Ministry of Education of the Republic of Sakha ( Yakutia )

State autonomous institution

additional education in the Republic of Sakha ( Yakutia )

"Recreation and Health Center for Children" Sosnovy Bor "

Preschool educational institution " Lingua "

Approved at PS

Protocol # \_\_\_\_\_\_\_\_\_\_\_\_\_\_

from " \_ \_ " \_ \_\_\_\_\_\_\_\_\_\_\_20 20 g .

Additional educational

program

**on preschool education**

**" LEGO construction"**

Age - from 4 to 5 years

Compiled by : teacher

                                     additional education

       Apollon Aprosimov

g . Yakutsk 20 20 g of .

1. **EXPLANATORY NOTE**

                  At present, significant changes are taking place in the preschool education system . The success of these changes is associated with the renewal of the scientific , methodological and material base of training and education . One of the important conditions for updating is the use of **LEGO technologies .**Using LEGO- designers in the educational work with children serves the best means of developing skills constructively - gaming activities and the criterion of psychophysical development of children of preschool age , including the formation of such important components of activity , as the ability to set a goal , choose medium -OPERATION to achieve it , make an effort to exact correspondence of the obtained result with the intention .

**Relevance :**

Are an excellent tool for the intellectual development of preschoolers , ensuring the integration of educational areas ( social and communicative development , cognitive development , speech development , artistic, aesthetic and physical development );

Allow the teacher to combine education , upbringing and development of preschoolers in the game mode ( learn and learn in the game );

Form a cognitive activity , contributes to the education of socially - active person , creates communication skills and co-creation ;

Combine play with exploratory and experimental activities , provide the child with the opportunity to experiment and create his own world , where there are no boundaries .

**Goal :**purposeful introduction of LEGO design and robotics into the educational process of the preschool educational institution .

**W Tasks in the second year of study (children 4-5 years)**:

- W Freeze panes acquired in younger skill group;  
- P azvivat observation, clarify ideas about the shape of objects and their often ̆, their spatial arrangement, otnositelnoi ̆ magnitude differences and similarities;  
- n Continually introduce new parts;  
- Z nakomit with Lego - the constructor ;  
- We chit to work with small details;  
- With ozdavat more complex construction ;  
- We chit talk about the construction of the other students, on their own allocation of responsibilities;  
- To make the structure according to the drawings without relying on the sample;  
- F normed ability to convert the design in accordance with predetermined conditions;

- H apravlyat child's imagination to create new and original designs.

**K Alendarno - thematic planning**

**lessons on the educational program for " LEGO - construction"**

**for the middle group - 20 20 -202 1 in . g .**

**(1 hour per week )**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **№ p / p** | **Section** | **Description** | **date** | **Number of hours** |
| **1 semester** | | | | |
| 1 | Design by pattern and pattern transformation by conditions | Consideration of the object. Detail color ̆. Calling Detail ̆ Lego - designer. Establishing the spatial location of part ̆ of the building . |  |  |
|  |
|  |
|  |
|  |
| 2 | Conditional design | Determination of the conditions that the building must meet . Analysis of conditions. Practical activities. |  |  |  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
| **2 semester** | | | | |  |
| 3 | Design by design | Thinking over the topic of the future ̆ construction . Drawing up a general description of the future product. Mastering the concept development plan. Comparison of the resulting ̆ building with the conceived ̆. |  |  |  |
| 4 | Design according to the simplest drawings and visual diagrams | Consideration of the scheme. Recreation of external and individual functional features of объектов real objects. |  |  |  |

