cm , weight 400 g )


THE Training future bealth professionals in part with $S O M S O^{\circledR}$ with challenges that can be solved in pared for many disciplines, Models. SOMSO $^{\circledR}$ Models are manufaching. The functional offering valuable assistance in they facilitate - in part models play a special role, as tias. Key factors for the use of realistic exercises and diagnose the true-to-life representation, SOMSO ${ }^{\circledR}$ Models in medicine ,ientific accuracy, and realistic banding of

## Liver

Natural size, made from SOMSO ${ }^{\circledR}$-Plast. Showing the four lobes of the liver, the beginnings of the peritoneum, the gall bladder and vessels. Cannot be disassembled. On a stand with green base. Height 27 cm , width 19 cm , depth 18 cm , weight 700 g

$J S 5$
JS 11 .
Pancreas WITH
Spleen and Duodenum
Natural size, made from SOMSO®-Plast. Cannot be disassembled. On a stand with green base. Height 23 cm , width 22 cm , depth
12 cm , weight 300 g

## JS 2/1.



## Digestive System

Natural size, relief model, partly opened up, made from SOMSO ${ }^{\circledR}$ - Plast, showing the alimentary canal from the mouth to the rectum. Separates into 2 parts. On a green base. Height 91 cm , width 32 cm , depth 12 cm , weight 4.7 kg


JS 14 •
Internal Surface of the Jejunum
Enlarged approximately 400 times, made from SOMSO®-Plast. After Prof. Dr. E. Wüstenfeld, model made by E. Rack, Anatomical Institute, Würzburg. The digitiform protrusions represent villi, the indentations show crypts. A cut surface reveals the histological structure of a villus. Cannot be disassembled. On a green base. Height 17 cm , width 18 cm , depth 18 cm , weight 600 g


## KS 1 .

Section of Skin
Enlarged approximately 70 times, made from SOMSO ${ }^{\circledR}$ Plast. The layers of the skin can be separated to form can be separated to form
terraces, showing the follicle and root of the hair (threeand root of the hair (three-
dimensional and in section), the sweat gland and the sensory organs of the skin.
Separates into 4 parts. On a sensory organs of the skin.
Separates into 4 parts. On a green base. Height 27 cm , width 33 cm , depth 15 cm , weight 1.8 kg

## KS 3 .

Block Model of Sectional of Skin
Enlarged approximately 70 times, made from SOMSO ${ }^{\circledR-P l a s t . ~ T h e ~ m o d e l ~ s h o w s: ~}$ a) scalp with hair, b) skin of the axilla, c) the hairless skin of the sole of the foot. Cannot be disassembled. On a green base. Height 25 cm , width 47 cm , depth 15 cm , weight 2.2 kg

KS 4. Block Model of the Skin
Enlarged approximately 70 times, made from SOMSO ${ }^{\circledR}$-Plast. Showing the scalp with hair in different sectional planes. Cannot be disassembled. On a green base. Height 21 cm , width 20 cm , depth 11 cm , weight 1.3 kg


Enlarged approximately 3 times, made from SOMSO®-Plast. Frontal section seen from behind. Cannot be disassembled. On a green base. Height 32 cm , width 26 cm , depth 7 cm , weight 1 kg

## LS $6 \cdot$ Nephron

Enlarged approximately 120 times, made from SOMSO ${ }^{\circledR}$-Plast. Cannot be disassembled. On a green base. Height 32 cm , width 26 cm , depth 4 cm , weight 700 g

## LS 7 • Glomerulus

Also called Malpighian corpuscle, enlarged approximately 700 times, made from SOMSO®-Plast. Cannot be disassembled. On a green base. Height 32 cm , width 18.5 cm , depth 8 cm , weight 800 g
LS 9 • Kidney, Nephron, and Glomerulus
Combination of models LS 4, LS 6 and LS 7, on a green base. Cannot be disassembled. Made from SOMSO®-Plast. Height 30 cm , width 65 cm , depth 9 cm , weight 3 kg


## | MS 1 .

## Median Section

 of the Female
## Pelvis

Natural size, made from SOMSO®-Plast. Separates into 2 parts. On a green base. Height 33 cm , width 27 cm , depth 12 cm , weight 1.5 kg

## MS $5 / 1 \cdot$ Female Genital Organs

Natural size, made from SOMSO®-Plast. 4 parts in total. On a stand with green base. Height 16 cm , width 18 cm , depth 18 cm , weight 900 g

## MS $3 / 1 \cdot$ Male Genital Organs

Natural size, made from SOMSO®-Plast. 4 parts in total. On a stand with green base. Height 18 cm , width 18 cm , depth 18 cm , weight 800 g
MS $3 / 2$ • Model of the Male Sexual Organs
Natural size, made from SOMSO®-Plast. Developed in co-operation with Angelika Beck, deputy head teacher. Height 27 cm , width 36 cm , depth 24 cm , weight 2.8 kg


MS 5/2
Model of the Female Sexual Organs
Natural size, made from SOMSO@-Plast. Developed in co-operation with Angelika Beck, deputy head teacher. Height 23 cm , width 49 cm , depth 26 cm , and weight 2.5 kg


MS 2 Male Pelvis, Sectional plane after taking off the bladder, seminal vesicle and penis half.


## MS 12 •

## SERIES SHOWING PREGNANCY

Natural size, made from SOMSO ${ }^{\circledR}$-Plast. 8 uterus representations with embryos and foetuses from 1st to 7th month of pregnancy. 14 parts in total. Each model on an individual stand with green base.
Total weight of the series 3.5 kg
The stages of series MS 12 are also available individually.

## MS 11

## Embryo

Enlarged approximately 25 times, made from SOMSO ${ }^{\circledR}$-Plast. The model shows an approximately 4-weekold embryo. Cannot be disassembled. On a stand with green base. Height 25 cm , width 14 cm , depth 12 cm , weight 300 g


MS 12

MS 15 .
Fertilisation and DevelopMENT OF THE Human Ovum UP TO THE 3RD Month

Represented on 16 individual models, made from SOMSO ${ }^{\circledR}$-Plast. Collection in a display case with removable Plexiglas cover. Height 49 cm , width 57 cm , depth 11 cm , weight 5.7 kg


## MS $51 \cdot$ Relief Model of the Ovary

Enlarged approximately 10 times, made from SOMSO ${ }^{\circledR}$-Plast. Plastic representation of the follicle in different stages of maturity, of the corpus rubrum, luteum, and albicans. Cannot be disassembled. On a green base. Height 28 cm , width 40 cm , depth 8 cm , weight 1.8 kg



## MS 16 •

Fetal Circulatory System

Natural size, made from SOMSO®-Plast. Represented on a female foetus (before birth) with umbilical cord and placenta. The thoracic and abdominal cavities as well as the heart are opened. The ductus venosus and the ductus arteriosus are shown. Separates into 2 parts. On a green base. Height 48 cm , width 30 cm , depth 14 cm , weight 2.8 kg

## MS 13 .

Pelvis with UTERUS IN Ninth Month of Pregnancy Natural size, made from SOMSO®-Plast. The model shows the right half of the female pelvis in median section. Foetus can be removed. 2 parts in total, on a green base. Height 41 cm , width 39 cm , depth 29 cm , weight 4.9 kg

## 16 <br> ANATOMY

Embryonic Development Birth and Baby Care

MS 12•Series Showing Pregnancy
MS $12 / 1 \cdot$ Fetus in 1st month (4th week) MS 12/2 • Fetus in 2nd month (8th week) MS 12/3 • Fetus in 3rd month ( $11 \frac{1}{2}$ weeks) MS 12/4 • Embryo in 4th-5th month

MS $12 / 5 \cdot$ Embryo in 5 th month (19th week) MS $12 / 6 \cdot$ Embryo in 5th month (20th week) MS 12/7 • Embryo in 6th month (28th week) MS 12/8 • Twin foetuses in 5th month



1. Different eye colours are available for the SOMSO ${ }^{\circledR}$ nursing babies MS 52 and MS 53 as a special version.

