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**Technical
and Professional
Communications 12**

JUNE 2002

Course Code = TPC

Student Instructions

1. Place the stickers with your Personal Education Number (PEN) in the allotted spaces above. **Under no circumstance is your name or identification, other than your Personal Education Number, to appear on this booklet.**
2. Ensure that in addition to this examination booklet, you have an **Examination Response Form**. Follow the directions on the front of the Response Form.
3. **Disqualification** from the examination will result if you bring books, paper, notes or unauthorized electronic devices into the examination room.
4. When instructed to open this booklet, **check the numbering of the pages** to ensure that they are numbered in sequence from page one to the last page, which is identified by **END OF EXAMINATION**.
5. At the end of the examination, place your Response Form inside the front cover of this booklet and return the booklet and your Response Form to the supervisor.

Question 1:

1. .

(4)

Question 2:

2. .

(4)

Question 3:

3. .

(2)

Question 4:

4. .

(20)

Question 5:

5. .

(35)

**TECHNICAL
AND PROFESSIONAL
COMMUNICATIONS 12**

JUNE 2002

COURSE CODE = TPC

GENERAL INSTRUCTIONS

1. Aside from an approved calculator, electronic devices, including dictionaries and pagers, are **not** permitted in the examination room.
2. All multiple-choice answers must be entered on the Response Form using an **HB pencil**. Multiple-choice answers entered in this examination booklet will **not** be marked.
3. For each of the written-response questions, write your answer in the space provided in this booklet.
4. Ensure that you use language and content appropriate to the purpose and audience of this examination. Failure to comply may result in your paper being awarded a zero.
5. This examination is designed to be completed in **two hours**. *Students may, however, take up to 30 minutes of additional time to finish.*

**TECHNICAL AND PROFESSIONAL COMMUNICATIONS 12
PROVINCIAL EXAMINATION**

	Value	Suggested Time
1. This examination consists of five parts:		
PART A: Communication Concepts	10	8
PART B: Reading Comprehension	18	25
PART C: Editing	7	7
PART D: Design	20	20
PART E: Case Study	35	60
	Total:	
	90 marks	120 minutes

2. A hand-held calculator may be used for this examination; however, computers, calculators with a QWERTY keyboard, and electronic writing pads will not be allowed. Students must not bring any external devices to support calculators, such as manuals, printed or electronic cards, printers, memory expansion chips or cards, or external keyboards. Students may have more than one calculator available during the examination. Calculators may not be shared and must not have the ability to either transmit or receive electronic signals.

3. You may use a ruler or geometry set to create any graphics required for the Design and Case Study parts.

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PART A: COMMUNICATION CONCEPTS

Value: 10 marks

Suggested Time: 8 minutes

INSTRUCTIONS: For each multiple-choice question, select the **best** answer and record your choice on the Response Form provided. Using an HB pencil, completely fill in the circle that has the letter corresponding to your answer.

Use the following information to answer questions 1 and 2.

Entry 1

Hahn, Harley. *The Internet Complete Reference*. 2nd ed. Berkeley, CA: Osborne McGraw-Hill, 1996. Available: <<http://www.berkeleyu.edu/internet>> (10 March 1999).

Entry 2

“The Copyright Question,” *Internet World*. January 1997.
Available: <<ftp://www.internet.com/search>> (8 March 1999).

Entry 3

“A Brief History of Fakemail, Pranks and Gags,” *Rubberchicken.com*. 1997.
Available: <<http://www.rubberchicken.com>> (18 March 1999).

