



# Royal Canadian Air Cadets



## Level Four TRAINING WORKBOOK

*Come fly  
with us*



**LEVEL 4**

**WORKBOOK**



# PO 401

## DRILL

### GETTING STARTED

Read chapter 1 in the level 4 Handbook, sections 1 to 3. It is a good idea to read the chapter once as an introduction to the material and then a second time to better absorb the information.

### ACTIVITY ONE

1. Please draw the symbols for the following parade positions and name the current holders of these positions in your squadron.

<i>PARADE APPOINTMENT</i>	<i>SYMBOL</i>	<i>RANK/NAME</i>
Cadet squadron commander		
Deputy squadron commander		
Squadron warrant officer		
Warrant officer		
No 1 flight commander		
No 2 flight commander		
No 3 flight commander		
No 1 flight sergeant		
No 2 flight sergeant		
No 3 flight sergeant		

2. Place the above symbols in their correct positions on the Parade Square.



3. With the above diagram place the correct number of paces between the flights and the correct number of paces for the parade positions.

4. List the 4 different squadron formations most commonly used by air cadets:

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ACTIVITY TWO

Identify the correct sequence for a squadron ceremonial review:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_

ACTIVITY THREE

For this activity you will be evaluated on your ability to perform the following parade positions

- Squadron Warrant Officer
- Deputy Squadron Commander
- Squadron Commander

See attached evaluation forms to be filled out by Level Officer or Trg O.

**FINAL EVALUATION – DRILL  
LEVEL FOUR – PO 401**

Cadet's Name: \_\_\_\_\_ Date: \_\_\_\_\_

Squadron Parade Position: \_\_\_\_\_

**Squadron Warrant Officer**

**Deputy Squadron  
Commander**

**Squadron Commander**

Evaluator's Comments: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Pass/Fail**

**Instructions**

- A. Cadets must be notified **at least a week in advance** that they will be holding a squadron parade position.
- B. The evaluation is conducted using the following criteria:
  - the overall cadet's deportment on parade
  - the quality and exactitude of the cadet's commands
  - the drill manoeuvres related to the position held
- C. The squadron's reaction to the cadet's commands must not be taken into consideration for the evaluation.
- D. The evaluator meets with the cadet after the march past for a debriefing.

Evaluator's Signature: \_\_\_\_\_

Cadet's Signature: \_\_\_\_\_

LEVEL FOUR – PO 401

Cadet's Name: \_\_\_\_\_ Date: \_\_\_\_\_

Squadron Parade Position: \_\_\_\_\_

Squadron Warrant Officer

Deputy Squadron  
Commander

Squadron Commander

Evaluator's Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Pass/Fail

**Instructions**

- A. Cadets must be notified **at least a week in advance** that they will be holding a squadron parade position.
- C. The evaluation is conducted using the following criteria:
  - the overall cadet's deportment on parade
  - the quality and exactitude of the cadet's commands
  - the drill manoeuvres related to the position held
- C. The squadron's reaction to the cadet's commands must not be taken into consideration for the evaluation.
- D. The evaluator meets with the cadet after the march past for a debriefing.

Evaluator's Signature: \_\_\_\_\_

Cadet's Signature: \_\_\_\_\_



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Cadet's Name:

Date:

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Squadron Parade Position:

Squadron Warrant Officer

Deputy Squadron  
Commander

Squadron Commander

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Evaluator's Comments:

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Pass/Fail

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**Instructions**

- A. Cadets must be notified **at least a week in advance** that they will be holding a squadron parade position.
- D. The evaluation is conducted using the following criteria:
  - the overall cadet's deportment on parade
  - the quality and exactitude of the cadet's commands
  - the drill manoeuvres related to the position held
- C. The squadron's reaction to the cadet's commands must not be taken into consideration for the evaluation.
- D. The evaluator meets with the cadet after the march past for a debriefing.

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Evaluator's Signature: \_\_\_\_\_

Cadet's Signature: \_\_\_\_\_

## PO 402

### DRILL INSTRUCTION

#### GETTING STARTED

Read chapter 2 in the Level 4 handbook, Sections 1 to 3. It is a good idea to read the chapter once as an introduction to the material and then a second time to better absorb the information.

#### ACTIVITY ONE

Instruct one drill class.

See following page for evaluation form to be filled out by Level Officer or Trg O.