2. Models MS 52 and MS 53 are available with their mouth open or closed.

3. They come with a lifelike auditory canal for ear care.

4. Models MS 52, MS 53, MS 57 , MS 58, MS 59, MS 60 and MS 61 have soft and moveable arms and legs.

5. For all further enquiries, each baby has its own SOMSO ${ }^{\circledR}$ identification number.

MS 33/E • DOLL for Baby Care Made from SOMSO® ${ }^{\circledR}$ Past. Ball joints allow natural movement of the head, arms, and legs; with anus. Suitable for bathing, changing nappies, and practising holding. With brown artificial eyes. Unclothed. Head circumference 36 cm , length 49 cm , weight 3 kg


MS 33/E-B . DOLL FOR Baby Care
Same specification as MS 33/E, however with dark skin.
$\rightarrow$ (3)


MS 52 . Nursing Baby, Female
Corresponding to a 6 -week-old baby, made from SOMSO®-Plast. Head circumference 35.8 cm , length 54 cm , weight 3.3 kg
Size and weight corresponds to a 6-week-old baby. Made from SOMSO ${ }^{\circledR}$-last. Suitable for bathing, also in warm water. Ball joints allow natural movement of the arms and legs. Unclothed. Head circumference 38.9 cm , length 56 cm , weight 3.3 kg
MS 43 . Doll for Baby Care


MS 58 .
Newborn Baby, Male
Made from soft SOMSO ${ }^{\circledR}$-Plant. With ball joints; head moves easily and tilts backwards. With open mouth, umbilical cord and anus. Suitable for bathing, changing nappies and practising holding. Unclothed. Head circumference 34 cm , length 46 cm , ference 34 cm ,
weight 2.2 kg REALISTIC BABY CARE TRAINING WITH SOMSO ${ }^{\circledR}$
BABY

BABY MODELS.
Teach Teaching Baby, Newborn Baby, Care Baby Baby Nursing Doll, size and weight 1: Age-approvement of joints and bead 2: Natural 3: Eyes and hair painted by band 3: Eyes and bairns for frequent use
5: Waterproof finish
6: 5-year warranty
| NS 55 .
Functional Model of the Hand and Finger Joints
Natural size, made from SOMSO ${ }^{\circledR}$-Plast. Cannot be disassembled. On a stand with green base (removable). Height 36 cm , width 18 cm , depth 19 cm , weight 400 g
NS 15.
Muscles of the Arm with Shoulder Girdle
Natural size, made from SOMSO®-Plast. Separates into 6 parts. On a stand with green base, can be rotated. Height 105 cm , width 39 cm , depth 26 cm , weight 4.6 kg

## NS 52 .

Functional
Model of the Elbow Joint
Natural size, made from SOMSO®-Plast. Cannot be disassembled. On a removable stand with green base. Height 41 cm , width 19 cm , depth 22 cm , weight 650 g

## NS 53 .

Functional
Model of The
Shoulder
Joint
Natural size, made from SOMSO ${ }^{\circledR}$-Plast. Cannot be disassembled. On a removable stand with green base. Height 26 cm , width 19 cm , depth 22 cm , weight 650 g

## NS 13 .

Muscles of the Hand with Base of the Fore-Arm
Natural size, made from $\mathrm{SOMSO}^{\circledR}{ }_{-}$ Plast. Showing the blood vessels and nerves as well as the ligamentous apparatus. Separates into 5 parts in total. On a stand with green base. Height 34 cm , width 14 cm , depth 12 cm , weight 500 g


NS 21/1
JOINTS OF Hand and Fingers With LigAMENTS
Natural size, made from SOMSO®-Plast. Cannot be disassembled. On a stand with green base (removable). Height 34 cm , width 18 cm , depth 18 cm , weight 650 g

## Elbow Joint

NS 18 .

Natural size, made from SOMSO ${ }^{\circledR}$ Plast. Cannot be disassembled. On a green base. Height 21 cm , width 13 cm , depth 12 cm , weight 200 g

NS 17.
SHOULDER JOINT
Natural size, made from SOMSO ${ }^{\circledR}$ Plast. Cannot be disassembled. On a stand with green base. Height 23 cm , width 19 cm , depth 19 cm , weight 500 g

NS 13 disassembled

NS $43 \cdot$ Section through the Knee Joint
(illustration see page 18)
NS $44 \cdot$ Section through the Hip Joint
(illustration see page 19)
NS $45 \cdot$ Section through the Hand
(illustration see page 19)

NS $46 \cdot$ Section through the Elbow
(illustration see page 19)
NS 47 • SECTION THROUGH a Normal Foot (illustration see page 19)
NS $48 \cdot$ SECTION THROUGH THE SHOULDER JOINT (illustration see page 19)

## 18 <br> ANATOMY

Extremities AND Joints

Sectional views of joints from series NS 43 - NS 48, made from SOMSO®_Plast. Bone sections modelled true to nature with topography of muscles, ligaments, vessels and nerves. Each with explanation on a green



NS 51 •
Functional Model of the Hip Joint
Natural size, made from SOMSO ${ }^{\circledR}$-Plast. Cannot be disassembled. On a stand with green base (removable). Height 35 cm , width 20 cm , depth 18 cm , weight 1.25 kg
NS 50 -
Functional
Model of the Knee Joint
Natural size, made from SOMSO®-Plast. Cannot be disassembled. On a green base (removable). Height 34 cm , width 18 cm , depth 18 cm , weight 1 kg

NS 10 .
Muscles of the Leg
WITH Base OF THE

## Pelvis

Slightly smaller than natural size, made from $\mathrm{SOMSO}^{\circledR}{ }_{-}$ Plast. Separates into 10 parts. On a stand with green base, can be rotated. Height 108 cm , width 39 cm , depth 26 cm , weight 5 kg

## NS 21 .

Ankle Joints with Ligaments
Natural size, made from SOMSO ${ }^{\circledR}$-Plast. Consisting of the bones of the foot and the lower part of the lower leg with ligamentous apparatus. Cannot be disassembled, on a stand with green base. Height 38 cm , width 18 cm , depth 18 cm , weight 400 g

## NS 1.

Normal Foot
Natural size, made from SOMSO®-Plast. Cannot be disassembled. Height 13 cm , width 26 cm , depth 10 cm , weight 450 g

disassembled
NS 10


NS 21

## NS $54 \cdot$ FUnctional Model of the Joints

 of the FootNatural size, made from SOMSO ${ }^{\circledR}$ Plast. Cannot be disassembled. On a stand with green base (removable). Height 25 cm , width 28 cm , depth 18 cm , weight 900 g
NS 9 .
Muscles of the Foot
Natural size, made from SOMSO ${ }^{\circledR}$ _ Plast. Showing the nerve and vascular supply. The layers of the muscles of the sole of the foot are removable (flexor digitorum brevis muscle, quadratus plantae muscle, extensor digitorum longus muscle, tendo calcaneus (Achilles tendon), abductor digiti minimi muscle, flexor hallucis brevis muscle, adductor hallucis muscle (oblique head), and abductor hallucis muscle The ligamentous apparatus is shown. 9 parts in total. On a stand with green base. Height 18 cm , width 3 cm , depth 18 cm , weight 1.1 kg

## NS $2 \cdot$ Flat Foot

Natural size, made from SOMSO®Plast. Cannot be disassembled. Height 13 cm , width 26 cm , depth 9 cm , weight 450 g


NS 2



QS 3/3.
Artificial Skull of a Fetus
Natural cast, made from SOMSO ${ }^{\circledR}$ _ Plast. Cannot be disassembled. Length 10.5 cm , width 8.5 cm , circumference 29.7 cm , weight 130 g

## ght



QS 3/E.

