Health and safety education

How can education contribute to a healthier and safer society?

Dr Wonyong Park | EDUC1033 Week 10 · Lecture



Handwashing at a school in Ghana · Amuzujoe, Wikimedia Commons, CC BY-SA 4.0

Session outline

1 Health, wellbeing and health literacy

2 Health education in England and Southampton LifeLab

3 Risk and school health and safety

4 Comprehensive school safety and climate disruption

Activity 1

In pairs | 3 minutes

Think of one thing you were taught at school about staying healthy or safe.

Did it change what you did? If not, what got in the way?

Keep your example: we come back to it at the end.

1

Health, wellbeing and health literacy

What counts as health, why health promotion is wider than information, and why knowing is not the same as doing.

- The WHO definition of health
- The Ottawa Charter for Health Promotion
- Three forms of health literacy
- COM-B and the health-promoting school



A school nurse talks with a student · Nduati.githae, Wikimedia Commons, CC BY-SA 4.0

A broad definition of health

The **World Health Organization (WHO)** is the United Nations agency for health. Its constitution was adopted in 1946 and came into force in 1948. The opening lines define health.

"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

WHO (1946), Constitution, preamble

What it adds

- Body, mind and relationships all belong to health
- Loneliness, exclusion and insecurity become health questions
- Health as a right: the constitution names the highest attainable standard of health as a fundamental human right

Where it is hard to apply

- "Complete" wellbeing would make anyone with a disability or long-term condition unhealthy
- A pupil with a well-managed condition may be thriving
- Wellbeing is not constant happiness: guidance in England separates ordinary worry or sadness from mental health conditions

WHO (1946), Constitution; Department for Education (DfE, 2025), pp. 20–21, 27.

Health promotion is wider than giving information

In November 1986 the **first International Conference on Health Promotion** met in Ottawa, Canada. Its charter set out five areas of action. Education is one of them.

"Health promotion is the process of enabling people to increase control over, and to improve, their health."

WHO (1986), Ottawa Charter for Health Promotion

- Build healthy public policy
- Create supportive environments
- Strengthen community action
- **Develop personal skills**, where health education mainly sits
- Reorient health services

A school can teach about nutrition **and** look at the food it serves; it can teach emotional awareness **and** make trusted support easy to reach.

A young person may want to be more active but lack affordable options or feel unsafe outdoors. Repeating the advice adds little unless those barriers are addressed.

WHO (1986), Ottawa Charter for Health Promotion, 21 November 1986.

Three forms of health literacy

Health literacy describes the skills people need to find, understand and use health information. In 2000 the public health researcher Don Nutbeam treated it as a measurable outcome of health education and described three forms. He revisited the idea in 2025.

Functional

Understanding and using basic health information.

For example: reading a food label, recognising a warning, following a clear instruction.

Interactive

Asking questions, discussing options and seeking support.

For example: explaining a worry to a trusted adult, or asking a pharmacist about a medicine.

Critical

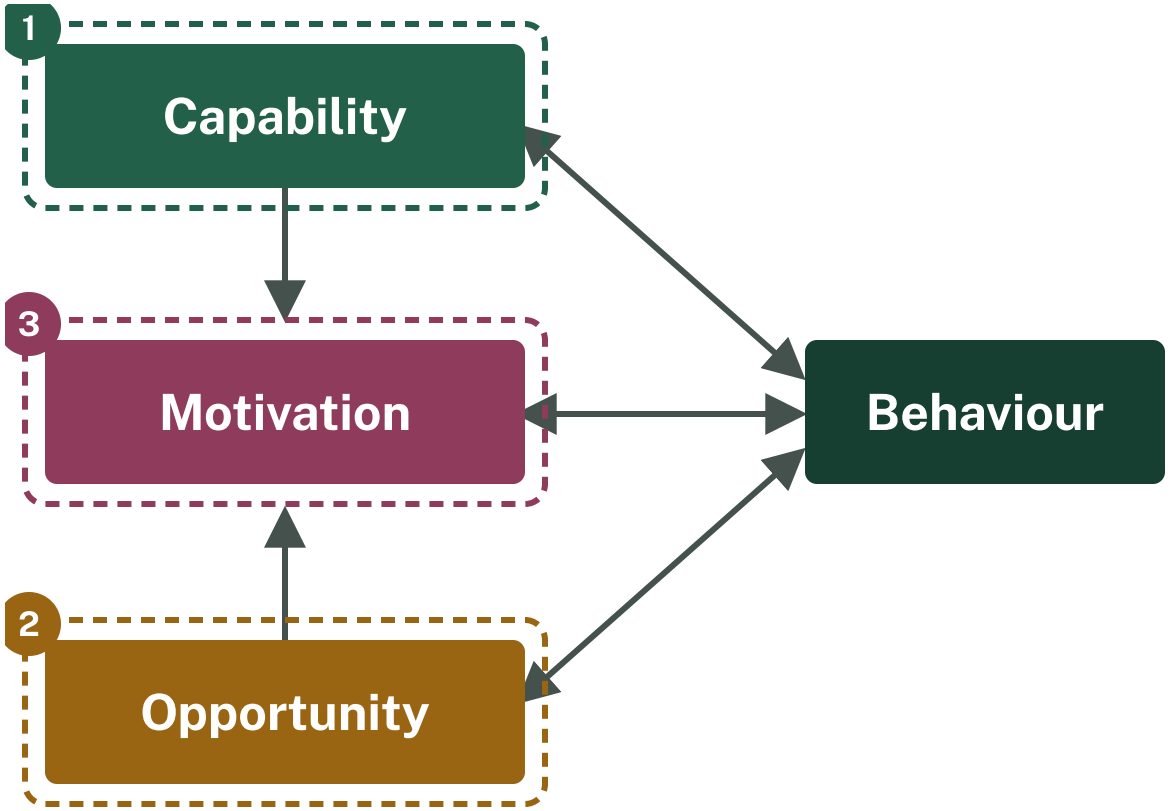
Evaluating claims and the conditions that shape health.