**Content of the program**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **№ n / n** | **Theme**  **lessons** | **Objectives and**  **tasks**  **lessons** | **Activity content** | **Key**  **competence** | **Clock** |
| **1 semester** | | | | | |
| 1 | Hello , Lego , we missed | Introduce a new set of Lego - constructor a | Repetition of the material passed in the younger group: name of the part ̆ constructor, methods of fastening the part ̆. " Find the part the same as on the card." Pondering the future ̆ construction . Design by design. | Social  Information  Communicative | 1 |
| 2 | Zoo | Develop the cognitive interest of children ;  To foster a respect for human labor . | Conversation "What is a zoo?" Problem situation: all the animals left their cages and are walking around the zoo. Physical education. Construction of houses and fences for beast ̆ (in conception). Children's story ̆ about buildings . Outplaying. | Social  Information  Communicative | 1 |
| 3 | Elephant | Learn to build an elephant | Elephant riddle. An animal story with an examination of animal illustrations. Design by pattern. Children's story ̆ about buildings . | Information  Social | 1 |
| 4 | Giraffe | Learn to build a giraffe | Riddles about the giraffe. Giraffe presentation. Physical education. Demonstration of the sample. Design by pattern. Accommodation of animals in the zoo. | Information  Social | 1 |
| five | Aviary for tigers and lions | Teach everyone to build one craft together | Design by schemes. Mutual evaluation of work (children change schemes with each other and check the building .). Playing buildings. | Information  Social | 1 |
| 6 | Crocodile | Learn to build a crocodile | Continue introducing the zoo | Information  Social | 1 |
| 7 | Ducklings in the lake | Learn to work with instructions | Build ducklings from the constructor | Information  Social | 1 |
| eight | Bridge over the river | Learn to work with instructions | Learn to build a bridge, precisely connect building parts | Information  Social | 1 |
| nine | Design by design | Develop creativity and self- st | Strengthen the acquired skills  Learn to think about the content of the future building in advance, name its theme, give a general description. | Information  The activity | 1 |
| ten | Build a corral for cows | Encourage children to independently select the necessary parts in accordance with the nature of the building and to carry out the building according to the model of the teacher . | Reinforce the concepts of "high", "low"  Learn to complete tasks according to conditions  Develop creativity, imagination, fantasy | Information  The activity | 1 |
| eleven | Truck | Highlight main parts and details | Learn to create the simplest model of a truck | Information  The activity  Social | 1 |
| 12 | Farmer's house | Learn to build structures with ceilings.  Introduce the concept of "foundation" | Form a generalized idea of ​​houses . Make them strong Develop the ability to highlight parts | Information  The activity  Social | 1 |
| 13 | Vehicle with trailer | Teach children to choose the right parts for construction correctly. Choosing the desired shape and size | Learn to build a car with a trailer  Develop design skills | Communicative  The activity | 1 |
| fourteen | Design by design | Teach children to choose the right parts for construction correctly. Choosing the desired shape and size | Strengthen the acquired skills  Learn to think about the content of the future building in advance, name its theme, give a general description. | Communicative  The activity | 1 |
| fifteen | D omashnie animals. Cat | Teach children to choose the right parts for construction correctly. Choosing the desired shape and size | Presentation "Pets". Riddle about a cat. Design according to the scheme. | Communicative  The activity | 1 |
| sixteen | Cow | Teach children to choose the right parts for construction correctly. Choosing the desired shape and size | A story about a pet - a cow, viewing illustrations. Sample analysis. Design by pattern. Building story . | Communicative  The activity | 1 |
| 17 | Birds ̆ yard | The world of man. Acquaintance with the objects of the surrounding man-made world. | Conversation about wild and domestic birds. Designing birds according to schemes. | The activity  Informative  Communicative | 1 |
| 18 | Design by design | Learn to build the simplest buildings of different sizes. Build a stable structure | Discussion of the future ̆ construction . Construction in pairs. Exhibition of works. Playing buildings. | The activity  Informative  Communicative | 1 |
| nineteen | Ship | Develop an interest in lightweight construction | Tell about ships | The activity  Informative  Communicative | 1 |
| 20 | Aircraft | Develop an interest in lightweight construction | A story about air transport and the profession of a pilot. Examination of illustrations with images .  Construction. | The activity  Informative  Communicative | 1 |
| 21 | Bus | Develop the ability to recognize things, and identify its qualities. | A story about on land transport and the profession of a driver . Examination of illustrations with images .  Construction. | The activity  Social  Communicative  Information | 1 |
| 22 | Design by design | Learn properly with ootnosit size s   buildings . | Pondering the future ̆ construction . Construction. Free play activity. | The activity  Social  Communicative  Information | 1 |
| 23 | Rocket | Continue teaching children how to create simple buildings. | Tell about space  Learn to build a rocket | The activity  Social  Communicative  Information | 1 |
| 24 | Lunar rover | Continue teaching children how to create simple buildings. | Tell about the lunar rover  Learn to build from designer parts | The activity  Social  Communicative  Information | 1 |
| 25 | Design by design | To form the ability to generalize and compare objects in size, to navigate in basic colors; | Pondering the future ̆ construction . Design by design. Free game activity detei ̆. Playing buildings. | The activity  Social  Communicative  Information | 1 |
| 26 | Traffic light, traffic controller | Continue teaching children how to create simple buildings. | Conversation "Rules of the road". Traffic light history. Design by pattern.  A story about their buildings . | The activity  Social  Communicative  Information | 1 |
| 27 | Maze | Consolidate the acquired skills. To teach to think in advance about the content of the building, to name its theme, to give a general description. | Problem situation: Masha has lost her bear cub and cannot find it in any way . Conditional construction.    ... | The activity  Communicative  Informative | 1 |
| 28 | Free play activity | Consolidate the acquired skills. To teach to think in advance about the content of the building, to name its theme, to give a general description. | Games "Whose team will build faster", "Lay out the details in places", "Assemble the model by landmarks." Design by design. Playing buildings.  ... | The activity  Communicative  Informative | 1 |
| 29 | Free play activity | Consolidate the acquired skills. To teach to think in advance about the content of the building, to name its theme, to give a general description. | Games "Whose team will build faster", "Lay out the details in places", "Assemble the model by landmarks." Design by design. Playing buildings. | The activity  Communicative  Informative | 1 |
| thirty | "We will build a house in the forest" Repetition | Strengthen the ability to build a house, work collectively on one building | Develop children's creative imagination, teach  imitate the sounds and movements of characters (bear, fox, hare). Learn to build a house. | The activity  Communicative  Informative | 1 |
| 31 | Final lesson "From Concept to Implementation." Exhibition of works | Consolidate the acquired skills. To teach to think in advance about the content of the building, to name its theme, to give a general description. | Repeat and fix the passed material: name of the part ̆ Lego constructors , methods of fastening the part ̆, design according to the conditions, instructions, sample, scheme. | The activity  Communicative  Informative | 1 |