## Artificial Skull of a Newborn

Natural cast, made from SOMSO ${ }^{\circledR}$-Plast, 2 parts. Weight 170 g


QS 3/2-E


Detail QS 7/1 - Numbering

## QS 3/2-E•Artificial

 Skull of Child (about 6-YEARS OLD)Natural cast, made from SOMSO ${ }^{\circledR}$-Plast. 2 parts in total. Weight 380 g

## QS 1•ArTificial

 Human SkullNatural cast, made from SOMSO ${ }^{\circledR}$-Plast. With closed cranium, movable lower jaw. Separates into 2 parts. Weight 700 g

## QS 7/E•Artificial Human Skull

Natural cast, made from SOMSO ${ }^{\circledR}$ _ Plast, cranium can be removed, movable lower jaw, separates into 3 parts. Weight 800 g

## QS 7•Artificial Human Skull

Male, natural cast, made from SOMSO ${ }^{\circledR}$ Plast, cranium can be removed, movable lower jaw, separates into 3 parts. Weight 800 g

QS 7/1•Artificial
Human Skull
(Detail-Illustration)
Natural cast, made from SOMSO ${ }^{\circledR}$-Plast. Same specification as QS 7, but with numbering, separates into 3 parts. Weight 800 g

## QS 10/1 • Artificial Human Skeleton

Natural cast of a male adult skeleton, made from SOMSO®-Plast. Mounted on stand with castors, with dust cover. Height 180 cm (skeleton 170 cm ), width 55 cm , depth 55 cm , weight 10.4 kg




Maximum cranium circumference:

+ 50.8 cm त 51.2 cm


Cranium $\overline{\text { length (Glabella }}$ Ophistocranion line): + 18.3 cm ठ 17.5 cm Cranium width (Euryon distance): Q 12.8 cm 欠 14.1 cm


Hand skeleton length (Stylion-Dactylion III): + 18 cm ठ 19 cm .


Foot skeleton length (Pternion-Acropodion): + 22.2 cm ठ 25 cm




QS 10/E.

## Artificial Human

 SkeletonNatural cast of a male adult skeleton, made from SOMSO®-Plast. Simplified mounting. Mounted on stand with castors, with dust cover. Height 179 cm (skeleton 170 cm ), width 55 cm , depth 55 cm , weight 10 kg


QS 10/6. Artificial Human Skeleton

As QS 10/1 (on page 20) but showing the ligaments on the knee, the hip, the elbow, and on the shoulder. Weight 11.2 kg

QS 10/8.
Artificial Human Skeleton

Natural cast of a female adult skeleton, made from SOMSO ${ }^{\circledR}$-Plast. Mounted on stand with castors, with dust cover. Height 181 cm (skeleton 171 cm ), width 55 cm , depth 55 cm , weight 10.7 kg

QS 8/3.

## 14-Part coloured Model

 of the Human SkullNatural size, made from $\mathrm{SOMSO}^{\circledR}{ }_{-}$ Plast. After Prof. Dr. med. Dr. med. h.c. J. W. Rohen, Anatomical Institute of the University of Erlangen. Weight 700 g


QS 10/9.
Artificial Human Skeleton

As QS 10/1 (on page 20) but the points of origin and attachment of the most important muscles from head to toe are marked in colour on the right side of the body. The individual bones are numbered on the left half. Weight 10.4 kg


## QS 21/3.

Vertebral Column With Pelvis
Natural size, made from SOMSO ${ }^{\circledR}$-Plast. Flexibly mounted, showing the arteria vertebralis, the spinal cord, the exiting spinal nerves, and the appendant ganglia. Comprising occipital bone; cervical, thoracic, and lumbar vertebrae; sacral bone and coccyx; iliac wings. The spinal cord is inside the vertebral canal as a flexible tube. Ideally suited for the demonstration of healthy and pathological spinal curvature. With stand for hanging. Weight 3.6 kg


(1) $\begin{aligned} & \text { Demonstration of } \\ & \text { flexible mounting }\end{aligned}$


## QS 55 •

## Movements

of Muscles in the Upper Arm

Natural size, made from SOMSO ${ }^{\circledR}$-Plast. Flexibly mounted. Schematic representation of the upper arm muscle. Made from flexible material. Without stand and base. Weight 740 g


QS 61 .

## Construction of Bone

Enlarged many times, made from SOMSO ${ }^{\circledR-P l a s t . ~ S h o w n ~ i n ~ a ~ w e d g e ~}$ segment from the compact part of a hollow bone. Cannot be disassembled. On a green base. Height 28 cm , width 39 cm , depth 26 cm , weight 2.82 kg

QS 55/2.
Movement of Muscles in the Upper Arm and Forearm
Natural size, made from SOMSO ${ }^{\circledR}$ _
Plast. Showing the flexor and extensor of the upper arm as well as the rotator muscles of the forearm. On a stand with green base. Height 83 cm , width 45 cm , depth 26 cm , weight 2 kg

## 2. Flat back

3. Hollow round back
4. Round back


S $1 \cdot$ Reconstruction of a Skull of Paranthropus Boisei
Age: approx. 1.8 million years, lower Pleistocene. 2 parts. Weight 870 g
S $2 \cdot$ Reconstruction of A
Skull of Homo erectus
Age: approx. 1 million years, upper Pliocene. Separates into 2 parts. Weight 750 g
S 2/3733 • Reconstruction of a Skull of Homo ergaster (KNM-ER 3733) Age: approx. 1.8 million years, upper Pliocene. 2 parts. Weight 590 g

## S 2/F.

Reconstruction of a Thigh of Homo erectus (Trinil 3) Age: approx. 800.000 years, lower-mid Pliocene. Cannot be disassembled. Weight 570 g


S 2/KNM .
Reconstruction of a Thigh of Homo erectus
Age: approx. 300.000 years, mid Pliocene. Cannot be disassembled. Weight 890 g
S 3 .
Reconstruction of a Skull of Homo neanderthalensis
Age: approx. 40.000 to 70.000 years, middle-upper Pleistocene (Würm glacial stage). 2 parts. Weight 850 g


S 3/1 $\cdot$ Reconstruction of a Skull of Homo habilis (O.H. 24)

Age: approx. 1.85 million years, Pliocene. 2 parts. Weight 420 g

## S 3/F $\cdot$ Reconstruction

of a Thigh of
Homo neanderthalensis
Age: approx. 40.000-50.000 years.
Cannot be disassembled. Weight 700 g
S $4 \cdot$ Reconstruction of A Skull of Homo sapiens
Age: upper upper Pleistocene, approx. 25.000 years. 2 parts. Weight 830 g

S $5 \cdot$ Reconstruction of A Skull of Australopithecus AFRICANUS

$$
\text { Age: approx. } 2.3 \text { to } 2.8
$$ million years, lower Pliocene. 2 parts. Weight 540 g




S $5 / 1 \cdot$ RECONSTRUCTION OF A
Skull of Proconsul AFRICANUS
Age: approx. 20 million years, early Miocene. 2 parts.
Weight 210 g


S 5/STs14 • Reconstruction of a Pelvis of
AUSTRALOPITHECUS AFRICANUS
Age: approx. 2.2-2.8 million years.
Cannot be disassembled. Weight 560 g

S 6 - Lower Jaw FROM
Mauer near Heidelberg,
Homo heidelbergensis
Age: approx. 500.000 to 600.000 years, middle Pleistocene. Cannot be disassembled, with a green base. Weight 510 g

## S $7 \cdot$ RECONSTRUCTION OF A SkUll of AUstralopithecus AFARENSIS <br> Age: 3.6-3.0 million years, upper Pliocene, 2 parts. Weight 620 g

## Anatomy

Documentation of Human Phylogeny

University of Göttingen and Professor Dr. Uwe Hoßfeld, Research Group Didactics of Biology of the Friedrich Schiller University of Jena. Made from SOMSO®-Plast.