For example: comparing an influencer's claim with research evidence, or spotting a commercial interest.

Nutbeam (2000), *Health Promotion International* 15(3); Nutbeam (2025), *Health Promotion International* 40(4).

Why knowing may not change what people do: COM-B

Susan Michie and colleagues at University College London reviewed 19 frameworks of behaviour change. They proposed **COM-B** as the core of the "behaviour change wheel", a method for designing interventions.



Behaviour depends on capability, opportunity and motivation, which also affect each other. Example: eating a nutritious meal.

1. **Capability:** knowing how to prepare the meal. This is where lessons mostly act.
2. **Opportunity:** access to ingredients, time and cooking facilities.
3. **Motivation:** enjoyment, expectations and habit.

Redrawn from Michie, van Stralen & West (2011), *Implementation Science* 6:42, Figure 1, p. 4. CC BY 2.0.

The health-promoting school: making lessons usable

A **health-promoting school** treats health as part of the whole school rather than one subject. In 2021 WHO and UNESCO, the UN agency for education, published eight global standards.

1 Government policies and resources	5 School curriculum
2 School policies and resources	6 School social–emotional environment
3 School governance and leadership	7 School physical environment
4 School and community partnerships	8 School health services

A Cochrane review of the approach

A Cochrane review pools all suitable trials on one question. In a cluster-randomised trial, whole schools are assigned at random.

- **67** cluster-randomised trials
- **Small improvements** in some outcomes: physical activity, fruit and vegetable intake, tobacco use, reports of being bullied
- Evidence quality **low to moderate**; no clear benefit for every health outcome, or for academic achievement

WHO & UNESCO (2021), *Making every school a health-promoting school*, Part 3; Langford et al. (2014), Cochrane Review CD008958.

2

Health education in England and Southampton LifeLab

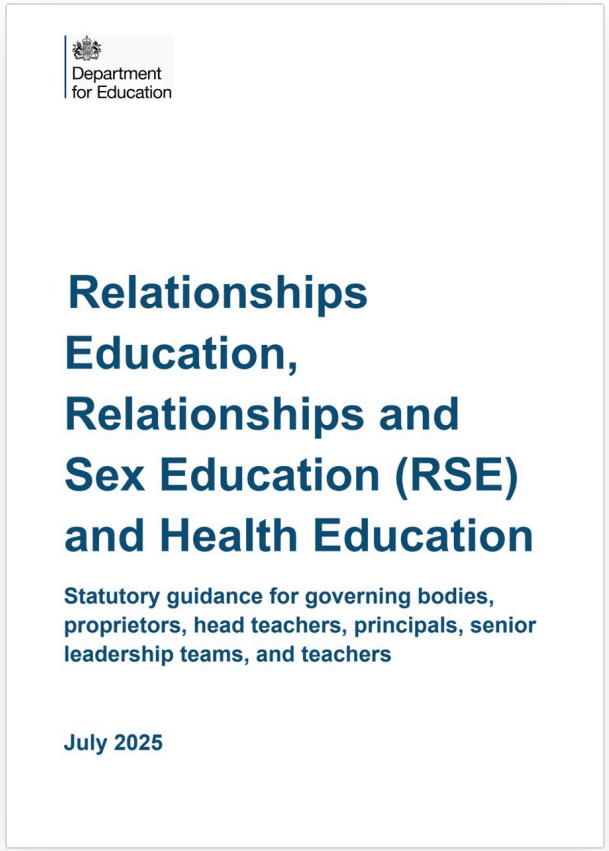
What schools in England must teach, and what one Southampton programme does with pupils.

