

DUMFRIES AND GALLOWAY

School Physical Activity Survey 2024



Summary Evaluation Results

For Pupils in Primary 4 to Secondary 6



DUMFRIES AND GALLOWAY
Health and Social Care

Physical activity is used as a broad term that encompasses 'any form of activity performed by the human body, inclusive of both incidental and deliberate bodily movement'¹.

Physical activity includes²:

- **everyday activities:** active travel - walking, cycling or wheeling, heavy housework, gardening, DIY, occupational activity
- **active recreation:** recreational walking, cycling, active play or dance
- **sport:** regular cycling (>30 minutes per week), swimming, formal and informal sport, structured competitive activity, exercise and fitness training and individual outdoor pursuits.

Being physically active benefits physical, mental and social wellbeing. Benefits to children and young people (5-18 years) include³:

- Bone health
- Cognitive function
- Cardiovascular fitness
- Weight status
- Depression

While all physical activity intensities bring health benefits, movement of moderate or vigorous intensity deliver the full range of health benefits. Moderate to vigorous activity are those where the heart and muscles work harder.



“Regular physical activity is an important part of living well”

- 1 International Society for Physical Activity and Health (ISPAH). 2020. ISPAH's Eight Investments That Work for Physical Activity.
- 2 Public Health Scotland. 2022. A systems-based approach to physical activity in Scotland
- 3 Department of Health and Social Care. UK Chief Medical Officers' Physical Activity Guidelines. 2019



Despite the many benefits of being physically active, many children and young people in Scotland do not meet physical activity guidelines (see Figure 1)³. The physical activity guidelines state that ‘Children and young people aged 5 to 18 years should do ‘moderate to vigorous intensity physical activity for around 60 minutes per day’.



Figure 1: Physical Activity for Children and Young People – Infographic³

Data from the Scottish Health Survey (2022)⁴ reports that around a three in ten (69%) children and young aged 5-15 years do not meet the physical activity guidelines in Scotland. The proportion meeting this guideline was lower in girls (66%) compared with boys (72%).

The proportion of children and young people meeting guidelines declines from the age of 11 years. Table 1 shows the physical activity level for children and young people in Scotland.

Table 1: Children and Young People physical activity levels in Scotland, by age and sex (Scottish Health Survey 2022)⁴

Children and Young People	5-7	8-10	11-12	13-15	Total aged 5-15
Meets guidelines	72	77	2	54	69
Some activity*	20	15	19	22	19
Low activity**	8	8	9	24	12

* An average of at least 30 minutes, but less than 60 minutes, of activity per day in previous week.

** An average of less than 30 minutes of activity per day in previous week.

Physical Activity Levels – Dumfries and Galloway

The Dumfries and Galloway Schools Physical Activity (DGSPAS) Survey was first issued by Dumfries and Galloway Council’s Education and Learning Directorate in 2013 to measure physical activity levels and behaviors of local children and young people.

The 2024 DGSPAS is the seventh version of the survey dating back to 2013. The DGSPAS provides long term surveillance data on the proportion of children and young people locally meeting physical activity guidelines, an indicator included in the Dumfries and Galloway Council Plan 2023–2028⁵.



- The aim of the DGSPAS is to:
- improve policy and practice,
 - strengthen planning of delivery based on children and young people responses and
 - allocate resources effectively to encourage and enable the most active to become and remain more active.

4 Scottish Health Survey. 2022 Volume 1: Main Report. ISBN: 9781835216569

5 Dumfries and Galloway Council Plan 2023–2028. www.dumgal.gov.uk/media/19669/Council-Plan-2017-22/pdf/Council_Plan.pdf

This 2024 DGSPAS continues to measure physical activity levels allowing comparison overtime. Data was also collected in a further eight priority areas detailed in Figure 2 below. This report will summarise high-level summary data for each of the eight priorities.



Physical Activity Levels	Participation Insides/ Outside Of School	Physical Literacy
Physical Activity - Barriers	Physical Activity - Enablers	Desired Activities
Happiness	Bike Ownership	Sitting time

Figure 2: DGSPAS 2024 Priority Areas

Methodology

The 2024 DGSPAS opened online on 3 June 2024 closing on 28 June 2024. Table 2 provides details of previous DGSPAS administration dates and sample sizes.

