

# From the forest to the collection of the National Museum

Worksheet to the guided program to the "How should we name it?" exhibition for secondary school children in the National Museum's new building

1

## TASK No. 1

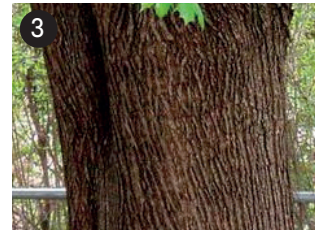
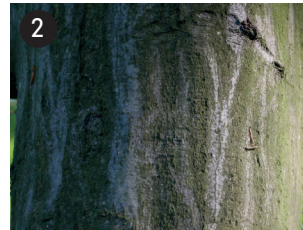
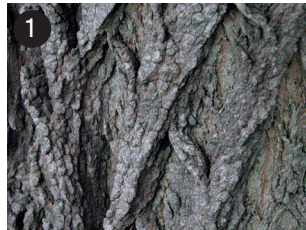
A specimen is assigned to a specific species based primarily on its morphological characteristics (noticeable at first glance).

- A** Using touch, identify which tree species the bark comes from and match the name to the corresponding photo.

Hornbeam \_\_\_\_\_

Maple \_\_\_\_\_

Locust \_\_\_\_\_



- B** Listen to the birds singing and assign the voices to the individual photos and names.

Eurasian Blackcap \_\_\_\_\_

Eastern Grasshopper \_\_\_\_\_

Tawny Wood Owl \_\_\_\_\_



- C** Match the scent to the correct photo and name.

Lavender \_\_\_\_\_

Thyme \_\_\_\_\_

Speedwell \_\_\_\_\_



- D** Vision allows you to identify a large number of important morphological characteristics.  
Describe Kulan and thereby create a foundation for the description of the species.

Height \_\_\_\_\_

Body length \_\_\_\_\_

Fur length \_\_\_\_\_

Body color \_\_\_\_\_

Head color \_\_\_\_\_

Limb color \_\_\_\_\_

Number of limbs \_\_\_\_\_

Head shape \_\_\_\_\_

Tail length \_\_\_\_\_

Mane length \_\_\_\_\_

Estimated weight \_\_\_\_\_

Additional notes \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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## **TASK No. 2**

Try the work of a botanist and identify the plant according to the key for species identification; fill in basic information as well as trivia about the species.

English name \_\_\_\_\_

Latin name \_\_\_\_\_

Area of original distribution \_\_\_\_\_

Use \_\_\_\_\_

Additional notes \_\_\_\_\_

## **TASK No. 3**

The author of each newly named species establishes the so called type: a specimen which embodies the characteristics of the newly described species and serves as an example for the identification of other specimen of the species. Look at the displays and list as many ways of creating a type as possible.

ZOOLOGY

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

BOTANY AND MYCOLOGY

1. \_\_\_\_\_

2. \_\_\_\_\_

PALEONTOLOGY AND MINERALOGY

1. \_\_\_\_\_

2. \_\_\_\_\_

## **TASK No. 4**

Look again at the type specimen and list the pros and cons of producing, storing and working with such a sample.

PROS

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

CONS

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



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## TASK No. 5

The production of taxidermy specimen is a demanding work. Sort the following production steps chronologically to outline the process of producing a stuffed specimen.

1. \_\_\_\_\_
  2. \_\_\_\_\_
  3. \_\_\_\_\_
  4. \_\_\_\_\_
  5. \_\_\_\_\_
  6. \_\_\_\_\_
  7. \_\_\_\_\_
  8. \_\_\_\_\_
  9. \_\_\_\_\_
  10. \_\_\_\_\_
- A) Washing the removed skin
  - B) Removing the shaping mold after the specimen dries
  - C) Replacing missing muscles (cotton)
  - D) Fixating the specimen with shaping molds  
(prevents deformation of the specimen while drying)
  - E) Attaching glass eyes, horns, teeth, ...
  - F) Cutting the skin on the stomach of the specimen and removing the insides of the body (muscles, viscera, skeleton (except for the skull and long bones))
  - G) Molding the body of the specimen  
(e.g. wood wool, plaster, molding clay, wood, ...)
  - H) Sewing the skin together and shaping into the desired shape and position
  - I) Treating the washed skin with alum – potassium aluminum sulfate  
(removing the remaining dirt) – and an insecticide
  - J) Fixating the limbs (or wings, tail) with a sharp wire

## TASK No. 6

Each newly discovered species must be published in a professional book or magazine. Look at the following excerpts from articles and match them to the individual topics.

1

Jadarite deposit

2

Endangered tropical forests

3

Insect – the tiny majority



Morphology of an adult water scavenger beetle, a specimen of the *Lachnodacnum luederwaldti* species. Photo: the whole beetle, ventral view (view from the bottom)

Jadarite whose formula is  $\text{LiNaSiB}_3\text{O}_7(\text{OH})$  is a new mineral found in a mine in the Jadar Valley in Serbia. It can be found in the form of massive white aggregates. Jadarite is a fragile, translucent mineral with porcelain luster.

In the lowlands of Amazonia, a new, small species of the genus *Dendropsophus* has been identified. The species is characterized particularly by the smooth skin on its back with scattered bumps, light brown to dark red or purple-brown color with numerous small marks and spots.

## **TASK No. 7**

**You have just discovered a new species! Become a scientist and describe your discovery.**

STEPS:

1. Select a unique, so far unused name.
2. Describe the determining – so called diagnostic – characters of the species (color, size, morphology, anatomy, ...) and add a sketch.
3. Establish a type specimen, i.e. a type which will be used by future scientists to verify the name and definition of the species.
4. Publish the description in a professional book or journal – draft a paper, an article for the school magazine etc.

ANSWER:

1. Genus and species name

2. Drawing of the animal

3. Type specimen

4. Publication of the discovery

