123BM01 – Presentation topics

- Presentation guidelines are available here
- Students may choose another topic related to building materials after consulting the teacher. The teacher will decide which seminar the presentation will take place in
- Each topic may be chosen by only one student

Seminar 1: Materials for load-bearing walls and columns

1. **Building stone**: Types, products, and applications
2. **Lightweight concrete:** Production methods, properties, and applications
3. **High-performance concrete:** Types, production, properties, and applications
4. **Artificial stone:** Definition, production, types, and applications
5. **Ceramic products for load-bearing walls and columns**
6. **Unfired clay in building construction**
7. **Fibers for concrete reinforcement:** Steel, glass, polypropylene, and other types

Seminar 2: Materials for floors, roofs and cladding

8. **Materials and products for load-bearing floors:** Overview and requirements
9. **Materials and products for pitched roofs:** Types, requirements and comparison
10. **Cladding materials**
11. **Engineered wood products:** Boards, panels and joists
12. **Glass as a building material**
13. **Aluminium and light alloys in building construction**
14. **Plasterboard** (gypsum board, drywall)

Seminar 3: Thermal insulation materials

15. **Mineral wool and glass wool:** Thermal insulation made from mineral and glass fibers
16. **Polystyrene insulation:** Expanded (EPS) and extruded (XPS) polystyrene
17. **Spray polyurethane foam insulation**
18. **Natural thermal insulation materials:** Plant fibers and animal fibers
19. **Foam glass insulation**
20. **Insulating load-bearing materials:** Lightweight concrete and ceramics

Seminar 4: Waterproofing and coating materials

21 **Bituminous waterproofing:** Membranes, coatings and primers

22 **Plastic waterproofing membranes:** Materials, types, properties and applications

23 **Clay waterproofing:** Bentonite

24 **Epoxy coatings:** Composition, types and properties

25 **Materials for concrete repair:** Cement-based coatings

26 **Silicone materials in building construction:** Types and applications