**Assessment of the quality of mastering the program :**

Quality assessment consists in the analysis of children's work by a teacher with children .

**Expected result of the program implementation :**

- There will be an interest in the independent production of buildings , the ability to apply the knowledge gained in the design and assembly of structures , cognitive activity , imagination , fantasy and creative initiative .

- Design skills and skills , the ability to analyze an object , highlight its characteristic features , main parts , establish a connection between their purpose and structure will be formed .

- The communication skills of children are improved when working in pairs , in a team , in the distribution of responsibilities .

- The prerequisites for educational activities will be formed : the ability and desire to work , perform tasks in accordance with the instructions and the set goal , bring the work started to the end , plan future work .

**Literature :**

1. Zlakazov A . C ,. Lessons Lego - construction of school : handbook / A . With . Zlakazov , D . A . Gorshkov , On . R . Shevaldin . - M .: BINOM . Knowledge Laboratory , 2011.

2. Filippov . A . Robotics for children and parents : a book for parents and teachers of robotics circles / pp . A . Filippov . - SPb .: Science , 2010.

3. Hallam in . H . Educational robotics in elementary school : teaching - textbook / Under the hand . In . H . Halamova and others . - Chelyabinsk : Look , 2011 .

4. Hallam in . H . Educational Robotics in extracurricular activities : teaching - textbook / Under the hand . In . H . Halamova and others . - Chelyabinsk : Look , 2011.

5. Shaydurova In . H . The development of the child in constructive activities : handbook / B . H . Shaidurov . - M .: TC Sphere , 2008.

Google Переводчик

**Исходный текст**