INTRODUCTION TO Zoology:

## Vertebrates

Invertebrates
Development of Animals
Animal Cell, Genetics
Comparative Anatomy
Realistic Animal Models
SOMSO ${ }^{\circledR}$ Zoology Models are categorized mainly by system.


ZoS 27/1.
Domestic Cat Model

Natural size, made from SOMSO ${ }^{\circledR}$-Plast. The right half shows the skeletal system and the internal view of the median section of the body. The superficial skeletal muscles are displayed on the left half of the body. Separates into two halves medially. The following visceral organs can be removed: lung, heart, liver, stomach, small intestine with spleen, large intestine with kidney and the female sexual organs, tail. Separates into 9 parts in total, on a green pullout base. Height 43 cm , width 52 cm , depth 21 cm , weight 5.2 kg SOMSO ${ }^{\circledR}$-Plast. . The right half shows the skin and the internal view shows the section of the head as well as the three large body cavities. The superficial skeletal muscles are displayed on the left half of the body. Separates into two halves medially. The following visceral organs can be removed: right lung, heart, liver, stomach, small intestine with spleen and large intestine with kidney and the female sexual organs.

Separates into 8 parts in total. On a green pull-out base. Height 43 cm ,


ZoS 109/1 Right half of the model (skeletal system)

ZoS 109/1.
Model of a Female German Shepherd Dog
$2 / 3$ natural size, made from SOMSO ${ }^{\circledR}$-Plast. The right side shows the skeletal system and the left half of the model shows the muscles. 11 parts, which can be disassembled as follows: half of the skull with vertebral column, thorax and iliac wing, tail, front leg, hind leg, right lung, heart, stomach, liver with right kidney, small intestine with duodenum and pancreas, large intestine with the female sexual organs, on a green base. Height 66 cm , width 80 cm , depth 25 cm , weight 10 kg


ZoS 27/1-Right balf of the model (skeletal system)

Developed in co-operation with Prof. Dr. Helmut Waibl and Dr. Elisabeth Engelke of the Institute of Anatomy at the University of Veterinary Medicine, Hanover.



## ZoS $26 \cdot$ Domestic Hen

Natural size, made from $\mathrm{SOMSO}^{\circledR}{ }^{\circledR}$ Plast. 5 parts, which can be disassembled as follows: body, topography of the muscles, lung, liver and stomach. On a green base with stand. Height 49 cm , width 45 cm , depth 26 cm , weight 2.4 kg


## ZoS 17 .

## Cow Hoof

Natural size, made from SOMSO ${ }^{\circledR}$-Plast. Cast of a natural, prepared left front cow hoof. Separates into 6 parts. On a green base. Height 34 cm , width 14 cm , depth 30 cm , weight 1.3 kg


ZoS 42/43.

## Horse Hoof with

Ligamentous Apparatus, Vessels and Nerves.

Natural size, made from SOMSO®-Plast. Developed in co-operation with Prof. Dr. Helmut Waibl and Dr. Elisabeth Engelke of the Institute of Anatomy at the University of Veterinary Medicine, Hanover. Separates into 7 parts. On a removable green base. Height 30 cm , width 18 cm , depth 26 cm , weight 1.57 kg


ZoS 115

## ZoS 100 • <br> Pond Frog

Pelophylax kl. esculentus (synonym: Rana kl. esculenta). After Christian Groß, Director of Studies. Scale: 4:1, made from SOMSO ${ }^{\circledR}$-Plast. Separates into 3 parts. On a green base. Height 39 cm , width 62 cm , depth 12 cm , weight 3.9 kg

## ZoS 105 .

Anatomy of a Bony Fish
Taking the carp, Cyprinus carpio, as an example. Natural size, made from SOMSO ${ }^{®}$-Plast. Separates into 4 parts. On a stand with green base. Height 35 cm , width 49 cm , depth 15 cm , weight 1.6 kg


ZoS 100


Liver


Gastrointestinal tract

Opened abdominal cavity

## INVERTEBRATES -

selection of representatives of the following simplified animal phylum classification, in descending level of order:

## ECHINODERMS

## Molluscs

Arthropods

## Worms

Coelenterates
Protozoans


## ZoS 114 •

Common starfish
Asterias rubens. Scale approx.: 3:1, made from SOMSO®-Plast. After Christian Groß, Director of Studies. 3 parts in total. On a stand with green base. Height 31 cm , width 53 cm , depth 35 cm , weight 2.2 kg

## MOLluscs

## ZoS 117 • Roman Snail

Helix pomatia. Scale: 6:1, made from SOMSO ${ }^{\circledR}$-Plast. After Christian Groß, Director of Studies. From the right, you have a full view of the shell. Viewed from the left, the snail is opened. The portion of the intestinal canal between the retropharynx and the small intestine can be removed, fully revealing the hermaphroditic genital system. Separates into 4 parts. On a green base. Height 28 cm , width 68 cm , depth 45 cm , weight 7.5 kg
ZoS 119 .
Swan Mussel
Anodonta cygnea, anatomical overview, right half of shell, of the pallium, and the gill

removed, foot opened at the right side. Scale: 4:1, made from SOMSO ${ }^{\circledR}$-Plast. After Christian Groß, Director of Studies. On a green base. Separates into 7 parts. Height 21 cm , width 61 cm , depth 38 cm , weight 7.7 kg

## ARTHROPODS / Crustaceans

## ZoS 121 .

 Model of A Water FleaDaphnia pulex, made from SOMSO ${ }^{\circledR}$ - Plast, after Christian Groß, Director of Studies. Female, with summer eggs. Scale: 200:1.
Separates into 6 parts. On a stand with green base. Height 50 cm , width 42.5 cm , depth 35 cm , weight 2.5 kg


Left body shell without antennae and median-cut visceral organs



Detail of the adhesive pads and claws


Detail of the capitulum from underneath


Sheep tick, lxodes ricinus, female. Scale: 70:1. Developed in co-operation with Christian Groß, Director of Studies, made from SOMSO-Plast. The model is 28 cm long, 6 cm high, 23 cm wide, and weighs 0.222 kg . Cannot be disassembled. Under transparent cover on removable green base.

