# Activity 23. Stable Table (EUC from STING project)

1. **Learning outcome(s):**(list up to 3)
	* 1. To understand that the design process is instinctive and used frequently in daily life.
		2. To learn the different steps of the design process.
		3. To develop gender awareness in STEM activities.
2. **Relation of activity with the STEM, gender inclusiveness and Entrepreneurship:**(text, not bullets, explaining the relation of the activity to 3 above)

This is an engineering activity linked to an everyday task/real life problem. It helps learners go through a design task that can be related to some physics and engineering (how to develop stable structures), entrepreneurial ideas (design something with particular/limited materials and also to have a logical cost), in a task that is gender neutral.

1. **Indicate the area of focus:**

**☒ STEM**

**☐ Gender inclusiveness**

**☐Entrepreneurship**

1. **Materials:**(including ppts, videos, hands-on material)

Per group:

* 1 newspaper, tape, a pair of scissors, a ruler
* 1 tray with 2 drinks (for example, 2 coffees) and a plate of cookies
* 1 flip chart with markers
* 1 hairdryer (optional)
1. **Preparation:**

Organize the tables with the chairs (one per participant) and organize the materials so that you can distribute them easily (5 minutes).

Give careful consideration to the composition of each group, preferably with a diverse composition (for example, three men and three women). Gender awareness comes with the selection of the facilitator and the role distribution within each group, decided under “stressful situations” (after finishing the task, the participants will check if that election was gender biased).

1. **Duration:** 50(minutes)
2. **Target group:** 10-15 years old(student age)

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1. **Description of the activity:**

Introductory activity – the challenge

Imagine that you’re relaxing in a designer lounge chair. It’s lovely weather, and you’re enjoying your book and a nice drink! But when you want to place your drink on the ground, you find you can’t reach it. Clearly, the designer chair has not been designed well.

• How might you solve this problem? Let the participants respond.

• The challenge is to build a structure that can hold a tray with two cups of coffee and a plate of cookies.

– To give the participants ownership, decide together what should constitute a successful challenge; for example, how high should the structure be?

Ask, imagine, plan and create

1. Do the following in the group as a whole:

a. What do you need to know?

Ask the participants and write the questions on a flip chart.

b. Any further questions?

Answer participants’ questions about criteria and restrictions (Do all of the groups know which materials they can use and how much time they have?).

c. Explain how the structure will be evaluated.

It will be successful when the cups can retain their contents and the structure has a minimum height of 30 cm. Will the hairdryer be used?

2. Do the following in groups:

a. The groups have 15 minutes to create their table.

b. While the participants are building, walk between the groups, observe, and ask what they are doing and why.

c. Warn the participants when they have five minutes left.

d. After 15 minutes, the participants should stop building.

Discuss the following with the group as a whole, everyone returns to their seat: Thinking about the process, what have you done? Each group discusses and writes down: - Which actions they undertook to complete the challenge? -> Write down in five or six action words - How were the roles divided? ->Discuss: consciously or non-consciously? - Who performed these actions? ->Discuss - Is there a specific type of person needed for this action? -> Write down in one or two words, next to the action words Then in plenary ask which action words they have written down and write them on a flip chart (try to group similar words). After that, link the groups of action words to the design process (Explore, Imagine, Design, Create, Improve). Explain that they all undertook the challenge in a form of design process. Perhaps the order was slightly different or some steps were merged, but this does not matter. Most people – especially students – need additional structure and help during the ‘ask’ and ‘plan’ steps.

