

Exit Ticket: Balanced and Unbalanced Forces in Action

REFLECTING ON HOW FORCES SHAPE OUR DAILY MOVEMENTS

WHY THIS MATTERS Understanding how balanced and unbalanced forces work helps you make sense of everything from how you stay seated in your chair to how a soccer ball accelerates when kicked.

DIRECTIONS Take a few minutes to reflect on today's science lesson. Answer the questions below to show what makes sense and where you still have questions about forces.

MY CLEAREST POINT

What is one daily activity where you can easily identify balanced or unbalanced forces? Explain how the forces are acting on the object or person, like a book resting on a desk or a skateboard speeding up.

MY MUDDIEST POINT

What part of distinguishing between balanced and unbalanced forces is still confusing? Think about calculating net force or recognizing invisible forces like gravity and friction in your daily routine.

REAL-WORLD APPLICATION

How does a change in motion in your favorite sport or hobby show unbalanced forces at work? Describe how pushing, pulling, or friction changes the speed or direction of an object in that activity.

CONFIDENCE

☐ Not yet ☐ Getting there ☐ Confident ☐ I could teach it



ONE MORE THING

One question I still have about today's lesson:

Exit Ticket: Clearest and Muddiest Point — Facilitator Guide

GRADES 6–8 • ASSESSMENT • EXIT TICKET

A quick, reflective exit ticket designed to help grade 6 students identify where they can clearly see balanced and unbalanced forces in their daily activities and pinpoint where they still feel 'muddy' or confused.

QUICK START

WHY THIS MATTERS • Learning target: Students will self-assess their ability to identify and distinguish between balanced and unbalanced forces in daily activities, sports, and hobbies.

TIME	GROUPING	MATERIALS
5–10 min	Individual	Pencils or pens

KEY VOCABULARY **balanced forces** **unbalanced forces** **net force** **gravity** **friction**

GUIDING QUESTIONS

How does the motion of an object, like a book on a desk or a skateboard speeding up, tell us if the forces acting on it are balanced or unbalanced?

Where do invisible forces like gravity and friction show up when you are playing your favorite sport or hobby?

Prerequisite knowledge: Students should have participated in the introductory lesson on balanced and unbalanced forces, including basic discussions of gravity, friction, and net force.

FACILITATION SEQUENCE

1 LAUNCH • 2 MIN

Students listen to the purpose of the exit ticket, focusing on how reflecting on their 'clearest' and 'muddiest' points helps guide the next science lessons.

Watch for: Listen for whether students understand that this is a safe, non-graded space to share what is still confusing about forces.

WHY THIS MATTERS • A useful prompt here is: "As you look at the 'My Clearest Point' section, think of a specific moment today, like sitting in your chair or kicking a ball, where forces were at work."

2 WRAP-UP • 1–2 MIN

Students hand in their exit tickets directly to the teacher or place them in a designated private bin.

Watch for: Observe if students are comfortable submitting their reflections and if any express immediate verbal questions about gravity or friction.

WHY THIS MATTERS · A useful prompt here is: "Thank you for sharing your muddiest points. I will look these over to see what we should review together tomorrow."

ANSWER KEY & HOW TO APPROACH

FOR THE TEACHER

This activity does not have single correct answers — evaluate for completeness, reasoning, and effort, and note the qualities of a strong response here.

LIKELY STUDENT RESPONSES, MISCONCEPTIONS, AND HELPFUL TEACHER MOVES

Anticipate these — and the response that moves thinking forward.

STUDENTS MAY...	WHAT THAT MIGHT MEAN...	A HELPFUL NEXT MOVE...
Write that a skateboard rolling at a constant speed has unbalanced forces acting on it because it is moving.	They associate any motion with unbalanced forces, overlooking that unbalanced forces are specifically required to change motion (speed up, slow down, or change direction).	Ask: 'If the skateboard is not speeding up or slowing down, are the forces pushing it forward stronger than the friction slowing it down, or are they equal?'
Leave the 'My Muddiest Point' section blank or write 'nothing' because they are afraid of looking like they do not understand.	They may feel social pressure to appear fully competent or struggle to self-assess where their understanding of net force or invisible forces actually breaks down.	A helpful next move is to provide a specific choice: 'Are you more confident calculating net force, or identifying where gravity and friction are acting in your daily routine?'

EQUITY, SEL, AND TRAUMA-INFORMED PROMPTS

EQUITY

Perspective invitations you can offer students — a second context, a missing voice, a different lived reality.
Invite students to consider how different environments or daily routines might change the forces they experience. For example, how does walking on a paved sidewalk compare to walking on ice, mud, or sand in terms of the friction force?

SEL

The emotional and interpersonal demands of this task — confidence, disagreement, frustration points, collaboration.
Normalize confusion as a natural and valuable part of the scientific process. Emphasize that identifying a 'muddy point' is a sign of strong self-awareness and critical thinking, not a failure.

TRAUMA-INFORMED

Participation safety and predictability — a private response option, lower-stakes sharing, predictable structure.

UDL, DIFFERENTIATION, AND LANGUAGE SUPPORTS

IF STUDENTS NEED MORE SUPPORT

Scaffolds for the same core thinking: oral rehearsal first, sketch or sort before writing, a worked example, chunked steps.

Allow students to sketch their real-world sport or hobby scenario with arrows showing the pushes and pulls before trying to write out their explanation.

IF STUDENTS ARE READY FOR MORE

Extensions that add complexity, not busywork: compare two approaches, justify a choice, transfer to a new context.

Ask students to choose one daily activity from their sheet and describe what would happen if we suddenly turned off one of the invisible forces, like friction or gravity.

LANGUAGE SUPPORTS

Name the language function (explain, compare, argue, justify) with sentence frames and oral rehearsal.

Name the language function: Describe. Provide sentence frames for the real-world application: 'In [sport/hobby], the forces are unbalanced when _____. This causes the [object/person] to change motion by _____.'

ASSESSMENT LOOK-FORS AND NEXT STEPS

WHAT TO LOOK FOR

CRITERION	WHAT IT LOOKS LIKE HERE	POSSIBLE EVIDENCE	HELPFUL NEXT STEP
Distinguishing Forces	Clearly identifying whether forces are balanced or unbalanced in a specific daily activity.	Student correctly identifies that a resting book involves balanced forces, or a speeding skateboard involves unbalanced forces.	If students struggle, have them draw a simple box diagram of the object and label the opposing forces.

Reteach signal: If more than half of the class struggles to identify a daily activity with unbalanced forces or expresses confusion about how invisible forces like friction and gravity work, plan a brief follow-up lesson using physical, hands-on stations where students feel friction and gravity acting on everyday objects.

