



The Muscular System

A 4-Week Unit Plan for Workout Producer

DURATION

4

Weeks

YEAR
LEVEL

7 - 10

FOCUS

**10 Muscle
Groups**

BUILT BY **CONNECTEDPE**

Unit Overview

Explore the major muscle groups through exercise, anatomy activities, and workout video creation.

DURATION

4 Weeks

LESSONS / WEEK

2 – 3

YEAR LEVEL

7 – 10

APP

Workout Producer

Unit Rationale

Understanding how muscles work is fundamental to physical education and lifelong fitness. In this unit, students go beyond textbook diagrams — they **feel** which muscles are activated during exercise, **identify** muscle groups using the app's built-in tagging system, and **prove** their anatomical knowledge through hands-on workout creation.

By combining practical movement with anatomy exploration and digital workout design, students build a deep, embodied understanding of the muscular system they can apply to training, sport, and everyday life.

Major Muscle Groups Covered

Chest

Back

Shoulders

Biceps

Triceps

Quads

Hamstrings

Glutes

Calves

Core

Learning Outcomes

By the end of this unit, students will be able to:

- ✓ Name and locate the 10 major muscle groups on a body diagram
- ✓ Identify which muscles are activated during specific exercises
- ✓ Distinguish between upper body, lower body, and core muscle groups
- ✓ Design targeted workouts for specific body regions using Workout Producer
- ✓ Demonstrate correct exercise technique while articulating which muscles are working
- ✓ Create and export a polished full-body workout video with accurate muscle identification

APP INTEGRATION

Students use **Creator Mode** during Weeks 1–3 to explore muscle group tags displayed alongside each exercise. In Week 4, they switch to **Assessment Mode** where they must identify muscles independently — the app scores their answers in real time.



Scope & Sequence

A week-by-week overview progressing from muscle identification to full-body workout design and assessment.

WEEK	THEME	KEY ACTIVITIES	APP MODE & CONNECTED LEARNING
1	Meet Your Muscles <i>Introduction</i>	Introduce 10 muscle groups; body mapping diagram; explore muscle tags; build first workout	Creator Mode — observe muscle labels · Off-app : body mapping worksheet
2	Upper Body Focus <i>Chest, Back, Shoulders, Arms</i>	Upper body exercises with muscle ID; partner activity; build upper body workout	Creator Mode — explore upper body tags · Off-app : anatomy crossword
3	Lower Body & Core <i>Quads, Hams, Glutes, Core</i>	Lower body stations; core deep dive; build lower body + core workout	Creator Mode — compare lower body tags · Off-app : muscle mapping diagram
4	Full Body Challenge <i>Assessment & Video</i>	Full-body workout covering ALL muscles; Assessment Mode; export video; annotated reflection	Assessment Mode — identify muscles independently · Off-app : workout annotation



Assessment Progression

Weeks 1–3: Formative — students explore with Creator Mode (muscle info displayed automatically) plus off-app anatomy activities.

Week 4: Summative — students complete Assessment Mode independently; app scores their muscle identification. Final video is exported and annotated.

Equipment & Resources

Technology

- iPads/iPhones with Workout Producer (1 per pair min.)
- Tripod or tablet stand; headphones (optional)

Physical & Print

- Open gym/hall space; yoga mats; light dumbbells or bands
- Body outline diagrams, crossword worksheets, coloured markers



1

Meet Your Muscles

Introduction to Major Muscle Groups · Body Mapping · First Workout Build

LEARNING INTENTIONS

- Name and locate the 10 major muscle groups on the human body
- Identify which muscles are highlighted during exercises in Workout Producer
- Build a simple workout in Creator Mode, paying attention to muscle group tags

LESSON SEQUENCE (3 LESSONS)

Lesson 1 – The Muscle Map

- Whole-class brainstorm: "How many muscles can you name?" – introduce the 10 target muscle groups with everyday examples (climbing stairs = quads & glutes; carrying bags = biceps & shoulders)
- Teacher performs 5 exercises live – students guess which muscles are working

CONNECTED ACTIVITY – BODY MAPPING

Students label all 10 muscle groups on a blank body outline (front & back). Colour-code by region: **blue = upper**, **green = lower**, **orange = core**. Display finished maps on the wall.

Lesson 2 – Muscles in Motion

- Practical circuit: 10 stations, each targeting a different muscle group (30s per station) – students write which muscle they think is working at each
- Debrief: compare guesses to correct answers. Key concept: many exercises target *multiple* muscles – introduce primary vs secondary muscles


Lesson 3 – First App Workout

- Open Workout Producer → explore the exercise library and muscle group tags
- In pairs, build a 4–6 exercise workout in **Creator Mode** targeting at least 3 different muscle groups. Review the app's muscle tags – do they match the body map?


APP TIP


In Creator Mode, muscle group tags appear under each exercise. Have students **compare the app's labels to their own body maps** to connect anatomical knowledge with practical movement.