**PO 402 DRILL INSTRUCTION  
EVALUATION – LEVEL 4**

CADET'S NAME:

DATE:

PO/EO: DRILL MOVEMENT:

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**PART 1 – LESSON PREPARATION**

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**Lesson Plan:**

– introduction	0	1	2	3	4
– development	0	1	2	3	4
– performance check	0	1	2	3	4
– conclusion	0	1	2	3	4
– copy handed over to the evaluator	0	1	2	3	4

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**PART 2 – CADET'S PERFORMANCE**

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A. **Introduction.** Did the cadet:

– use a suitable squad formation?	0	1	2	3	4
– introduce the movement?	0	1	2	3	4

B. **Development.** Did the cadet:

– Demonstrate the movement?	0	1	2	3	4
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- complete the movement?
- calling out the time?

– Explain the movement?	0	1	2	3	4
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- give a detailed explanation?
- slowly repeat the demonstration?

– have the group Execute the movement?	0	1	2	3	4
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- call out the time?
- use a regular cadence?
- help the cadets?

– have the group Repeat the movement?	0	1	2	3	4
---------------------------------------	---	---	---	---	---

- correct errors?
- motivate the cadets?
- state the level of achievement?

C. **Confirmation.** Did the cadet:

– answer questions correctly?	0	1	2	3	4
– confirm the objectives of the lesson?	0	1	2	3	4

D. **Conclusion.** Did the cadet:

– remotivate the students?	0	1	2	3	4
– summarize the major points of the lesson?	0	1	2	3	4
– state the next lesson?	0	1	2	3	4

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<b>E. Commands.</b> Were the cadet's commands issued with satisfactory:					
- volume?	0	1	2	3	4
- pronunciation?	0	1	2	3	4
- exactness?	0	1	2	3	4

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<b>F. Appearance and deportment.</b> Was the cadet's performance satisfactory in terms of:					
- attitude (confidence, enthusiasm)?	0	1	2	3	4
- uniform appearance?	0	1	2	3	4
- military bearing?	0	1	2	3	4

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<b>G. Participation.</b> Did the cadet:					
- obtain or encourage group participation?	0	1	2	3	4
- use an instructional aid?	0	1	2	3	4

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<b>H. Time.</b> Did the performance last:				
- between 33 and 35 minutes? .....	4	points		
- between 33 and 34 minutes? .....	2	points		
- between 36 and 37 minutes .....	2	points		

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Evaluator's Comments: \_\_\_\_\_

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Total	Part A – Lesson Preparation	/20
	Part B – Cadet's Performance	/80

Total /100

Evaluator's Signature: \_\_\_\_\_

- 
- (0) non-existent
  - (1) did not achieve the standard
  - (2) met the standard with difficulties
  - (3) met the standard required
  - (4) surpassed the standard
-



## PO 404

### CITIZENSHIP

#### GETTING STARTED

Read Chapter 3 in the Level 4 handbook, Sections 1 and 2. It is a good idea to read the chapter once as an introduction to the material and then a second time to better absorb the information.

#### ACTIVITY ONE

Place the following duties of a chairperson in order:

- \_\_\_ Appoint committees.
- \_\_\_ Announce order of business as per agenda.
- \_\_\_ Notify members.
- \_\_\_ Close meeting on time.
- \_\_\_ Introduce speakers.
- \_\_\_ Prepare agenda.
- \_\_\_ Call meeting to order on time.
- \_\_\_ Direct the business and conduct the meeting.

#### ACTIVITY TWO

1. Prepare an Agenda for the following Situation:

You are approached by your Commanding Officer pleading for help, "You are the only one who can help me. We need more Cadets fast, HELP!!" Capt. Desperate says that he wants you to hold a meeting with the other NCO's about your plan for recruiting. What will you do?

Prepare on a separate piece of paper, an Agenda for your anticipated meeting.

2. Capt. Desperate mentioned that you would need to ensure a “Quorum” (majority). How will you do this?

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3. You are assigning your secretary their duties. They asked you why you have chosen them. You reply by identifying the following three qualities.

- A) \_\_\_\_\_
- B) \_\_\_\_\_
- C) \_\_\_\_\_

4. Would a report in this situation be necessary for your plan for recruiting? Please explain.

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**ACTIVITY THREE**

Find the mistakes in the following Memorandum found on the following page.

