



EduTrend Contents

G4C · COORDINATION AND AGILITY GAMES · MIDDLE SCHOOL

Reaction Time Challenge

Measure reaction time with a ruler drop test, practise reaction games and compare results

Ages 12–14

Level: Intermediate

50 minutes

Pairs · up to 30

Activity 04

Inside: activity at a glance · step-by-step session plan · facilitator notes · 3 student worksheets · assessment checklist

ACTIVITY 04 · AT A GLANCE

Reaction Time Challenge

Pairs use the ruler drop test: one partner holds a 30 cm ruler above the other's open fingers and drops it without warning; the catcher grabs it and the distance is recorded. Each student does five drops per hand and finds the average. They then play reaction games such as Bounce and Switch and colour-call catching, retest, and compare hands and results.

Learning outcomes

By the end of the session students can:

- measure reaction time fairly;
- calculate averages;
- compare hands and conditions;
- discuss whether practice changes reaction.

KEY WORDS

reaction · ruler drop · average · dominant · fair test · practice

CURRICULUM LINKS

Science: reaction time and fair tests. Maths: averages. PE: agility.

1**WARM UP**

Get moving safely

2**EXPLAIN**

One rule at a time

3**PLAY**

Short rounds

4**ADAPT**

Easier or harder

5**TALK**

What helped?

6**COOL DOWN**

Calm and review

Materials (per pair)

- 30 cm rulers
- Balls
- Recording sheets
- Worksheets 1, 2 and 3

Before the session

- Demonstrate the ruler drop.
- Print recording sheets.
- Set out game areas.
- Plan pairs.

SAFETY

Drop rulers from a small height only. Keep game areas spaced.

ACTIVITY 04 · SESSION PLAN

Step by step

A shorter catch distance means a faster reaction.

Time	What happens	Say or ask
0–10 min Introduce	Ruler drop test and fairness.	<i>"How do we keep it fair?"</i>
10–22 min Test	Five drops each hand.	<i>"What is your average?"</i>
22–40 min Games	Three reaction games.	<i>"What helps you react?"</i>
40–50 min Retest	Compare and discuss.	<i>"Did practice change it?"</i>

CHALLENGE CARD (print or copy onto the board)

Measure your reaction fairly, then find out whether practice or hand choice makes a difference.

ACTIVITY 04 · FACILITATOR NOTES

The game know-how in brief

Reaction time is the delay between a signal and a response; the ruler drop turns it into a distance you can measure.

Short practice may improve results slightly through familiarity; a fair test needs the same conditions each time.

Common ideas to listen for

- “Reaction is fixed.” It can change with practice and focus.
- “One drop is enough.” Averages are more reliable.
- “The dominant hand always wins.” Test it.

Adapting the activity

Support

Record three drops only and use a calculator.

Stretch

Convert distances to times using a conversion table.

WORKSHEET 1

Ruler drop results

Name: _____

Class: _____ Date: _____

Distance in cm.

Ruler drop results

Drop	Dominant	Non-dominant
1		
2		
3		
4		
5		
Average		

WORKSHEET 2

Before and after

Retest.

Before and after

Hand	Before (cm)	After (cm)	Change
Dominant			
Non-dominant			

WORKSHEET 3

Conclusion

Use your data.

Our results show... A fair test needed...

FOR THE TEACHER

Assessment checklist

Use during the session. One sheet covers up to eight students; copy as needed.

Student	Tests fairly	Calculates averages	Draws a conclusion

Suggested codes: W = working towards · E = expected · G = greater depth

ABOUT THIS ACTIVITY

Reaction Time Challenge is a sample activity from the EduTrend Contents G4C Coordination and Agility Games programme (middle school, level: intermediate). Every activity in the programme follows the same format: a practical challenge, a clear session plan, facilitator notes and ready-to-print worksheets, so that teachers, club leaders and parents can run it without extra preparation.

Full 15-, 20- and 32-week programmes are available from EduStore at edutrend.org.

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