Statistics for Index Card Activity

Statistics are written on one side of the card and the statistical percentage on the other.

1. What percentage of the world’s people live in each world region:
   - Africa: 12%
   - Asia (including the Pacific Islands): 55%
   - North America: 5%
   - Latin America (including Mexico): 8%
   - Europe: 10%
   - Middle East: 4%
   - Former USSR: 5%

2. What percentage of the world’s people has drinking water at home? 30%

3. What percentage of the world’s people knows how to read? 35%

4. What percentage of the world’s people goes to bed hungry? 20%

5. What percentage of the world’s people uses 80% of the world’s energy? 7%

6. What percentage of the world’s people uses 80% of the world’s farmland? 4%

7. What percentage of the world’s people is under 15 years of age? 33%

8. What percentage of the world’s people is over 64 years of age? 6%

9. What percentage of the world’s people has a college education? 1%

10. What percentage of the world’s people speaks English? 8%

Adapted from <http://www.abc-oghs.org/group_activities.htm>.
**Anticipation Guide: Learning and Using English**

**Directions:** Rate each statement according to the strongly agree/strongly disagree continuum and explain your choices. (You may be asked to write about them on a separate piece of paper.) Then, in your group, discuss each statement; you must reach consensus on your ratings. (Optional: Ask two people outside your high school and over 19 to rate these statements. How do their answers compare with yours?)

1. It is crucial to have one common language for business.
   - [ ] strongly disagree
   - [ ] disagree
   - [ ] depends
   - [ ] agree
   - [ ] strongly agree

2. One can become fluent in a second language without compromising the first.
   - [ ] strongly disagree
   - [ ] disagree
   - [ ] depends
   - [ ] agree
   - [ ] strongly agree

3. In the future, if there is one universal language for business, it will be English.
   - [ ] strongly disagree
   - [ ] disagree
   - [ ] depends
   - [ ] agree
   - [ ] strongly agree

4. If English becomes the global language of the future, other languages will die out.
   - [ ] strongly disagree
   - [ ] disagree
   - [ ] depends
   - [ ] agree
   - [ ] strongly agree

5. When I study in Canada, I will adopt English and not use my first language as much.
   - [ ] strongly disagree
   - [ ] disagree
   - [ ] depends
   - [ ] agree
   - [ ] strongly agree

6. I am studying English because I need it in order to be successful in my chosen profession.
   - [ ] strongly disagree
   - [ ] disagree
   - [ ] depends
   - [ ] agree
   - [ ] strongly agree
Q. How many people in the world speak English?

A. About one and a half billion (1,500,000,000) people spoke English at the start of the 21st century. That is one quarter (¼) of all people on earth. More than 400 million (400,000,000) speak English as their first language. The rest speak English as a second or third language for their professional and personal lives. But English is not the world’s top first language, as you can see from the following chart:

<table>
<thead>
<tr>
<th>1st</th>
<th>Language</th>
<th>Spoken as a first language by</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>Mandarin Chinese</td>
<td>726,000,000</td>
</tr>
<tr>
<td>2nd</td>
<td>English</td>
<td>427,000,000</td>
</tr>
<tr>
<td>3rd</td>
<td>Spanish</td>
<td>266,000,000</td>
</tr>
<tr>
<td>4th</td>
<td>Hindi</td>
<td>182,000,000</td>
</tr>
<tr>
<td>5th</td>
<td>Arabic</td>
<td>181,000,000</td>
</tr>
<tr>
<td>6th</td>
<td>Portuguese</td>
<td>165,000,000</td>
</tr>
<tr>
<td>7th</td>
<td>Bengali</td>
<td>162,000,000</td>
</tr>
<tr>
<td>8th</td>
<td>Russian</td>
<td>158,000,000</td>
</tr>
<tr>
<td>9th</td>
<td>Japanese</td>
<td>124,000,000</td>
</tr>
<tr>
<td>10th</td>
<td>German</td>
<td>121,000,000</td>
</tr>
</tbody>
</table>

The English language may be universal but it can definitely be hard to learn. Ponder these lines...

- The bandage was wound around the wound.
- The farm used to produce produce.
- We must polish the Polish furniture.
- He could lead if he would get the lead out.
- The soldier decided to desert his dessert in the desert.
- A bass was painted on the head of the bass drum.
- When shot at, the dove dove into the bushes.
- I did not object to the object.
- The insurance was invalid for the invalid.
- They were too close to the door to close it.
- A seamstress and a sewer fell down into a sewer line.
- I had to subject the subject to a series of tests.

Let's face it, the English language is crazy. There is no egg in eggplant, nor ham in hamburger, neither apple nor pine in pineapple. English muffins weren't invented in England or french fries in France. Sweetmeats are candies while sweetbreads, which aren't sweet, are meat. We also wonder why quicksand works slowly, boxing rings are square and a guinea pig is neither from guinea nor is it a pig. And why is it that writers write but fingers don't fing, grocers don't groce and hammers don't ham? One goose, two geese—why not one moose, two meese? If we say teachers have taught, why don't we say preachers have praught? If a vegetarian eats vegetables, what does a humanitarian eat?

Source: <www.titus2menandwomen.org/Humor/EnglishLanguage.shtml>. Author unknown.
Canada's Worst Nightmare
Graphic Organizer:
Exploring through Background Knowledge

- sensational reports and photographs
- personal experience
- scientific explanation
- news events
- television and literature
The Return of the Plagues?

by Gwynne Dyer

21 February 2003

On 28 January an eight-year-old girl from Hong Kong visiting relatives in southern China fell ill with influenza and was admitted to hospital. A week later she died, and since then her father has died of the same flu, while her nine-year-old brother lies gravely ill in an isolation ward in Hong Kong. The virus is outwardly similar to the A (H5N1) strain, also known as “bird flu,” that killed six of the eighteen people who were infected in the last outbreak in Hong Kong in 1997.

New strains of viral diseases that can kill human beings generally emerge by mutation as they hop back and forth between people and their domesticated animals. This exchange of viruses goes on all the time in farming areas—but it’s only when a lethal new virus crosses the species barrier AND THEN STARTS TO PASS FROM ONE PERSON TO ANOTHER that the alarm bells start to ring. They are ringing now.

“If this virus is transmissible from human to human then it is far more serious,” said a spokesperson for the World Health Organization in Geneva on 19 February. The 1997 flu virus was stopped by slaughtering the 1.4 million chickens, ducks and geese in Hong Kong, but if the new one is already loose all over southern China that solution will not really work. Even the normal wave of flu that circles the world every year, slightly changed genetically each time, exacts a serious toll in lives, but once in a while something really lethal comes along. This could be one of those times.

The “Spanish flu” pandemic of 1918 infected between 20 and 40 percent of the world’s population and killed 20 million people in four months, twice as many as died in the First World War—and the majority of the victims were young, healthy people who died of complications like bronchitis and pneumonia. If a flu virus like that appeared now, could it do as much damage?

Certainly the two subsequent flu pandemics, occurring after the development of anti-viral medicines, did not cause the same carnage. The impact of the 1957 “Asian flu” pandemic was greatly reduced by mass vaccination: only one human being in six caught it, and it killed an estimated two million people worldwide. The 1968 “Hong Kong flu” pandemic killed only a million people, and as in 1957 most of the victims were elderly. But viruses are not impressed by medical technology.

Despite the far higher standards of sanitation and medical care in the developed world, influenza death rates there have not been significantly lower than in poorer countries. Viral diseases mutate fast, antibiotics are no use against them, and good hygiene is no protection either. Bacterial diseases like cholera, anthrax and malaria have complex life cycles and mutate only slowly, so they are easy to contain—but if the latest version of “bird flu” is transmissible between people, we could be looking at millions of deaths over the next year. Nor is that the worst that could happen.

The true nature of the “Black Death” was long a mystery, but early in the 20th century, after doctors had found and described bubonic plague in India, experts jumped to the conclusion that a more virulent form of that disease, endemic in rats and transmitted to humans by their fleas, was the real culprit. This was a comforting conclusion, because it meant that it was a bacterial disease with a complicated life cycle, easily contained by hygiene and antibiotics, that would never come back to trouble modern human beings. But it never actually made sense, because the standard treatment for the Black Death, tried and tested over three hundred years, was to quarantine affected families and villages for forty days. That could not have worked if it were carried by rats, which do not respect quarantines. So two years ago professors Christopher Duncan and Susan Scott of Liverpool University suggested in their book, “Biology of Plagues,” that the Black Death was really an Ebola-like virus, a haemorrhagic fever transmitted directly from person to person. It is frighteningly plausible.