Entry 4

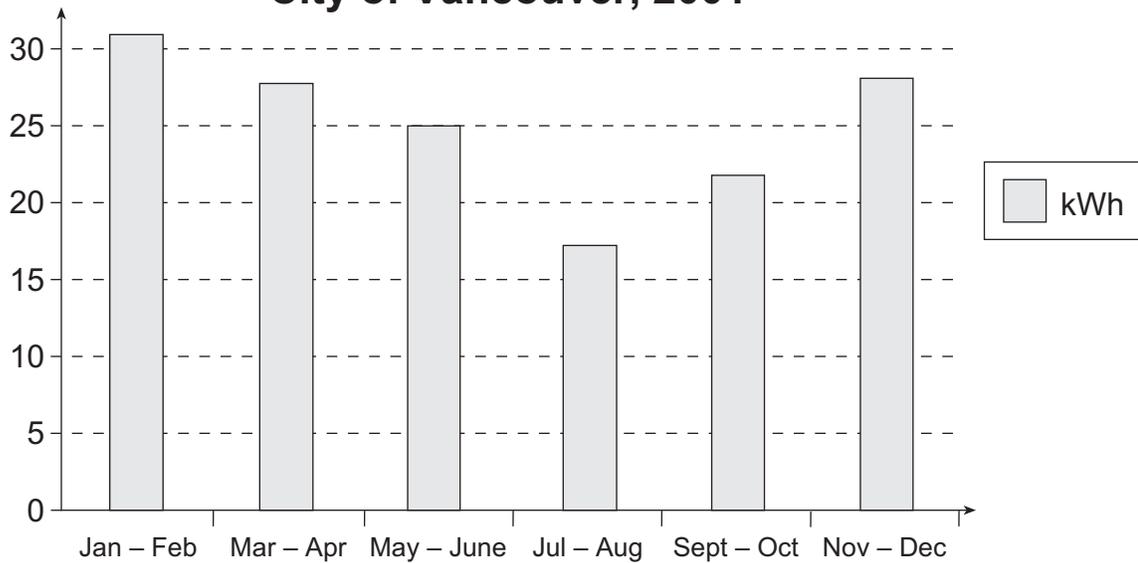
Baron, Robert A. <rabaron@pipeline.com> “Copyright and Fair Use of Images.”
12 March 1999. Available: <fj.soc.copyright> (5 April 1999).

- In what order should these resources be listed in a bibliography?
 - 3, 4, 1, 2
 - 3, 4, 2, 1
 - 4, 3, 2, 1
 - 4, 3, 1, 2
 - Which of the resources came from a newsgroup posting?
 - “The Copyright Question”
 - The Internet Complete Reference*
 - “Copyright and Fair Use of Images”
 - “A Brief History of Fakemail, Pranks and Gags”
-
- Which of the following reference works would be most useful in providing information about the origin of a word?
 - thesaurus
 - dictionary
 - periodical
 - encyclopedia

OVER

Use the following graph to answer questions 4 and 5.

Average Bimonthly Electricity Use City of Vancouver, 2001



4. During which period was residential electricity use the highest?
- A. January through April
 - B. November through February
 - C. September through December
 - D. cannot be determined from the graph
5. From the trends shown on the graph, it can be concluded that
- A. the weather during the winter of 2001 was colder than usual.
 - B. people tend to go away in August and therefore use less electricity.
 - C. people use almost twice as much electricity in the winter as in the summer.
 - D. people should be more concerned about conserving electricity during the winter.

Use the following advertisement to answer questions 6 and 7.

Two remarkable creations!



The revolutionary Ezeecarpet is a creation like no other: Ezeecarpet now has an advanced Teflon repel system. This innovation helps push away liquid, soil, and stains from carpet fibres. Ezeecarpet will not only eliminate daily problems, but also keep its new appearance longer. In fact, tests indicate that Ezeecarpets stay 45% cleaner.

www.ezeecarpet.com

6. In the context of the advertisement, “remarkable creations” refers to both the carpet and the
- A. young baby.
 - B. company Web site.
 - C. Teflon repel system.
 - D. excellent test results.
7. The **product’s** appeal is primarily created by the advertiser’s use of
- A. technical data.
 - B. visual imagery.
 - C. unsupported claims.
 - D. emotional language.

8. The information that is **not** included in a job posting is the
- A. specific duties of the job.
 - B. minimum and maximum salary offered.
 - C. primary and secondary functions of the job.
 - D. names of persons to whom the employee reports.
9. Eudora and Outlook are
- A. e-mail programs.
 - B. listserv addresses.
 - C. Usenet newsgroups.
 - D. encryption software programs.
10. A program that has been “zipped” or “stuffed” has been
- A. closed to increase available RAM.
 - B. widely distributed over the Internet.
 - C. expanded beyond the original version.
 - D. compressed to save downloading time.

PART B: READING COMPREHENSION

Value: 18 marks

Suggested Time: 25 minutes

INSTRUCTIONS: Read the following article carefully. For questions 11 to 18, select the **best** answer and record your choice on the Response Form provided.

JAWS OF DEATH

If you were an oyster, the last thing you'd want is a ray with a crush on you.

1 Sharks, rays, and ratfish share a special burden: these cartilaginous fish are saddled with a reputation for being somehow inferior to vertebrates blessed with bony skeletons.

