

# Stability

## Sorting Activity

The image shows two sorting boards and several object cards. The boards are designed to sort objects based on their Area of base and Centre of gravity.

**Sorting Board 1 (Top):**

- Area of base:** small, medium, large
- Centre of gravity:** low, medium, high

**Sorting Board 2 (Bottom):**

- Area of base:** small, medium, large
- Centre of gravity:** low, medium, high

**Object Cards:**

- a conical flask
- a cereal box
- a motor-racing car
- an empty bin
- a lorry
- a champagne glass

This game has been devised to help pupils to be able to generalise about stability (or instability), explain why some objects are more/less stable and compare the stability of different objects.

Suitable for pupils aged 11+

The Learning Outcome will be that students will be aware of the stability and instability of certain objects and will be able to familiarise themselves with a language that involves comparison and qualifier.

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# Stability

## Sorting Activity

Developed by Steve Cooke and Anne-Marie Thomas  
Illustrated by Peter Bennett

**Theme: Stability / Instability**

**Age range: 11+**

**Context:**

This game has been devised to help pupils to be able to generalise about stability (or instability), explain why some objects are more/less stable and compare the stability of different objects.  
If you make your own version please send it to the address below.

**Preparation:**

Print out the A4 sheets.

If possible, laminate the sorting boards and cover the pages of the cards with 'clear pvc self adhesive film'. Then cut out the squares to make the cards.

**HOW TO PLAY:**

Make teams of three or four players. Give each team one set of card (different colour borders) and one sorting board. Shuffle the team cards and place them in a pile face down.

Within a team take turns to turn over the top card and decide where to put it on the board according to the relative area of base and relative centre of gravity. Players have to work collaboratively to decide which combination of features produces the most / least stable objects. The first team to have completed their sorting board is the winner.

At the end of a game students may wish to record their findings aurally onto TalkingPEN to share with others. Teachers may combine the best recordings for sharing or keep them for assessment.

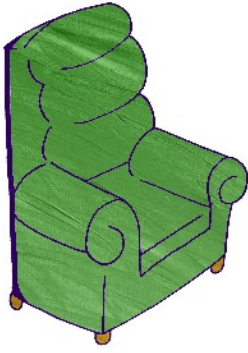
**Learning Outcomes:**

After playing this game the students will be aware of the stability and instability of certain objects and will be able to familiarise themselves with a language that involves comparison and qualifier.

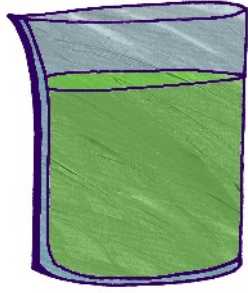
If you have found further learning outcomes please share them by emailing [collaborate@mantralingua.com](mailto:collaborate@mantralingua.com).

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(You can purchase a professionally printed, sound-enabled version of this activity with pre-cut cards from [www.mantralingua.com](http://www.mantralingua.com). Students can use PENpal to record and re-record aurally onto the pages and cards. Recordings can be saved and used for assessment, or shared with other classes and schools via "ShareLINK".)