There were actually two Great Pandemics, and the first hit Europe and the Middle East in 541 AD. The Roman empire had been relatively unharmed by great plagues, apart from bouts of smallpox in 170 and measles in 250, which killed mostly children and left survivors immune, but the new plague was different. It returned about every 10 years for the next two centuries, and reduced the population of the Mediterranean area by between 30 and 50 percent. Large parts of the Middle East and North Africa did not recover their pre-540 populations until about 100 years ago.

The plague called the Black Death appeared in Mongolia in the 1320s, and killed two-thirds of China’s population between 1330-50. It reached Europe in 1347, and killed between 30 and 40 percent of the population in the first onslaught. It returned at intervals of about a decade, with gradually diminishing lethality, until it disappeared at the end of the 17th century. The aching, the bleeding from internal organs, the red blotches on the skin caused by the effusion of blood under the skin, were all typical of Ebola-style fevers. Besides, bubonic plague, unlike the Black Death, did not disappear. There was an outbreak of bubonic plague in Glasgow as recently as the 1890s.

If Duncan and Scott are right, therefore, there is a virus out there somewhere, dormant for the moment while it tries out mutations that might break through the genetic defenses that human beings evolved to defeat it last time, which could kill a significant portion of the human race in a year. The Black Death is not dead, it’s only sleeping. And in the meantime, the “bird flu” may be coming.
Viruses may be defined as acellular organisms whose genomes consist of nucleic acid, and which obligately replicate inside host cells using host metabolic machinery and ribosomes to form a pool of components which assemble into particles called virions, which serve to protect the genome and to transfer it to other cells.

They are distinct from other so-called virus-like agents such as viroids and plasmids and prions.

The concept of a virus as an organism challenges the way we define life:

- viruses do not respire
- nor do they display irritability
- they do not move
- nor do they grow
- however, they do most certainly reproduce, and may adapt to new hosts

By older, more zoologically and botanically biased criteria, then, viruses are not living. However, this sort of argument results from a “top-down” sort of definition, which has been modified over years to take account of smaller and smaller things (with fewer and fewer legs, or leaves), until it has met the ultimate “molecchisms” or “organules”—that is to say, viruses—and has proved inadequate.

If one defines life from the bottom up—that is, from the simplest forms capable of displaying the most essential attributes of a living thing—one very quickly realizes that the only real criterion for life is the ability to replicate and that only systems that contain nucleic acids—in the natural world, at least—are capable of this phenomenon. This sort of reasoning has led to a new definition of organisms:

“An organism is the unit element of a continuous lineage with an individual evolutionary history.”

The key words here are unit element, and individual: the thing that you see, now, as an organism, is merely the current slice in a continuous lineage; the individual evolutionary history denotes the independence of the organism over time. Thus, mitochondria and chloroplasts and nuclei and chromosomes are not organisms, in that together they constitute a continuous lineage, but separately have no possibility of survival, despite their independence before they entered initially symbiotic, and then dependent, associations.

The concept of replication is contained within the concepts of individual viruses constituting continuous lineages, and having an evolutionary history.

Thus, given this sort of lateral thinking, viruses become quite respectable as organisms:

- they most definitely replicate
- their evolution can (within limits) be traced quite effectively
- they are independent in terms of not being limited to a single organism as host, or even necessarily to a single species, genus, or phylum of host
A Congolese woman lands at the airport in Toronto after a 21-hour flight that took her from Africa, via Rome and Newark, N.J., to Toronto. She couldn’t eat on the flight and was weak and flushed with high fever. Doctors thought she may have had malaria, which is scary. Then they considered she may be suffering from the dreaded Ebola virus.

Turns out she probably hasn’t been infected with Ebola; it’s likely some other exotic disease. The results came from the new Canadian Science Centre for Human and Animal Health in Winnipeg, which contains one of the world’s most secure laboratories for the testing of deadly diseases.

It is a Level 4 lab, one of 15 in the world, and the only one in Canada. The Congolese woman’s blood and fluids were sent to Winnipeg for testing, also to Atlanta’s Centers for Disease Control and Prevention.

Winnipeg’s new virology lab—administered by Health Canada—cost $172 million and took 10 years to design and build. It took two years to build the concrete box that encloses the Level 4 lab. They waited a year for the massive, monolithic concrete to dry, then covered it with 30 coats of special paint, then covered the walls and floor with a layer of epoxy 7.5 centimetres thick.

What distinguishes the Winnipeg lab is that it is set up for both human and animal diseases, which is of vital importance as scientists uncover more evidence of human diseases transmitted from animals. An example in the news recently is mad cow disease and its association with the human disease called Creutzfeldt-Jakob disease (CJD).

The first strains of lethal diseases arrived at the Winnipeg lab in the summer of 2000, a cargo of six of the most deadly viruses in the world. Small vials contained samples of Lassa, Marburg and Junin, with three strains of Ebola viruses, all flown in from the Centers for Disease Control in Atlanta.

But, if security requirements are so stringent, and the stuff so deadly, how is it so easily transported over great distances to the lab in Winnipeg? Dr. Ron St. John, Health Canada’s executive director of the Centre for Emergency Preparedness and Response, says the vials are transported in safety packs, then secured in a triple-container and sealed.

“...I would stress that these packages are designed to withstand tremendous impact,” Dr. St. John explained. “In the famous Lockerbie crash the only package—the only thing to survive intact in that terrible airplane tragedy—was a safety pack that had an organism in it.”

The Canadian Science Centre for Human and Animal Health in Winnipeg is located in the city’s west end, on Arlington Street. Its laboratories are in four levels of containment, Level 1 being at about the safety requirements of a high school lab, Level 4 considered secure enough to test the world’s deadliest viruses.

Much of the impetus for the Winnipeg lab—known locally as “the virology lab”—comes from a surge of new diseases in the 1980s, when two new strains of Ebola were discovered, and when the medical community took serious notice of the HIV-AIDS epidemic.

It is no cinch to build a Level 4 lab, and not just for design and construction challenges. A major problem is to get someone finally to sign off on the labs, which means to authorize them and guarantee that they are safe enough for the deadliest diseases in the world.

In 1976, a woman took sick at the Toronto airport and was taken to Etobicoke General Hospital where it was determined that she had contracted Lassa fever. This was enough of a scare to have the hospital shut down for a week.

(continued)

The Ontario government responded by spending $5.8 million to build a Level 4 lab in Etobicoke. But neighbours complained, the new facility was never opened, and the Ontario government decided these types of facilities are a federal responsibility.

Another high-security lab was built at Toronto General Hospital, on the 11th floor of the Norman Urquhart Wing. It was sealed off from the rest of the hospital, with its own air supply and electrical system, and a special state-of-the-art particulate filtering system. A special team was trained to work in the isolation unit, intended to handle diseases as lethal as Lassa and Ebola fevers. It was completed in 1984, at a cost of $2 million.

But it never opened.

Vickery Stoughton, then president of Toronto General Hospital blamed it on what he called “bureaucratic ass-covering.” Stoughton said government inspectors often arrived to check the new facility, but not one was willing to sign off on the guaranteed safety of a lab dealing with the deadliest diseases in the world.

“Instead, they’d recommend that another $100,000 or $200,000 be spent to make absolutely sure it’s safe,” Stoughton said.

One afternoon in his office, Stoughton seemed particularly upset at the sophisticated new lab lying idle for two years, at a time when the hot topics were health cutbacks and cost-cutting. I was with him that day.

“Sooner or later,” Stoughton told me, looking down at his telephone as if it would start ringing as he spoke, “someone’s going to ask, ‘Why’d you spend all that money and just let it sit there?’ I mean, The Toronto Sun would have a field day.”
Scientists Match Wits with Killers

Some fierce warfare is taking place in Winnipeg. The enemy: killer viruses, stubborn super-bugs and bacteria.

The battlefield is the Canadian Science Centre for Human and Animal Health, a complex on Arlington Street under 24-hour guard.

Commonly called “the virology lab” by most Winnipeggers, it will also become the hub of the new nationwide laboratory network for detecting and treating bioterrorist attacks.