## MILITARY CORRESPONDENCE

1085-10

Distribution List

### Action

Lt. Williams

### Info

WO2 Smith  
Sgt. Same

Memorandum

1. This is the format for a memo on a blank sheet of paper. This format should be followed for all internal correspondence i.e. within your own squadron.

a. This is how a sub-paragraph fits into the structure of a memorandum.

2. It is requested that this memo be forwarded to the CO.

Ref: A. Telecon CI/Std's O 18 Feb 98  
B. Equipment List (Enclosed)

Maj.  
C.D. Speaks  
5026  
DCO

Annexes:

Annex A An example of an Annex  
Appendix 1 an example of an Appendix

### DISTRIBUTION LIST



## ACTIVITY FOUR

Prepare and submit (preferably typed!!) two memoranda to the Trg O based on the following scenarios. Be sure to include:

- a. the heading MEMORANDUM
- b. the date
- c. the name and position of the addressee
- d. the subject heading
- e. references as required
- f. the message of the memo
- g. correct signature block
- h. enclosures/annexes as needed
- i. distribution list as needed

**1.** You are the Cadet Squadron Commander. You will write a memorandum to the flight commanders. The memo is to let the flight commanders know that you encourage them to plan activities for their flights to boost morale. Be sure to let them know that any activity must be approved by the CO and must include all flight members. No activities shall occur outside of cadets without the CO's approval, for insurance and safety reasons. The references for this are CATO 13-12, 14-06, 14-07, and PRCI Vol I, Ch 5, Section I.

**2.** You have been selected to participate in an exchange through your school. You will be going to Ontario for two weeks. You must write a memo to your CO, explaining your situation and requesting that you be excused from your cadet duties during that time.

**The following page has an example memo you may refer to.**

MEMORANDUM

1085-10-1 (C0)

12 Mar 01

Distribution List

EXAMPLE MEMO

Ref: A. Level Four Handbook  
B. Military Writing Book

1. Please read this memo and use it as a correct example of a proper memo.
2. Complete Activity Four as directed.

A.B. Perfect  
Capt  
CO

DISTRIBUTION LIST

Action

Level Four Cadets

Info

Instructor



P.O. 405

PHYSICAL FITNESS

**GETTING STARTED**

Read Chapter 4 in the Level 4 handbook, Sections 1 to 5. It is a good idea to read the chapter once as an introduction to the material and then a second time to better absorb the information.

**ACTIVITY ONE**

1. List three reasons why fitness is important to you.

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2. In your own words, describe five (5) different stretches that could be done as a part of a warm-up of an exercise program. You may draw diagrams to describe your exercises.

3. List the six fitness performance tests of the Air Cadet Fitness Program for **your age and gender category** and the total score required to reach the appropriate fitness level.

Age/Gender: \_\_\_\_\_

Activity ⇓	Level of Achievement				
	Excellent	Gold	Silver	Bronze	Participation

4. Each physical activity session should consist of three parts. What are they and give an example of each.

A. \_\_\_\_\_

B. \_\_\_\_\_

C. \_\_\_\_\_

5. Explain two benefits of a warm-up routine in your own words.

6. As an official, you are responsible for the following:

- |    |   |      |       |
|----|---|------|-------|
| a. | Keeping Score                               | True | False |
| b. | Cleaning Up                                 | True | False |
| c. | Providing Uniforms                          | True | False |
| d. | Providing Equipment                         | True | False |
| e. | Making sure all the team players are there. | True | False |
| f. | Providing first aid                         | True | False |

7. You must participate in a squadron sports activity night to become aware of the rules. While there, keep a journal of the following:

- Duration of the game.
- Number of players involved, by gender;
- Penalties; and
- Timing of shifts on the floor.

Signature of Officer in Charge when activity completed: \_\_\_\_\_

8. With the help of your level Officer and other senior cadets, design a squadron fitness-testing program. Your plan must include:

- Warm-up lesson plan, including a minor team game;
- An example of a cadet test record sheet:
- A diagram explaining each station; and
- A description of each activity at the station.