## ARTHROPODS / Insects

ZoS 47/1 • Model of the Worker Bee
Apis mellifica. Scale: $\mathbf{2 5 : 1}$, made from SOMSO®-Plast, after Christian Groß, Director of Studies. 3 parts in total. On a stand with green base. Height 50 cm , width 47 cm , depth 15 cm , weight 1.8 kg


ZoS 48/1


ZoS 47/1

## ZoS 48/1 • Head of a Bee

Apis mellifica. Scale: 50:1. After Dr. E. Schicha, made from SOMSO ${ }^{\circledR}$ Plast. Separates into 2 parts. On a stand with green base. Height 34 cm , width 18 cm , depth 19 cm , weight 0.8 kg

## ZoS 49/31 . <br> Common Housefly

Musca domestica. After Dr. E. Schicha, made from SOMSO ${ }^{\circledR}$-Plast. The enlarged model on a scale of approx. 30:1 is 23 cm long, 22 cm high, 26 cm wide, and weighs 0.5 kg . Separates into 3 parts. On a stand with green base.

## ZoS 48/4. <br> Head of a Fly

Musca domestica. Scale: 50:1 after Dr. E. Schicha. Cannot be disassembled. On a stand with green base. Height 27 cm . width 18 cm , depth 20 cm , weight $0,7 \mathrm{~kg}$


## ZoS 49 .

OMMATEUM OR Compound Eye

Enlarged approximately 200 times, made from SOMSO®_Plast. Showing the histological fine structure. Cannot be disassembled. On a stand with green base. Height 33 cm , width 29 cm , depth 18 cm , weight 0.9 kg


## ZoS 47/5.

Bark Beetle
Scale: 40:1, made from SOMSO®-Plast. Appraised by Christian Groß, Director of Studies. Enlarged and true-to detail representation of the typographer beetle (eighttoothed spruce bark beetle, Ips typographus L.).
On a stand with green base. Cannot be disassembled. Height 17 cm , width 32 cm , depth 18 cm , weight 0.8 kg
$\operatorname{ZoS} 47 / 5$


## ARTHROPODS / Insects

ZoS 48/5
Model of a Mosquito
Common house mosquito, Culex pipiens. Scale: 50:1, made from SOMSO ${ }^{\circledR}$-Plast. After Dr. E. Schicha. Separates into 5 parts. On green pullout base to show the internal organs. Height 60 cm , width 75 cm , depth


## WORMS

 After Christian Groß, Director of Studies. Separates into 3 parts, on a stand with green base. Height 25 cm , width 53 cm , depth 14 cm , weight 2.2 kg

## ZoS 116/3 • Model Board of the Tape Worm

Comparison of the pork tapeworm (Taenia solium) and the beef tapeworm (Taenia saginata), enlarged many times over, made from SOMSO®-Plast. After Christian Groß, Director of Studies. Cannot be disassembled, on a green base, with description. Height 38 cm , width 61 cm , depth 10 cm , weight 3.1 kg
Coelenterates / Hydrozoans, Protozoans / Ciliates, Rhizopods




## ZoS 57/2 • Meiosis

As a component of reduction divisions, shown by 8 models with 2 explanatory introductory models, enlarged many times over, made from $\mathrm{SOMSO}^{\circledR}{ }_{-}$ Plast. After Christian Groß, Director of Studies. Cannot be disassembled. Individually mounted on a stand with green base. Weight 3.3 kg

## ZoS 57/4.

Сhromosome
Model
Scale: 50.000:1, made from SOMSO®-Plast. Developed in co-operation with Christian Groß, Director of Studies. Can not be disassembled, on a green stand with base. Height 46 cm , width 18 cm , depth 18 cm , weight 1.4 kg
ZoS 57/1 • Mitosis
After Christian Groß, Director of Studies. Enlarged many times over, made from SOMSO®_ Plast. The series consists of 8 individual models. Cannot be disassembled. Each model on an individual stand with green base. Weight 7.1 kg

ZoS 110/1 Animal Cell
Scale: 10.000:1, made from SOMSO ${ }^{\circledR}$ Plast. After Christian Groß, Director of Studies. Cannot be disassembled, on a stand with green base. Height of the model 22 cm , total height 37 cm , width 18 cm , depth 18 cm , weight 1 kg


## ZoS 57/3 • Change of Nuclear Phases in the Maturation of Sperm and Ovum (Meiosis)

Enlarged many times over. After Christian Groß, Director of Studies, made from SOMSO ${ }^{\circledR}$-Plast. Chromosomes of paternal and maternal origin as well as gonosomes (can be exchanged in diploid phase) are shown in different colours. The series consists of 5 individual models. Individually mounted on a stand with green base. Weight 2 kg

## ZoS 57/20. DNA Double Helix (Type B-DNA)

Scale: $30 \times 10 \mathrm{E} 6: 1$, made from SOMSO ${ }^{\circledR}$-Plast. Developed in co-operation with Prof. Dr. H. P. Jennissen, Dr. M. Laub, and Prof. Dr. G. Witt. In one piece, can be rotated on a green base. Based on data gained from X-ray structure analysis, the model shows a section of a DNA double helix. It complies essentially with the model of the DNA structure postulated by Watson and Crick in 1953. Height 41.5 cm , width 18 cm , depth 18 cm , weight 0.995 kg

## ZoS 120 • Animal Cell

Scale: 2.000:1, made from SOMSO®-Plast. After Christian Groß, Director of Studies. The model shows the fine structure of an animal cell. Area of application: Extended cell examination. Cannot be disassembled, on a stand with green base. Height 52 cm , width 39 cm , depth 26 cm , weight 3.7 kg

$\operatorname{ZoS} 57 / 20$




ZoS 58

## ZoS 58

Equal Cleavage and
Gastrulation in the
Lancelet
Branchiostoma lanceolatum, Lancelet. Scale approx.: 500:1, made from SOMSO®-Plast. Represented on 9 models on stand with green base, showing the different stages of cleavage, formation of blastula and primitive gut. Cannot be disassembled. Weight 1.9 kg

## ZoS $103 \cdot$ Reproduction of a Chicken Egg

Linearly enlarged 6.5 times. Made from SOMSO ${ }^{\circledR}$-Plast, after Christian Groß, Director of Studies. Cannot be disassembled, on a stand with green base and explanation. Height 43 cm , width 39 cm , depth 26 cm , weight 3.5 kg

## ZoS 54/1.

## Models of Vertebrate Hearts

Can be disassembled, made from SOMSO ${ }^{\circledR}$-Plast. 7 models in total, in natural size and partly enlarged, individually mounted on a stand with green base.

1. Bony fish (pike)
2. Frog
3. Turtle
4. Crocodile
5. Golden eagle
6. Dog
7. Human

14 parts in total.