The federal facility is a powerhouse of impressive technology, which includes more than the microscopes and sophisticated equipment used to sequence DNA. Technology is an integral part of the science, of course, but it’s also part of the safety and security processes of the building.

“It’s technology, partly, and it’s technique,” Dr. Frank Plummer, scientific director general of the National Microbiology Laboratories within the centre, said in an interview.

“People are trained in a certain way that allows them to do their job safely.”

Plummer, a leading HIV-AIDS researcher, has been at the helm of the microbiology labs since September 2000. He still works with graduate students at the University of Manitoba and delivers the occasional lecture.

“The main technology that’s important here is the safety,” Plummer said. “It’ll allow you to work on things you otherwise wouldn’t be able to.”

Every employee is vetted by the Canadian Security Intelligence Service. Drills with the city’s emergency services are routine. Security at the complex has always been tight, but since the terrorist attacks in the United States on September 11, 2001, it has become more visible. A security guard greets visitors at the front door.

The facility houses Health Canada and Canadian Food Inspection Agency labs. It’s the only one of its kind designed to house research for both human and animal health.

It costs about $11 million a year to operate the centre, an expense split between Health Canada and Agriculture Canada.

The lobby is the only area of the guarded facility—approved by the Treasury Board in 1987 and designed and built more than 10 years later—that is open to the public. The total building area covers the size of five football fields.

The High Efficient Particulate Air (HEPA) filtration system is used in Level 4 labs and is capable of removing particles 85 times smaller than the smallest known disease-causing agent.

The foundation of concrete pillars, embedded 30 metres into the second level of bedrock, cost $5 million and won’t shift. The building is backed by two power supplies.

It cost $35 million to equip the labs and about $2 million is spent annually in upgrades and additions. That amount will likely grow as programs grow, Plummer says.

“I think it’s the bells and whistles, the state of the art equipment that’s attracting people,” said centre spokesman Brian Koshul. “Everyone wants to be on the cutting edge.”

Plummer agrees: “It’s the fact that it’s big, it’s brand new. It’s got everything. People know about it.”

The labs are organized in an easily reconfigurable way, to suit changing needs of different programs and the preferences of the people who work in them. For instance, a big lab can be divided into four smaller labs overnight.

More than 90 per cent of utilities maintenance can be conducted from the hallways or above the labs where panels are located, so as not to disturb the integrity or routine of lab work. This also avoids any mishaps.

Coils, condensers and electric motors are not located in the containment area where scientists work, but in outside labs, leaving more workspace for scientists and technicians.

“Something as simple as changing light bulbs can stay relatively simple,” said Les Wittmeier, electrical technologist at the federal laboratories.

(continued)
Scientists Match Wits with Killers (continued)

This is a progressive bit of planning, because most high-end labs are not designed this efficiently.

The most sophisticated scientific work taking place in the building is connected to DNA testing. The centre has a DNA arrayer, a high-tech piece of equipment capable of placing 20,000 spots of DNA on a glass slide and reading it.

The slides are scanned for fluorescence, revealing the kind of DNA for which the scientists are looking. By studying DNA chips, researchers can test for the presence of certain genes, determine anti-microbial resistance, consider agents of bioterrorism and understand which genes are activated in particular conditions.

An experiment with a single DNA chip can provide researchers with information on thousands of genes simultaneously.

“It’s the sharp end of biotechnology,” Plummer said.

The “DNA court”—located within the Level 2 area—also has a robotic workstation for liquid handling. Up to 1,000 vials can be easily handled in the stacking system.

Scientists can actually make DNA here. Machines in this area of the building are capable of determining a DNA sequence automatically.

“These things are fairly common,” Plummer said. “We just have more of them than anyone else.”

Although the Level 4 labs, a series of pressure chambers, perform just one per cent of the centre’s area, they are the marquee attraction.

Most of the centre’s work takes place in the Level 2 and Level 3 labs where researchers study viruses and bacteria that make animals and humans sick. In those labs, scientists work with such things as sexually transmitted diseases, mad cow disease, salmonella, tuberculosis, flesh-eating bacteria and antibiotic-resistant organisms.

The Level 4 area is a box-within-a-box containment, sandwiched in the N-block of the complex, between the air filtering on the floor above and the bio-waste treatment system on the floor below.

In the Level 4 lab, the most sophisticated science taking place is the manipulation of deadly viruses, like Ebola. Plummer said scientists are able to change the genes around to see which ones are important in causing disease.

Bank-vault doors have key-punch locks and freezers keep specimens at -147°C, about 127 degrees colder than a home freezer. Samples are small, and kept frozen in liquid nitrogen.

When working in the Level 4 labs, scientists zip themselves into pale blue rubberized suits with sealed hoods, gloves and boots and press-lock folds. They communicate via an internal two-way radio system.

Just seven people are authorized to work in these labs and only four are permitted to work alone. Eight separate physical security checkpoints are required to gain entry. Cameras and motion detectors monitor the area.

Air coming in to the lab has already been filtered using High Efficiency Particulate Air (HEPA) filtration, removing particles 85 times smaller than the smallest known disease-causing agent. Air is HEPA filtered again, and then filtered a third time before it leaves. The breathing air that is piped into their suits is HEPA-filtered, too. A complete air change takes place every three minutes.

The HEPA air filters, which cost between $10,000 and $36,000 each, are not re-used. They are sanitized and destroyed after use. A crew of four people is dedicated solely to the HEPA filtration. Every air filter is backed up by at least one other filter.

“The advances in genomics and proteomics require expensive equipment that needs a lot of expertise to run and also sophisticated information handling,” Plummer said.

Primary treatment of any waste takes place first in the labs, before it even leaves for the bio-waste rendering system, where all liquid and solid waste is disinfected and sterilized before it enters the city’s sewer system.

Waste enters one of three 5,000-litre vessels, the kind seen in the meat-packing industry, although modified to suit the lab’s needs. Waste is heated to 121°C for a minimum of 30 minutes to sterilize it.

Nothing is incinerated. All liquid and solid waste is sanitized before it leaves the building. And even if a mishap occurs—in 1999, a step was missed, and disinfected shower and slide rinse water was released into the city sewer system before it had been re-sterilized—redundancy measures are in place.

(continued)
Scientists Match Wits with Killers (continued)

The “redundant system,” which includes safety measures that go beyond international standards, in effect, doubles the safety process. People who work in the complex say they have no qualms about bio-safety.

Because waste is treated first at the lab and then rendered before finally going into sewage blending when it is cooled and released into the city sewers, it is considered cleaner than any waste from residences or even hospitals.

“Personally, I feel safer working here than sitting in any ER or doctor’s office,” Wittmeier said. “I have no problems working here at all. It’s a basic understanding of what goes on here and what needs to be done that gives me that comfort.”

The bio-waste treatment area is alarmed, and monitored 24 hours a day.

“It’s a critical part of the building,” Wittmeier said. “It’s a high maintenance system, but when you consider the alternative of incineration, it’s preferable.”

Wittmeier says the centre is now providing information on bio-safety systems and procedures to other organizations, such as NASA, Texas Tech University and the Center for Disease Control in Atlanta. The world is also looking to the centre for its research capabilities, Plummer says.

On the horizon, Plummer would like for the lab to build a proteomics technology platform, develop genome libraries to explore things like the susceptibility to infection, and build a program in molecular imaging.

One of the most high-tech aspects of the centre isn’t the gear, but the people who work there. At least 10 of the scientists have been recruited from around the world.

“It’s really the scientists that do the work,” Plummer said. “You can have all the machines you want, but you need the scientists.”
Quiz: What Do You Know About AIDS?

A recent United Nations report found that young people are dangerously uninformed about AIDS. Are you? Take this test to see just how much you know. Afterward, your teacher will share the answers with you.

1. AIDS is:
   a) an illness.
   b) a type of bacteria.

2. AIDS is caused by:
   a) malnutrition.
   b) a virus.
   c) unsanitary living conditions.

3. AIDS attacks the immune system. The immune system:
   a) builds muscle.
   b) builds bone.
   c) protects the body from disease.

4. AIDS affects only gay people.
   a) true
   b) false
   c) only gay men
   d) only gay women

5. You can get AIDS by:
   a) kissing someone with AIDS.
   b) having sex with someone with AIDS without properly using a latex condom.
   c) sharing needles to inject drugs with someone who has AIDS.
   d) both b and c.
   e) all of the above.