- RSHE: where it came from and who it applies to
- What pupils should know: primary and secondary
- LifeLab: the programme, the visit and the lessons
- EACH-B: testing a wider programme



Southampton General Hospital · David Martin, geograph.org.uk, CC BY-SA 2.0

RSHE: how health education became compulsory in England


Department for Education

Relationships Education, Relationships and Sex Education (RSE) and Health Education

Statutory guidance for governing bodies, proprietors, head teachers, principals, senior leadership teams, and teachers

July 2025

RSHE stands for relationships, sex and health education. The Department for Education (DfE) sets out what schools must teach in **statutory guidance**: guidance that schools are required by law to follow.

- **2017** — The **Children and Social Work Act 2017** gives the legal basis.
- **2019** — **Regulations** make the subjects compulsory; the first statutory guidance is published.
- **Sept 2020** — Schools must follow the 2019 guidance.
- **July 2025** — The DfE publishes **revised guidance** (shown left).
- **1 Sept 2026** — The revised guidance **comes into effect**.

DfE (2025), *Relationships Education, RSE and Health Education*, cover and paras 2, 8 (Crown copyright, OGL v3.0); Grace (n.d.), slide 17.

RSHE: who it applies to and how it works

What is compulsory, and where

- **Relationships education:** primary
- **Relationships and sex education (RSE):** secondary
- **Health education:** state-funded schools, including academies and free schools
- **Independent schools:** a separate requirement for personal, social, health and economic (PSHE) education

Schools **must have regard** to the guidance; where they depart from it, they need good reasons.

Every school must have a **written policy** for relationships education or RSE, developed with parents and published.

Parents can ask to withdraw a child from **sex education**, but not from relationships or health education.

Key aspects are in scope for **Ofsted**, the schools inspectorate.

A guiding principle: participative and interactive teaching "which aims to support and not to alarm pupils" (DfE, 2025, p. 5).

DfE (2025), paras 2–5, 12–16, 21; DfE (2026), publication page.

By the end of primary, health education covers...

Selected statements from the curriculum content, quoted from the guidance.

General wellbeing	"Pupils should understand that worrying and feeling down are normal, affect everyone at different times, and are not in themselves a sign of a mental health condition."
Healthy eating	"The principles of planning and preparing a range of healthy meals."
Health protection	"About personal hygiene and germs including bacteria, viruses, how they are spread and treated, and the importance of handwashing."
Personal safety	"About hazards (including fire risks) that may cause harm, injury or risk and ways to reduce risks."
Personal safety	"How to recognise risk and keep safe around roads, railways, including level crossings, and water, including the water safety code."
Basic first aid	"How to make a clear and efficient call to emergency services if necessary, including the importance of reporting incidents rather than filming them."

DfE (2025), Primary health and wellbeing: content to be covered by the end of primary, pp. 21–24.

By the end of secondary, health education covers...

Secondary teaching builds on primary content. Selected statements, quoted from the guidance.

Mental wellbeing	"That worrying and feeling down are normal, can affect everyone at different times and are not in themselves a sign of a mental health condition, and that managing those feelings can be helped by seeing them as normal."
Wellbeing online	"How advertising and information is targeted at them and how to be a discerning consumer of information online, understanding the prevalence of misinformation and disinformation online, including conspiracy theories."
Health protection	"How to navigate their local healthcare system: what a GP is; when to use A&E / minor injuries; accessing sexual health and family planning clinics; the role of local pharmacies; and how to seek help via local third sector partners which may have specialist services."
Personal safety	"How to recognise and manage peer influence in relation to risk-taking behaviour and personal safety, including peer influence online and on social media."
Basic first aid	"Life-saving skills, including how to administer CPR." · "The purpose of defibrillators, when one might be needed and who can use them."

DfE (2025), Secondary health and wellbeing curriculum content, pp. 27–31.

Southampton LifeLab: a classroom inside a hospital

Running since 2008, LifeLab is a purpose-built teaching laboratory at **University Hospital Southampton**, run with the University of Southampton. It works with secondary pupils aged about 12–14, under the strapline **“Me, my health and my children’s health”**.

1 · Teacher training

A one-day course at LifeLab on the research behind it, plus training in **Healthy Conversation Skills** to support pupils' health choices.

2 · A module in school

Eight science lessons, linked to the National Curriculum, taught **before and after** the visit by the class's own teachers.

3 · A day at LifeLab

A **hands-on practical day** part-way through the module, taught by LifeLab teachers with equipment schools do not have.

University of Southampton (n.d.), LifeLab project page; Woods-Townsend et al. (2021), Box 1, p. 6; Barker et al. (2026).

What pupils do on a LifeLab day

“How do I know how healthy I am?”

Take accurate measurements: body composition, lung function tests, grip strength and hamstring flexibility.

