

The formation of ideas about nature in people with visual impairments



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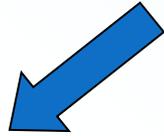
The goal is the formation of complete and reliable knowledge about natural objects, fostering a sense of beauty and expediency of the surrounding world

Tasks:

- the formation of ideas about objects and natural phenomena that, for various reasons, cannot be studied in nature itself;
- providing the possibility of direct contact of the child with wildlife;
- systematization of knowledge about the appearance of plants and animals, the formation of the ability to highlight their parts and understand their purpose, evaluate and compare natural phenomena.



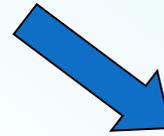
levels of knowledge of the surrounding world



**Sensual
(empirical)**



*sensory systems
(analyzers)*



logical



*thinking (operating
with concepts,
judgments,
inferences)*



The process of formation of natural history concepts

Observation (initial acquaintance with the studied object);

Generalization of features, highlighting the main and secondary features, generalization of essential features and the introduction of the term;

Awareness of the wording of the definition, clarification of the essence of features, the connections between them.

Consolidation of the concept, concretization of it with the help of new examples, exercises on the application of the concept in new situations, its inclusion in a number of previously acquired concepts.



Observation is a direct, purposeful perception of objects and phenomena of the surrounding world with all senses.

Acquaintance with natural history material in conditions of visual deprivation

At the stage of understanding the obtained facts, theoretical research methods are applied

generalization

analogy

systematization

revealing reasons

juxtaposition

classification

comparison



When forming natural history ideas, students get acquainted with a variety of natural objects and phenomena, many of which cannot be observed in the surrounding nature

Means of education

natural (demonstration) - living objects, collections, herbariums;



images of objects and phenomena of nature:

planar - *tables, diagrams, pictures, maps, posters;*

volumetric - *models, models, dummies, stuffed animals;*

electronic educational resources - *video films, multimedia presentations, sound recordings, multimedia textbooks, multimedia universal encyclopedias, reference books;*

verbal (printed) - *textbooks, reference books, encyclopedias, dictionaries.*

The stages of the formation of the image of a natural object in the process of analyzing perception (observation)

1. Acquaintance with a natural object with the help of preserved analyzer systems, naming it with a word and researching it according to the following characteristics: shape, size, volume, external coverage, color (partially seeing), weight, constituent organs or parts, i.e. the sum of external signs.

2. Clarification of ideas about an object according to its model or layout (detailing of individual parts of the object with the study of functional manifestations).

3. Correlation of the image of a real object with its color realistic image (planar or embossed).

4. Clarification of the image of an object in its relief image (by organizing directed object-oriented practical activity)

The stages of the formation of the image of a natural object in the process of analyzing perception (observation)

5. Correlation of a color image of an object with its silhouette and contour image to form a general idea of a natural object.

6. Recognition of a given object in its parts, in various projections and different complications.

7. Comparison (establishment of similarities and differences) of a newly studied object with a previously studied one.

8. Correlation of a sensory image with its verbal description.



Methodology of work on the formation of natural history ideas

practical activities for the study of indoor plants:

- Plant name
- Plant size (high - low);
- Plant smell;
- Size, shape, type of surface and color of the leaves;
- Size, shape, structure of the stem;
- Size, color, structure of flowers.



Methodology of work on the formation of natural history ideas

practical activities for the study of a natural object

Description of the plant

- title;
- height (high or low);
- trunk (stem) - the number of stems;
- size, color (coloring), thickness, height, hardness;
- branches (thick, thin, growing up or down);
- leaves (size, color, shape);
- flowers or fruits (size, shape, color, smell, taste of the fruit).



The value of excursions for people with visual impairments

Educational value

- clarification and consolidation of natural history ideas;
- expanding ideas about the diversity of components of living nature, the world as a whole;
- clarification of the rules of behavior in nature;
- awareness of the influence of nature on the state and well-being of a person

Correctional and developmental value

- development of cognitive abilities;
- actualization and consolidation of methods of perception;

Social value

- changes in mood and attitude towards life;
- promoting integration into society;
- the emergence of new acquaintances, new impressions, topics for discussion.



Recommendations for organizing excursion space

- carefully fixed exhibits (in the case of exhibitions, expositions);
- sufficiently wide aisles and approaches to exhibits and exhibition samples;
- availability of special stands for exhibits;
- specially organized exhibits and samples for tactile perception;
- the possibility of highlighting the exhibit;
- the ability to create a special background to highlight the object of observation;



Recommendations for organizing excursion space



- the possibility of using auxiliary magnifying devices or projection equipment;
- possibly even coverage;
- low borders with bright marks;
- the minimum number of steps with marks of the first and last step;
- with significant differences in the relief, touch labels;
- the signatures of the exhibits are in dotted braille.



Methodological requirements for conducting excursions :



Acquaintance with natural history material in conditions of visual deprivation

Methodological requirements for conducting excursions :

- The excursion (route and content) must be prepared in advance.
- During the tour, you should only talk about what you can show and not turn it into an open-air lecture.
- Any verbosity that is not accompanied by the study of objects should be avoided.
- The object under study should be, if possible, not only in the exposition, but also in each participant of the excursion.
- It is necessary to ensure the activity of the participants of the excursion. To interest, provoke questions, formulate tasks.
- To consolidate the material of the excursion, it is necessary to provide for the possibility of purchased.



Guidelines for the excursion

- The guide who is going to conduct an excursion for the blind (visually impaired) should tune in to a standard (not adapted) program.
- If with the blind (visually impaired), there will be an accompanying person who knows the peculiarities of the perception of his wards, the guide should interact with him.
- In the excursion program for the blind (visually impaired), it is desirable to provide the possibility of tactile acquaintance with the objects of the display. That is, "you can touch it with your hands."
- The tour guide needs to provide an opportunity to combine the story and "show" (think over the organization of "probing" all important objects, take into account the excess time that will inevitably be spent).



Guidelines for the excursion



- The excursion program for the blind (visually impaired) adults requires more thorough preparation and a much greater amount of knowledge from the guide. The group may be very independent, self-sufficient, erudite, educated and in many ways superior to the usual excursion audience.

- The guide (tour guide) may well use the expressions "look to the right, look to the left" "well, you see how ..." during the excursion or during a botanical walk.
- You should be prepared that the blind are not at all used to taking everything on faith. As a rule, blind people have excellent memory, good imagination, a constant habit of comparing facts and drawing independent conclusions.

Рекомендации по проведению экскурсии

- The optimal ratio of the blind to the seeing in a group is 2: 1, including a guide, driver, photographer. The total number of the group should not exceed 9 people.
- A photographer is highly desirable, blind people like to share their impressions with their sighted friends and relatives. The photographer must make sure that everyone in the frame looks good, especially the women. Blind women use makeup and are very attentive to their appearance.
- The imagery in the verbal description of the features of the relief and nature in general should be based on comparison with simple tangible objects. For example, "pyramidal top", "rounded leaves".



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