Submit to Trg O by \_\_\_\_\_



**PO 406**

**SENSIBLE LIVING**

**GETTING STARTED**

**Read Chapter 5 in the Level 4 handbook. It is a good idea to read the chapter once as an introduction to the material and then a second time to better absorb the information.**

**ACTIVITY ONE**

1. In order to complete PO 406-01, read Squadron Standing Orders and answer the follow questions.

**SQUADRON TO PROMULGATE THE QUESTIONS.**

2. Organize a Fire Drill for your squadron.

**ACTIVITY TWO**

1. What are the components of a resume?

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2. Name 3 parts of the Personal Identification section

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3. Put the following Educational History in the correct order

College Diploma 1998-1999 \_\_\_\_\_

High School Diploma 1996 \_\_\_\_\_

Computer Training Degree 2000 \_\_\_\_\_

4. Give Examples of some of the hobbies you would describe on your resume

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5. Write a work experience paragraph as though you are applying for a job at a business of your choice. Include your cadet skills and experiences and say how they would help you in this job.

6. What should you consider when selecting a reference?

7. What size of paper should be used for your resume?

8. List 3 kinds of things should be on your offer of employment (cover letter)?

### **ACTIVITY THREE**

Write a personal resume and cover letter as if you were applying for one of the following jobs.

1. DRILL TEAM COMMANDER
2. SQUADRON WARRANT OFFICER
3. LEVEL NCO
4. FLIGHT COMMANDER



PO 408

LEADERSHIP

GETTING STARTED

Read Chapter 6 in the Level 4 handbook, Sections 1 to 5. It is a good idea to read the chapter once as an introduction to the material and then a second time to better absorb the information.

ACTIVITY ONE

1. What is the difference between Espirit de corps and morale?

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2. In the cadet organization morale appears as:

- a. Common purpose
- b. Leadership
- c. Discipline
- d. Self respect
- e. Pride
- f. Comradeship
- g. Mutual confidence
- h. Cadets' well being
- i. Comfort and welfare

Choose two of the above statements and explain how they are accomplished at your squadron.

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3. Explain what the term “Espirit de corps” means to you?

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4. Match the following occasions to interview with their definitions:

- a. Assignment - Welcoming a new cadet where you explain what is expected of them and their place among the other cadets in the group
- b. Performance - To prepare cadets for new tasks, you should tell them exactly what is required
- c. Initial - Thanking cadets when they leave a squadron is very important
- d. Final - After cadets have been members of a group for a period of time, they should be periodically informed of their progress

5. What is the purpose of performance interview?

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6. List the two occasions to counsel a cadet:

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7. What two objectives of counseling do you feel are the most important and why?

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8. Suggested rules of counseling - True or false

- |  |      |       |
|--|------|-------|
| a. Always use excessive control                        | TRUE | FALSE |
| b. Ask leading questions                               | TRUE | FALSE |
| c. Keep your views and opinions to yourself            | TRUE | FALSE |
| d. Tell all your friends                               | TRUE | FALSE |
| e. Help the cadet feel at ease by inspiring trust      | TRUE | FALSE |
| f. End the session negatively                          | TRUE | FALSE |
| g. Prepare and plan beforehand                         | TRUE | FALSE |
| h. Ask only yes and no questions                       | TRUE | FALSE |
| i. Record information, impressions and Interpretations | TRUE | FALSE |

## ACTIVITY TWO – PLANNING AN ACTIVITY

1. The following letters represent an acronym for activity planning task procedures. Complete the acronym with the parts of an ops order/task procedure:

a. S \_\_\_\_\_

b. M \_\_\_\_\_

c. E \_\_\_\_\_

d. A \_\_\_\_\_

e. C \_\_\_\_\_

2. One of the requirements of level four leadership training is to plan an activity. You will now have to talk to your training officer and devise a plan to meet this requirement. Below you may want to list some ideas for activities you would like to plan, either activities the squadron regularly conducts, or new ideas.

**PO 409**  
**Instructional Techniques**

**GETTING STARTED**

Read Chapter 7 in your Level Four Handbook. It is a good idea to read the chapter once as an introduction to the material and then a second time to better absorb the information.

**ACTIVITY ONE**

Think about all of the different instructors you have had over your time as a cadet. What did the instructors do to make the lesson interesting? List the qualities and techniques the instructors used that you liked and the things they that were poor.

