

MANITOBA SCIENCE • GRADES 4–8

FREE

RENEWED CURRICULUM • 2026/27

Old Clusters → New Strands

The Manitoba Renewed Science Crosswalk

Where every old Grade 4–8 cluster went, what is new, what is gone, and how to start the year.

5 GRADE MAPS

EVERY STRAND E CODE

WHAT MOVED • NEW • GONE

FIRST-WEEK TIPS

Milestone Teachers • Dare To Achieve

Free planning aid • not affiliated with Manitoba Education

Share this free guide
with your grade team

milestoneteachers.com/manitoba



How to use this crosswalk

One page per grade. Old cluster on the left, renewed outcome codes on the right.

Editable spreadsheet (opens in Excel or Google Sheets): [free at milestoneteachers.com/manitoba](https://milestoneteachers.com/manitoba)

1 Find your old cluster

Each grade page lists the four clusters you used to teach, with their old outcome numbers (for example 6–4–12).

2 Follow the arrow

The status label and the codes on the right show where that content lives now in Strand E, Scientific Knowledge.

3 Check the two boxes

“New to this grade” and “No longer in this grade” catch what moved in or out. Then read the first-week tip.

STATUS LABELS

STAYS

The core of the old cluster is still taught in this grade; a few details may be gone.

RESHAPED

Part stays in this grade, part moved to another grade or is no longer named.

MOVED OUT

The topic now lives in a different grade.

MOSTLY GONE

Only a small piece survives in a renewed outcome.

Status labels and the short big-idea names on each grade page are our judgement; the codes and groupings are Manitoba's.

READING A RENEWED CODE

SCI.6.E.10

subject grade strand outcome

This is the format of the official Learning Outcome Key on each renewed grade page. Strand E outcomes are organised by big ideas, not units, and Manitoba invites teachers to regroup and reorder them, so the groupings on the grade pages are a starting point, not a rule.

THE FIVE STRANDS AND HOW MANY OUTCOMES EACH GRADE HAS

	Grade	A	B	C	D	E	Total
A Indigenous Knowledge Systems							
B Science Identity	4	1	1	5	7	15	29
C Practical Science	5	1	1	5	7	17	31
D Nature of Science	6	1	1	5	7	17	31
E Scientific Knowledge	7	1	1	5	8	23	38
	8	1	1	5	8	23	38

WHY THE MAPS USE STRAND E

Strands A to D run through the whole year rather than one unit, so the topics you used to teach as clusters now live in Strand E. Each grade page still names that grade's A to D codes so you can weave them in. Everything here is our reading of the official pages, offered as a planning aid; the official framework always wins.

THIS YEAR ONLY: REPEATS AND GAPS (OUR INFERENCE)

Manitoba posted the renewed documents for voluntary implementation last school year, so most classes arriving this year learned under the old clusters. Where a topic moved to a later grade they may meet it twice; where it moved to an earlier grade they may miss it. Each grade page names the likely cases in its first-week box.

Where the topics went

Thirteen topics that changed grade when the clusters became strands.