Internal view of models ZOS 54/1 numbers 2 - 7

## ZoS $55 \cdot$ Models of Vertebrate Brains

Made from SOMSO®-Plast. The series consists of the following 8 models (some enlarged many times over): 1 . River lamprey. 2. Dog fish. 3. Trout. 4. Frog., 5. Alligator., 6. Dove., 7. Rabbit, and 8. Dog. Cannot be disassembled. Each model on an individual stand with green base. Weight 1.6 kg
ZoS 55

ZoS 59/N

## LANCELET

 CROSS SECTIONthrough the branchia and middle intestine region of a fully-grown lancelet, Branchiostoma lanceolatum. Scale approx.: 150:1, made from SOMSO ${ }^{\circledR}$-Plast. Cannot be disassembled, on a stand with green base. Height 20 cm , width 12 cm , depth 12 cm , weight 0.5 kg


## ZoS 59/M $\cdot$

Lancelet
Branchiostoma lanceolatum, scale approx. 150:1, made from SOMSO ${ }^{®_{-}}$ Plast. The three-part model shows the structure of the body of a fully-grown specimen: fin edges, muscle segments, position of the gonads, the nervous system, the chorda, intestine, and vascular system. On a stand with green base. Height 25 cm , width 68 cm , depth 14 cm , weight 3 kg

> ZoS 103/1
> Blastodisc of a Fertilised but non-incubated Chicken Egg ZoS 103/2.
> Chicken Embryo after approx.
> 20 hours of incubation
> ZoS 103/3
> Chicken Embryo after approx.
> 33 hours of incubation
> ZoS 103/4
> Chicken Embryo after approx. 50 hours of incubation ZoS 103/5 Chicken Embryo after approx. 4 days of incubation
> See models at bottom of the page


## ZoS 53 .

## Chimpanzee Skull

Pan tr. troglodytes (Blumenbach 1799), male, natural size. Made from SOMSO®-Plast. Lower jaw movable and can be removed. Weight 0.42 kg

## ZoS 50 .

Gorilla Skull
Gorilla g. gorilla (Savage u. Wyman 1847), male, natural size. Made from SOMSO®-Plast, lower jaw movable and can be removed. Weight 1.07 kg

## ZoS 53/1 <br> Chimpanzee Skull, JUVENILE

Pan tr. troglodytes (Blumenbach 1799), natural size. Made from SOMSO ${ }^{\circledR}$-Plast, lower jaw movable and can be removed.


## ZoS 53/3 <br> Baboon Skull

Papio anubis, male, natural size, made from SOMSO ${ }^{\circledR}$-Plast. Lower jaw movable and can be removed. Weight 0.355 kg

## ZoS 52 .

## Orangutan Skull

Pongo p. pygmaeus (Hoppins 1763), male, natural size, made from SOMSO ${ }^{\circledR}$-Plast, lower jaw movable and can be removed. Weight 0.56 kg


## ZoS 53/107 • <br> Artificial

## Chimpanzee Skull

Pan tr. troglodytes, male, natural size, made from SOMSO ${ }^{\circledR}$-Plast, consists of 3 parts. Cranium can be removed, lower jaw movable and can be removed. Weight 0.607 kg

## ZoS 53/110.

Artificial Skeleton of a Chimpanzee
Pan tr. troglodytes, skeleton of a male chimpanzee, natural size, made from SOMSO ${ }^{\circledR}$-Plast. Age: approx. 12 years. On a stand with green base. Height 90 cm , width 82 cm , depth 40 cm , weight 10.3 kg


ZoS 53/116
Artificial
Pelvis of a Chimpanzee
Natural size, made from SOMSO®-Plast, weight 0.640 kg .

ZoS 53/2.
Chimpanzee Skull
Pan tr. troglodytes, female, natural size, made from SOMSO ${ }^{\circledR}$-Plast. Lower jaw movable and can be removed. Weight 0.5 kg

## ZoS 53/122

Artificial Foot Skeleton of a Chimpanzee
Natural size, made from SOMSO ${ }^{\circledR}$-Plast, weight 0.120 kg . ZoS 53/122
 Artificial Hand Skeleton of a Chimpanzee
Natural size, made from SOMSO®-Plast, weight 0.107 kg .


The series of skull reproductions is based on a co-operation with The Bavarian State Collection of Zoology in Munich.

Zos 53/20
Beaver Skull

## SALAMANDERS

ZoS $1000 \cdot$ Alpine Salamander, male Salamandra a. atra.

ZoS 1000/2 • Alpine Salamander, TWO JUVENILES Salamandra a. atra.
ZoS $1002 \cdot$ Spotted Fire
SALAMANDER, FEMALE
Salamandra s. salamandra.


ZoS 1000/1 FEMALE Salamandra a. atra ZoS $1001 \cdot$ Spotted Fire SALAMANDER, MALE Salamandra s. salamandra.

## Newts

ZoS $1004 \cdot$ Alpine Newt, male and female, in their AQUATIC FORM Ichthyosaura a. alpestris.
ZoS 1007
Smooth Newt, male and female, in THEIR AQUATIC FORM Lissotriton v. vulgaris.
ate Newt,
MALE AND IC FORM
IN THEIR AQUATIC FORM
Lissotriton helveticus.

## Midwife Toads, Toads

ZoS 1009 .
Yellow-bellied ToAd
Bombina v. variegata.

## True Toads



ZoS 1010/1 • Fire-bellied Toad
 Bombina bombina.

ZoS 1008 Midwife Toad with Spawn, male Alytes o. obstetricans.

## ZoS $1012 \cdot$ Common

Toad, male
Bufo b. bufo.
ZoS 1013/2. Common Toad pair in amplexus. Bufo b. bufo.


ZoS 1012


ZoS $1013 \cdot$ Common
Toad, female Bufo b. bufo.

ZoS 1014 Natterjack ToAD Epidalea calamita
(Synonym: Bufo calamita)

## True Frogs, Tree Frog

ZoS 1016/1 • European Tree Frog, (2 models) female
Hyla arborea
ZoS 1017 • Common Frog, male
Rana t. temporaria.
ZoS $1018 \cdot$ Common Frog, female Rana t. temporaria.
ZoS $1021 \cdot$ In the past also called "pool frog" COMMON harmonisation of trivial names Water Frog, male Pelophylax lessonae. ZoS 1023 . Pond Frog*, male
Pelophylax kl. esculentus.

ZoS 1024.
Pond Frog*, female Pelophylax kl. esculentus.
"In the past
also called
"water frog" -
harmonisation
of trivial names


Amphibians And Reptiles Of Central Euro AMP series of life-size, generic animal in co-operation from SOMSO $^{\circledR}$ Plast was developed indies. They are with Christian Groß, Director by hand and exclusively in manufactured mainly by band ana. Trinomial nomen Coburg and Sonneberg/Th the scientific names of the clature bas been used formation regarding the models. It provides inform is typical or prevalent in subspecies "form", which which has been the template for Central Europe and respective model type.
the design of each

## Lizards, Slow Worms

Lizard, male
Lacerta viridis.
ZoS 1026/2.
Slow
Worm,
FEMALE
Anguis f. fragilis
ZoS 1029/1
 Viviparous Lizard, female Zootoca v. vivipara
ZoS 1029 .
Viviparous Lizard, male
Zootoca v. vivipara

## Snakes, Turtles and Tortoises, Snails and Slugs, Neozoans

ZoS $1036 \cdot$ COMMON VIPER, YOUNG MALE Vipera b. berus
ZoS 1036/2. Common VIPER, ADULT MALE Vipera b. berus. ZoS 1033 • Grass Snake, FEMALE Natrix natrix natrix.

ZoS 1032 . Smooth Snake, MALE Coronella a. austriaca. ZoS 1207 . Roman Snail Helix pomatia.


## Bat, Poison Dart Frogs



ZoS 1308 .
Greater Mouse-eared Bat, male Myotis myotis


ZoS 1252/1.
Dyeing Poison Dart Frog, female, "Regina" Dendrobates tinctorius

## ZoS 1252/2.

Blue Poison Dart Frog, female
Dendrobates tinctorius "azureus"

Further bat models are available: ZoS 1306
Common Pipistrelle
ZoS 1309.
Brown Long-eared Bat
ZoS 1312
Common Noctule


ZoS 1252/1


ZoS 1250/3.
Golden Poison Frog, female,
"La Brea" cream-coloured
Phyllobates terribilis


Mr Manfred Eichler, Biological Model Maker from the SOMSO ${ }^{\circledR}$-Painting Department, painting a realistic animal model.