2 Bone is certainly a wonderfully strong material. It lets hyenas crush carcasses with their jaws and enables elephants to support their massive bodies. Bone tissue is crammed with cells known as osteocytes and blood vessels that keep them nourished. The osteocytes release calcium, phosphates, and other minerals which help make bones strong. They form layers that wrap around the outside of the bone and create a dense web of branching columns inside it.

3 The cartilage in sharks and rays, by comparison, consists primarily of a mesh of collagen fibers embedded in a gelatin-like matrix, along with a scattering of cartilage-generating cells called chondrocytes. (Sometimes the cartilage is surrounded by a thin layer of mineralized tissue that gives it a little extra stiffness.) The result is a softness and flexibility that implies a certain weakness. After all, it is backbone we admire in a person, not cartilage.

4 Dating back at least 420 million years, cartilaginous fish are sometimes referred to as primitive—as if cartilage were an intermediate step on the climb from invertebrates to bony vertebrates. The development of a human embryo seems to replay this imagined evolutionary ascent: the embryo starts out with a skeleton of pure cartilage that gradually turns almost completely to bone. As adults, we retain only a few vestiges of cartilage—in the nose, the ear, the voice box, the disks between the vertebrae, and at the ends of free-moving bones.

5 Adam Summers, a biologist at the University of California, Berkeley, is determined to show that

this supposed inferiority of cartilaginous fish is a biomechanical myth. Cartilage is indeed generally weaker than bone but at times can become remarkably stiff and strong. For the past few years, Summers has been studying the cownose ray (*Rhinoptera bonasus*). This three-foot-wide creature, which lives solely on hard-shelled mollusks, is a scourge of oystermen; a school of 3 000 rays can pick an oyster bed clean in an afternoon. A ray eats its prey by grabbing the mollusk in its mouth and crushing the shell with its jaws.

6 To discover how this fish can be so adept at breaking something so much harder than its own jaws, Summers x-rayed a cownose ray. Its cartilaginous jaws, he found, had a lot of mineral inside them. At first he thought he had picked a diseased individual to study. In humans, cartilage contains hard, calcified deposits only when a person is suffering from a disorder such as scleroderma (an ultimately fatal illness in which the joints and skin stiffen). Yet Summers discovered that ray after ray had the same sort of jaw, with a mineral-rich cartilage unlike any that had been described before.

7 The mineral, however, is not randomly distributed in the ray's jaws, nor is it spread evenly. Rather, it is the chief ingredient of hollow struts in both upper and lower jaws, and these struts are concentrated in the areas of the jaws that bear down on prey. Summers cannot yet say how these struts form, but their function is clear. Without adding much weight to a structure, struts allow it to resist bending and buckling. Struts are a favorite tool of engineers, whether they are designing a bridge or a piece of corrugated cardboard. Likewise, struts help a cownose ray's jaws hold up against the shell of a clam or an oyster.