Table 2: DGSPAS administration dates and administration methods

Year	Administration date	Year Groups	Administration Method	Sample
2013	April 2013	P7, S1, S3, S5	Paper	3,803
2015	September 2015	P7, S1, S3, S5	Paper	2,575
2017	November 2017	P7, S1, S3, S5	Paper	2,979
2018	November 2018	P7, S1, S3, S5	Paper	3,269
2019	November 2019 - March 2020	P7, S1, S3, S5	Online	1,872
2022	June 2022	P4-S6	Online	2,263
2024	June 2024	P4-S6	Online	3,330



Schools Physical Activity Survey: Results

Survey responses are detailed below:

Total Responses 3,330

28.5% of eligible pupils completed the survey



Boys
1,619
(49%)



Girls
1,605
(48%)



Other
18
(1%)

Prefer Not to Say
75
(2%)

Blank
13
(0%)



No Disability	2,031	
Physical Disability	52	(2%)
Learning Disability	264	(8%)
Sensory disability	39	(1%)
Another Disability	99	(3%)
Long-term illness, or medical condition	102	(3%)
Multiple Disability	95	(3%)



Primary 4	453	14%
Primary 5	491	15%
Primary 6	463	14%
Primary 7	514	15%
Secondary 1	110	3%
Secondary 2	340	10%
Secondary 3	311	9%
Secondary 4	255	8%
Secondary 5	189	6%
Secondary 6	201	6%



White Scottish
2,472 **(74%)**

White English
337 **(10%)**

No other ethnicity was higher than 5% of the sample

SIMD			
QUINTILE 1	60	(2%)	MOST DEPRIVED ↓ LEAST DEPRIVED
QUINTILE 2	149	(4%)	
QUINTILE 3	475	(14%)	
QUINTILE 4	303	(9%)	
QUINTILE 5	127	(4%)	
BLANK	2,216	(67%)	

Physical Activity Levels - Key Findings

Table 3: Average over a week Activity Classifications

Physical activity classification	Definition
Inactive	Active for under 30 minutes on average over the past 7 days
Some activity	Active for 30-59 minutes on average over the past 7 days
Meets guideline	Active for an average of 60+ minutes or more the past 7 days

Schools Physical Activity

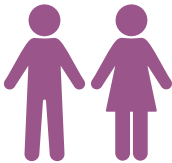
49.9% of all pupils in P4 to S6 were active for **60 minutes or more** over on average over the past week



9% decrease in pupils meeting guidelines in 2024 compared with 2022*



4.1% increase in the number of inactive pupils in 2024, compared with 2022



Boys (53%) more active than **Girls (43.1%)***

Secondary pupils are more active (53.6%) than Primary pupils (44.5%)

* Result is statistically significant meaning it is unlikely to have occurred by chance





Data for pupils in primary 7, secondary 1, 3 and 5 years groups only is available back to 2019.

While a fall in pupils meeting guidelines from 2024 from 2022 is evident, the proportion of pupils meeting guideline remains 11.7 percentage points higher compared with 2019.

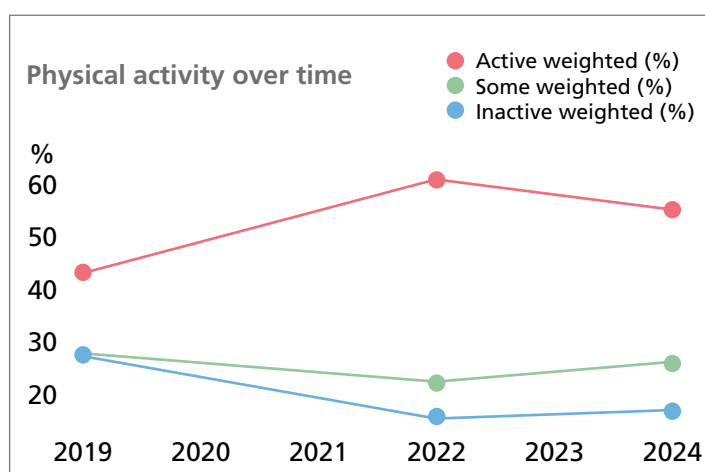
2019 43.5%

2022 60.7%

2024 55.2%

10.3% Decrease in the most inactive pupils in 2024 compared with 2019. Although this is a 3.9% increase from 2022.