The range of the new model series of poison dart frogs comprises 31 species. If you are interested, please request the special catalogue A 75/SV-VII, which covers the complete programme of realistic animal models.


## Introduction to Botany

Plant morphology
Cryptogams
Gymnosperms
Monocotyledonous Plants (Monocotyledons) Dicotyledonous Plants (Dicotyledons) Microscopic Fungi, Fungi Models
SOMSO ${ }^{\circledR}$ Botanical Models are categorized mainly by plant system.


BoS $15 / 10 \cdot$ Example of A not united Perianth of an Angiosperm Flower
Enlarged approximately 10 times, made from SOMSO ${ }^{\circledR}$-Plast. After Prof. Dr. W. Jung. Separates into 11 parts. On a green base. H. 54 cm, W. 39 cm , D. 37 cm , Wt 2.4 kg

## PLANT MORPHOLOGY



## BoS 16/1 • Plant Cell

Enlarged approx. 6.000 times, made from transparent SOMSO ${ }^{\circledR}$-Plast with base. Cannot be disassembled. H. 36 cm , W. 31 cm , D. 27 cm , Wt 1.7 kg

## BoS $16 \cdot$ Plant Cell

Enlarged 3.000 times, made from SOMSO®-Plast. After Prof. Dr. W. Jung. Showing the microscopical fine structure. On a green base. Cannot be disassembled. H. 7 cm , W. 32 cm ,



BoS 16/2 • Chloroplast of a Higher Plant

Enlarged approximately 60.000 times, made from SOMSO ${ }^{\circledR}$-Plast. Separates into 2 parts. On a stand with green base. H. 38 cm , W. 39 cm, D. 26 cm , Wt 3.2 kg

## BoS 19 . <br> FERTILISATION of AngiosPERMS

Polygonum type, enlarged 300 times, made from SOMSO®-Plast. After Prof. Dr. W. Jung. On a green base. Cannot be disassembled.
H. 66 cm , W. 30 cm , D. 14 cm , Wt: 3.3 kg


## Cryptogams

## BoS 14/6

Thyme Moss, GametoPHYTE WITH SpOROPHYTE
Mnium affine, enlarged approximately 12 times, consists of 6 parts, made from SOMSO®-Plast. The mature sporogonium with seta can be replaced with an immature sporogonium with seta, an antheridium or an archegonium. The calyptra on the mature sporogonium is detachable. On a stand with green base. H. 37 cm , W. 18 cm , D. 18 cm , Wt 0.7 kg

## BoS 14/3-A <br> Common Liverwort

Marchantia polymorpha, enlarged approximately 10 times, made from SOMSO®-Plast. Separates into 5 parts. On a green base. H. 19 cm , W. 26 cm, D. 32 cm , Wt 1 kg


BoS 14/4-A Field Horsetail

Equisetum arvense, fertile shoot, enlarged approximately 6 times, sporophyll with sporangia enlarged approximately 50 times, vegetative shoot enlarged approximately 3 times, made from SOMSO ${ }^{\circledR}$ Plast. On a stand with green base. Cannot be disassembled. H. 35 cm, W. 33 cm ,
D. 15 cm, Wt 1 kg

## BoS 14/5.

## Worm Fern,

 ProthalliumDryopteris filix-mas, enlarged approximately 45 times, made from SOMSO®-Plast. Cannot be disassembled. On a stand with green base. H. 31 cm , W. 26 cm , D. 20 cm , Wt 900 g

Plant Models


Recommended additions to the models of cryptogams:
BoS 14/4 • Field Horsetail
BoS 14/5-A • Worm Fern,


BoS 15/30 • Pine, male
Pinus sylvestris, flower enlarged approximately 18 times, stamen enlarged approximately 90 times, made from SOMSO®-Plast. Cannot be disassembled. On a stand with green base. H. 33 cm , W. 33 cm , D. 15 cm , Wt 0.7 kg

## BoS $15 / 31$ • Pine, FEMALE



BoS 21

Pinus sylvestris, inflorescence enlarged approximately 20 times, seed scale with ovules and covering scale enlarged approximately 80 times, made from SOMSO®-Plast. On a stand with green base. $\mathrm{H} .33 \mathrm{~cm}, \mathrm{~W} .33 \mathrm{~cm}, \mathrm{D} .15 \mathrm{~cm}, \mathrm{Wt} 1.0 \mathrm{~kg}$ BoS 21 • Anatomical Fine Structure of Pinewood
Pinus sp., enlarged approximately 350 times, made from SOMSO®_Plast. After Prof. Dr. W. Jung. Cannot be disassembled, on a green base. H. 15 cm , W. $65 \mathrm{~cm}, \mathrm{D} .30 \mathrm{~cm}$, Wt 5.2 kg
BoS 21/2 • Coniferous Leaf of the Black Pine (cross and longitudinal sections)
Pinus nigra, enlarged approximately 300 times, made from SOMSO $^{\circledR}$-Plast. Separates into 3 parts, on a green base. H. 12 cm , W. 39.5 cm, D. 28 cm , Wt 1.6 kg

## Monocotyledonous Plants (Monocotyledons)



## BoS 15/3. Tulip Bulb

Tulipa gesneriana, enlarged approximately 5 times, made from SOMSO ${ }^{\circledR}$-Plast. The model shows a longitudinal section of the structure of a sprouting tulip bulb. Separates into 3 parts, on a green base. H. 31 cm , W. 18 cm, D. 18 cm , Wt 680 g



BoS 15/2. Garden Tulip, Flower
Tulipa gesneriana, enlarged approximately 4 times, made from SOMSO®_ Plast. After Prof. Dr. W. Jung. One half of the corolla can be removed to show the stamens and the pistil. Separates into 3 parts. On a green base. H. 42 cm , W. 18 cm , D. $18 \mathrm{~cm}, \mathrm{Wt} 1 \mathrm{~kg}$

BoS 20/2 • Rоот Tip of a MonocoTYLEDONOUS Plant in Longitudinal and Cross Section Barley, Hordeum vulgare, enlarged approximately 200 times, made from $\mathrm{SOMSO}^{\circledR}$ Plast. Cannot be disassembled, on a green base. H. 37 cm , W. $18.5 \mathrm{~cm}, \mathrm{D} .18 .5 \mathrm{~cm}, \mathrm{Wt} 1.5 \mathrm{~kg}$

## BoS 22/7 • Shallot Root

Allium ascalonicum, enlarged approximately 350 times, made from SOMSO ${ }^{\circledR}$-Plast. Cannot be disassembled, on a green base. H. 10.5 cm , W. 39 cm , D. 28 cm , Wt 1.8 kg


BoS 15/5.
Rye Spikelet
Secale cereale, enlarged approximately 25 times, made from SOMSO Plast. After Prof. Dr. W. Jung. Separates into four parts. The grass spikelet model shows the typical
 structure of wind pollination On a stand with green base. H .93 cm , W. 35 cm, D. $18 \mathrm{~cm}, \mathrm{Wt} 0.8 \mathrm{~kg}$


SECTION THROUGH THE Peripheral Part of a Monocotyle Stem
Maize, Zea mays, enlarged approximately 550 times, made from SOMSO ${ }^{\circledR}$-Plast. After Prof. Dr. W. Jung. Cannot be disassembled, on a green base. H. $49 \mathrm{~cm}, \mathrm{~W} .30 \mathrm{~cm}$, D. 12 cm , Wt 2.8 kg