**Good**

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**Not so Good**

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## ACTIVITY TWO

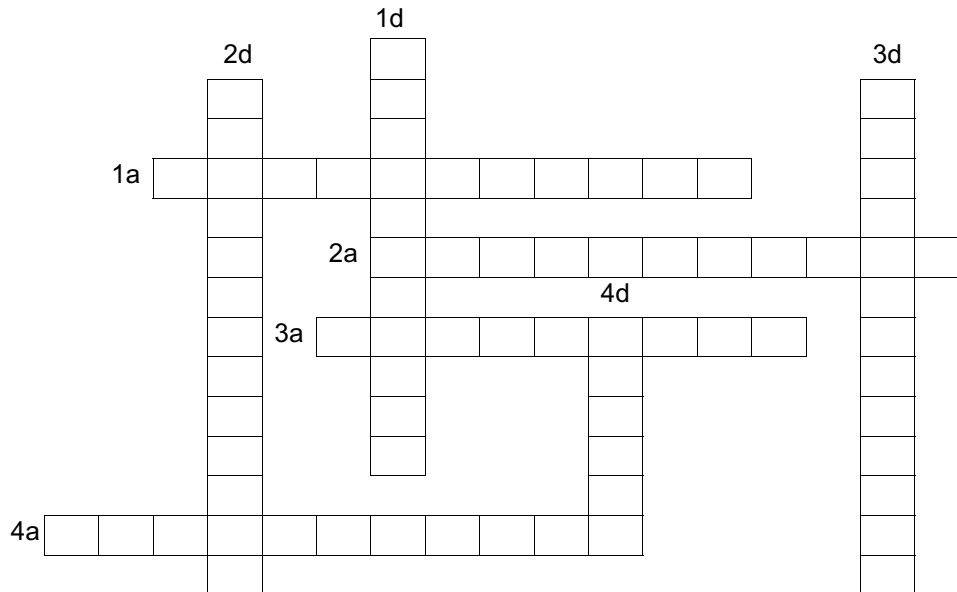
Complete the crossword puzzle below which uses the names of the different types of Problem Trainees.

### ACROSS

- 1 Last finished
- 2 First finished
- 3 Authority on all topics
- 4 Can change the topic of the class easily if not stopped

### DOWN

- 1 Against everything
- 2 Sits at back of class by choice
- 3 Nods appreciatively whenever a point is made
- 4 Long-winded and tedious



### **ACTIVITY THREE**

Pick 3 Types of Problem Trainees and describe how you could deal with them.

Type 1:

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Type 2:

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Type 3:

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### **ACTIVITY FOUR**

1. Careful preparation is one key to successful performance as a classroom lecturer. Identify the 4 key factors in planning your lecture:

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2. Identify the 5 important factors to remember when delivering your lecture:

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## **ACTIVITY FIVE**

List the 5 parts of the demonstration-performance method of instructing.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

## **ACTIVITY SIX**

1. Compare and contrast the lecture method and the demonstration-performance method of instruction, making at least 5 different comparisons.

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2. List 3 classes you could teach with each method.

Lecture

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Demonstration

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## **ACTIVITY SEVEN**

Match up the Lesson Planning Tips below to their description.

1. Supporting Material \_\_\_\_\_
2. Trainee Participation \_\_\_\_\_
3. Objectives \_\_\_\_\_
4. Introduction \_\_\_\_\_
5. Visual Support \_\_\_\_\_
6. Preparation \_\_\_\_\_

- a) Have other instructors listen to it and critique its effectiveness.
- b) The material used is pertinent to the topic of the class.
- c) It presents a clear-cut, logical organizational pattern to be followed in the presentation.
- d) These are simple, easy to read and further the lesson objective.
- e) The lesson plan includes meaningful activities to help cadets achieve the objectives.
- f) The hows and whys are developed adequately to help the trainee achieve understanding.

## **ACTIVITY EIGHT**

Using the Lesson Plan Template provided on the next page, prepare a lesson plan for a Level One or Two class chosen by you (with help by the training officer).