“What do I look like on the inside?”

Use ultrasound to study blood flow through, and the structure of, the carotid artery.

“What does my DNA look like?”

Extract their own DNA and run gel electrophoresis experiments on how early-life effects may work.

“How did I eat before I was born?”

Measure the transport of calcium and glucose across the placenta.

Meet the Scientist: small groups of 6–7 pupils talk informally with two scientists, 15 minutes each, which helps break down misconceptions about what scientists do and what they are like.

Grace (n.d.), slides 27–31; Woods-Townsend et al. (2021), Box 1, p. 6, and p. 9.

Before and after the visit: lessons on how scientists work

The eight-lesson module

- Theme: **“How scientists work”**: how research questions are formed, studies designed, and data collected, analysed and communicated
- Based on real research, such as the **Southampton Women’s Survey**
- Behaviour change techniques built into the activities
- Taught by teachers trained in **Healthy Conversation Skills**

The approach

- “Helping them to convince themselves – not instructing them to behave in a certain way!”
- Promoting confidence, self-belief and self-efficacy
- Relating concepts to everyday teenage life
- Group discussions with young health professionals

“I went back and told Mum and Dad everything, ’cos it was all interesting.” Anna

“I found out I have a high metabolism.” Gemma

“I think Josh was the only one who was creeped out by the placenta.” Chloe

Woods-Townsend et al. (2021), Box 1, p. 6; Grace (n.d.), slides 26 and 32 (pupil interviews).

LifeLab: the programme director's overview



https://www.youtube.com/watch?v=aBLZLUzK2BU · University of Southampton, *LifeLab, University of Southampton* (4 min)

EACH-B: adding teacher support and an app

Engaging Adolescents in Changing Behaviour (EACH-B) was a research programme funded by the National Institute for Health and Care Research (NIHR). It built on LifeLab to test whether a wider package could improve the diet and physical activity of students aged 12–14.

- A LifeLab visit
- Healthy Conversation Skills for teachers
- A gamified smartphone app

Outcome trial (Barker et al., 2026)

- **45 schools**; 2,065 students at the start
- **55%** followed up after one year
- No demonstrated improvement in the main **diet** or **physical activity** outcomes

Process evaluation (Jenner et al., 2025)

- Students and teachers **valued LifeLab**
- Engagement with the **app was limited**
- Teachers met practical barriers to health conversations

Barker et al. (2026), NIHR Programme Grants for Applied Research; Jenner et al. (2025), *BMJ Public Health* 3(2).

3

Risk and school health and safety

How to think about hazard and risk, who is responsible in school, and how to control risk without removing every challenge.

- Hazard, risk and safety
- Reading a risk claim
- Who is responsible in schools
- Controlling risk, and weighing risks and benefits



Fire drill, Baozhong Junior High School, Taiwan · Wikimedia Commons, CC BY 2.0

Hazard, risk and safety

The **UN Office for Disaster Risk Reduction (UNDRR)** publishes agreed definitions used by governments under the Sendai Framework for Disaster Risk Reduction 2015–2030.

Hazard	A potential source of harm, such as water.
Risk	The chance and consequences of harm in particular circumstances: weather, supervision, swimming ability, help nearby.
Disaster risk	The interaction of a hazard with **exposure, vulnerability and capacity**. Social conditions are part of the explanation.
Safety	Significant risks are managed. It does not mean harm is impossible.

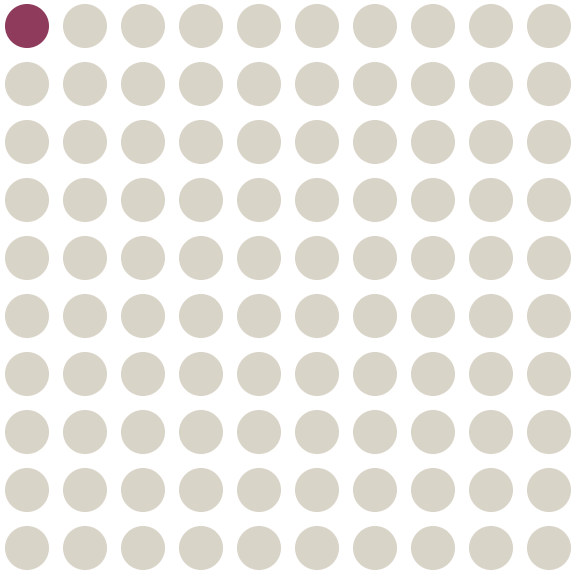
Feeling safe and being safe can differ: vivid news can make rare dangers seem common, and familiar routines can seem safer than they are.

UNDRR (2017), Sendai Framework terminology: disaster risk.