Figure 3: Percentage of active and inactive pupils meeting average over a week guidelines overtime (P7, S1, S3, S5)



Interest towards being more physically active



78% of all pupils were interested in being more physically active



73% of inactive pupils are interested in being more active compared with 81% of those meeting guidelines



75% of children living in the most deprived communities want to be more active compared with 81% in the least deprived

Interest in being more active generally declines with ascending year group



85% in primary 4

81% in primary 7

77% in Secondary 1

64% in Secondary 6



Daily Threshold Guideline

Updated UK physical activity guidelines were published in 2019 in line with new evidence³. The guidelines changed from 60 minutes health enhancing physical activity every day to an average of 60 minutes per day across the week. Changes are shown in Table 4.

Table 4: UK Physical Guidelines – Change of Time

Guideline Timeline	Type	Guideline Description
2011-2018 ⁶	Daily Threshold Guideline	Children and young people should be active in health enhancing physical activity (of moderate/vigorous intensity) for a minimum of 60 minutes every day over the past week.
2019-present	Average Over a Week Guideline.	Children and young people should be active in health enhancing physical activity (of moderate/ vigorous intensity) for an average of 60 minutes per day across the week.

The DGSPAS provides data back to 2013 and required the screening question to change in order to align with the updated guideline. However, to enable longer-term trends be reported, Dumfries and Galloway retained the question to screen for daily threshold guideline adherence.

The daily threshold guideline is still used in the Health Behaviour in School Aged Children Survey, meaning Dumfries and Galloway data can be compared with larger research and evaluations

To provide a more detailed breakdown of how active or not pupils in Dumfries and Galloway are, the number of days pupils are active everyday are divided into three to avoid a binary active or inactive label.

Table 5 shows the breakdown of the three categories used to analyse the daily threshold guidelines.

Table 5: Daily Threshold Physical Activity Classifications

Physical activity classification	Definition Using Daily Threshold Guidelines
Inactive	Active 60+ minutes on 0-2 days over the past 7 days
Some activity	Active 60+ minutes on 3-6 days over the past 7 days
Meets guideline	Active 60+ minutes on 7 days over the past 7 days

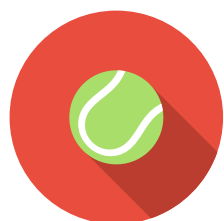


25.3% of pupils (P7, S1, S3, S5) met the daily threshold guideline in 2024 compared with **27%** in 2022

The percentage meeting guidelines in Dumfries and Galloway compare favourably with national and international studies as shown in Table 5.

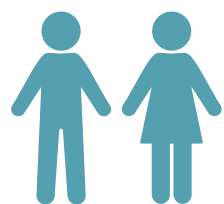
Table 6: Comparison of Physical Activity levels – Dumfries and Galloway versus Global and National Studies

Survey	Age Range	Sample	Proportion Meeting Guidelines
DGSPAS 2013	P7, S1, S3, S5	3,803	19%
DGSPAS 2022	P7, S1, S3, S5	902	27%
DGSPAS 2024	P7, S1, S3, S5	1,124	25.3%
Health Behaviour in School-Aged Children 2018 Survey ⁷	P7, S2, S4	5,286	17%
Health Behaviour in School-Aged Children 2022 Survey ⁸	P7, S2, S4	4,388	23%
Global Trends Survey (Guthold et al, 2020) ⁹	11-17 years	1.6 million	19%



17.3% of children were **inactive** in 2022 and 2024, this is the **lowest proportion of any years** DGSPAS was undertaken

Despite a slight non statistical decrease in physically active pupils since 2022, **levels were higher in 2024** than in any other DGSPAS year (2013-2019)



32.1% of boys were active compared with **21.6%** of girls* met guidelines

Figure 4 and Figure 5 show total and gender/year group changes in the proportion of pupils in Dumfries and Galloway meeting daily threshold guidelines. (P1,S1, S3, S5)