**You may detach this page for convenient reference.
Exercise care when tearing along perforations.**

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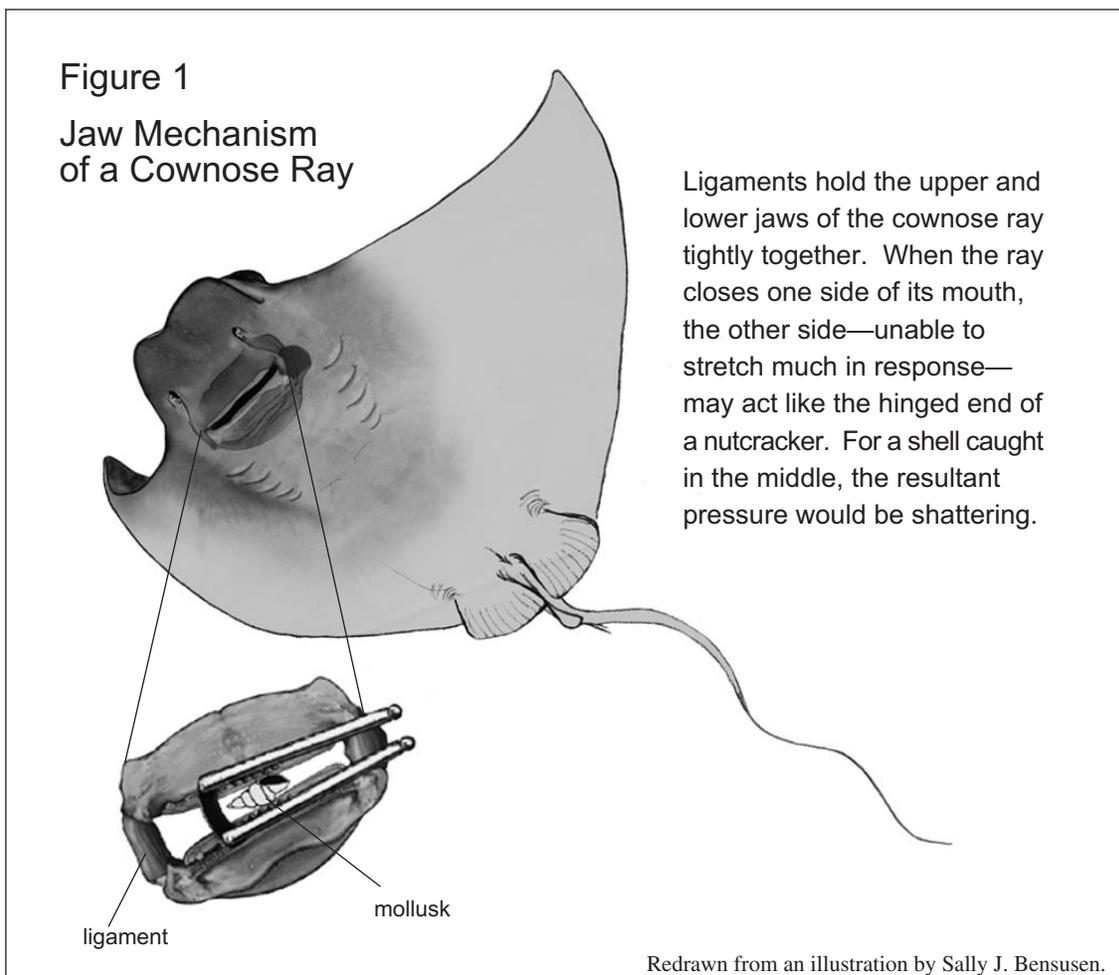
8 But Summers suspects that the struts are responsible for only part of the cownose ray's shell-crushing ability. Species of rays that eat fish or soft-bodied invertebrates have loose ligaments connecting the upper and lower jaws. In these species, the jaws' left and right sides are separate, which means that these rays can bite down with one while opening the other. That freedom gives these rays the flexibility they need to handle squirming prey.

9 The cownose ray has a different jaw design. To help crush hard prey, it has a solid lower jaw and a solid upper jaw. In addition, ligaments lash this ray's upper and lower jaws tightly together. Such a design, Summers proposes, would be ideal for a fish that uses its jaws as a nutcracker. Placing a shellfish between them, he says, the cownose ray might contract the muscles on the left side of its mouth. This side would then act like the handles of the nutcracker being squeezed together.

10 Bringing the left side of the jaws together stretches the right side of the jaws apart. Because the ligaments are so tight, the jaws can't stretch very far, and soon the ligaments begin acting like the fulcrum at the hinged end of a nutcracker. As the cownose ray continues squeezing the left side of its jaws closer and closer together, it puts more and more pressure on the shellfish, crushing it.

11 A nutcracker works by amplifying the forces exerted on it. Summers calculates that a cownose ray with prey caught at the center of its jaws would, because of the jaws' architecture, be able to double the force of its bite. He plans to test his nutcracker model by recording the activity of jaw muscles in live cownose rays as they feast on shellfish. The results of these experiments, he expects, will demonstrate just how a jaw that is more custard than steel can become—with the help of some struts and proper leverage—shell-shatteringly strong.

by Carl Zimmer



11. The **purpose** of the sub-heading “If you were an oyster...” is to
- A. inform the reader.
 - B. engage the reader.
 - C. confuse the reader.
 - D. provoke the reader.
12. Cartilage is
- A. stronger than bone.
 - B. composed of gelatin.
 - C. found only in invertebrates.
 - D. composed of collagen fibers.
13. *Rhinoptera bonasus* is written in italics because it
- A. is jargon.
 - B. adds emphasis.
 - C. is a scientific term.
 - D. is a descriptive term.
14. In humans, calcified deposits in cartilage
- A. are normal.
 - B. indicate disease.
 - C. occur during embryonic development.
 - D. are desirable because of increased strength.
15. Fish-eating rays have jaws that are
- A. inflexible.
 - B. made of hollow struts.
 - C. connected with tight ligaments.
 - D. connected with loose ligaments.
16. In paragraph 11, the phrase “a jaw that is more custard than steel” is an example of
- A. metaphor.
 - B. hyperbole.
 - C. alliteration.
 - D. symbolism.

