ROYAL CANADIAN AIR CADETS

PROFICIENCY LEVEL TWO

INSTRUCTIONAL GUIDE

SECTION 8

EO C290.03 – CONSTRUCT A SNOW CAVE

Total Time:	90 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-802/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Recce the area to locate sites for snow cave construction prior to the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 to present basic material and give direction on procedures.

Demonstration was chosen for TP2 as it allows the instructor to explain and demonstrate the skill the cadet is expected to acquire.

Performance was chosen for TP3 and TP4 as it provides an opportunity for the cadets to practice building a snow cave under supervision.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have constructed a snow cave.

IMPORTANCE

It is important for cadets to know how to construct a snow cave as it can protect them from the elements and animals in a survival situation.

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

Teaching point 1 **Identify Factors To Consider in Selecting a Site for a Snow Cave**

Time: 5 min Method: Interactive Lecture

SNOW CAVE SITE FACTORS

When choosing a snow cave site, ensure the following are present:

- a hard snow drift;
- a slope with a firm crust. This is usually found on the lee side (the opposite side from which the wind is blowing) of a steep ridge or river bank; and
- ensure that the drift is not below a cornice or in an avalanche area.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What type of snow drift should be used for building a snow cave?

Q2. Where is a slope with a firm crust found?

Q3. What areas should be avoided when building a snow shelter?

ANTICIPATED ANSWERS

A1. A hard snow drift should be used.

A2. A slope with a firm crust is usually found on the lee side (the opposite side from which the wind is blowing) of a steep ridge or river bank.

A3. Avoid drifts below cornices or in avalanche areas.

Teaching point 2 **Demonstrate Appropriate Site Selection and Construct a Snow Cave**

Time: 35 min Method: Demonstration

SELECTING A SITE



Construction of the snow caves must be started at least 90 minutes before sundown to ensure the snow cave is completed before dark.

CONSTRUCTING A SNOW CAVE

The procedure for constructing a snow cave includes:

1. burrowing a small tunnel that is one metre into the lowest level of the chamber;
2. clearing the chamber of snow at right angles to the tunnel;
3. clearing the chamber of snow to a height that is comfortable for sitting;

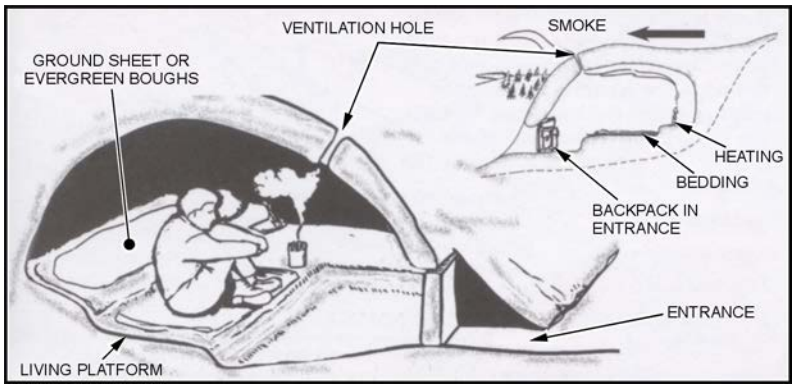
Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

4. constructing the outside of the roof to be well arched without sharp angles, to provide maximum support;

5. constructing a sleeping and sitting platform above the level of the entrance. This will be the warmest area of the cave;

6. constructing a ventilation hole in the roof of the snow cave. This will allow carbon monoxide gases and smoke to escape to avoid asphyxiation. There should also be a ventilation hole in the door to allow fresh air to enter; and

7. constructing a door using a block of snow or a ground sheet. Keep the door loose fitting and on the inside so that it will not freeze up and jam. If it does, a block on the inside will be much easier to free.



Tawrell, P., Camping and Wilderness Survival, Falcon Distribution (p. 117)

Figure 1 Snow Cave



Ensure the cadets enter and observe the finished snow cave.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. Why is the outside of the roof well arched and constructed without sharp angles?

Q2. What is the warmest area of the cave?

Q3. What will allow carbon monoxide gases and smoke to escape and help to avoid asphyxiation?

ANTICIPATED ANSWERS

A1. To provide maximum support.

A2. The sleeping and sitting platform above the level of the entrance of the cave.

A3. A ventilation hole in the roof of the snow cave.

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

Teaching point 3 — **Ensure Cadets Choose an Appropriate Site for Construction of a Snow Cave and Have Cadets Construct a Snow Cave**

Time: 35 min — Method: Performance

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets, in groups of no more than four, construct a snow cave.

RESOURCES

- Shovel, and
- Ground sheet.

ACTIVITY LAYOUT

Select an area that has the appropriate snow to construct the snow cave.

ACTIVITY INSTRUCTIONS

Working as a member of a group of no more than four, the cadets shall choose a location for the snow cave. Each group shall construct a snow cave following these steps:

1. Burrow a small tunnel that is one metre into the lowest level of the chamber.
2. Clear the chamber of snow at right angles to the tunnel.
3. Clear the chamber of snow to a height that is comfortable for sitting.
4. Ensure the outside of the roof is well arched and has no sharp angles.
5. Construct a sleeping and sitting platform above the level of the entrance.
6. Hollow out a ventilation hole in the roof of the snow cave.
7. Hollow out a ventilation hole in the door to allow fresh air to enter.
8. Construct a door using a block of snow or a ground sheet. If using a ground sheet, pull the sheet a small amount from the side of the wall to ensure ventilation.



The questions in the confirmation of TP3 should be asked of the groups as the instructor moves from one group to the next.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. Why was this location chosen to build the snow cave?

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

Q2. Where should the sitting and sleeping platform be constructed?

Q3. How do you construct a door in the snow cave?

ANTICIPATED ANSWERS

A1. This location was chosen because it is a hard snow drift with a slope and a firm crust.

A2. Above the level of the entrance.

A3. With a block of snow or a ground sheet.

Teaching point 4 **Disassemble the Snow Caves When the Exercise Is Completed**

Time: 5 min Method: Performance

DISASSEMBLE THE SNOW CAVES

Disassembling the snow caves includes the following steps:

1. cadets will remove ground sheets from the snow caves;
2. collapse or fill in the spaces with the removed snow; and
3. ensure the ground looks as natural as possible.

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in the disassembly of the snow cave will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' construction of the snow cave will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Snow caves provide shelter from the elements and animals in a survival situation.

INSTRUCTOR NOTES/REMARKS

Cadets will not sleep in the snow cave.

Additional supervision is required during the construction of the snow cave.

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.

REFERENCES

C3-002 (ISBN 0-00-653140-7) Wiseman, J. (1999). *The SAS Survival Handbook.* Hammersmith, London: HarperCollins Publishers.

C3-003 (1-896713-00-9) Tawrell, P. (1996). *Camping and Wilderness Survival: The Ultimate Outdoors Book.* Green Valley, ON: Falcon Distribution.

Unofficial convenience copy of A-CR-CCP-802/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-802-PF-001/A-CR-CCP-802-PF-001.pdf.
Verify against the official publication.