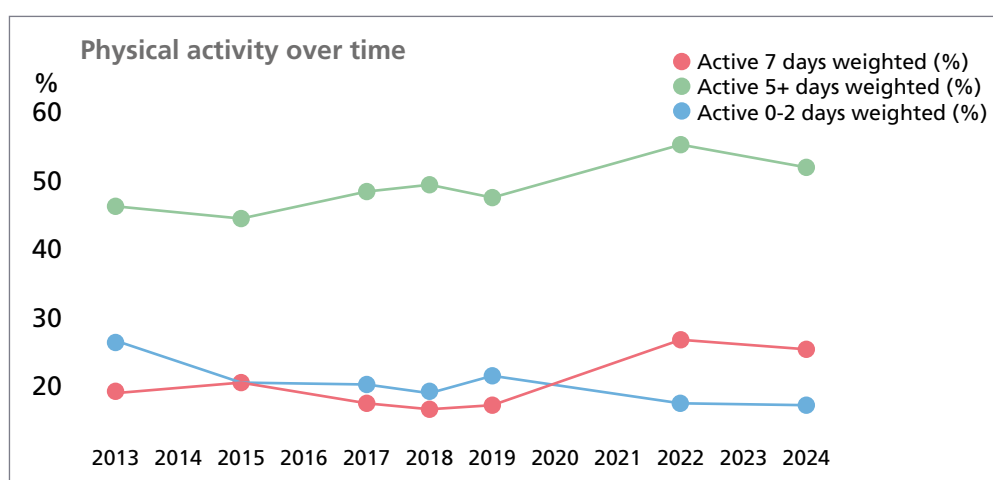


Figure 4: Percentage of active and inactive pupils meeting daily threshold guidelines overtime