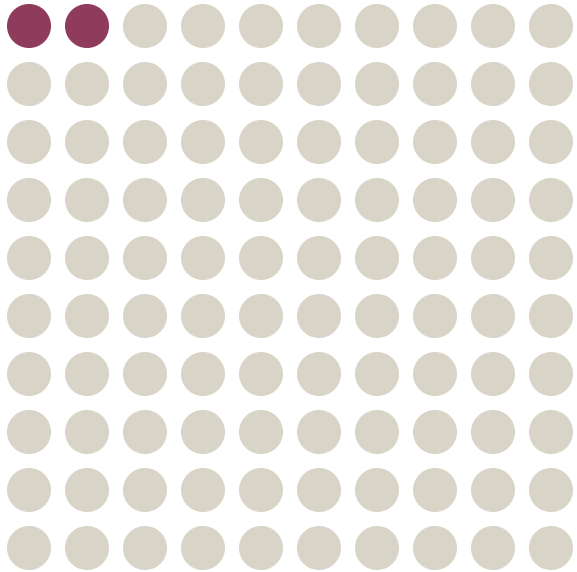
Reading a risk claim: relative and absolute change

Health and safety messages often report a change in risk. The same change can be described in two ways.

Before: 1 in 100



After: 2 in 100



+100%	**Relative change:** "risk doubles"
+1 point	**Absolute change:** one more case in every hundred

Ask of any risk claim: **which population**, **over what period**, and **which outcome**?

Hypothetical example.

Who is responsible for health and safety in schools?

In Great Britain, health and safety law rests on the **Health and Safety at Work etc. Act 1974**, enforced by the Health and Safety Executive (HSE) and local authorities. DfE guidance (2022) explains what this means for schools in England.

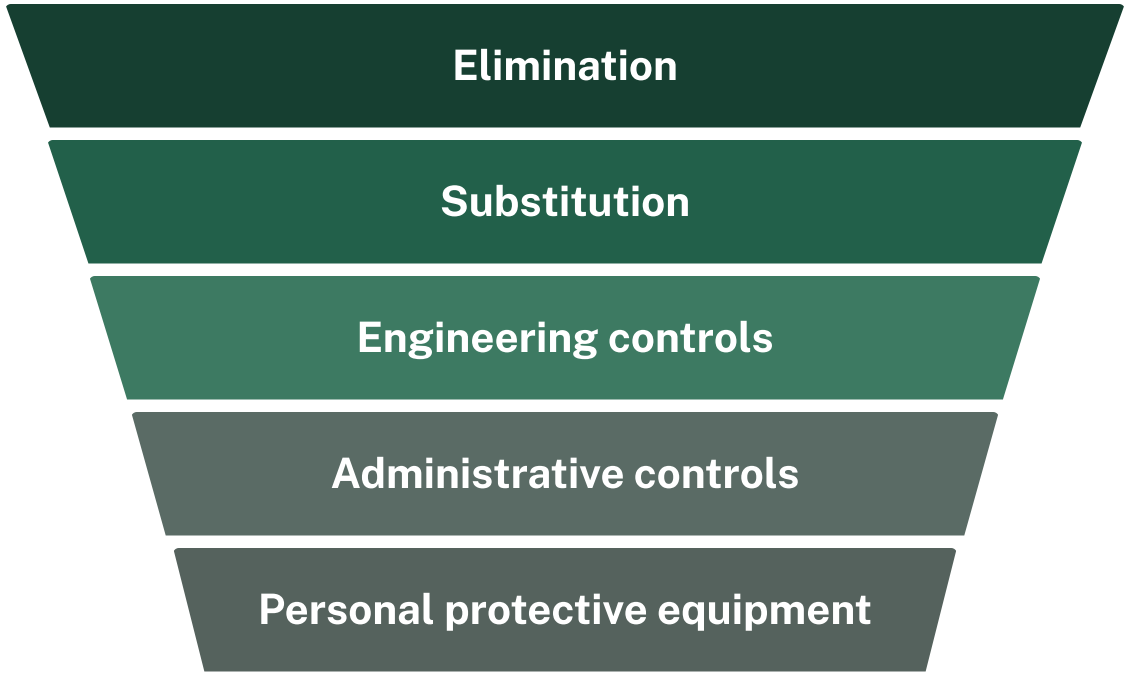
Employer or proprietor	Accountable for health and safety. In independent schools, this is the proprietor.
School leaders	Usually run day-to-day arrangements, with competent advice, policies and staff training.
Risk assessment	Identify hazards, who might be harmed and suitable controls; record significant findings simply; review when things change.
After incidents	Investigate, share lessons and improve arrangements.

Pupils can help spot problems, but knowing a rule cannot make up for unsafe conditions.

DfE (2022), *Health and safety: responsibilities and duties for schools*, sections 1–5, 12–13.

