

## ACTIVITY SHEET

### “Respect for Nature and Tradition”

#### Interdisciplinary STEAM activity

**Level:** Lower Secondary

**Duration:** 90 minutes

**Topic:** Traditional patterns inspired by nature created in Scratch

#### Competences Developed

By the end of the activity, students will develop the following key competences:

- using digital tools to create patterns in Scratch
- understanding symmetry, repetition, patterns, and spatial organization
- observing and interpreting nature-inspired elements in traditional art
- appreciating cultural heritage and European diversity
- expressing creativity through digital and artistic activities
- developing logical thinking, attention, and problem-solving skills

#### Cultural and European Dimension

The activity starts from the Romanian traditional blouse, called “ie”, and includes similar patterns from Republica Moldova, Ukraine, Hungary, Slovakia, Poland, Serbia and Bulgaria. Students discover a shared cultural space in Central and Eastern Europe, where traditional motifs are inspired by nature and built on repetition and symmetry.

#### Key Concepts

- nature as a source of inspiration
- tradition and cultural heritage
- symmetry and balance
- patterns and repetition
- basic programming in Scratch
- connections between art, mathematics, and technology

#### Resources

- images of traditional embroidered shirts and costumes
- grid paper
- pencils / markers
- computers or laptops
- Scratch software

#### Lesson Procedure

##### 1. Introduction (10 min)

Discussion about the traditional blouse and nature-inspired motifs.

##### 2. Observation (15 min)

Students identify simple shapes and repetitive patterns in traditional costumes.

##### 3. Paper Activity (20 min)

Students draw simple patterns on grid paper, focusing on repetition and spatial organization.

##### 4. Digital Activity (35 min)

Students recreate their patterns in Scratch using the “stamp” and “repeat” functions, creating symmetrical designs.

##### 5. Reflection (10 min)

Discussion about symmetry, balance, and the connection between nature and tradition.

#### Homework

Students create their own nature-inspired patterns, either on paper or in Scratch, extending the ideas learned in class.

#### Assessment

- active participation
- accuracy of the created pattern
- correct use of Scratch functions
- creativity and originality

#### Conclusion

Students discover that nature, tradition, and mathematics are closely connected through simple patterns based on symmetry and repetition, which can be recreated and reinterpreted using digital technology.