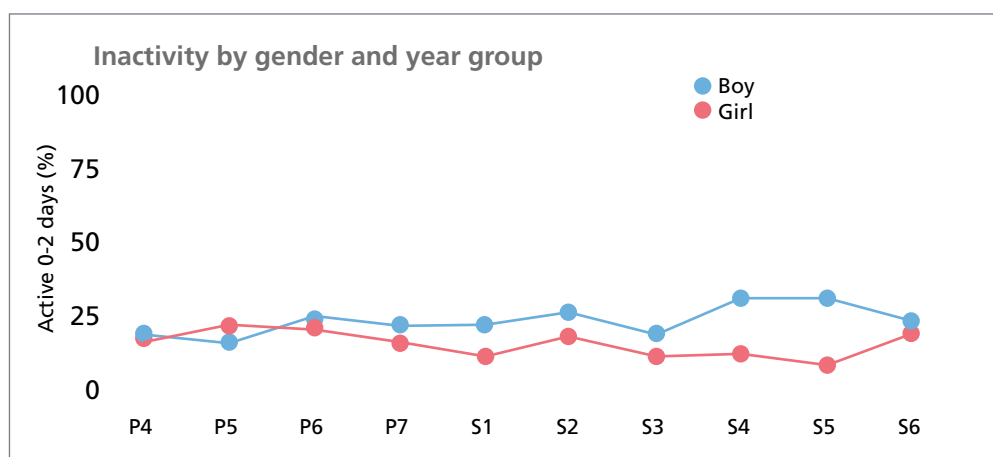


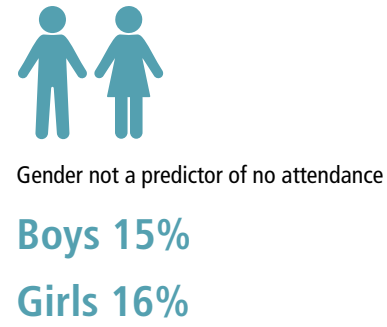
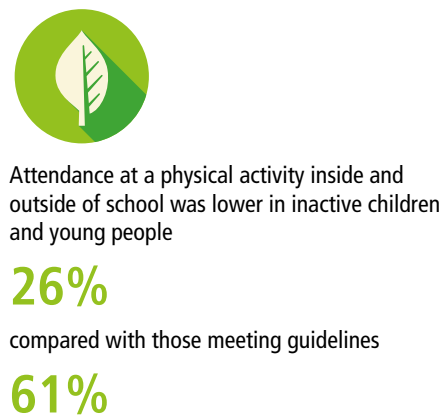
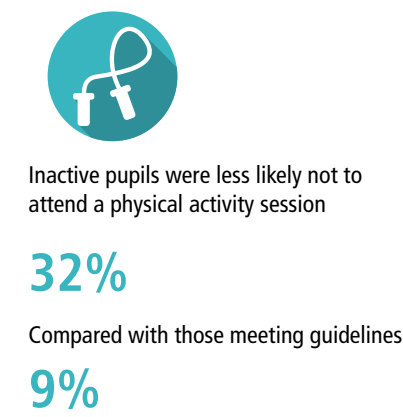
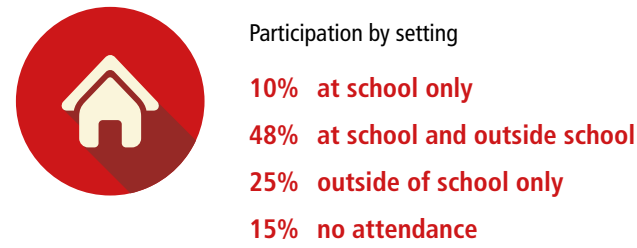
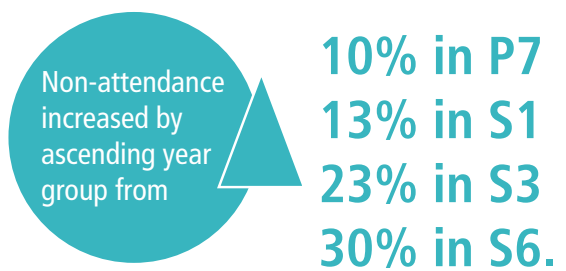
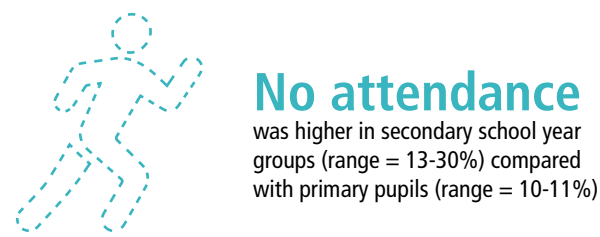
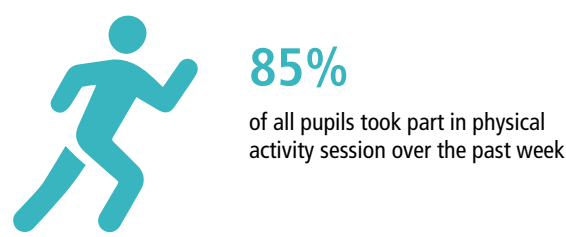
Figure 5: Percentage of active and inactive pupils meeting daily threshold guidelines overtime by age and gender

- 6 Active, S., 2011. Stay Active. A Report on Physical Activity for Health from the Four Home Countries' Chief Medical Officers, stay active: report on physical activity in the UK. London, UK: Department of Health.
- 7 Inchley, J., Mokogwu, D., Mabelis, J., Currie, D. (2020) Health Behaviour in School-aged Children (HBSC) 2018 Survey in Scotland: National Report. MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.
- 8 Inchley, J., Mabelis, J., Brown, J., Willis, M. and Currie, D., 2023. Health Behaviour in School-aged Children (HBSC) 2022 Survey in Scotland: National Report.
- 9 Guthold, R., Stevens, G.A., Riley, L.M. and Bull, F.C., 2020. Global trends in insufficient physical activity among adolescents: a pooled analysis of 298 population-based surveys with 1·6 million participants. The lancet child & adolescent health, 4(1), pp.23-35.

Participation Physical Activity, Fitness, Dance or Sports Club Session

Pupils were asked to report if they had taken part in a physical activity, fitness, dance or sports club session over the past week.

Schools Physical Activity Survey 2024 - Key Findings





Physical Literacy

Physical literacy is defined as “the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life”¹⁰

The concept of Physical Literacy proposes that at each stage of life, our decisions to be physically active are influenced by five important but entwined and interdependent domains¹¹:

- 1. Motivation
- 2. Confidence
- 3. Physical Competence
- 4. Knowledge
- 5. Understanding

Pupils were asked to give their perception on each domain scored on a Likert Scale from zero (not like me) to ten (this is very like me). Five domains were also grouped to provide a total Physical Literacy score.

A person lacking one or more domain is less likely to engage in physical activity with examples shown in Figure 6^{12/13}