8

STAYS

old clusters

8

RESHAPED

old clusters

2

MOVED OUT

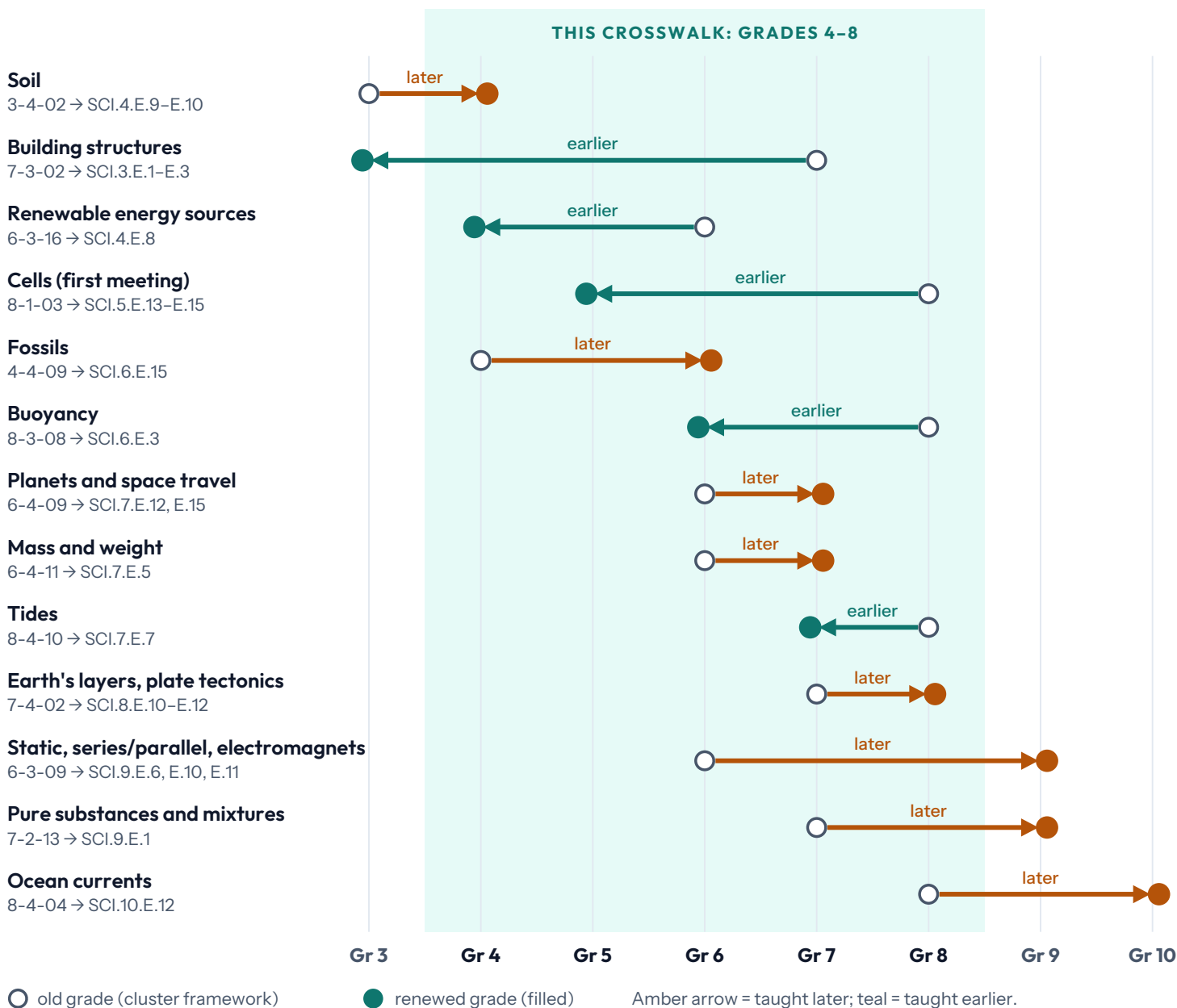
old clusters

2

MOSTLY GONE

old clusters

Of the 20 old Grade 4–8 clusters: 8 STAYS, 8 RESHAPED, 2 MOVED OUT, 2 MOSTLY GONE.



WHY NOW

Manitoba Education's Framework for Learning (update of 14 September 2026) says the renewed K to 10 science curriculum is "finalized and posted for full implementation in the 2026/27 school year."

GRADE 4

29 outcomes

Strand E: 15 · Strands A–D: 14

Light and sound E.1–E.5

Energy E.6–E.8

Soil and rocks E.9–E.12

Living things E.13–E.15

Strand E big ideas: official groupings, our short names. All year: SCI.4.A,1, B.1, C.1–C.5, D.1–D.7.

OLD CLUSTER

STATUS
(our judgement)

RENEWED (2026/27): WHERE IT LIVES NOW

CLUSTER 1 4-1-01 to 4-1-17
Habitats and Communities

STAYS

SCI.4.E.13–E.15

Adaptations, food chains and webs, and how plants and animals depend on each other all stay in Grade 4.

