



Open Aviation Solutions

Turning – In-flight Notes

CASA Recreational Pilot License (Aeroplane) – Lesson 4

Language choices

"roll into a left/right turn" – not *"turn left"*; turning is a whole-aircraft manoeuvre.

"apply rudder in the direction of the turn" – not *"push the right pedal"*.

"level the wings" for the roll-out – not *"straighten up"*.

"apply back pressure" / ***"ease back pressure"*** – not *"pull back"*.

"ball in the centre" or ***"ball is displaced"*** – not *"the balance ball"*.

Demonstration-Performance

For the sequence of each activity, choose whether you use:

- Demonstration-Performance: Explain, Demonstrate, Performance and Monitor, Evaluation
- DDM: Demonstrate, Direct, Monitor

or some other preference. Each in-flight activity just describes the sequence to be demonstrated and performed, regardless of the method you use.

Before starting the plane

- Walk-around: check fuel quantity and caps (refuelling lesson – confirm avgas, check for water)
- Confirm student has completed I'M SAFE and PAVE (brief inside)
- Check NOTAMs and TAF for training area
- We'll also be introducing the HASELL check
- Review "My aeroplane / Your aeroplane" handover phrases

Record	Start	End
Tacho		
Maintenance		
Time		

During startup

- Follow student through the startup checklist; note any unfamiliar procedures
- Review radio calls for today's departure

Climb to training area

- Student flies the climb (established from lesson 3)
- During climb: ask student to recall the spiral dive recovery steps verbally
- Point out the training area and any significant ground features for orientation

In the training area

Set up: established straight and level at a suitable altitude for your training area.

Medium level turn – left

Use a full 360° to have time to point out all instrument readings, the ball, and what happens if you turn more steeply or flatten out (sink or climb). Ensure the student gets the picture of a 30° turn, where the horizon intercepts the aeroplane.

Sequence

- Clear the area – lookout turn
- Roll in with coordinated aileron and rudder to ~20° bank
- Hold the bank with slight aileron; back pressure to maintain altitude
- Work cycle through the turn: ball centred, altitude within ± 100 ft, bank angle steady
- Roll out on a nominated heading (within $\pm 10^\circ$), easing the back pressure as the wings level

Medium level turn – right

Sequence

- Repeat the left-turn sequence to the right, rolling out on a nominated heading

Climbing turn

Sequence

- Establish a best-rate climb (lesson 3 sequence)
- Look out, then roll gently to 10–15° bank with coordinated inputs
- Maintain climb speed with attitude through the turn
- Roll out on the new heading (about 90° change); continue the climb or level off

Powered descending turn

Sequence

- Establish a powered descent (lesson 3 sequence)
- Look out, then enter a coordinated turn, maintaining descent power and speed
- Roll out after about 90°; continue the descent or level off

Gliding descending turn

carb heat – fuel pump

Sequence

- Power off, establish the glide at best glide speed
- Look out, then enter a gentle coordinated turn
- Roll out after about 90°

Spiral dive – instructor demonstration only

Sequence

- Clear the area thoroughly – demonstrating a HASELL check
- Enter a steep turn and allow it to tighten; narrate the instruments (airspeed increasing, altimeter unwinding, VSI needle hard over)
- Take the time to let it steepen and point out the readings – airspeed in particular, but also bank
- Recover, narrating each step:
 - Throttle back
 - Level the wings
 - Gently ease out of the dive
- Debrief immediately: confirm the student understood what they observed and the recovery sequence

Return to airport

- Student flies return navigation; radio calls for joining and landing as per lesson 3
- Note the return heading / waypoints for your home aerodrome before the flight
- **Refuelling:** student performs under supervision — identify avgas, earth aircraft, check quantity, load fuel, check caps, perform quality check (drain sump)

Airmanship reminders

Call these out in flight:

- Lookout turn before every manoeuvre — 180° clearing turn if visibility restricted
- Work cycle during sustained turns: **Attitude** → **Lookout** → **Attitude** → **Performance** (ALAP)
- "My aeroplane / Your aeroplane" every time control changes