SUGGESTED EXERCISES

 Push Ups (Chest)

 Squats (Quads)

 Bicep Curls (Biceps)

 Plank (Core)

 Lunges (Glutes)

 Calf Raises (Calves)



2

Upper Body Focus

Chest · Back · Shoulders · Biceps · Triceps

LEARNING INTENTIONS

- Locate and describe the function of each upper body muscle group
- Identify which upper body muscles are activated during specific exercises
- Design and record an upper body workout in Creator Mode

LESSON SEQUENCE (3 LESSONS)

Lesson 1 — Upper Body Deep Dive

- Key concepts: **pushing muscles** (chest, shoulders, triceps) vs **pulling muscles** (back, biceps) — students perform push/pull exercise pairs back-to-back to feel the difference
- Discussion: why do we need both pushing and pulling exercises in a balanced workout?

Lesson 2 — Partner Muscle ID

- Student A performs an upper body exercise → Student B must **identify the primary muscle** being used. Challenge round: also identify the secondary muscle. Record on score sheet (aim for 8/10)
- Class debrief: which muscles were hardest to identify? (often back muscles — they're hidden!)



CONNECTED ACTIVITY — ANATOMY CROSSWORD

Students complete a crossword or matching worksheet linking muscle names to location and function. Example clues: "This muscle on the front of your upper arm bends your elbow" (Biceps). Set as homework or warm-up activity.

Lesson 3 — Upper Body Workout Build

- Design an upper body workout in **Creator Mode** — must target all 5 upper body muscles (min. 5 exercises). Record each with proper form
- Students write a brief justification for each exercise: name the target muscle and explain why they chose it



TEACHING TIP

The partner muscle ID activity is a powerful formative assessment. Common misconceptions: confusing biceps/triceps, or thinking push-ups only work chest (they also hit triceps and shoulders). Use these moments to clarify.

SUGGESTED EXERCISES

● Push Ups (Chest, Triceps)

● Shoulder Press (Shoulders)

● Tricep Dips (Triceps)

● Bicep Curls (Biceps)

● Superman Hold (Back)

● Diamond Push Ups (Triceps)



3

Lower Body & Core

Quads · Hamstrings · Glutes · Calves · Hip Flexors · Core (Rectus Abdominis & Obliques)

LEARNING INTENTIONS

- Locate and describe the function of each lower body and core muscle group
- Explain the role of the core (rectus abdominis, obliques) in stability and movement
- Design and record a lower body + core workout in Creator Mode

LESSON SEQUENCE (3 LESSONS)

Lesson 1 — Lower Body Stations

- 6 stations targeting specific muscles: Squats (Quads/Glutes) · Glute Bridges (Hamstrings) · Calf Raises (Calves) · Lunges (Hip Flexors) · Crunches (Rectus Abdominis) · Side Plank (Obliques)
- Students rotate through all stations (40s work / 20s transition), placing a hand on the muscle they think is working. Debrief: introduce **hip flexors** as a commonly overlooked muscle group

Lesson 2 — Core Deep Dive

- "Your core is more than abs" — compare standard crunch (rectus abdominis) vs bicycle crunch (obliques) vs plank (full core stabilisation). Students identify where they feel each muscle working
- Link to sport: how does core strength help in every physical activity? (balance, posture, power transfer)



CONNECTED ACTIVITY — EXERCISE-TO-MUSCLE MAP

Given a list of 10 exercises, students draw arrows connecting each to its target muscles on a body diagram. E.g., "Squat → Quads, Glutes, Hamstrings" or "Bicycle Crunch → Obliques, Rectus Abdominis."

Lesson 3 — Lower Body + Core Workout Build

- Design a lower body + core workout in **Creator Mode** (min. 6 exercises) — must include: 2 quad/glute exercises, 1 hamstring, 1 calf, and 2 core exercises (one rectus abdominis, one obliques)
- Compare this workout's Workout Analysis to their Week 2 upper body workout — which muscles are covered? Which are missing?



APP TIP

Have students review the **Workout Analysis** summary for both their Week 2 (upper) and Week 3 (lower) workouts — visually comparing muscle coverage across the two builds the case for full-body workout design in Week 4.

SUGGESTED EXERCISES



Squats (Quads, Glutes)



Glute Bridges (Hamstrings)



Calf Raises (Calves)



Crunches (Rectus Abdominis)



Bicycle Crunches (Obliques)



Plank (Full Core)



4

Full Body Challenge & Assessment

Integrated Workout Design · Assessment Mode · Final Polished Video

LEARNING INTENTIONS

- Design a full-body workout that targets ALL major muscle groups
- Independently identify muscle groups in Assessment Mode
- Export a polished workout video and annotate it with muscle group analysis

LESSON SEQUENCE (3 LESSONS)

Lesson 1 — Revision & Full Body Design

- Quick-fire revision: flash an exercise → students write the primary muscle(s) within 10 seconds. Review the full muscle checklist: Quads, Hamstrings, Glutes, Calves, Chest, Back, Shoulders, Biceps, Triceps, Core
- **Design challenge:** plan a full-body workout on paper covering ALL 10 muscle groups, then build in Creator Mode. Use Workout Analysis to verify coverage

Lesson 2 — Assessment Mode Recording **SUMMATIVE**

- Students rebuild their workout in **Assessment Mode** — the app hides all muscle tags. After recording each exercise, students must select the correct muscles themselves. App scores instantly
- Minimum requirements: 6+ exercises, all 10 major muscle groups targeted. Teacher screenshots each student's assessment scores

Lesson 3 — Export, Annotate & Showcase

- Export final video (landscape/portrait/square) with background music. Review the Workout Analysis overlay on the exported video

CONNECTED ACTIVITY — WORKOUT ANNOTATION

Using their Workout Analysis screenshot, students annotate each exercise with the muscles it targets and explain any gaps or imbalances. Can be handwritten on a printout or done digitally.