6. You also can get AIDS:
   a) by sharing food with someone who has AIDS.
   b) by being bitten by an infected mosquito.
   c) by hugging someone with AIDS.
   d) from a toilet seat.
   e) in none of these ways.

7. A person who looks healthy:
   a) has the HIV virus.
   b) couldn't possibly have the HIV virus.
   c) might or might not have the HIV virus.

8. The only way to know for sure if someone has the HIV virus:
   a) is through medical tests.
   b) is by looking at them.

9. You can't get AIDS from having sex just once.
   a) true
   b) false

10. Using a latex condom:
    a) provides 100% protection against AIDS.
    b) provides a lot of protection against AIDS but not 100%.

11. Can an HIV-positive mother transmit the virus to her unborn child?
    a) yes
    b) no

12. Sometimes a person's decision-making in sexual situations is influenced by:
    a) drugs.
    b) alcohol.
    c) either a or b.

13. A person infected with HIV might show signs of it:
    a) within several weeks.
    b) within a year or two.
    c) in 10 years.
    d) any of the above.

14. Right now:
    a) there is a cure for AIDS.
    b) there is no cure for AIDS.
    c) there are drugs that help many, but not all, infected people control their symptoms.
    d) both b and c.

15. How many people around the world get infected with HIV each day?
    a) less than 1000
    b) more than 5000
    c) more than 10,000
    d) more than 15,000

16. HIV infection rates are growing fastest among:
    a) gay men.
    b) women and teenagers.
    c) middle-aged men.

What is HIV?

“HIV” stands for Human Immunodeficiency Virus:

- Human: means it affects humans only.
- Immunodeficiency: means that something is deficient, or there is not enough of it, in the immune system.
- Virus: is a very small germ that infects someone and can be spread from one person to another.

HIV is the virus that causes AIDS.

How does your immune system work?

Normally, your immune system helps protect you from germs and infections—like cancer, bacteria, parasites, fungi, and viruses—that can make you sick. It also keeps you from getting some diseases more than once, like chicken pox or the measles.

Your immune system works throughout your whole body. Some examples of your immune system at work include:

- Skin: keeps all kinds of germs and bacteria out of your body.
- Saliva: contains things called enzymes that can kill some germs.
- Nostrils: have hair and mucous that filter the air you breath. They keep germs from getting in your body.
- Vagina, penis, anus, and bowels: contain mucous to protect the body from infection.

What is a virus?

A virus is a germ that makes copies of itself within the cells of a person it infects. It usually makes you sick in some way. A virus is different from other kinds of germs. Bacteria, for example, can grow on their own. A virus can’t. Viruses need to get inside a living cell and take it over. Once a virus is inside a living cell, the virus can make copies of itself.

Your immune system kills most viruses before they can make you sick, or before they can do a lot of damage to your cells.

How does the virus called HIV work?

HIV is different from other viruses because it gets inside some of the cells in your immune system.

Those cells are called CD4 cells, which are also known as T4 cells or T cells.

The job of CD4 cells is to watch out for viruses as they enter your body. CD4 cells send a message to the rest of your immune system to help fight the virus. But HIV uses CD4 cells to grow, which means those cells can’t do their job. And that means your body doesn’t have part of its immune system.

When HIV gets into a CD4 cell, it goes right into the cell’s DNA. HIV takes control of that cell, so the cell starts making new copies of HIV. This process is called replication.

First, the HIV in the CD4 cell produces new HIV proteins. Next, these proteins leave the CD4 cell to go and infect other CD4 cells. HIV uses an enzyme called protease to help spread it to other cells.

Once HIV has infected CD4 cells, it usually kills the cells. If you have HIV, this process happens billions of times a day. At the same time, your immune system tries to kill the infected CD4 cells and makes new CD4 cells to replace the ones that are infected. But as you can imagine, HIV soon infects these new cells, too.

If you have HIV, your CD4 cells can’t do their normal job of protecting you from viruses, so you are at a much higher risk of getting infections and other diseases.

A doctor can use a blood test to count the number of CD4 cells per cubic millimetre (mm³) in your blood. In HIV-negative adult men, the normal CD4 cell count is 400-1200 cells/mm³. In HIV-negative adult women, the normal CD4 cell count is 500-1600 cells/mm³. The CD4 count is important in HIV positive people because it shows how much damage has been done to their immune system. It’s important to note that test results can vary from one lab to another.

How do you get HIV?

HIV likes wet things, so it lives in body fluids. HIV can be passed from an infected person to someone else through body fluids such as:

- semen/sperm
- vaginal fluids
- blood
- breast milk

(continued)
If HIV-infected body fluids get into your body, you might get HIV. That’s why doctors and nurses wear rubber gloves when they give needles or perform operations. It’s also why you should never share needles with someone else and why you need to use a condom when you’re having sex.

These are the ways you can get HIV:

- **Having unprotected sex** with an HIV positive person (that means not using a condom during vaginal, anal or oral sex).
- **Sharing needles**, whether you’re injecting drugs or getting a tattoo or piercing.
- **Having open cuts and sores** on your body come into contact with an infected person’s blood or semen.
- **Being born to an HIV positive mother**—infection can occur in the womb, during birth or through breast milk.
- **Playing blood games**, such as “chicken” or “blood brothers.”

**Can I get HIV from kissing someone?**

Even though HIV likes wet things, you can’t get HIV by simply kissing someone who is infected with HIV. You also can’t get HIV from:

- saliva
- sweat
- tears
- shaking hands
- sharing towels
- swimming pools
- telephones
- toilet seats
- biting insects, like mosquitoes

**How do you know if you have HIV?**

It’s hard to tell. Most people don’t know that they have been infected with HIV for some time after getting it. It can take up to three months before it shows up on a blood test.

Sometimes HIV infected people feel sick, like they have the flu, with a fever, headache and sore throat, before they actually test positive for HIV.

**But so many people who have HIV don’t know it.** Sometimes it can take years before a person finds out. Some people only find out if they start getting sick a lot more often and go to a doctor to find out why.

**You can’t tell** by just looking at someone that they are infected with HIV.

**What does it mean if you are “HIV positive”?**

When you are tested for HIV, and the test results are positive, you are “HIV positive.” Once you are infected with HIV, it’s just a matter of time before you become “HIV positive.”

When you are HIV positive, your immune system has gone through a process called seroconversion. Seroconversion means that your immune system has created antibodies to HIV.

An HIV test looks for these antibodies. It might take a few months after being exposed to HIV for your body to start making these antibodies. But once you do, you will get a positive result on an HIV test.

**How do you find out if you are HIV positive?**

Only a doctor or other health care professional (like a nurse) can tell you for sure if you are HIV positive. The doctor will do a blood test to see if your body is making antibodies. If your body is making antibodies to HIV, it means you are infected with the virus. Once you test positive for HIV, you will always test positive for the virus.

**What happens to your body when you’re HIV positive?**

If you are HIV positive, the virus creates billions of new HIV viruses in your body every day. Your body’s reaction to infection is to produce billions of cells to fight HIV.

HIV, however, takes every chance it can to reproduce faster than the body can attack it. Your immune system may get weaker or become overactive. Either way, your immune system is out of balance. HIV starts a process that can be very hard to stop once it starts.

With a weak immune system, you can get infections and cancers more easily. Most people with HIV end up with AIDS.

**How do you know if your HIV disease is changing or getting worse?**

Your doctor will keep track of your HIV disease with blood tests. That way, the doctor can tell if your HIV (continued)
is getting worse and your immune system is getting weaker. These tests also can tell your doctor if you have Opportunistic Infections or AIDS-Related Complications.

To measure the progression of your HIV disease, your doctor will probably do:

- **CD4 Count Test**: this test tracks how much damage has been done to your immune system. It should be done every three to six months, or if you have a low CD4 count, it probably will have to be done more often. It’s better to have a high CD4 count than a low CD4 count.

- **Viral Load Test**: this test measures the number of copies HIV has made in your blood and shows how much damage HIV could do to your body in the future. Your viral load tells you how far your HIV disease has progressed. It’s better to have a low viral load than a high viral load.

Your doctor will probably also do tests to check your general health and to see if you have any opportunistic infections or co-infections.