Controlling risk: change the setting before relying on behaviour

The **hierarchy of controls** ranks ways of controlling a risk, from the most reliable at the top to the least reliable at the bottom.



Most reliable at the top

DfE guidance for public health incidents sets out these levels and warns against simply choosing the **easiest** measure.

A reminder to be careful depends on everyone, every time. Reducing exposure through the environment protects everyone.

A school crossing: pupils learn to judge traffic, and their observations of blocked sightlines can go to the authorities who can change the road.

DfE (2022), section 5.

Weighing risks and benefits

The **Health and Safety Executive (HSE)** is Great Britain's regulator for workplace health and safety. In 2012 it worked with the Play Safety Forum on a joint statement tackling misunderstandings about what the law requires for children's play.

“the goal is not to eliminate risk, but to weigh up the risks and benefits”

HSE (2012), joint statement with the Play Safety Forum



Beneficial challenge

- Climbing, exploring, school visits
- Build skills, judgement and independence
- Plan in proportion: transport, supervision, access, specialist advice



Preventable hazard

- Poorly maintained equipment
- Serious risks with no learning benefit
- Should be fixed, not accepted

Adjust activities so pupils with different abilities can take part, rather than excluding them by default.

HSE (2012), *Children's play and leisure: promoting a balanced approach*; DfE (2022).

4

Comprehensive school safety and climate disruption

A global framework for school safety, how countries use it, and climate-related disruption. This builds on Week 6.

- Where the framework came from, and who is behind it
- Its pillars, a video and educational continuity
- What countries are doing with it
- Climate disruption and preparing children



Flooding during torrential rain, Baozhong Junior High School, Taiwan · Wikimedia Commons, CC BY 2.0

Where the school safety framework came from

2013 — **GADRRRES**, a global alliance for school safety, is formed.

2015 — The **Sustainable Development Goals** and the **Sendai Framework for Disaster Risk Reduction** are adopted.

March 2017 — The **Comprehensive School Safety** framework is published with three pillars, supporting the Worldwide Initiative for Safe Schools.

Nov 2020 — A review of the framework begins.

June 2022 — **CSSF 2022–2030** is released, revised for climate change, COVID-19 and conflict.