- Class showcase: watch 3–4 selected videos together. Individual reflection: *“Which muscle was hardest to identify? What would you change about your workout?”*

ASSESSMENT MODE

In Assessment Mode, the app hides all muscle group tags. Students must select the correct muscles from a list after each exercise — giving both student and teacher immediate, objective feedback on anatomical knowledge.



Assessment Overview

Formative anatomy activities and a summative app-based assessment.

Assessment Structure

WEEK	TYPE	TASK	EVIDENCE
1	Formative	Body mapping diagram — label 10 muscle groups	Completed body map with correct labels & colour coding
1–3	Formative	Weekly workout creation in Creator Mode	Saved workouts in app; teacher observation
2	Formative	Partner muscle ID + anatomy crossword	Score sheet (partner-assessed); completed worksheet
3	Formative	Exercise-to-muscle mapping diagram	Completed muscle map poster / concept map
4	Summative	Full-body workout in Assessment Mode	App assessment scores; exported video with analysis
4	Summative	Annotated workout reflection	Written/visual annotation showing muscle coverage

Scoring Rubric

Excellent (A) · 85–100%

Correctly identifies all muscle groups. Workout covers all 10 muscles with clear rationale. Deep understanding of primary/secondary muscles.

Proficient (B) · 70–84%

Identifies most muscle groups. Workout covers 8+ of 10 muscles. Solid understanding with minor gaps.

Developing (C) · 50–69%

Identifies some muscles but confuses similar ones (e.g., quads vs hamstrings). Noticeable gaps in coverage.

Beginning (D) · Below 50%

Struggles to distinguish muscle groups. Limited accuracy. Minimal intentional targeting.

Holistic Assessment Criteria

CRITERIA	WHAT TO LOOK FOR	WEIGHTING
Anatomical Knowledge	Assessment Mode score; body map accuracy; crossword results; partner activity performance	40% — App scores + off-app activities
Workout Design	Full-body coverage; logical exercise selection; balance across regions	25% — Quality of planning
Performance & Technique	Correct form in recorded videos; confidence and control	20% — Observed in video
Reflection & Analysis	Depth of annotation; ability to identify gaps; evidence of growth	15% — Final reflection



Differentiation & Extensions

Strategies for supporting all learners and extending capable students.

Support Strategies

- **Simplified muscle list** — Focus on 5–6 major muscles rather than all 10
- **Labelled reference card** — Provide pre-labelled body diagram to reference during activities
- **Pair work** — Collaborate through Weeks 1–3 (individual for Week 4 assessment)
- **Creator Mode scaffold** — Review in Creator Mode first, then redo in Assessment Mode
- **Reduced exercise count** — 4 exercises instead of 6 for final assessment

Extension Activities

- **Muscle group deep dive** — Research individual muscles within a group (e.g., quadriceps = 4 muscles)
- **Sport-specific analysis** — Analyse which muscles are most important for a chosen sport
- **Antagonistic pairs** — Explore opposing muscle groups (biceps/triceps, quads/hamstrings)
- **Perfect score challenge** — Aim for 100% in Assessment Mode across all exercises
- **Cross-curricular** — Link to Science (anatomy) or Health (injury prevention)

Muscle Group Reference Table

Exercises mapped to their target muscle groups — all available in Workout Producer's built-in library.

EXERCISE	PRIMARY MUSCLE	SECONDARY MUSCLES	REGION	MOVEMENT TYPE
Push Ups	Chest	Triceps, Shoulders	Upper	Push (horizontal)
Shoulder Press	Shoulders	Triceps	Upper	Push (vertical)
Tricep Dips	Triceps	Chest, Shoulders	Upper	Push
Bicep Curls	Biceps	Forearms	Upper	Pull
Superman Hold	Back	Glutes, Shoulders	Upper	Pull (extension)
Squats	Quads	Glutes, Hamstrings	Lower	Push (legs)
Lunges	Quads	Glutes, Hamstrings	Lower	Push (unilateral)
Glute Bridges	Glutes	Hamstrings, Core	Lower	Hip extension
Calf Raises	Calves	—	Lower	Plantar flexion
Plank	Core	Shoulders, Glutes	Core	Isometric hold
Crunches	Rectus Abdominis	—	Core	Trunk flexion
Bicycle Crunches	Obliques	Rectus Abdominis	Core	Rotation + flexion



**Plan it. Perform it.
Prove you understand it.**

Workout Producer — available on the App Store

A CONNECTEDPE RESOURCE