An example of a caryopsis. Triticum aestivum L., enlarged approximately 75 times, made from SOMSO ${ }^{\circledR}$-Plast. After Prof. Dr. W. Jung. Separates into 2 parts, on a stand with green base. H. 43 cm , W. $52 \mathrm{~cm}, \mathrm{D} .26 \mathrm{~cm}, \mathrm{Wt} 4.2 \mathrm{~kg}$

## Dicotyledonous Plants (Dicotyledons)

## BoS 1.

Apple Blossom
Malus domestica, enlarged approximately 10 times. Made from SOMSO ${ }^{\circledR}$ Plast, after Prof. Dr. W. Jung. Separates into 6 parts. On a stand with green base. H. 41 cm, W. 48 cm , D. 45 cm , Wt 1.8 kg

## BoS 2 .

## Apple Blossom -

 Cross Section of the OvaryMalus domestica, enlarged approximately 10 times. Made from SOMSO ${ }^{\circledR}$-Plast, after Prof. Dr. W. Jung. Cannot be disassembled. On a stand with green base. H. 19 cm , W. 18 cm , D. 18 cm , Wt 370 g

## BoS 3 • Apple Blossom -

 Longitudinal Section of the OvaryMalus domestica, enlarged approximately 10 times. Made from SOMSO®-Plast, after Prof. Dr. W. Jung. Cannot be disassembled. On a stand with green base. H. 40 cm , W. 18 cm , D. 18 cm , Wt 620 g

BoS 15/20.
Buttercup, Flower and Fruit

Meadow buttercup, Ranuculus acer, flower enlarged approximately 10 times, fruit enlarged approximately 20 times, made from SOMSO® ${ }^{\text {® }}$ Plast. Cannot be disassembled. On a stand with green base. Flower: H. 34 cm ,



## BoS 15/21.

## Cherry Blossom

Sweet cherry, Prunus avium, enlarged approximately 9 times, made from SOMSO ${ }^{\circledR}$ - Plast. Separates into 3 parts. On a stand with green base. H. 33 cm , W. 31 cm , D. 31 cm , Wt 800 g

BoS 15/15.
Pea, Flower
Pisum sativum, enlarged approximately 9 times, made from SOMSO ${ }^{\circledR}$ Plast. Separates into 3 parts. On a stand with green base. H. 40 cm , W. 23 cm , D. 26 cm , Wt 850 g
BoS 15/11 .

## Rapeseed Flower

Brassica napus, enlarged approximately 10 times, made from $\mathrm{SOMSO}^{\circledR}{ }^{-}$ Plast. Separates into 2 parts. On a stand with green base. H. 34 cm , W. 28 cm , D. 28 cm , Wt 700 g

BoS 15/19. Dandelion, INFLORESCENCE, INDIVIDUAL BLOSSOM AND FRUIT
Taraxacum officinale, enlarged approximately 8 times +16 times, made from SOMSO ${ }^{\circledR}$-Plast. On a green base. H .35 cm , W. 33 cm, D. 18 cm , Wt 1.1 kg 700 g . Fruit: H. 30 cm , W. 18 cm, D. 18 cm , Wt 600 g

## BoS 15/1. <br> Meadow Clary

Salvia pratensis, enlarged approximately 15 times, made from SOMSO®-Plast. After Prof. Dr. W. Jung. Cannot be disassembled, on a stand with green base. The forward-rocking mechanism of the stamens can be demonstrated.
H. 36 cm , W. 33 cm ,
D. $18 \mathrm{~cm}, \mathrm{Wt} 700 \mathrm{~g}$


BoS 15/6

## Real Camomile

Matricaria chamomilla, inflorescence (anthodium), enlarged approximately 9 times, made from SOMSO®_Plast. Ligulate flower enlarged 20 times, tubular flower enlarged 80 times. Cannot be disassembled. On a stand with green base. H. 33 cm , W. 38 cm, D. 12 cm , Wt 800 g


## Dicotyledonous Plants (Dicotyledons)

BoS 15/7.

## Germination Model

A collection comparing the germination of rye (enlarged 10 times), bean (enlarged 5 times), and spruce (enlarged 20 times). Made from SOMSO ${ }^{\circledR}-$ Plast. After Prof. Dr. W. Jung. Separates into 8 parts. On a green base. H. 37 cm , W. 54 cm , D. 14 cm , Wt 3.7 kg

## BoS 22 .

## Open Collateral

Vascular Bundle
of a Dicotyledonous Plant, enlarged approximately 550 times, made from SOMSO®-Plast. After Prof. Dr. W. Jung. Cannot be disassembled. On a green base. H. 13 cm , W. 32 cm, D. 26 cm , Wt 1.4 kg


Bos 15/7

BoS 22/4-E.
Section Through the Wood (STEM) OF A One-YEAR-OLD Dicotyledonous Plant

Small-leaved lime, Tilia cordata, slightly simplified, enlarged approximately 125 times, made from SOMSO ${ }^{®}$-Plast. After Prof. Dr. W. Jung, revised in co-operation with Prof. Dr. Weber. On a green base. Cannot be disassembled. H. 20 cm , W. 37 cm , D. 25 cm , Wt 2.8 kg

## BoS 21/1

## Section through a

Two-year-old Twig of the Lime Tree
Tilia sp., enlarged approximately 350 times, made from SOMSO ${ }^{\circledR}$-Plast. After preparations and drawings made by Prof. Dr. W. Jung. Cannot be disassembled, on a green base. H. 18 cm , W. 65 cm , D. 30 cm , Wt 4.2 kg


BoS 15/33
Fruit of the Cacao
Theobroma cacao. Natural size, made from SOMSO®-Plast. Separates into 7 parts. On a green base. H. 30 cm , W. 17.5 cm , D. 17.5 cm , Wt 2.0 kg

BoS 15/33 disassembled


BoS 226/1 • Mycorrhiza of Scots Pine
Pinus sylvestris
Piece of root, enlarged approximately 40 times, cross section enlarged approximately 430 times, made from SOMSO®-Plast. After Prof. Dr. W. Weber Separates into 2 parts, on a green base. H. 32 cm , W. 26 cm , D. 16.5 cm , Wt 1.5 kg BoS 29 • LECCINUM AURANTIACUM Leccinum aurantiacum Edible
BoS 26
Field Mushroom Agaricus campestris Edible
BoS 28 .
Chanterelle,
Egg MushROOM Cantharellus cibarius Edible BoS 25 .
Death
CAP Amanita phalloides Deadly poisonous and extremely dangerous! BoS 45 .
PARASOL
Mushroom Macrolepiota procera Edible
BoS 226
DEVELOPMENT of Hat Fungi natural size, made from SOMSO-Plast ${ }^{\circledR}$. Appraised by Dr. rer. nat. Axel Meixner, Graduate Chemist and fungi expert, Stuttgart. Separates into 6 parts in total. On a green base. H. cm, W. 47 cm , D. 15 cm , Wt 2 kg

BoS 227 .
Structure of Hat Fungi
Large model. Appraised by Dr. rer. nat. Axel Meixner, Graduate Chemist and fungi expert, Stuttgart. Separates into 4 parts. Made from SOMSO®-Plast. On a green base. H. 45 cm , W. 40 cm , D. 35 cm (hat diameter 35 cm ), Wt 5.4 kg


BoS 14/1.

## MUCOR

Mucor mucedo, enlarged approximately 250 times, made from SOMSO ${ }^{\circledR}$-Plast. Separates into 3 parts. On a green base. H. 18.5 cm , W. 32 cm, D. 25.5 cm , Wt 600 g

BoS 43 .
Bay Boletus Xerocomus badius Edible