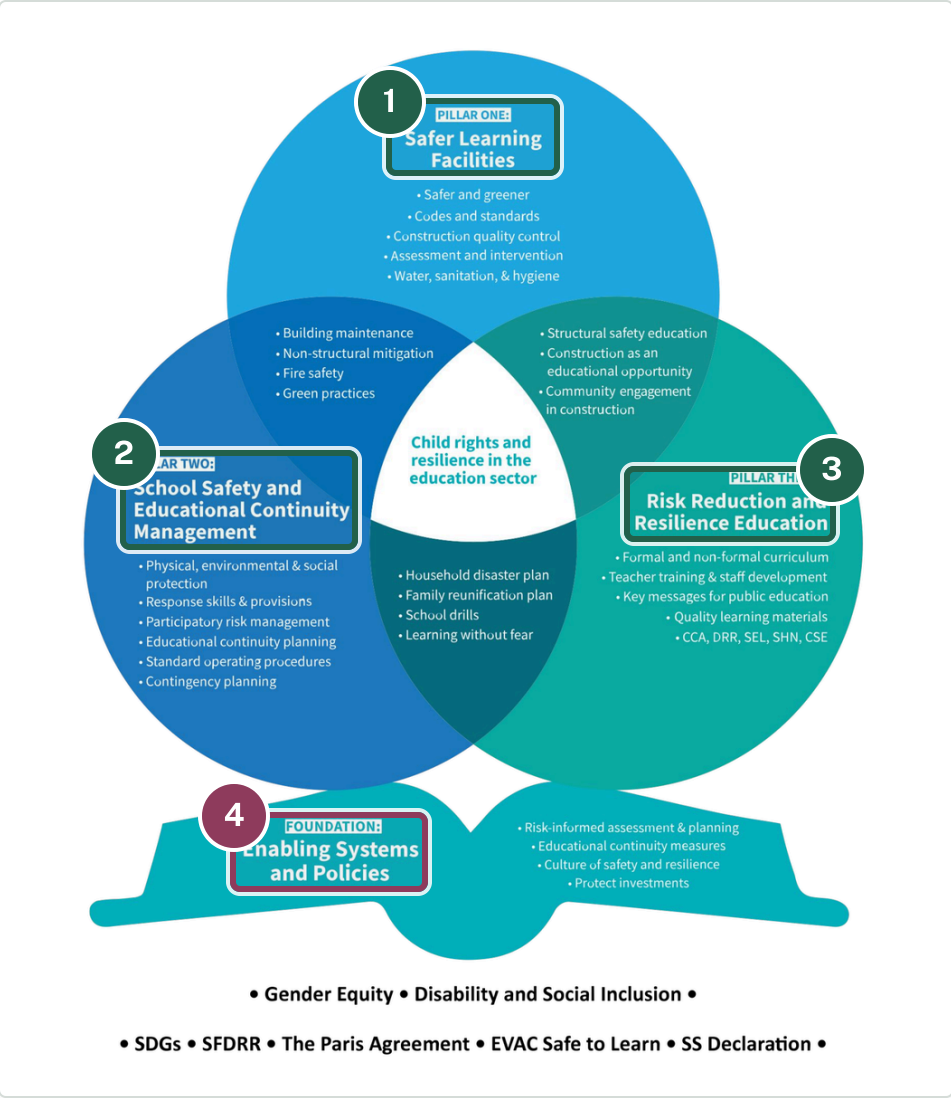
Who is behind it

GADRRRES: the Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector.

- UN agencies (UNESCO is a co-chair), international humanitarian and development NGOs, networks and donors
- Regional affiliates in Asia-Pacific, Latin America and the Caribbean, and West and Central Africa
- Aligned with the SDGs, the Sendai Framework, the Paris Agreement and the Safe Schools Declaration

GADRRRES (2017), *Comprehensive School Safety*, pp. 1–3; GADRRRES (2022), p. 2; gadrrres.net; IFRC Global Disaster Preparedness Center (2025).

The framework: a foundation and three pillars



Aims at "safe, equitable, and continuous access to a quality education for all" across every kind of hazard (GADRRRES, 2022, p. 2).

1. **Safer learning facilities:** sites, buildings, water and sanitation, ventilation, evacuation routes.
2. **School safety and educational continuity management:** risk assessment, preparedness, response, recovery.
3. **Risk reduction and resilience education:** for children, staff and communities.
4. **Foundation:** enabling systems and policies, with responsibilities, coordination and resources.

GADRRRES (2022), *Comprehensive School Safety Framework 2022–2030*, summary document, pp. 1–3.

The framework explained by GADRRRES



https://www.youtube.com/watch?v=kW78UK5UMaY · GADRRRES, *The Comprehensive School Safety Framework* (6 min)

Educational continuity means more than reopening

Can every pupil actually learn?

- Assumptions about internet access, quiet space, language or adult help can exclude families.
- The framework names barriers linked to disability, digital inequality and social exclusion.
- Plans need accessible materials, several communication channels and contact with those the default misses.

Resilience and institutional change

- Capacities to **anticipate, absorb, adapt and transform**.
- Recurring overheating may need changes to buildings and routines, not only advice to pupils.
- Resilience should not mean pupils and teachers putting up with unsafe conditions.

GADRRRES (2022), summary document, pp. 2–3.

What countries are doing with the framework

84 governments have officially endorsed the framework. GADRRRES's 2024 policy survey covered 46 countries, 2 island territories and 21 subnational regions: over 330 million school-aged children.

2024 survey: policy and practice

94%	have continuity policies; about **one-third** enforce or regularly review plans
79%	have plans for climate risks in schools; **21%** carry out climate risk assessments
16%	require teacher training on disaster risk reduction
<35%	include students in risk assessments