CLUSTER 2 4-2-01 to 4-2-16
Light

STAYS

SCI.4.E.1, E.2, E.4, E.5

Light is now taught beside sound as energy that travels out from a source and reaches the eye.

CLUSTER 3 4-3-01 to 4-3-18
Sound

STAYS

SCI.4.E.1–E.3

Vibrations, the ear, pitch and loudness are still here, framed as energy moving to the ear.

CLUSTER 4 4-4-01 to 4-4-15
Rocks, Minerals, and Erosion

RESHAPED

SCI.4.E.11–E.12

The three rock types and weathering and erosion stay. Fossils leave for Grade 6.

NEW TO GRADE 4

Energy SCI.4.E.6–E.8

Energy moving from a source to make things happen, sensing energy, and renewable versus non-renewable sources (that last idea was old Grade 6, 6-3-16).

Soil SCI.4.E.9–E.10

Kinds of soil and what makes soil fertile. Soil used to be old Grade 3, Cluster 4 (3-4-01 to 3-4-12).

NO LONGER IN GRADE 4

Fossils

4-4-09, 4-4-10 → Now Grade 6: SCI.6.E.15

White light split into colours

4-2-04 → Grade 8 names the solar spectrum: SCI.8.E.8

Mineral scratch and streak tests

4-4-03 → Not named in Grades 4–8 Strand E

Predicting shadows

4-2-12 → Not named in Grades 4–8 Strand E

FIRST WEEK BACK

Run an energy hunt on day one: students list things in the room that give off light or sound and say what that energy does when it reaches them. It opens E.1 and E.6 with no kit. Then check what last year's class learned about soil: under the old framework soil was Grade 3, so a two-minute soil sort shows who already knows sand, silt and clay before you start E.9.

THIS YEAR'S CLASS (our inference): likely REPEAT: soil (met in old Grade 3, 3-4-02; again now in SCI.4.E.9).

GRADE 5

31 outcomes

Strand E: 17 · Strands A–D: 14

Matter E.1–E.4

Forces and machines E.5–E.8

Weather and climate E.9–E.12

Cells and the body E.13–E.17

Strand E big ideas: official groupings, our-short names. All year: SCI.5.A.1, B.1, C.1–C.5, D.1–D.7.

OLD CLUSTER

STATUS
(our judgement)

RENEWED (2026/27): WHERE IT LIVES NOW

CLUSTER 1 5-1-01 to 5-1-15

Maintaining a Healthy Body

RESHAPED

SCI.5.E.16–E.17

Body systems working as a team stay. Nutrition, food labels and lifestyle outcomes are not named; cells now come first.

CLUSTER 2 5-2-01 to 5-2-14

Properties of and Changes in Substances

STAYS

SCI.5.E.1–E.4

States of matter, physical versus chemical change and conservation of mass all stay in Grade 5.

CLUSTER 3 5-3-01 to 5-3-14

Forces and Simple Machines

STAYS

SCI.5.E.5–E.8

Pushes and pulls and the six simple machines stay. Friction now has two outcomes of its own.

CLUSTER 4 5-4-01 to 5-4-18

Weather

STAYS

SCI.5.E.9–E.12

Daily weather, the water cycle, forecasting and climate stay, with climate change named outright.

NEW TO GRADE 5

Cells SCI.5.E.13–E.15

Cells as the unit of life, what a cell needs, and why cells divide. Old Manitoba science first taught cell theory in Grade 8 (8-1-03).

NO LONGER IN GRADE 5

Nutrients, food labels, Canada's Food Guide

5-1-02 to 5-1-04 → Not named in Grades 4–8 Strand E

Media, body image and lifestyle

5-1-14, 5-1-15 → Not named in Grades 4–8 Strand E

Gear systems

5-3-05, 5-3-07 → Not in the SCI.5.E.7 machine list

Naming cloud types

5-4-15 → Not named in Grades 4–8 Strand E

FIRST WEEK BACK

Cells are the big arrival (E.13 to E.15). Open with a quick-write, “What is every living thing made of?”, to see what students bring, and teach body systems (E.16, E.17) after cells so organs read as teams of cells. Reuse relevant matter, machines and weather materials after checking them against the renewed outcomes and compulsory content.