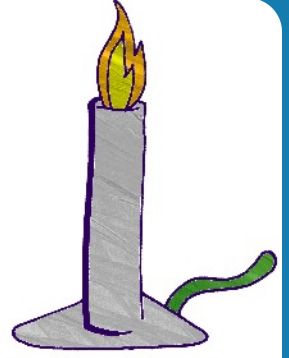
an arm chair



a glass beaker



a book case



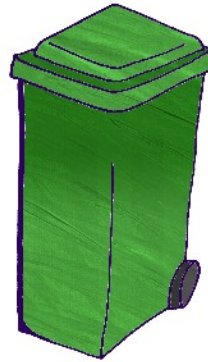
a bunsen burner



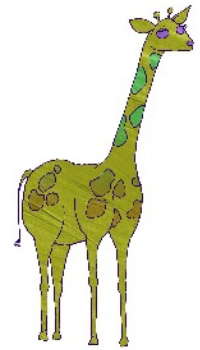
a cereal box



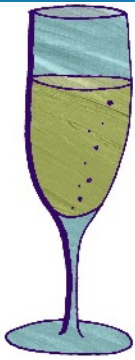
a conical flask



an empty bin



a giraffe



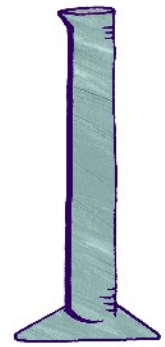
a champagne glass



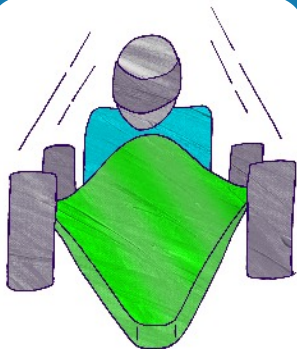
a lorry



a man on a bike



a plastic measuring



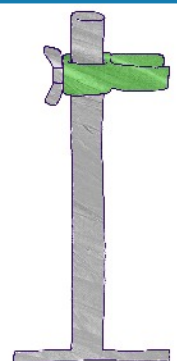
a motor-racing car



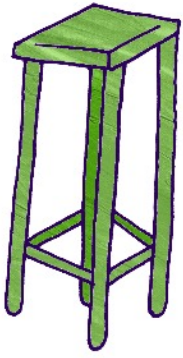
a flower pot



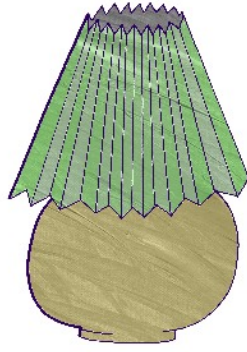
a skittle



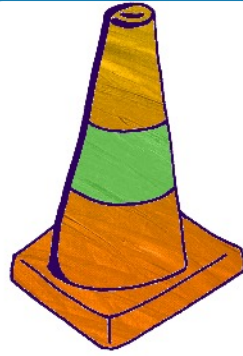
a stand and clamp



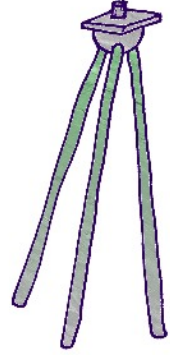
a stool



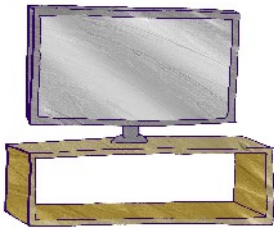
a table lamp



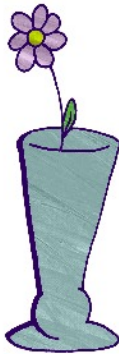
a traffic cone



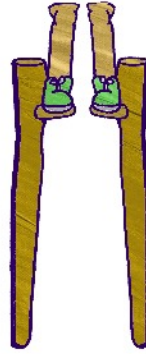
a tripod



a television



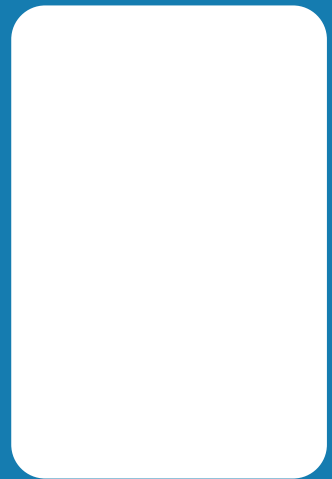
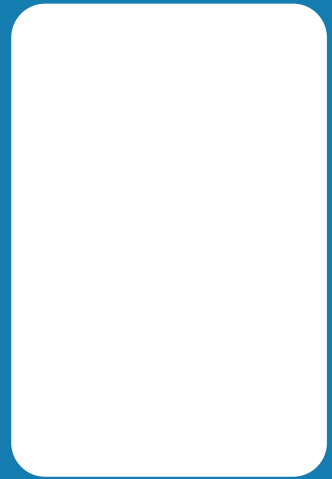
a vase