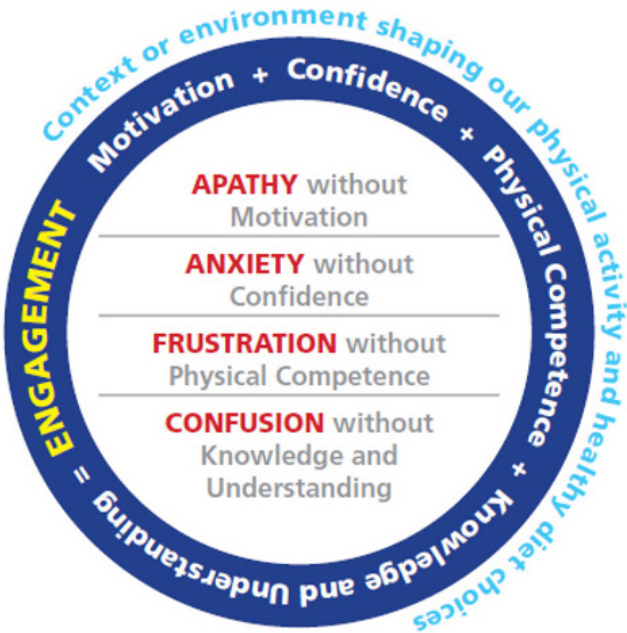


Figure 6: Impact of removing domain on engagement in physical activity^{12/13}

There was no real change in single domain or grouped domain physical literacy scores between 2022 (36.2) and 2024 (36.9). See Table 7 for a breakdown.

Table 7: All Pupil - Physical Literacy Scores (5 domain combined score)

DOMAIN	2024	2022
Motivation	7.4	7.4
Confidence	6.7	6.6
Competence	7.1	6.8
Knowledge	8.4	8.4
Understanding	7.1	7
Combined (range = 0-50)	36.9	36.2

Equals 36.7 if total scores up in Table, with rounding = 36.9



Score
ZERO = Not like me
TEN = This is very like me

As physical literacy scores increase, the proportion of children reporting feeling ‘quite’ or ‘very happy’ also increases. See Table 8 for a breakdown.

Table 8: Present happiness by physical literacy grouped score

PHYSICAL LITERACY SCORE (Domains Combined)	SAMPLE	Proportion of Quite and Very Happy Pupils
0-10	44	63%
11-20	143	69%
21-30	500	75%
31-40	720	83%
41-50	1,103	89%

Pupils reporting a disability had lower physical literacy score than those reporting no disability (see Table 8).

10 International Physical Literacy Association. 2017. <https://www.physical-literacy.org.uk/>

11 International Physical Literacy Association. 2020. Choosing Physical Activity for Life: Be your best. <https://www.physical-literacy.org.uk/wp-content/uploads/2020/05/IPLA-Choosing-Physical-Activity-for-Life-web.pdf>

12 Myers, E., 2017. Physical Literacy and Human Flourishing. International Physical Literacy Conference, Toronto, Canada April, 2017

13 Topping, C et al., 2019. IN: Whitehead, M. ed., 2019. Physical literacy across the world. London, UK:: Routledge

Boys perceived Physical Literacy (38.6) was higher than girls (35.3)



Physical Literacy decreased with ascending secondary year group from Secondary 1 (39.2) to Secondary 6 (34.1)

In primary school physical Literacy values domain scores range from 36.3 - 38.4.

