In Balance – Balance Challenge – Task 1
Available Components - Beam - Weights: 2 × 50 g, 2 × 100 g, 1 × 200 g, 5 × 20 g
Task: Using the available weights, balance the beam when the pivot point is located at position 3. All weights must be used.
Instructions: Apply your knowledge of torque and the equilibrium condition of a lever.
The first team to successfully complete the task earns one point.

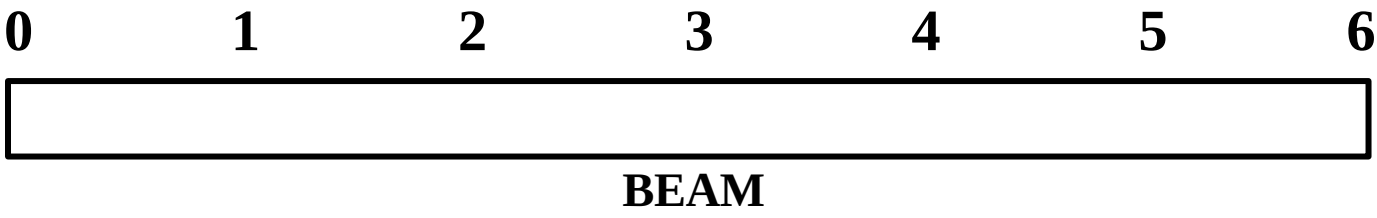
In Balance – Balance Challenge – Task 2
Available Components - Beam - Weights: 1x50 g, 3x100 g, 1x200 g
Task: Using the available weights, balance the beam when the pivot point is located at position 3. All weights must be used.
Instructions: Apply your knowledge of torque and the equilibrium condition of a lever.
The first team to successfully complete the task earns one point.

In Balance – Balance Challenge – Task 3
Available Components - Beam - Weights: 1x50 g, 3x100 g, 1x200 g
Task: Using the available weights, balance the beam when the pivot point is located at position 3. All weights must be used.
Instructions: Apply your knowledge of torque and the equilibrium condition of a lever.
The first team to successfully complete the task earns one point.

In Balance – Balance Challenge – Task 4
Available Components - Beam - Weights: 4x50 g, 1x100 g
Task: Using the available weights, balance the beam when the pivot point is located at position 3. All weights must be used.
Instructions: Apply your knowledge of torque and the equilibrium condition of a lever.
The first team to successfully complete the task earns one point.

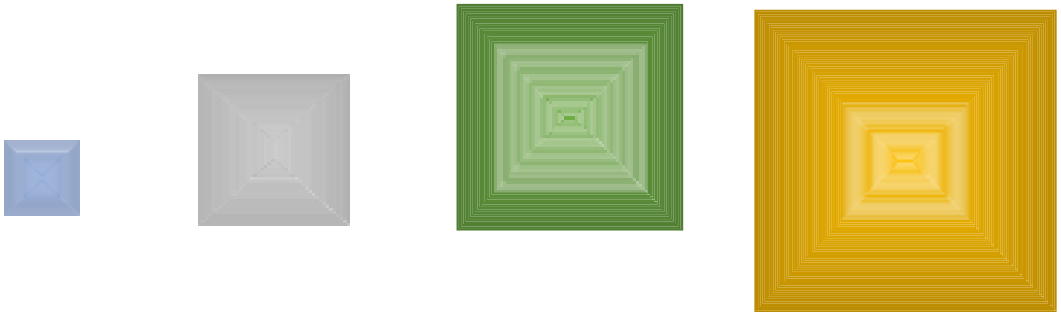
In Balance – Balance Challenge – Task 5
Available Components - Beam - Weights: 4x50 g, 3x100 g
Task: Using the available weights, balance the beam when the pivot point is located at position 3. All weights must be used.
Instructions: Apply your knowledge of torque and the equilibrium condition of a lever.
The first team to successfully complete the task earns one point.