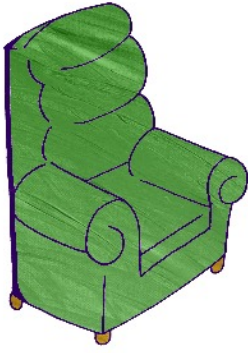


a man walking  
on stilts

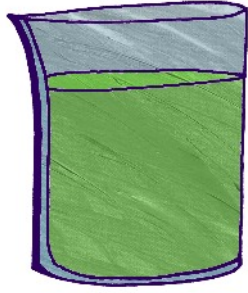


a "wobbly" toy

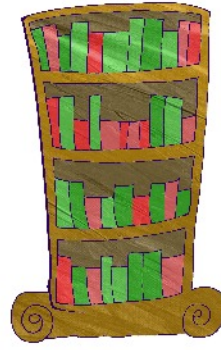




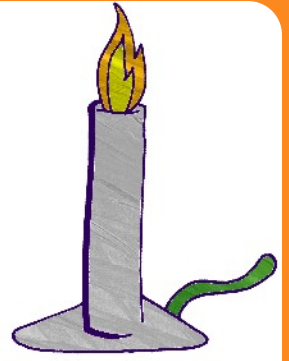
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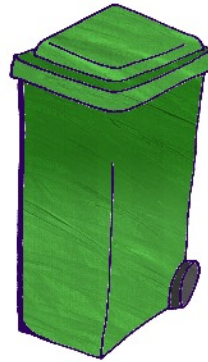
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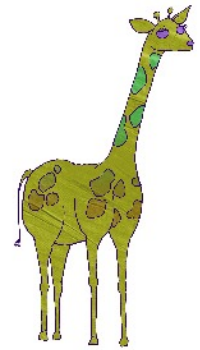
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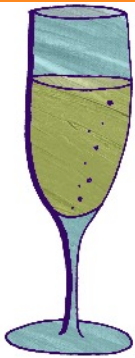
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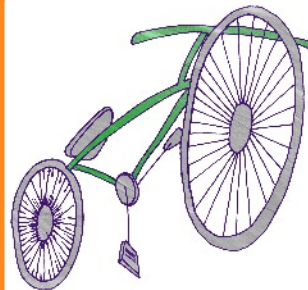
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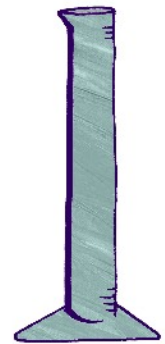
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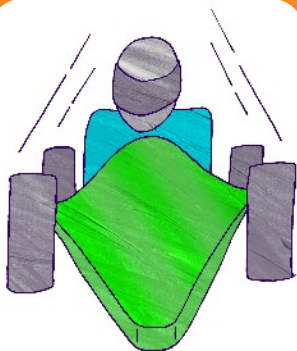
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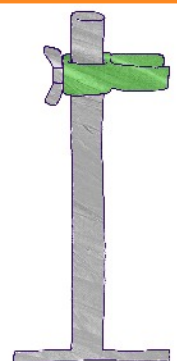
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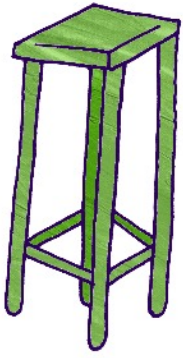
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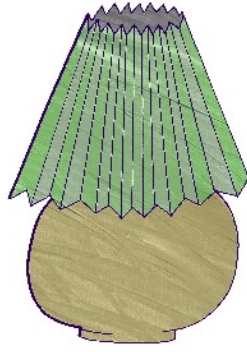
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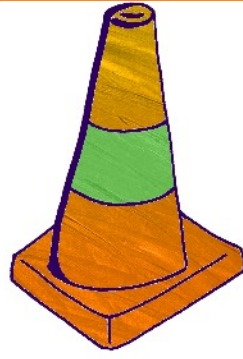
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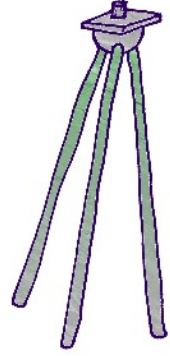
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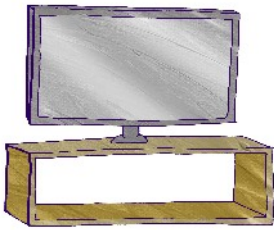
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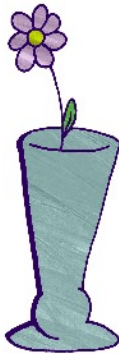
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Sorting board

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