



# Steam with STEAM

## Challenge 3

Dear Partners, Teachers, Children,

This is the third letter with a challenge for the next STEAMcontest. In the box, that is send to your school, you can find all materials to make an 'earthquake shake table' and sticks, isomo balls for building a construction. Your teacher have received some extra links and information in the email.

### Mission

Make a structure as high as possible that is resistant to earthquakes during 30 seconds? Use the materials for this in the box (only sticks and maximum 20 isomo balls). Discuss in group how you can approach this.

Did this work out? Make a sketch of the construction.

There are some possible questions that can help:

- Is a building with a wide base more resistant to earthquakes than a building with a narrow base?
- Is an asymmetrical building more resistant to earthquakes than a symmetrical building?
- Which shapes in a construction make a building more robust and therefore more resistant to earthquakes?

There are some criteria during the challenge:

- You may only use the materials from the box during the contest. In the classroom you can try this out with different materials.
- On the shaking table can be built by the teacher or by a student there will be 4 holes to set up the building. The bottom of your building must be a square like the photo to the right.
- The time for building your construction during the contest is limited to 30 minutes.
- A maximum of only 2 children are allowed to prepare the building for the start when the challenge should go on during the contest in a mobility.

Extra:

Make a new construction with own materials and upload a video on the twinspace of the project 'steamwithSTEAM'.

SUCCESS

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