

Saltanat Sadykova Teacher of Public School #7,  
Altay city, East Kazakhstan



## Eco-housing Yurt

Three main parts include Shanyrak — top of the Yurt, Kerege — walls carcass and Uwyk — a carcass part from Kerege to the Shanyrak. The carcass is usually covered with pieces of felt from outside and decorated with carpets from inside. It should be noted, that Shanyrak is extremely valuable for Kazakhs and is considered to be a sacred symbol of family wellbeing and piece.

### Academic learning goals

( for example , for grade 2 ): at least 4 hours

**Mathematics** measuring the lengths of the sides of polygons, objects of the surrounding world and generalize, compose, apply formulas for finding the perimeter divide models of flat figures into parts and make compositions from them

**Science** conduct observations according to the plan and formulate conclusions

Investigate the ability of some bodies to transmit light  
Conduct an experiment and record its results in a table

**Social study** (preliminary lesson before STEM )

analyze the positive and negative aspects of the natural conditions of your area (relief, climate, flora and fauna, water bodies) describe ancient cities and monuments based on the study of various sources

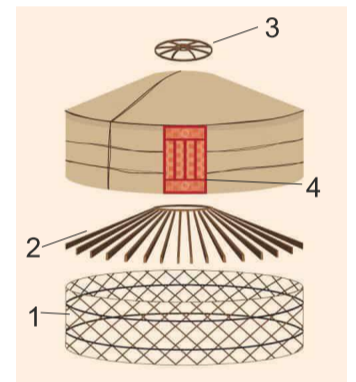
**Art:** the use of different techniques and materials, the creation of national ornaments and patterns.

**Indirect goals:** eco-housing yurt and ideas for their use in tourism and others in accordance with the goals of Sustainable Development , national values and self-awareness , the development of patriotism, global competencies (skills of the 21st century ), entrepreneurial thinking, the development of an inclusive society.



### Promotes inquiry-based learning

various aspects of yurt construction, determining the materials most suitable for its production and studying stability and resistance to wind, light transmission ability. Students gain real experience by initiating their own questions and exploring them. For example, The largest area with a limited perimeter falls on a circle. Hence, the yurt is the most efficient type of housing.



- 1 – Kerege
- 2 – Uwyk
- 3 – Shanyrak
- 4 – Door



### MATERIALS

#### Option 1 :

- Wooden skewers / sticks for plant support (100pcs )
- Rubber bands for weaving (50 pcs )
- Clay or hot glue
- Wire
- 3 types of fabric (cotton, felt / felt, synthetics, etc. )
- hair dryer

#### Option 2:

- Cardboard
- Glue
- Scissors
- colored paper
- 3 types of fabric
- hair dryer



## Promotes education for sustainable development