- **Biopsy**: a small sample of skin, muscle, lymph node, or even organ is removed from your body and examined under a microscope for disease.

- **Complete Blood Count (CBC)**: this shows how well your blood cells are working. Blood cells help your body run properly.

- **Culture**: a sample of body fluids or tissues are tested to find out if they contain any germs that might make you sick.

- **Imaging tests**: these tests include X-rays, computerized tomography (CT or CAT scans) and magnetic resonance imaging (MRI scans). All create pictures of the inside of your body. They let doctors see infections, tumours and broken bones.

- **Liver Function Test**: this test shows how well your liver is working and whether it has been damaged.

- **Scope**: a really thin, flexible tube that goes inside your body. Doctors can look through it to see if there’s anything wrong with an organ or some tissues. They can also take samples with it.

- **Stain**: this is just like a culture. Your doctor might take a sample of blood, stool, mucus, urine, sputum (fluid coughed up from your lungs), phlegm, spinal fluid or tissue from you, stain it with some dye and look at it under a microscope for germs.

- **Tuberculosis (TB) Test**: this test may be done once a year because you are at a higher risk of getting TB if you have HIV. Tuberculosis is a really serious lung disease that makes you cough and have trouble breathing.

**HIV and Pregnancy**

Right now, four out of every 10,000 pregnant women in Canada are HIV positive. Many of these women find out about their HIV when they are pregnant because many doctors now test for the virus.

In the past, many babies born to HIV positive women also got the disease. Now, very few women who are getting the right care pass the virus on to the baby. The baby can get HIV during the pregnancy, during delivery and from breast milk. If a mother knows she has HIV, she can take anti-HIV drugs, have a Caesarean Section (an operation to take the baby out) and not breastfeed. All of these steps greatly reduce the risk of passing the virus onto the baby.

**When someone is pregnant, they should get an HIV test.** While it might be scary to get the test, it’s really important for both a woman’s health and the health of the baby.

(continued)
Is there a cure for HIV?

There is no cure for HIV. Right now, once you get HIV, you have it for the rest of your life. Scientists are working really hard to cure HIV and AIDS. They’re also working on a vaccine to keep people from getting HIV.

People who have HIV can live a long time and stay healthy for many years. There are several treatments that can slow down HIV. Some people on these treatments feel very healthy and can fight off the virus for a long time. That’s why it’s really important that anyone who has HIV—or even thinks they might have it—should see a doctor and consider getting treatment.
The most common measure of the HIV/AIDS epidemic is the prevalence of HIV infections among a country’s adult population—in other words, the percentage of the adult population living with HIV. Prevalence of HIV provides a good picture of the overall state of the epidemic. Think of it as a still photograph of HIV/AIDS. In countries with generalized epidemics, this image is based largely on HIV tests done on anonymous blood samples taken from women attending antenatal clinics.

But prevalence offers a less clear picture of recent trends in the epidemic, because it does not distinguish between people who acquired the virus very recently and those who were infected a decade or more ago. (Without antiretroviral treatment, a person might survive, on average, up to nine to 11 years after acquiring HIV; with treatment, survival is substantially longer.)

Countries A and B, for example, could have the same HIV prevalence, but be experiencing very different epidemics. In country A, the vast majority of people living with HIV/AIDS (the prevalent cases) might have been infected five to 10 years ago, with few recent infections occurring. In country B, the majority of people living with HIV/AIDS might have been infected in the past two years. These differences would obviously have a huge impact on the kind of prevention and care efforts that countries A and B need to mount.

Similarly, HIV prevalence rates might be stable in country C, suggesting that new infections are occurring at a stable rate. That may not be the case, however. Country C could be experiencing higher rates of AIDS mortality (as people infected a decade or so ago die in large numbers), and an increase in new infections. Overall HIV prevalence rates would not illuminate those details of the country’s epidemic.

So a measure of HIV incidence (i.e., the number of new infections observed over a year among previously uninfected people) would help complete the picture of current trends. Think of it as an animated image of the epidemic.

The problem is that measuring HIV incidence is expensive and complicated—to the point of it being unfeasible at a national level and on a regular basis in most countries.

None of this means, however, that recent trends are a mystery. Regular measurement of HIV prevalence among groups of young people can serve as a proxy, albeit imperfect, for HIV incidence among them. Because of their age, young people will have become infected relatively recently. Significant changes in HIV prevalence among 15- to 19-year-olds or 15- to 24-year-olds can therefore reflect important new trends in the epidemic.

The steadily dropping HIV prevalence levels in 15- to 19-year-olds in Uganda, for example, indicate a reduction in recent infections among young people, and provide a more accurate picture of current trends in the epidemic (and, in this instance, of the effectiveness of prevention efforts among young people).

Copyright 2002 UNAIDS.
World AIDS Summit Warns of Challenges Ahead

The Fourteenth International Conference on AIDS, held in Barcelona, Spain from July 7-12, 2002, warned that the HIV/AIDS epidemic is the greatest threat to global health today. According to figures released at the summit, 60 million people have been infected and 22 million people have died from AIDS since its identification in the 1980s, with a further 68 million people projected to die from the disease by 2020.

Summit participants, including government representatives, non-governmental organizations, youth activists, business groups, and statesmen such as Kofi Annan, Nelson Mandela, and Bill Clinton, called for more funding, with the United Nations Joint Program on HIV/AIDS (UNAIDS) and the United Nations Development Program (UNDP), declaring $10 billion annually a desirable and achievable figure.

Nevertheless, the summit’s funding recommendation was criticized by various interest groups. Developing countries and non-governmental organizations, such as the Catholic Aid Agency (CAFOD), argued for increasing funding levels higher than the $10 billion proposed. They also pointed out that the problem of lack of funding to tackle AIDS is compounded by the UN Global Fund’s failure to distribute any money since its creation in January 2002 in the fight against AIDS, TB, and malaria despite announcing $1.6 billion in grants to 40 developing countries.

Critics also linked fighting HIV/AIDS to other issues. For example, Oxfam argued that developing countries would be able to fund their own prevention, education, and healthcare projects if they were not burdened with huge debt repayments to the developed world. The World Food Program (WFP) and the Food and Agriculture Organization (FAO), meanwhile, noted that well-nourished people are better able to survive the disease and that treating people for HIV/AIDS and then having them die of starvation would be a tragedy. Others said that developing countries would be better served by the elimination of tariff barriers by Western countries and freedom to use WTO provisions on national health emergencies and compulsory licensing of patents to produce cheaper drugs to treat the epidemic.

Indeed, the disease’s links to other issues such as development, productivity, education, and social cohesion were highlighted at the summit. For example, the International Labor Organization (ILO) says that the epidemic undermines both economic and social development by reducing productivity and competitiveness through increased absenteeism, organizational disruption, and loss of skills, resulting in added costs for training new staff as productive workers die. Productivity and development have also suffered as the disease has affected education, with children removed from school, to nurse family members, work the land or because schools have closed as teachers have died. These problems are particularly acute in Africa, where 28,500,000 people are living with HIV/AIDS, prompting warnings from the UN Envoy on HIV/AIDS in Africa that the effects of the epidemic “stand to undermine all efforts to promote development” and have created a skills shortage that years of aid and billions of dollars of development work had attempted to overcome.

The disease also disrupts society because of the widespread death it brings. The United Nations Children’s Fund (UNICEF), for example, estimates more than 20 million children have been orphaned by the AIDS epidemic, with this figure expected to rise to 25 million by 2010, with many facing poverty and starvation as a result. Furthermore, an increasing number of children are born HIV-positive as more women are infected and drugs available to reduce transmission to the children are prohibitively expensive.

Similarly, the United Nations Security Council has highlighted the epidemic’s potential threat to both national and international security, especially in conflict and peacekeeping situations, where the disease can lead to the complete breakdown of society and its regulatory systems. In response, the UN has adopted the UN Initiative on HIV/AIDS and Security, and implemented a two-year plan aimed at protecting vulnerable communities and supporting their regulatory systems, such as the army and police force, to tackle the disease and maintain social stability.