Symbols of the Beam, Weights, and Pivot Point for the Cards:



BEAM

WEIGHTS



20 g **50 g** **100 g** **200 g**

PIVOT POINT

In Balance – Who Made the Mistake? – Task 1
Model - Beam with positions for attaching weights marked with the letters A, B, C, D, E, and F - The pivot point is between C and D, in the middle - Weight arrangement: A – 200 g, C – 50 g, D – 50 g, F – 100 g
Task: Find the mistake and explain it.
Instructions: Apply your knowledge of torque and the equilibrium condition of a lever.
The first team to successfully complete the task earns one point.

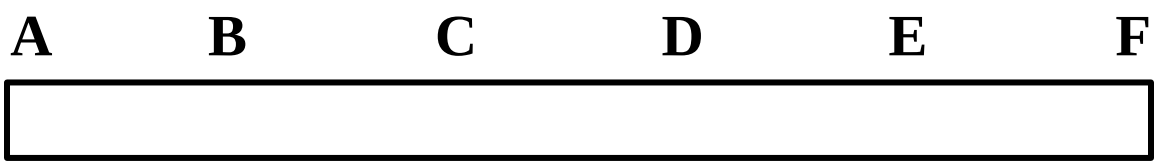
In Balance – Who Made the Mistake? – Task 2
Model - Beam with positions for attaching weights marked with the letters A, B, C, D, E, and F - The pivot point is between C and D, in the middle - Weight arrangement: B – 100 g, C – 50 g, D – 50 g, E – 100 g, F – 50 g
Task: Find the mistake and explain it.
Instructions: Apply your knowledge of torque and the equilibrium condition of a lever.
The first team to successfully complete the task earns one point.

In Balance – Who Made the Mistake? – Task 3
Model - Beam with positions for attaching weights marked with the letters A, B, C, D, E, and F - The pivot point is between C and D, in the middle - Weight arrangement: A – 100 g, B – 200 g, F – 100 g
Task: Find the mistake and explain it.
Instructions: Apply your knowledge of torque and the equilibrium condition of a lever.
The first team to successfully complete the task earns one point.

In Balance – Who Made the Mistake? – Task 4
Model - Beam with positions for attaching weights marked with the letters A, B, C, D, E, and F - The pivot point is between C and D, in the middle - Weight arrangement: C – 100 g, D – 100 g, E – 50 g
Task: Find the mistake and explain it.
Instructions: Apply your knowledge of torque and the equilibrium condition of a lever.
The first team to successfully complete the task earns one point.

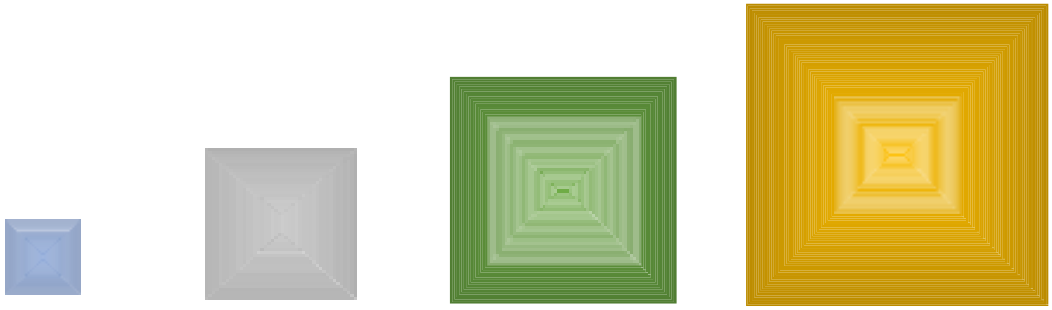
In Balance – Who Made the Mistake? – Task 5
Model - Beam with positions for attaching weights marked with the letters A, B, C, D, E, and F - The pivot point is between C and D, in the middle - Weight arrangement: A – 50 g, D – 200 g, F – 100 g
Task: Find the mistake and explain it.
Instructions: Apply your knowledge of torque and the equilibrium condition of a lever.
The first team to successfully complete the task earns one point.

Symbols of the Beam, Weights, and Pivot Point for the Cards:



BEAM

WEIGHTS



20 g **50 g** **100 g** **200 g**

PIVOT POINT