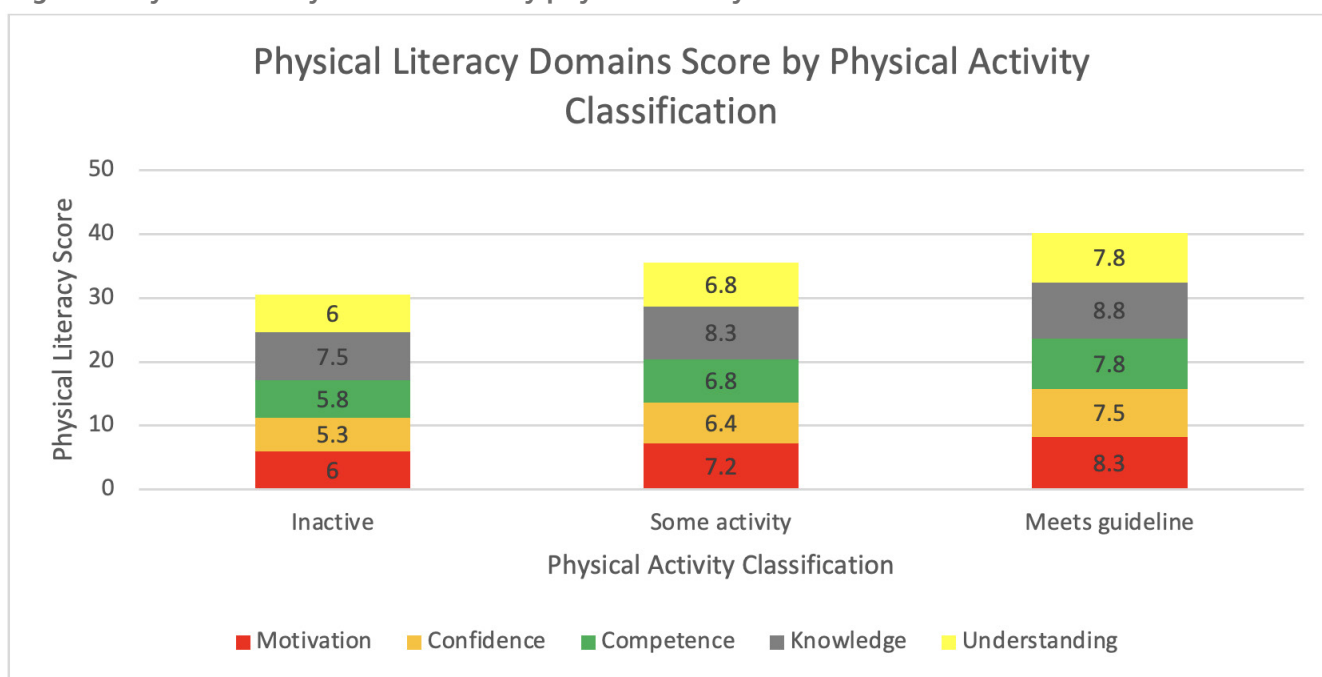


Table 9: Physical Literacy Score by Disability

Disability Classification	5 Domains Grouped
All Pupils	36.9
No Disability	38.3
Learning Disability	32.8
Physical Disability	35
Sensory Disability	34.7
Another Disability or difficulty	33.2
I have multiple types of disability or difficulty	33.7
I have a long-term illness, or medical condition (like diabetes, arthritis, allergy or cerebral palsy) that has been diagnosed by a doctor	36.4

Analysis found no clear evidence that deprivation influenced physical literacy score.

Figure 7 Physical Literacy Domain score by physical activity classification



Barriers to Physical Activity Participation

Top 5 barriers to physical activity participation in Dumfries and Galloway - All Pupils

I don't have time	23%
The weather is too bad	17%
I feel embarrassed about not doing well in an activity	13%
It is difficult for me to get places where I can do physical activity	11%
I would rather do other things with my time	10%

Top 5 barriers - Gender

Girls

I don't have time	24%
The weather is too bad	19%
I feel embarrassed about not doing well in an activity	18%
It is difficult for me to get places where I can do physical activity	11%
I would rather do other things with my time	11%

Boys

I don't have time	22%
The weather is too bad	16%
It is difficult for me to get places where I can do physical activity	10%
I would rather do other things with my time	9%
I feel embarrassed about not doing well in an activity	8%
The physical activities I want to take part in are not available	8%

'The weather is too bad' (26%),

'I don't have time' (25%) and
'It is difficult for me to get places where I can do physical activity' (15%)

Were the top three barriers for pupils living in the regions most deprived communities



5. Physical Activity - Enablers

When and where I go to take part in physical activity

All pupils

1 PE class at school	61%
2 Activity at lunchtime	46%
3 Activity at breaktime	43%

Girl: Where I go to be physically active

1 PE class at school	63%
2 Activity at lunchtime	43%
3 Public park	41%
3 Activity at breaktime	41%

Boy: Where I go to be physically active

1 PE class at school	60%
2 Activity at lunchtime	48%
3 Activity at breaktime	45%

When and where I would like to go to take part in more physical activity

All pupils

1 Activity at breakfast club	21%
2 Leisure / sport centre	18%
3 After school activity at community sport club	17%
3 Swimming pool	17%

Girls: Where I would like to go for physical activity

1 Activity at breakfast club	25%
2 Leisure / sport centre	19%
2 After school activity at community sport club	19%
2 Swimming pool	19%

Boys: Where I would like to go for physical activity

1 Leisure / sport centre	18%
2 Activity at breakfast club	17%
3 Swimming pool	15%
3 After school activity at community sport club	15%

6. Desired Activities

Pupils were asked to identify activities that they would like to do more of.