THIS YEAR'S CLASS (our inference): likely GAP: renewable vs non-renewable energy (old Grade 6, 6-3-16, is now Grade 4, SCI.4.E.8, which this class has passed).

GRADE 6

31 outcomes

Strand E: 17 · Strands A–D: 14

Force E.1–E.3

Energy E.4–E.7

Space E.8–E.11

Genetics E.12–E.13

Evolution E.14–E.17

Strand E big ideas: official groupings, our short names. All year: SCI.6.A.1, B.1, C.1–C.5, D.1–D.7.

OLD CLUSTER

STATUS
(our judgement)

RENEWED (2026/27): WHERE IT LIVES NOW

CLUSTER 1 6-1-01 to 6-1-15

Diversity of Living Things

RESHAPED

SCI.6.E.14, E.15

Classifying living things with keys stays, and fossil evidence grows into its own outcome. The five-kingdom tour is gone.

CLUSTER 2 6-2-01 to 6-2-15

Flight

MOSTLY GONE

SCI.6.E.2

Lift survives only as one example of a force that pushes back against gravity.

CLUSTER 3 6-3-01 to 6-3-19

Electricity

RESHAPED

SCI.6.E.5–E.7

Battery circuits now carry an energy story, and electrical safety stays. Static, series and parallel and electromagnets go to Grade 9.

CLUSTER 4 6-4-01 to 6-4-17

The Solar System

RESHAPED

SCI.6.E.8–E.11

Earth, Moon and Sun stay: day length, months and years, tilt and seasons, Moon phases. Planets and space travel move to Grade 7.

NEW OR REFRAMED IN GRADE 6

Gravity (reframed) and buoyancy **SCI.6.E.1, E.3**

Gravity and lift were already taught in old Grade 6 (6-2-04; also 6-4-11). SCI.6.E.1 specifies the pull toward Earth's centre. SCI.6.E.3 expands buoyancy; the buoyant force was old Grade 8 (8-3-08).

Stored energy **SCI.6.E.4**

Energy that objects hold and can release.

Heredity and species **SCI.6.E.12–E.13, E.16–E.17**

Traits passed from parents, nature versus nurture, what makes a species (including hybrids), and why offspring vary.

NO LONGER IN GRADE 6

Bernoulli, thrust and drag

6-2-06, 6-2-07, 6-2-09, 6-2-11 → Not named in Grades 4–8 Strand E

Static, series and parallel, electromagnets

6-3-02, 6-3-09, 6-3-12 → Grade 9: SCI.9.E.6, E.10, E.11

Renewable vs non-renewable energy

6-3-16 → Grade 4: SCI.4.E.8

Planets, space travel, mass and weight

6-4-09, 6-4-02, 6-4-11 → Grade 7: SCI.7.E.12, E.15, E.5

Five kingdoms, vertebrate classes

6-1-06, 6-1-12 → Not named in Grades 4–8 Strand E

FIRST WEEK BACK

Keep your old kits: a ramp, a tub of water and a few balloons cover gravity, opposing forces and buoyancy (E.1 to E.3), and battery-and-bulb sets still serve E.6. Retire the Bernoulli wing lab and the planet report at this grade; planets now belong to Grade 7.

THIS YEAR'S CLASS (our inference): likely REPEAT: fossils (met in old Grade 4, 4-4-09; again now in SCI.6.E.15); likely GAP: renewable vs non-renewable energy (old Grade 6, 6-3-16, is now Grade 4, SCI.4.E.8, which this class has passed).

Ready-made units for every Grade 6 Strand E outcome: page 10.