(continued)
Furthermore, HIV/AIDS not only kills millions of people itself, it also increases the prevalence of other communicable and potentially fatal diseases such as tuberculosis (TB) and malaria. All these diseases are straining healthcare systems in developing countries, leaving impoverished patients to try to pay for their own treatment and stretching the system so far that there is little funding to treat other healthcare problems, resulting in a drop in healthcare standards and a rise in fatalities. This appears to have affected migration as well, with developed countries noting more people seeking to move abroad to gain medical care and some developed nations tightening their immigration rules in response.

The HIV/AIDS epidemic thus has profound implications for globalization, threatening global health, retarding development, damaging productivity, creating new threats to global security, and raising questions over how best to help developing nations deal with the challenge of disease epidemics. The success or failure of multi-agency strategies proposed to deal with the threat of HIV/AIDS will profoundly affect the future for all nations and the global scope of the threat may affect the way health and development issues are viewed in the future.
According to one estimate, by the time of the European colonization of the Americas, plagues such as smallpox and measles could travel around the world within the span of a year. Today, of course, with international air travel, an infected person can carry a disease from almost any point of the globe to any other point in less than 36 hours.

One of the particularly threatening aspects of this compression of time is that people can now cross continents in periods of time shorter than the incubation periods of most diseases. This means that, in some cases, travelers can depart from their point of origin, arrive at their destination and begin infecting people without even knowing that they are sick.

The new ease with which infectious diseases can be transmitted globally is having a direct and dramatic effect on morbidity and mortality around the world. In the United States, for example, the incidence of infectious disease-related deaths has been increasing by roughly 4.8 percent per year since 1980, bringing the number of deaths up to 59 per 100,000 by 1996. This translates into 170,000 U.S. deaths annually. This increase follows nearly a century of long-term, steady decline in the number of deaths from infectious diseases in the United States.

Similarly, in the United Kingdom, which had almost completely eradicated tuberculosis from the British Isles by 1953, 7000 new cases of the disease occurred in 1990.

The dangers posed by these diseases go beyond simply medical concerns. In January of 2000, the U.S. Intelligence Community issued a declassified report concerning the spread of global infectious diseases. This National Intelligence Estimate found that:

“New and re-emerging infectious diseases will pose a rising global health threat and will complicate U.S. and global security over the next twenty years. These diseases will endanger U.S. citizens at home and abroad, threaten U.S. armed forces deployed overseas, and exacerbate social and political instability in key countries and regions in which the United States has significant interests.”

The threat of political instability—which can be defined as wars, ethnic conflict, and violent regime transitions—is most likely to endanger developing countries. In these nations the burden of disease can strain already meager national budgets, set off competition for resources, and result in the death or disability of important government officials.

In many African countries in particular, the most skilled and wealthiest segments of the population are often the most severely affected by the HIV virus. This tends to be the case because the wealthier segments of the population tend to be more mobile and have more opportunities for sexual partners.

“...The concept of domestic as distinct from “international health” is outdated. Such a dichotomous concept is no longer germane to infectious diseases in an era in which commerce, travel, ecologic change, and population shifts are intertwined on a truly global scale.”

(U.S. CDC, Addressing Emerging Infectious Disease Threats: A Prevention Strategy for the United States).

Similarly, the armed forces of some African countries are estimated to harbor infection rates of between 10 and 60 percent. Losses of key military leaders and senior officers can lead to breakdowns in the chain of command, and make it more tempting for younger officers to launch coup attempts.

Of course, the problems of health and instability are
not limited to Africa or to the HIV virus alone. Political instability is most likely to arise in the presence of broad social upheaval. A recent major study by political scientists looked into the causes of 127 cases of state instability around the world over a forty-year period, evaluating each of these cases according to the presence of certain variables or indicators of social and political turmoil. Out of 75 factors they analyzed, 3 emerged which proved to correlate the most strongly as predictors of political instability. These three most powerful determinants were:

- incomplete democratization,
- low openness to international trade, and
- infant mortality.

In particular, they found that high infant mortality within a state that is only partially democratic is most likely to produce instability.

**Questions for Discussion:**

The study on political instability found that incomplete democratization, low openness to international trade, and infant mortality are the three strongest predictors of political instability. Do you think these three predictors are related to each other? How?

Why does the spread of infectious disease lead to political instability?

If the spread of infectious diseases have been around for centuries, why does it seem like this is a relatively new phenomenon? What do you think has drawn increased attention to global diseases?

Do you think there is a connection between infectious diseases and economic development?
Features of Culture

1. Facial expressions
2. Religious beliefs
3. Religious rituals
4. Importance of time
5. Paintings
6. Values
7. Literature
8. Child raising beliefs
9. Concept of leadership
10. Gestures
11. Holiday customs
12. Concept of fairness
13. Nature of friendship
14. Notions of modesty
15. Foods
16. Eating habits
17. Understanding of the natural world
18. Concept of self
19. Work ethic
20. Concept of beauty
21. Music
22. Styles of dress
23. General world view
24. Concept of personal space
25. Rules of social etiquette

Culture has been aptly compared to an iceberg. Just as an iceberg has a visible section above the waterline, and a larger, invisible section below the water line, so culture has some aspects that are observable and others that can only be suspected, imagined, or intuited. Also like an iceberg, that part of culture that is visible (observable behaviour) is only a small part of a much bigger whole.
Introduction:

1. Kalvero Oberg was one of the first writers to identify five distinct stages of culture shock. He found that all human beings experience the same feelings when they travel to or live in a different country or culture. He found that culture shock is almost like a disease: it has a cause, symptoms, and a cure.

Body:

2. Whenever someone travels overseas they are like “a fish out of water.” Like the fish, they have been swimming in their own culture all their lives. A fish doesn’t know what water is. Likewise, we often do not think too much about the culture we are raised in. Our culture helps to shape our identity. Many of the cues of interpersonal communication (body language, words, facial expressions, tone of voice, idioms, slang) are different in different cultures. One of the reasons that we feel like a fish out of water when we enter a new culture is that we do not know all of the cues that are used in the new culture.

3. Psychologists tell us that there are five distinct phases (or stages) of culture shock. It is important to understand that culture shock happens to all people who travel abroad, but some people have much stronger reactions than others.

4. During the first few days of your stay in a new country, everything usually goes fairly smoothly. You are excited about being in a new place where there are new sights and sounds, new smells and tastes. You may have some problems, but accept them as just part of the newness. You may find yourself staying in hotels or with a homestay family that is excited to meet you. You may find that “the red carpet” has been rolled out and you may be taken to restaurants, movies, and tours of the sights. Your new acquaintances may want to take you out to many places and “show them off.” This first stage of culture shock is called the “honeymoon phase.”

5. Unfortunately, this honeymoon phase often comes to an end fairly soon. You have to deal with transportation problems (buses that don’t come on time), shopping problems (can’t buy favourite foods), or communication problems (just what does “Chill out, dude” mean?). It may start to seem like people no longer care about your problems. They may help, but they don’t seem to understand your concern over what they see as small problems. You might even start to think that the people in the host country don’t like foreigners.

6. This may lead to the second stage of culture shock, known as the “rejection phase.” You may begin to feel aggressive and start to complain about the host culture/country. However, it is important to recognize that these feelings are real and can become serious. This phase is a kind of crisis in the “disease” of culture shock. It is called the “rejection” phase because it is at this point that you start to reject the host country, complaining about and noticing only the bad things that bother you. At this stage you either get stronger and stay, or weaker and go home (physically or only mentally).

(continued)

Source: <http://international.ouc.bc.ca/cultureshock/printext.htm>.
Culture Shock : A Fish Out of Water (continued)

7. If you don’t survive stage two successfully, you may find yourself moving into stage three: the “regression phase.” The word “regression” means moving backward, and in this phase of culture shock, you spend much of your time speaking your own language, watching videos from your home country, eating food from home. You may also notice that you are moving around campus or around town with a group of students who speak your own language. You may spend most of this time complaining about the host country/culture.

8. Also in the regression phase, you may only remember the good things about your home country. Your homeland may suddenly seem marvelously wonderful; all the difficulties that you had there are forgotten and you may find yourself wondering why you ever left (hint: you left to learn English!). You may now only remember your home country as a wonderful place in which nothing ever went wrong for you. Of course, this is not true, but an illusion created by your culture shock “disease.”