Top 10 Activities - All Pupils

Activity	Percentage (%)
Football	38%
Swimming	31%
Walking	25%
Cycling	24%
Ice Skating	21%
Basketball	21%
Golf	21%
Tennis	20%
Rounders	20%
Trampolining	20%

Top 3 Activities – Pupils with a disability or medical condition

Learning Disability	
Football	31%
Swimming	28%
Walking	28%
Physical Disability	
Football	40%
Cycling	23%
Golf	21%
Sensory disability	
Swimming	41%
Football	38%
Cycling / Walking	35%
Multiple types of disability	
Football	44%
Cycling	31%
Swimming	29%
Long-term illness or medical condition diagnosed by a doctor	
Football	36%
Swimming	36%
Walking	33%

Top Five Activities By Gender

Gender	Activity	Percentage of group (%)
Boy	Football	52%
Boy	Golf	30%
Boy	Swimming	27%
Boy	Basketball	27%
Boy	Cycling	26%
Girl	Swimming	36%
Girl	Ice Skating	32%
Girl	Walking	30%
Girl	Gymnastics	29%
Girl	Football	26%

Top Five Activities By Inactivity

Physical Activity Classification		
Inactive	Football	33%
Inactive	Swimming	32%
Inactive	Walking	26%
Inactive	Ice Skating	24%
Inactive	Cycling	22%

Top Five Activities - Pupils living in regions most deprived communities

Physical Activity Classification		
Inactive	Football	48%
Inactive	Ice Skating	30%
Inactive	Swimming	28%
Inactive	Walking	26%
Inactive	Cycling	23%



Happiness

Physically active pupils* were 13 percentage points more likely to report being very happy*

35% of inactive pupils were **very happy**

41% of pupils doing some activity were **very happy**

48% of active pupils were **very happy**

*When 'quite' and 'very happy' responses are combined the percentage point difference between inactive and active pupil reduces to 6%.



Bike Ownership

65% of pupils reported having access to a bike compared with 6% who did not

18% had a bike but it required to be fixed

7% did not have a bike but would like one

Pupils with access to a bike were 21 percentage points more likely to meet physical activity guidelines (75%) compared with those inactive (54%)*

8% of inactive children did not have a bike but would like one



Screen Time

Pupils reported how much of their free time they spent on screens (e.g. computer, game console, tablet, smartphone...).

Guidelines from Canada recommend¹⁴:

'No more than 2 hours per day of recreational screen time'

For children and young people aged 5-17 years



35% points -

Pupils sit for <2 hours per day in their free time
(Girls = 34% / Boys = 30%)

33% points -

Pupils sit for 5+ hours per day in their free time
(Girls = 29% / Boys = 33%)

15% points -

Pupils sit for 7+ hours per day in their free time
(Girls = 12% / Boys = 16%)

Time spent sitting decreased by physical activity level*



22% of inactive pupils sit for 7+ hours per day compared to 13% who do some activity and 11% who meet guidelines



14 24 Hour Movement Guidelines. 2021. Canadian 24-Hour Movement Guidelines for the Children and Youth (5-17 years): An Integration of Physical Activity, Sedentary Behaviour, and Sleep. Canadian Society for Exercise Physiology

Conclusion

A report published by the Directors of Public Health in 2018 identified physical activity as a national public health priority¹⁵.

The DGSPAS 2024 reported a statistical decline in the proportion of pupils meeting physical activity guidelines; despite this decline, overall levels remain higher than they were pre Covid-19.

Half of all pupils reported meeting physical activity guidelines (49.9%). Therefore, many children and young people are not receiving the fullest range of benefits and are potentially putting their health and wellbeing at risk.

Critically, the survey provides valuable data on enablers, barriers, and preferences, which together, provide important valuable insight to inform strategies to tackle inactivity. Further, data is available by protected characteristics and inequalities to enhance targeted approaches.

Notable, there appears significant potential to increase physical activity levels through the regions outstanding natural beauty and outdoor spaces. This combined with the importance of sport and recreation provides a wealth of behaviour change opportunities.

Further, data from this survey will help inform the system-based approach being undertaking to inform the development of the regions new physical activity strategy (due Spring 2025). Data will be used strengthen, prioritise and validate the development of local high-level actions to increase population levels of physical activity alongside evidence set-out in Public Health Scotland's 'Systems-based approach to physical activity in Scotland A framework for action at a national and local level'².

Data will be available to organisations and partners working to increase opportunities and create environments that encourage and enable all pupils but specifically our most inactive children and young people to become then remain more active.

For the first time, participating schools will receive a data breakdown for their school to support local planning and delivery.

¹⁵ Scottish Government. 2018. Scotland's Public Health Priorities. ISBN: 9781788519830.