# *ROYAL CANADIAN AIR CADETS*

## LESSON PLAN



### PROFICIENCY LEVEL

PO:

PO/EO:

ENABLING OBJECTIVE:

### REVIEW

PO/EO:

ENABLING OBJECTIVE:

### INTRODUCTION

**WHAT:**

**WHY:**

**WHERE:**

TIME	BODY	NOTES
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TIME	BODY	NOTES

**MINs**

**PERFORMANCE CHECK**

**MINs**

**CONCLUSION**

**SUMMARY:**

**RE-MOTIVATION:**





PO 413  
METEOROLOGY

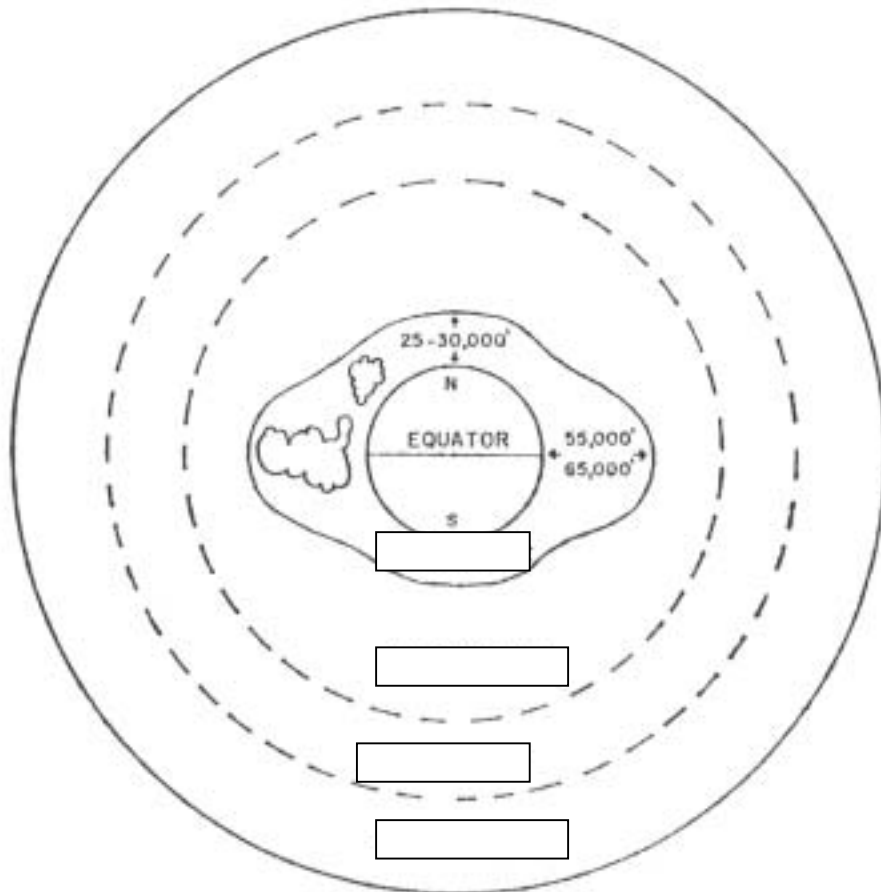
GETTING STARTED

Read Chapter 8 in the Level 4 handbook, Section 1 to 6. It is a good idea to read the chapter once as an introduction to the material and then a second time to better absorb the information.

ACTIVITY ONE

1. Place the following four divisions of the atmosphere into the diagram below:

- Mesosphere
- Thermosphere
- Troposphere
- Stratosphere



2.

Which of the following gases is not part of the composition of the atmosphere?

- A) Oxygen
- B) Carbon Dioxide
- C) Carbon Monoxide
- D) Nitrogen

### **ACTIVITY TWO**

1. List the principle properties of the atmosphere.

a)

b)

c)

2. What are some common forms of precipitation in your area?

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3. Place the following clouds into their proper group.

Cumulus Fractus  
 Cumulonimbus  
 Towering Cumulus  
 Altostratus  
 Cumulus

Alto cumulus Castellanus  
 Stratus Fractus  
 Cirrostratus  
 Cirrus  
 Nimbostratus

Cirrocumulus  
 Stratocumulus  
 Alto cumulus  
 Stratus

High Clouds	Middle Clouds	Low Clouds	Clouds of Vertical Development

4. The earth is heated by:

- a. greenhouse effect
- b. terrestrial radiation
- c. solar radiation
- d. none of the above

5. Terrestrial radiation is:

- a. the level of nuclear radiation in the earth's atmosphere
- b. the heat radiated into the atmosphere by the earth
- c. the pressure differential between the earth's atmosphere and space
- d. none of the above

6. List the 5 things that affect the temperature in the earth's atmosphere:

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7. Match the type of fog with the description of its formation by placing the correct letter in the appropriate blank.