GRADE 7

38 outcomes

Strand E: 23 · Strands A–D: 15

Matter E.1–E.3

Gravity E.4–E.7

Heat and energy E.8–E.11

Space E.12–E.16

Ecosystems E.17–E.23

Strand E big ideas: official groupings, our short names. All year: SCI.7.A.1, B.1, C.1–C.5, D.1–D.8.

OLD CLUSTER

STATUS
(our judgement)

RENEWED (2026/27): WHERE IT LIVES NOW

CLUSTER 1 7-1-01 to 7-1-15

Interactions Within Ecosystems

STAYS

SCI.7.E.17–E.23

Ecosystems, photosynthesis, energy pyramids and the roles of producers, consumers and decomposers all stay.

CLUSTER 2 7-2-01 to 7-2-23

Particle Theory of Matter

RESHAPED

SCI.7.E.1–E.3, E.8–E.11

Particle theory, melting and boiling points and heat transfer stay. Solutions and solubility are no longer in Grade 7.

CLUSTER 3 7-3-01 to 7-3-12

Forces and Structures

MOVED OUT

Grade 3: SCI.3.E.1–E.3

Building structures now sits in Grade 3. Grade 7 forces are about gravity instead.

CLUSTER 4 7-4-01 to 7-4-15

Earth's Crust

MOVED OUT

Grade 8: SCI.8.E.10–E.12

Grade 4: SCI.4.E.11–E.12

Earth's layers and plate tectonics go to Grade 8; rock types and erosion sit in Grade 4.

NEW TO GRADE 7

Gravity SCI.7.E.4–E.7

Gravity as a universal pull, weight in newtons, orbits and tides (mass and weight were old Grade 6, 6-4-11; tides were old Grade 8, 8-4-10).

The Solar System and space SCI.7.E.12–E.16

Scale of the Solar System, sky motions, space exploration, and latitude and longitude. Most of this was old Grade 6, Cluster 4.

NO LONGER IN GRADE 7

Solutions, solutes, solubility, concentration

7-2-14, 7-2-16, 7-2-17, 7-2-20 to 7-2-22 → Not named in Grades 4–8 Strand E

Mixtures and separating them

7-2-18, 7-2-13 → Grade 5: SCI.5.E.3; Grade 9: SCI.9.E.1

Compression, shear and torsion

7-3-04 → Not named in Grades 4–8 Strand E

Succession and bioaccumulation

7-1-04, 7-1-11 → Not named in Grades 4–8 Strand E

Beneficial and harmful roles of micro-organisms

7-1-14 → The explicit roles outcome is no longer named in Grade 7 Strand E; microbes remain compulsory in fertile soil at SCI.4.E.10.

FIRST WEEK BACK

Grade 7 now owns the Solar System (E.12 to E.16), which used to be Grade 6. Some of your class may have met planets under the old Grade 6 and some only the renewed Earth, Moon and Sun outcomes, so start with a quick planet-order and scale check before you plan. Offer your structures kits to the Grade 3 team.

THIS YEAR'S CLASS (our inference): likely REPEAT: planets (met in old Grade 6, 6-4-09; again now in SCI.7.E.12).

GRADE 8

38 outcomes

Strand E: 23 • Strands A–D: 15

Matter and water E.1–E.6

Solar radiation E.7

Spectrum E.8–E.9

Earth systems E.10–E.17

Cells E.18–E.23

Strand E big ideas: official groupings, our short names. All year: SCI.8.A.1, B.1, C.1–C.5, D.1–D.8.

OLD CLUSTER

STATUS
(our judgement)

RENEWED (2026/27): WHERE IT LIVES NOW

CLUSTER 1 8-1-01 to 8-1-19

Cells and Systems

STAYS

SCI.8.E.18–E.23

Cell theory, organelles, levels of organisation, diffusion and osmosis and the circulatory system stay.

CLUSTER 2 8-2-01 to 8-2-14

Optics

MOSTLY GONE

SCI.8.E.7–E.9

The electromagnetic spectrum survives. Mirrors, lenses, refraction and colour mixing are not named.