17. Which development structure is used within this report?

- A. spatial
- B. sequential
- C. cause-and-effect
- D. comparison-and-contrast

18. Which of the following best describes the intended audience for this article?

- A. historians
- B. marine biologists
- C. environmentalists
- D. science enthusiasts

INSTRUCTIONS: Answer questions 1 to 3 based on the article “Jaws of Death.” Complete sentences are not required.

1. Identify **two** features that Summers believes help the cownose ray crush mollusks. Explain how each works. **(4 marks)**

Feature	Explanation
Example: Hollow struts (with mineral deposits) in the upper and lower jaws	<ul style="list-style-type: none">• these struts resist bending and buckling in the cartilage of the jaw where the cownose ray would bear down on its prey

2. Summers addresses two beliefs: one about cartilaginous fish in general, and one about cownose rays in particular. Identify each of these beliefs and provide one action Summers took, or plans to take, to substantiate these ideas. **(4 marks)**

Belief Regarding Cartilaginous Fish	Action
Belief Regarding Cownose Ray	Action

3. List **two** purposes of Figure 1. **(2 marks)**

Purpose 1: _____

Purpose 2: _____

PART C: EDITING

Value: 7 marks

Suggested Time: 7 minutes

INSTRUCTIONS: You are the webmaster for e-learning.net. You have prepared the following e-mail to send to a customer. Before sending the message, edit for clarity and consistency. For questions 19 to 25, select the **best** answer and record your choice on the Response Form provided.

To: klyons@sd34.bc.ca
From: webmaster@e-learning.net
Subject:
Cc: webserver@e-learning.net
Bcc:
X-Attachments:

- 1 We have noticed that you have accessed our award-winning course materials. The site offers many materials which will enhance the teaching and learning of science, social studies, language arts, and the study of mathematics.
- 2 We trust that you will continue to enjoy your experience at e-learning.net!
- 3 There are many features of interest to teachers:
 - *instructional tools <<http://www.e-learning.net/instruction>>,
 - *FAQ's <<http://www.e-learning.net/FAQ>>, and
 - *wonderful web links <<http://www.e-learning.net/weblinks>>.
- 4 Be sure to check out each of these during your 90-day complementary trial period. _____ you have proven to yourself how valuable this site is, we are confident you will want to become a member of our e-learning family. Check out our subscription rates at <<http://www.e-learning.net/subscription>>.
- 5 Upon experiencing any quandaries during your examination period, or should you desire to converse with an educational representative regarding a subscription, please contact 1-800-555-1234.

19. Paragraph 1 contains

- A. vague phrases.
- B. excessive words.
- C. faulty parallelism.
- D. faulty punctuation.

20. Within the context of the entire e-mail, paragraph 2 should be

- A. left as is.
- B. the last sentence of the e-mail.
- C. the last sentence of paragraph 1.
- D. the first sentence of paragraph 4.

21. In paragraph 3, the colon after “teachers” should be
- A. deleted.
 - B. retained as is.
 - C. changed to a comma.
 - D. changed to a semicolon.
22. Which part of the first sentence from paragraph 4 contains an error?
- A. Be sure to check out
 - B. each of these
 - C. during your 90-day
 - D. complementary trial period.
23. Which of the following words is the best choice to begin sentence 2 of paragraph 4?
- A. If
 - B. Once
 - C. Since
 - D. Should
24. Within the context of the entire e-mail, the language of paragraph 5 is
- A. inappropriate because it is colloquial.
 - B. inappropriate because it is too formal.
 - C. appropriate because it demonstrates professionalism.
 - D. appropriate because it demonstrates the company’s knowledge.
25. Select the most appropriate subject line for this e-mail.
- A. E-learning FAQs
 - B. Help from e-learning.net
 - C. Trial tips from e-learning.net
 - D. Your e-learning.net subscription

Organization and Planning
(this will not be marked)

	1st	2nd	Total
Design			

PART D: DESIGN

Value: 20 marks

Suggested Time: 20 minutes

INSTRUCTIONS: Read the situation below and create an appropriate product (complete with title). Use visual representation to enhance the message.

- underline words to indicate *italics*
-  words to indicate **bold**
-  use a box to indicate the look and placement of a graphic

4. You are Shawn Smith, Grad Council President and member of the Technical and Professional Communications 12 class. Hoping to cut down on the rash of recent automobile crashes involving students, your principal has asked you to give a presentation to grade 10 CAPP classes on automobile safety. In order for your presentation to be effective and engaging for the students, many of whom hope to be driving within the next six months, you have decided to create a handout for them to take home.