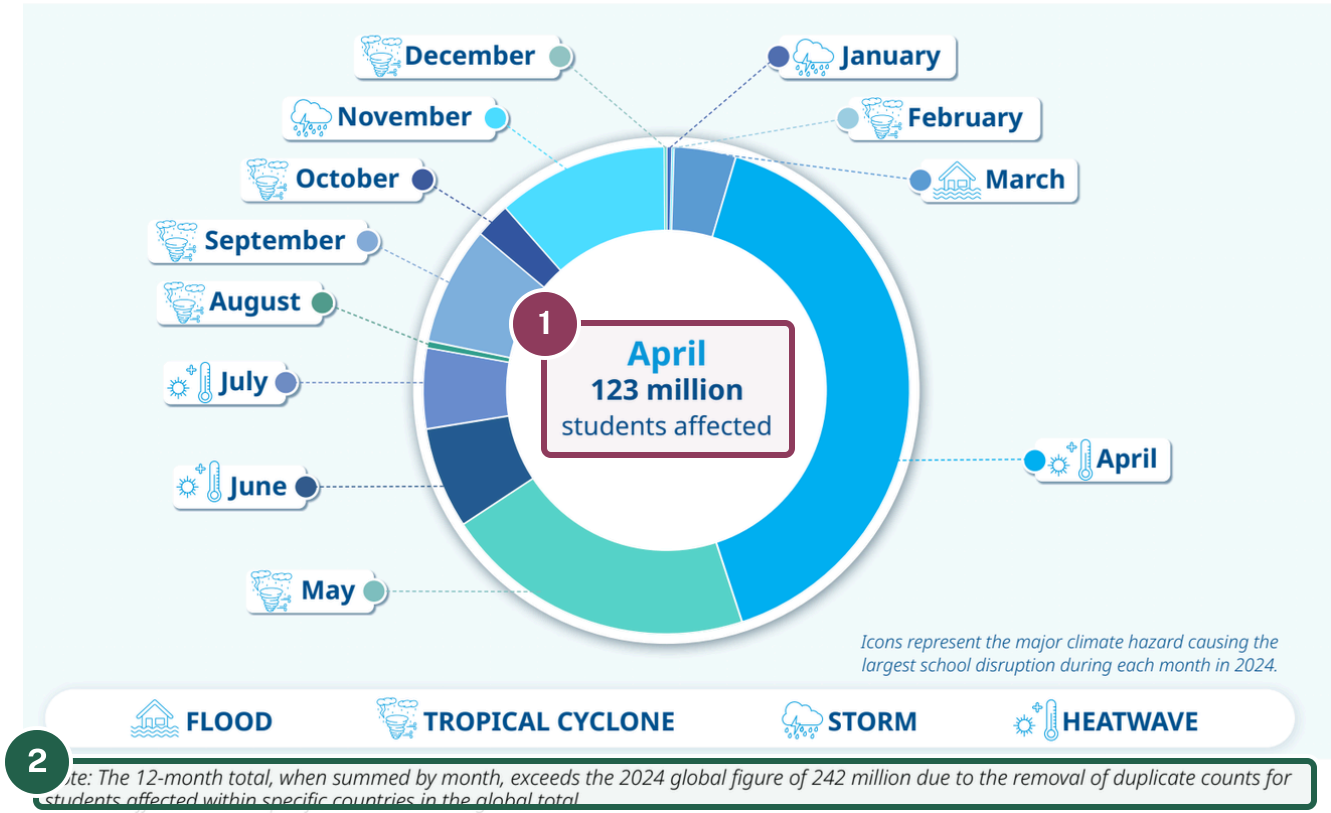
Examples

- **Philippines:** the Children's Emergency Relief and Protection Act (2016); the education department integrates a school safety assessment tool into its national information system.
- **South-East Asia:** an ASEAN Common Framework for Comprehensive School Safety; Indonesia, Myanmar and the Philippines have national school safety frameworks.
- **Nepal:** a GADRRRES case study on disaster-resistant school buildings and regular maintenance in difficult terrain.

GADRRRES (2025), *Global status of school safety: key findings from the 2024 Comprehensive School Safety Policy Survey*; GADRRRES country case studies (Philippines 2023, Nepal 2024); ASEAN Safe Schools Initiative (2018).

Climate-related disruption to schooling in 2024

Figure 1. Number of students affected by climate-related school disruptions in 2024, by month.



UNICEF, the UN children's agency, counted students whose schooling was disrupted by extreme weather. Icons show the main hazard each month.

1. **April** was the largest month: **123 million** students, mostly affected by heatwaves.

2. Monthly totals **cannot be added up**: some students were disrupted more than once. Without duplicates: at least **242 million** students in **85 countries**.

UNICEF (2025), *Learning interrupted: global snapshot of climate-related school disruptions in 2024*, Figure 1, p. 3.

Preparing children for climate-related disasters

Seddighi and colleagues (2020) reviewed research on how children are affected by climate-related disasters and how schools and families prepare them.

How disasters harm children

- **Directly:** injury, illness, psychological effects
- **Indirectly:** disrupted care, separation, insecurity, lost education
- **Unequally:** age, disability, housing, income and support shape exposure and options

"isolated school-based programmes increase disaster knowledge, but behavioural change is not forthcoming"

Seddighi et al. (2020), p. 3. The same gap we saw with LifeLab.

What helps

- Drills that test the school's own arrangements, with debriefing
- Plans that work across languages, senses and mobility
- Confidence without alarm: a clear, achievable response

Seddighi, Yousefzadeh, López López & Sajjadi (2020), *BMJ Paediatrics Open* 4.

How can education contribute?

Capabilities

Health and risk literacy, practical judgement, and knowing how and where to seek help.

Conditions

Food, facilities, safe routes, risk controls and continuity plans that make advice usable.

Shared responsibility

Families, services and authorities act on what pupils notice. Children are not responsible for fixing public failures.

Education contributes most when informed judgement is backed by usable opportunities, institutional care and shared responsibility.

Back to your example

Return to your example from Activity 1.

1. Which part of COM-B did it target: capability, opportunity or motivation?
2. What in your school or community made it easier or harder to act on?
3. What evidence would show that it worked?

Further reading

- Woods-Townsend et al. (2021), *PLOS ONE*, LifeLab trial
- Nutbeam (2025), health literacy 25 years on
- GADRRRES (2022), Comprehensive School Safety Framework, summary
- DfE (2025), RSHE statutory guidance, pp. 20–31