9. If you survive the third stage successfully (or miss it completely) you will move into the fourth stage of culture shock called the “recovery phase” or the “at-ease-at-last phase.” In this stage you become more comfortable with the language and you also feel more comfortable with the customs of the host country. You can now move around without a feeling of anxiety. You still have problems with some of the social cues and you may still not understand everything people say (especially idioms). However, you are now 90% adjusted to the new culture and you start to realize that no country is that much better than another—there are just different lifestyles and different ways to deal with the problems of life.

10. With this complete adjustment, you accept the food, drinks, habits and customs of the host country, and you may even find yourself preferring some things in the host country to things at home. You have now understood that there are different ways to live your life and that no way is really better than another, just different. Finally you have become comfortable in the new place.

11. It is important to remember that not everyone experiences all the phases of culture shock. It is also important to know that you can experience all of them at different times: you might experience the regression phase before the rejection phase, etc. You might even experience the regression phase on Monday, the at-ease phase on Tuesday, the honeymoon phase on Wednesday, and the rejection phase again on Thursday. “What will Friday be like?”

12. Much later, you may find yourself returning to your homeland and—guess what?—you may find yourself entering the fifth phase of culture shock. This is called “reverse culture shock” or “return culture shock” and occurs when you return home. You have been away for a long time, becoming comfortable with the habits and customs of a new lifestyle and you may find that you are no longer completely comfortable in your home country. Many things may have changed while you were away and—surprise! surprise!—it may take a little while to become at ease with the cues and signs and symbols of your home culture.

Conclusion

13. Reverse culture shock can be very difficult. There is a risk of sickness or emotional problems in many of the phases of culture shock. Remember to be kind to yourself all the time that you are overseas, and when you get home, give yourself time to adjust. Be your own best friend. If you do these things you will be a much stronger person. If you do these things, congratulations—you will be a citizen of the world!
This map summarizes what effective readers do before reading. It may be adapted for listening and viewing.

Use Comprehension Strategies and Cues
Before Reading

- Access Prior Knowledge
- Predict Response
- Ask Questions
- Set Purpose
- Make Predictions about Text
- Determine Rate
- List
- Compare and Contrast
- Sequence
- Cause and Effect
- Concept/Definition
- Problem and Solution
- Grammar
- Story
- Goal/Action/Outcome
- Importance
- Probable Difficulty
- Note Textual Cues and Features
- Headings/Subheadings
- Print or Font Type
- Titles
- Illustrations
- Questions
- Summaries
- Preview Text

(continued)
Use Comprehension Strategies and Cues During Reading

This map summarizes what effective readers do during reading. It may be adapted for listening and viewing.

- Evaluate Ideas
- Identify and Note Key Ideas
- During Reading
  - Read Actively
  - Make Inferences
  - Guess Meaning of Unknown Words
  - Context
  - Prefixes, Suffixes, and Roots
- Use Fix-up Strategies
- Self-Monitor
- Self-Correct

- Skim
- Scan
- Vary/Adjust Rate
- Read Actively
- Reread Review

- Read Closely
- Pay Special Attention to Difficult Parts
- Skip Unimportant Sections

- Read Constructively
  - Relate New to Old
  - Elaborate on Meaning
- Fill in Gaps in Understanding
- Make Connections and Relate Parts
- Make Personal Sense

Copyright © 2003 by Manitoba Education and Youth
This map summarizes what effective readers do after reading. It may be adapted for listening and viewing.

Use Comprehension Strategies and Cues

After Reading

Determine Importance or Significance

Make Applications

Answer Questions

Reach Consensus

Ask New Questions

Self-Monitor

Review

Use Learning Logs

Solve Problems

Provide Textual Support

Create New Texts

Dance/Drama

Charts/Graphs

Pictures

Maps

Create Two-Column or Cornell Notes

Make Notes/Take Notes

Use Learning Logs

Summarize

Evaluate Criteria

Make Inferences

Provide Proof

Create New Connections to Texts

Make New Connections to Texts

Record Information

Respond Critically

Respond Personally and Creatively

Create Maps or Webs

Develop Charts

Interpret

Form Generalizations

Provide Proof

Stories/Poems

Songs
All good people agree.
And all good people say,
All nice people, like us, are We
And everyone else is They
But if you cross over the sea,
Instead of over the way,
You may end by (think of it!) looking on We
As only a sort of They!
—Rudyard Kipling
“We and They”

Understanding Other Cultures
Keep in mind the “seven lessons” writer Craig Storti derived from his book of cross-cultural dialogues:
1. Don’t assume sameness.
2. What you think of as normal or human behaviour may only be cultural.
3. Familiar behaviours may have different meanings.
4. Don’t assume that what you meant is what was understood.
5. Don’t assume that what you understood is what was meant.
6. You don’t have to like or accept “different” behaviour, but you should try to understand where it comes from.
7. Most people do behave rationally; you just have to discover the rationale.

Practical Steps to Relieve Culture Shock
In The Whole World Guide to Culture Learning, J. Daniel Hess explains that “one of the problems with culture shock is that frequently people don’t realize (or deny) they are experiencing it. The feelings are ascribed to other causes. It is difficult to counteract something you don’t believe is affecting you, but once you do recognize what is happening, there are a number of things to do.”

Here are some suggestions for people who are experiencing the loneliness or other distress of culture shock.
1. People are important. Don’t isolate yourself. Interact with everyone you can. You may need to take the first step because they may not realize that you are lonely. Give small gifts, help with something, smile, and ask questions.
2. Keep your environment comfortable. Decorate it with little reminders of home: a favourite cup or photo. Play your music or watch a video. But try the new ones too.
3. Slow down until your body and emotions have had time to catch up. You’ve gone through a major change in your life and you need time. Simplify and relax.
4. Do the same thing every day until you feel that it is part of your routine.
5. Express your feelings. This may be privately, through prayer, writing, journaling, art, etc., or publicly to a friend.
6. When you feel disappointed or frustrated in your slow progress, remember that this is just a detour—and detours often have beauties of their own.
7. Work on the language. Being able to use even small bits will increase your confidence and enjoyment. And it’s a great way to make friends.
8. Keep moving—find ways and time to get exercise. What do the locals do for fun?
9. Friends and host families want you to succeed. Let them know when you are sad so that they can support you.
10. Make a few small plans and complete them. Every little achievement will help you gain the confidence to tackle the next one.

Remember that culture shock is a normal process of adjustment, and if you allow yourself time and kindness, it will pass. Some people fear that if they adjust too well to the new environment, they will forget their old one, but a better view is enrichment—you will now have two cultures to draw on.

“Despite popular beliefs to the contrary, the single greatest barrier to business success is the one erected by culture.”
—Edward T. Hall and Mildred Reed Hall
Hidden Differences: Doing Business with the Japanese
Slide 1: Nothing

Slide 2: Yao Ming, the NBA’s most anticipated new player, battles with guard Steve Francis and centre Kelvin Cato during Yao’s first practice with his Houston Rockets teammates last Tuesday. Yao surprised Rockets’ head coach Rudy Tomjanovitch by practising the morning after arriving from China.

Slide 3: Yao Ming goes up against Kelvin Cato and Oscar Torres during practice. Yao, 22, stands 7’, 5” and weighs 296 pounds. The practice was Houston’s first look at their number one draft pick.

Slide 4: Teammate Steve Francis drives Yao Ming through rain during a charity golf luncheon. Yao, who studied English for five years, is slowly getting used to talking with his new teammates. The universal NBA greeting—“What’s up?” has been difficult for Yao to get used to; it sounds like a common Mandarin profanity.

Slide 5: Yao Ming dwarfs Rockets cheerleader, Tina Hill, as they arrive at the charity golf luncheon. Steve Francis, walking behind Yao, says that “Even my Hummer is too small for him.”

Slide 6: The media is following every move of the rookie Yao Ming. After his debut in a pre-season game where he drew three fouls in his first five minutes of action, ESPN strung together all of his worst moments for a Sportscenter segment. In his second preseason game, Yao rebounded by scoring 13 points and blocking 2 shots.

Slide 7: Yao Ming stands in line with translator Colin Pine during the charity luncheon. Although Yao speaks some English, Pine will be there to help Yao deal with the media and the adjustment to a new country.

Slide 8: Yao Ming won’t get too homesick during his first full season in the NBA. Houston has a small downtown Chinatown and a daily newspaper that prints in Chinese. To help out with the adjustment to the new life, Yao’s mother will stay with him at his Houston house during the whole season.