From the *Safe Driving Guide* produced by ICBC, you have obtained the following information. Create an effective handout that would appeal to young drivers.

Before you even go near the vehicle, consider whether you are ill, tired, on medication, or have been drinking. You may not feel much different, but your reactions are slower and judgment may be affected. Once inside the vehicle, it is important to properly adjust the rearview and side view mirrors and the position of the driver's seat before you begin your trip.

Check the vehicle before setting out on your trip. Are the headlights, turn signals, and tail lights clean and working? Are the windshield wipers wiping without streaks? Are the tires in good condition and properly inflated? Make sure that the windshield and back window are clean and unobstructed.

Safe driving demands the full attention of the driver at all times, so don't eat or drink while you are driving, and don't let your attention wander by checking your hair, playing with the stereo, or chatting on your cellphone. You can also be affected by strong emotions such as anger. If you feel you can't drive, don't take a chance; call a cab or ask someone else to drive.

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Organization and Planning
(this will not be marked)

PART E: CASE STUDY

Value: 35 marks (Content: 20 marks; Visual Design: 15 marks) Suggested Time: 60 minutes

INSTRUCTIONS: Read the scenario below and write a standard business memorandum. For ease of navigation, it is expected that you will include supporting visuals. For emphasis in your work

- underline words to indicate *italics*,
- **circle** words to indicate **bold**.

5. Scenario:

You are Terry Mastins, a graduating student from Hill Top High School in Winthral, BC. You are enrolled in the Entrepreneurship Career Preparation Program. Your teacher has just informed you that the school's Youth Entrepreneurship Program, chaired by Mr. Ray Donnelly, offers interest-free loans to worthwhile student ventures. "Worthwhile," he says, "means it offers a valued service to the community and it is solid financially."

You've been thinking about running a summer camp program for kids between the ages of 6 and 16. The only thing you need is "start-up" cash. The Youth Entrepreneurship Program may be just what you need to make this dream a reality.

When you initially thought of this idea, you completed a great deal of research. You have found a wonderful campground facility on Winthral Lake. You know the owners, Bob and Jane Kafferstan; they've operated summer camps there before, but plan on going to Europe this summer. Therefore, the entire facility will be available to lease for \$400 per week, but you must obtain insurance. (The owners leave for Europe on May 15, 2002, so you would have to pay the lease before then.) It has 8 cabins (each with 8 bunks), 2 washroom/shower facilities, and a lodge (office, kitchen/cafeteria, general meeting room, and 2 bedrooms). Lots of different activities would be possible: swimming, rock climbing, archery, canoeing, crafts, bike riding (kids would bring their own bikes and helmets), soccer, kayaking, and volleyball.

You believe there is sufficient demand in your community for week-long camps. At the going rate of \$200 per child per week, you will have no problem fully booking the cabins for the 4 weeks in July and the first 3 weeks in August. (You want the last week of August off as a breather!) Each cabin would have its own leader, who would sleep in the cabin with the campers. You believe you can hire 7 of the Recreation Leadership Career Course students to act as leaders with you, and 2 of the Chef's Training Career Preparation students to act as cooks. Since they will be devoting their whole summer to this program, you feel you should offer a salary of \$2 500 per staff member. (Remember, as an entrepreneur you don't earn a salary...but you will receive any profits.)

After talking to students from the Chef's Training Program, you estimate that the food costs will be \$33 000. You think you will need about \$1 000 for cleaning supplies, office supplies, and craft supplies. The required insurance will cost \$2 500, but that gives you full protection against liability, fire, and accidents. The school district will let you advertise by sending pamphlets home with all the students, so you feel an advertising budget of only \$250 will be more than sufficient. You think you could have the advertising ready for the middle of April. Since campers pre-pay to reserve a spot, you really only need to borrow enough money for advertising and the lease.

Each camp will begin on Sunday at 10:00 a.m. and end on the following Saturday at 10:00 a.m. That gives the staff time to do a bit of cleaning, a bit of debriefing, and a bit of relaxing before the next group arrives.

Task:

Write a persuasive proposal to Mr. Donnelly. Outline your business venture and demonstrate that it meets the program's criteria. Date your proposal March 15, 2002.

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Exercise care when tearing along perforations.**

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ACKNOWLEDGEMENTS

Adapted from “Jaws of Death” by Carl Zimmer in *Natural History*. September 2000.
pp. 36–37.