Smog	_____	This type of fog is caused by the addition of moisture to the air through the evaporation of rain or drizzle.
Ice Fog	_____	The cooling of air due to expansion as it moves up a slope causes this type of fog.
Upslope Fog	_____	The drifting of warm damp air over a colder land or sea surface causes this type of fog.
Haze Fog	_____	This type of fog forms when cold air passes over a warm water surface.
Precipitation-Induced Fog	_____	This type of fog is formed on clear nights with light winds. The ground cools, losing heat through radiation. The air in direct contact with the Earth's surface is cooled. If the air is moist and the temperature is lowered below the dew point, fog will form.
Advection Fog	_____	This type of fog is caused by the addition of water vapor to the air through fuel combustion.
Steam Fog	_____	
Wharf Fog	_____	
Radiation Fog	_____	

## PO 417

### NAVIGATION

#### GETTING STARTED

Read chapter 9 in the Level 4 Handbook, Sections 1 to 6. It is a good idea to read the chapter once as an introduction to the material and then a second time to better absorb the information.

#### ACTIVITY ONE

1. List the four basic elements in map construction:

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2. On which type of projection are angles between parallels and meridians the same as on the ground?

3. On which type of projection would you see the shape and size of northerly areas distorted?

4. Match each type of chart with the most appropriate description:

- |                                 |  |
|---------------------------------|--|
| _____ Canadian Pilotage Chart   | a) Do not portray any cities, towns, or topographical features.                                      |
| _____ VFR Navigation Charts     | b) based on the Lambert conformal conic projection; most useful for high altitudes at greater speeds |
| _____ World Aeronautical Charts | c) based on the transverse macerator projection; most useful for low altitudes at lower speeds       |
| _____ Radio Navigation Charts   | d) Based on the Lambert conformal conic projection; replace the CPC series.                          |

5. With the aid of your Training Officer and a map, identify each of these features:

Latitude and longitude, layer tinting, contours, spot heights, isogonic lines, communities, roads, railways, aerodromes, restricted areas

6. An aircraft is travelling at a ground speed of 85 knots. How long (in hours and minutes) would it take to travel 200 statute miles?

a) 100 knots = \_\_\_\_\_ mph

b) 200 s.m / (a) mph = \_\_\_\_\_ min

(b) min = \_\_\_\_\_ hr \_\_\_\_\_ min

7. Match each term with its description:

- |                        |  |
|------------------------|--|
| ___ Azimuth            | a) Airplane's speed relative to the ground   |
| ___ Indicated Airspeed | b) Direction measured as an angle clockwise from a meridian  |
| ___ Closing Angle      | c) Direction an airplane intends to travel over the ground   |
| ___ Drift              | d) Angle between the direction flown and the track made good   |
| ___ Track Made Good    | e) Horizontal movement of air  |
| ___ Track              | f) Direction in which a compass needle will lie when influenced only by the Earth's magnetic field             |
| ___ Wind               | g) Proposed track of the airplane over the ground  |
| ___ Heading            | h) Angle between the old required track and the new required track   |
| ___ Magnetic Meridian  | i) Angle between the longitudinal axis and a meridian  |
| ___ Compass North      | j) Airplane's speed as given by the instruments  |
| ___ Ground speed       | k) Angle between the required track and the track made good  |
| ___ True Airspeed      | l) The actual path travelled by the airplane over the ground   |
| ___ Track Error        | m) Airplane's speed relative to the air  |
| ___ Required Track     | n) Direction in which a compass needle will lie when influenced by the Earth's magnetic field and the airplane |

8. An airplane is 5 miles off track at a distance of 300 miles. What is the track error (hint: use the one-in-sixty rule)?  
 \_\_\_\_\_ degrees

9. Sketch each of the following instruments:

Navigation plotter

Douglas protractor

Ruler

Divider

10. For each of the following, indicate whether they measure distance, angle, or both.

a. Navigational plotter

b. Douglas Protractor

c. Ruler

d. Divider

11. Using the map on the next page, plot a triangular route starting at airport A and ending at the same airport. Find the distance, required magnetic track, and duration of flight for each leg. Use airspeed of 90 knots. Ignore wind.

Leg	Distance (nm)	Required track (°M)	Duration (hrs + mins)
1) A to B			
2) B to C			
3) C to A			





**AIR CREW SURVIVAL**

**GETTING STARTED**

Read chapter 10 in the level 4 handbook. It is a good idea to read the chapter once as an introduction to the material and then a second time to better absorb the information.