CLUSTER 3 8-3-01 to 8-3-14

Fluids

RESHAPED

SCI.8.E.1–E.4

Density, viscosity and pressure with temperature stay. Buoyancy moves to Grade 6; hydraulics are not named.

CLUSTER 4 8-4-01 to 8-4-19

Water Systems

RESHAPED

SCI.8.E.6, E.14

Water's special properties and water shaping the land (erosion, flooding, watersheds) stay; other parts move.

NEW TO GRADE 8

Earth's interior SCI.8.E.10–E.12

Earth's layers, its internal heat and plate tectonics (old Grade 7, Earth's Crust).

Earth's energy budget SCI.8.E.13, E.15–E.17

Solar heating, energy balance, photosynthesis powered by sunlight, and the greenhouse effect.

Particle attractions SCI.8.E.5

Why some substances need more energy to heat up or change state.

NO LONGER IN GRADE 8

Reflection laws, lenses, colour theory

8-2-04 to 8-2-06, 8-2-09 to 8-2-14 → Not named in Grades 4–8 Strand E

Body defences and disease

8-1-16 to 8-1-18 → Not named in Grades 4–8 Strand E

Hydraulic and pneumatic systems

8-3-11 to 8-3-14 → Not named in Grades 4–8 Strand E

Buoyant force

8-3-08 → Grade 6: SCI.6.E.3

Water cycle, tides, ocean currents

8-4-06, 8-4-10, 8-4-04 → SCI.5.E.10, SCI.7.E.7, SCI.10.E.12

Drinking water and treatment

8-4-14, 8-4-15 → Not named in Grades 4–8 Strand E

FIRST WEEK BACK

Earth's layers and plate tectonics (E.10 to E.12) used to be old Grade 7, so most of this year's Grade 8s probably met them last year. A two-minute layer sketch tells you how fast you can move; from 2027/28, classes arrive from renewed Grade 7 without them. Save your time for the greenhouse effect (E.17), which is new at this grade.

THIS YEAR'S CLASS (our inference): likely REPEAT: Earth's layers (met in old Grade 7, 7-4-02; again now in SCI.8.E.10); likely GAP: tides (old Grade 8, 8-4-10, is now Grade 7, SCI.7.E.7, which this class has passed).

Re-plan your year: old units → renewed strands

List each unit you taught under the old clusters, then use your grade page to fill the other three columns.

MY OLD UNIT	RENEWED CODES IT NOW COVERS	GAPS TO ADD	MOVE OR DROP
WORKED EXAMPLE · GRADE 6			
Flight (old Cluster 2, 6-2-01 to 6-2-15)	SCI.6.E.2: lift, as one force that pushes back against gravity	SCI.6.E.1 gravity toward Earth's centre; SCI.6.E.3 buoyancy	Drop the Bernoulli, thrust and drag labs; keep one glider launch as a lift example

Tip: the “New to Grade” box on your grade page fills the gaps column; “No longer in Grade” fills move or drop.

Your next steps: teach it tomorrow

Manitoba renewed science for Grades 5, 6 and 7. Click any address, or type it into your browser.