Slide 9: Yao Ming is photographed with admirers by translator Colin Pine. Rockets owner Les Alexander believes Yao will become a worldwide superstar: “In two years, he’ll be bigger than Michael [Jordan] ever was, worldwide, and bigger than Tiger [Woods]. I think he’s going to be the number one icon in the world.”

---

Script is available online: <www.usatoday.com/sports/basketball/nba/rockets/2002-10-28-yao-usat-cover_x.htm>.
1. Audio:
There is something __________ engaging about the guy. You see _____ and you_______ him to do well. Uh, I think you ______ that from ___ fans.
There’s just something very ______________ likeable _______ him.

2. Audio:
He’s looked _______ every day. I think the big thing he’s ______ is that uh, _______ learning curve is going up. Um, his first day (in) __________ played a game, he was ______ lost quite _______. And then, the next night, 24 hours later, he comes back, and he was __________, much more um, in ________.

3. Audio:
He’s 296 pounds. He’s virtually 300, and _______ _______ how you stack it, 300 pounds is _______ good. He has really strong, um, __________ body strength, so he’s probably gonna be able to leverage _____ he gets, uh, a __________ more time in and learns the NBA game.

4. Audio:
All of them ______ been very surprised at, uh, the ______ he has with the English language. He did take five years in Middle School, and when he’s having __________ conversations with them, he speaks ____ English, um, _______ they say quite _______. _______ I talked to two guys _______ went _______ to him to the _______ Rock Café in San Antonio, and they said they _______ in English _______ the whole night.

5. Audio:
You never cease to be __________ by his height. That ____________ he’s going out to a tent at a “Meet ______” at a, uh, country club. And the cheerleaders _______ escorting us ’cause it was __________ very heavily. But even on tippytoes, fully extended, uh, they __________ get the umbrella over Yao Ming’s head. Guys just look ________ ________ every day and ________ ________, “Man, that guy’s just bigger ________ anything _______ we’ve ever seen!”

6. Audio:
He’s a little _________, and I think it’s mainly __________ a little concerned about ______ use ______ interpreter all the time. He ________ like to be doing it on his own. Doesn’t always understand or __________ _______ some of the… the more ______ questions. Like “__________ talk” was a new term ________ ________.

7. Audio:
The big thing he’s ________________ for him when he’s at home is that his ______ here and will be here for the whole _______. So she cooks for him, and he’s real _______ that. He says he likes ______ a lot. Uh… he ate at the Hard Rock and the guys who ate with him said, you know, ______ _______ no __________. I ________ him about that, and ________ _______ pestering him and he wanted to give me an ________, and he finally said, “Well, you know, ________, I _______ like cold sandwiches that much,” but it ________ a major complaint.

(continued)

8. Audio:
I think he _______ read a fair __________
of English and he is reading that
________________ paper…um… It’s the
Southwest Asia News. Uh…so _________________
_____________ his news from there, and
they make _______ that he gets a paper every
day. He’s getting __________ _____________ to
the Internet, too. He’s got a laptop, and I think
they were __________ wire _______ all
__________ for him this week so that he can,
___________, have email ____________
to friends and, and get on some of the Chinese
Internet _______________.

9. Audio:
(Unintelligible) interesting ___________ with the fans. Uh… he’s been stopping and
_________ with people. In San
Antonio, he was walking down the streets and
the San Antonians were um…saying “Hey,
_______________!” He got
a big ____________ out of that. ______ he
__________ also that he, he’s really felt that,
____________ getting to Houston, fans that
he’s __________ __________ haven’t just
__________ him like a basketball player,
bu he _______ they were treating him like a
Texan and, uh, he seemed genuinely
__________ by that.
1. Audio:

There is something terribly engaging about the guy. You see him and you want him to do well. Uh, I think you sense that from the fans.

There’s just something very immediately like-able about him.

2. Audio:

He’s looked better every day. I think the big thing he’s shown is that uh, his learning curve is going up. Um, his first day (in) that he played a game, he was really lost quite often. And then, the next night, 24 hours later, he comes back, and he was much, much more um, in control.

3. Audio:

He’s 296 pounds. He’s virtually 300, and no matter how you stack it, 300 pounds is pretty good. He has really strong, um, lower body strength, so he’s probably gonna be able to leverage as he gets, uh, a gets more time in and learns the NBA game.

4. Audio:

All of them have been very surprised at, uh, the ability he has with the English language. He did take five years in Middle School, and when he’s having casual conversations with them, he speaks in English, um, and they say quite well. That I talked to two guys that went out to him to the Hard Rock Café in San Antonio, and they said they spoke in English almost the whole night.

5. Audio:

You never cease to be surprised by his height. That picture is he’s going out to a tent at a “Meet and Greet” at a, uh, country club. And the cheerleaders were all escorting us ’cause it was raining very heavily. But even on tippy-toes, fully extended, uh, they couldn’t get the umbrella over Yao Ming’s head. Guys just look at him every day and you go, “Man, that guy’s just bigger than anything else we’ve ever seen!”

6. Audio:

He’s a little timid, and I think it’s mainly he’s a little concerned about having to use an interpreter all the time. He would like to be doing it on his own. Doesn’t always understand or fully absorb some of the… the more cultural questions. Like “trash talk” was a new term to him.

7. Audio:

The big thing he’s got going for him when he’s at home is that his mother’s here and will be here for the whole year. So she cooks for him, and he’s real comfortable with that. He says he likes steak a lot. Uh… he ate at the Hard Rock and the guys who ate with him said, you know, he had no problem. I asked him about that, and I kept pestering him and he wanted to give me an answer, and he finally said, “Well, you know, okay, I don’t like cold sandwiches that much,” but it wasn’t a major complaint.

8. Audio:

I think he can read a fair amount of English and he is reading that local paper…um… It’s the Southwest Asia News. Uh…so he’s getting his news from there, and they make sure that he gets a paper every day. He’s getting hooked up to the Internet, too. He’s got a laptop, and I think they were gonna wire it all up for him this week so that he can, you know, have email access to friends and, and get on some of the Chinese Internet availability.

(continued)
9. Audio:

(Unintelligible) interesting interaction with the fans. Uh... he’s been stopping and posing with people. In San Antonio, he was walking down the streets and the San Antonians were um...saying “Hey, Mr. Houston!” He got a big kick out of that. And he said also that he, he’s really felt that, since getting to Houston, fans that he’s run into haven’t just treated him like a basketball player, but he felt they were treating him like a Texan and, uh, he seemed genuinely touched by that.
Often during this course you have been asked to work in groups. What is the role of social interaction in developing stronger writing? A common image of the writer is a solitary soul holed up in a room, feverishly pounding away at a computer, forgetting to eat or drink until the perfect line flows out onto the screen. Another misconception is of an extraordinarily gifted individual who can perfectly capture an idea in words at the first try.

However, professionals who write as part of their academic, scientific, or business careers increasingly depend on a writing community of colleagues for the majority of their work. They generate and test ideas as they sit around a table or share an email discussion; they may focus and organize these ideas using wall charts or whiteboards; they may split the writing and editing in different ways; circulate and critique their shared work electronically or in print; and finally come to a consensus on the final document. Much of the writing in the professional world today, including technical articles, proposals, advertising, reports, and web pages, is ultimately produced by a team.

The team approach to writing has been driven by several recent developments. First, the complexity of contemporary research, technology, and business demands more breadth or depth of expertise than one person likely has. Second, organizational patterns in the working world have been evolving from hierarchical systems to more self-directed teams who must produce their own documents. Finally, and perhaps most significantly, is the development of networked computers, so that team members can conveniently circulate and revise work within the same office or from thousands of kilometres apart. As a result of this shift in working style, group interaction skills and the ability to team-write have become critical determinants of career success.

Beyond the efficiency of group writing, a writing community allows individuals the social interaction that helps construct knowledge. We see a topic through the perspective of our own experience, but as we are presented with multiple angles of vision, we are able to examine, focus, and expand our own knowledge. This process promotes the creation of new understandings. Oral discussion does this and so can team writing.

However, as in team sports, team writing is a learned skill. Most students are familiar with the dilemma presented by some group efforts, when one person completed the majority of the work, with others more than ready to accept equal credit for less than equal effort. Others recall wasted hours as the team members tried to organize themselves and focus on the task.