**ACTIVITY ONE**

1. The 4 points that are listed below need to be considered when selecting the bivouac site. Explain why.

a) Well drained ground.

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b) Safe Surroundings

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c) Dangerous Plants

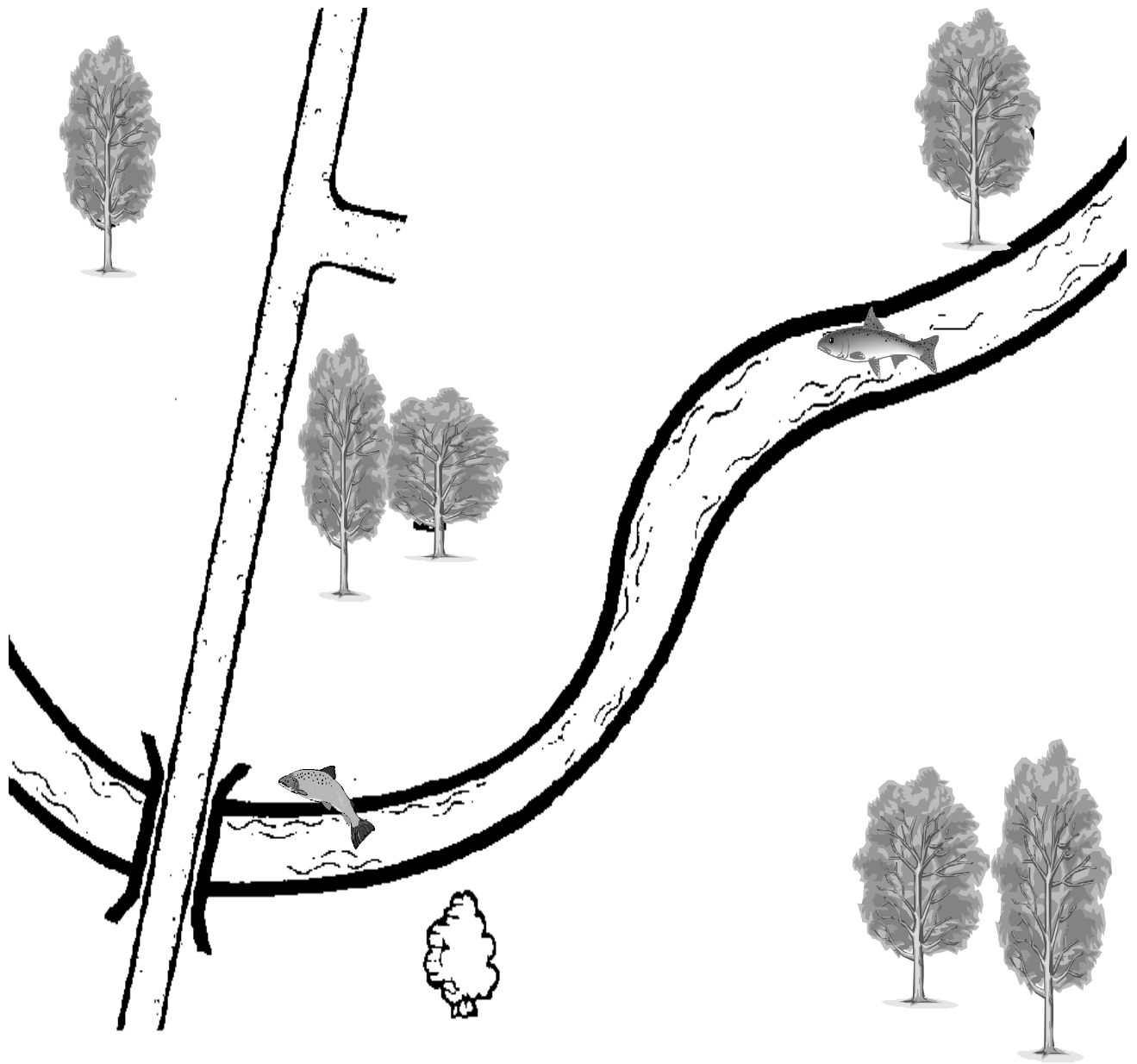
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d) Pure Water

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2. Using the following map and the symbols provided, create a proper bivouac site.  
Cut these symbols out to use on the map.