GRADE 5 • 4 UNITS • 40 LESSONS

Full-year bundle: milestoneteachers.com/store/products/17946175



Forces & Simple Machines

SCI.5.E.5 to E.8 • 10 lessons

milestoneteachers.com/store/products/17944334



Matter & Its Changes

SCI.5.E.1 to E.4 • 10 lessons

milestoneteachers.com/store/products/17944358



Weather & Climate

SCI.5.E.9 to E.12 • 10 lessons

milestoneteachers.com/store/products/17945422



Cells & Body Systems

SCI.5.E.13 to E.17 • 10 lessons

milestoneteachers.com/store/products/17946114



FREE: Year Plan + Air Pressure Lesson

Grade 5 free sampler • year plan + one lesson

milestoneteachers.com/store/products/17946299



Grade 5 Science Long Range Plan

September to June • all 31 renewed outcomes

milestoneteachers.com/store/products/17628476

GRADE 6 • 3 UNITS • 28 LESSONS

Full-year bundle: milestoneteachers.com/store/products/17784457



Earth, Moon & Sun

SCI.6.E.8 to E.11 • 8 lessons

milestoneteachers.com/store/products/17783868



Forces & Energy

SCI.6.E.1 to E.7 • 10 lessons

milestoneteachers.com/store/products/17784268



Heredity, Diversity & Fossils

SCI.6.E.12 to E.17 • 10 lessons

milestoneteachers.com/store/products/17784383



FREE: Year Plan + Seasons Lesson

Grade 6 free sampler • year plan + one lesson

milestoneteachers.com/store/products/17785772

GRADE 7 • 3 UNITS • 30 LESSONS

Full-year bundle: milestoneteachers.com/store/products/17946167



Particles & Heat

SCI.7.E.1 to E.3, E.8 to E.11 • 10 lessons

milestoneteachers.com/store/products/17944117



Gravity & Space

SCI.7.E.4 to E.7, E.12 to E.16 • 10 lessons

milestoneteachers.com/store/products/17945182



Ecosystems

SCI.7.E.17 to E.23 • 10 lessons

milestoneteachers.com/store/products/17945936



FREE: Year Plan + Tides Lesson

Grade 7 free sampler • year plan + one lesson

milestoneteachers.com/store/products/17946213

FREE ONLINE • NO LOGIN

Manitoba Report Card Studio, Grades 1–8

Pick each rating yourself, then write comments from a checked bank.
Names stay on your computer.

milestoneteachers.com/report-card-studio/manitoba



Share this
free guide
with your
grade team

[Open the hub →](#)

Sources, licence and honest limits

OPENED OFFICIAL SOURCES (READ 13 OCTOBER 2026)

Renewed curriculum: Framework for Learning, English Program, Science (one page per grade, Grades 4 to 8)

edu.gov.mb.ca/k12/framework/english/science/science_gr4.html

edu.gov.mb.ca/k12/framework/english/science/science_gr5.html

edu.gov.mb.ca/k12/framework/english/science/science_gr6.html

edu.gov.mb.ca/k12/framework/english/science/science_gr7.html

edu.gov.mb.ca/k12/framework/english/science/science_gr8.html

Implementation status: Framework for Learning home page, Curriculum Updates 2026/27

edu.gov.mb.ca/k12/framework/index.html

Old clusters: Kindergarten to Grade 4 Science: A Foundation for Implementation (archived)

edu.gov.mb.ca/k12/cur/science/found/kto4/index.html

Old clusters: Grades 5 to 8 Science: A Foundation for Implementation (archived)

edu.gov.mb.ca/k12/cur/science/found/5to8/index.html

Grades 3, 9 and 10 codes appear only where a topic moved there; they come from the same renewed pages for those grades.

LICENCE AND ATTRIBUTION

Contains information from the Government of Manitoba, licensed under the OpenMB Information and Data Use License (Manitoba.ca/OpenMB).

[OpenMB Information and Data Use Licence \(PDF\)](#)

HONEST LIMITS

- Milestone Teachers is not affiliated with Manitoba Education and Early Childhood Learning, and this crosswalk is not reviewed or endorsed by the department. Check the official framework before you plan.
- Every mapping is our reading of the official pages: a planning aid, not an official correspondence table. The outcome codes are Manitoba's; every summary and label is ours.
- “Not named” means no renewed Grade 4 to 8 Strand E outcome names that topic. You may still teach it as an example or through Strand C, and other grades may use it.
- English Program only. It does not cover the Français or French Immersion programs, Kindergarten to Grade 3, or Grades 9 and 10 beyond the moved topics shown.
- Old cluster titles and outcome numbers come from the archived 'A Foundation for Implementation' documents; your division may have used local variations.

Milestone Teachers · Dare To Achieve

Used by educators in Canada and the United States. Free to share with colleagues: please pass on the whole PDF.