12. FIGHTING INFLUENZA

1. Agreeing and disagreeing expressions.
Look at the phrases below and sort them out according to their function.

Strong agreement	*Weak agreement*	*Agreement with negative statement*
Strong disagreement	*Weak disagreement*	*Interruption*
Polite disagreement	*After being interrupted*	*After accidentally interrupting someone*

- That's for sure.
- No doubt about it.
- Me neither.
- I'm sorry but I don't agree.
- I guess so.
- With respect I disagree entirely.
- That's quite true, but…
- I don't think so.
- You can't be serious.
- I'm afraid I disagree.
- I totally disagree.
- I'd say the exact opposite.
- As I was saying…
- That's not always true.
- No, I'm not so sure about that.
- Can I add something here?
- Going back to what I was saying…
- Sorry to interrupt, but...
- Sorry, go ahead.
- Sorry, you were saying...
- You didn't let me finish
- Going back to what I was saying
- Sorry for interrupting, but …
- I see what you're saying, but…
- Actually, I think …
- I'm sorry, but I don't agree …
- This idea is absolutely right

2. Now discuss your responses to these questions in small groups.

The flu vaccine can give you the flu because the virus in the vaccine can infect you.

Antibiotics can cure the flu effectively.

If you get the flu, you can't get it again during that flu season, you already have antibodies.

Vaccines are dangerous, they cause severe reactions or side effects.

You should take antibiotics to prevent the development of complications.

Healthy people don't need to be vaccinated, the flu is annoying but harmless, like a bad cold.

3. Listening: Flu Vaccine[2] http://www.youtube.com/watch?v=zCBlxqmOMKM

A) Match the expressions with their synonyms or descriptions.

ailment	related to breathing
assume	sudden feelings of coldness
authorities	liquids
chills	disease which affects lungs
contract	widespread, common
contagious	catch
fluids	illness
malnutrition	weakness from not eating enough good food
pneumonia	official departments that make decisions
prevalent	type with special characteristics
respiratory	believe, accept without proof
strain	infectious

B) Listen to the recording and answer the questions.

1. What is influenza ?
2. What are the symptoms ?
3. What is recommended ?
4. Who is at greater risk of complications ?
5. How many flu-caused deaths are shown by official records ?
6. What other causes of death are compared with flu ?
7. What are the forms of flu vaccines in the US ?
8. Why do authorities travel to Asia ?
9. What are vaccine manufacturers instructed to do ?

3. Read about freshers's flu.

Freshers' Flu is the name commonly given to a battery of illnesses contracted by as many as 90% of new students during the first few weeks at a university, in some form; common symptoms include fever, sore throat, severe headache, coughing and general discomfort.

The most likely cause is the convergence of large numbers of people arriving from all over the world, many of whom carry pathogens to which they are immune, but others have not had a chance to acquire the necessary immunity. The poor diet and heavy consumption of alcohol during Freshers' Week is also reported as a cause for many of the illnesses contracted during this time. Stress, which may be induced by tiredness, combined with a poor diet, late nights and too much alcohol, can weaken the immune system and be a recipe for ill health. All this can make students more susceptible to infections within their first weeks of term. The increased susceptibility to illness from late nights, heavy alcohol consumption and stress peaks 2–4 weeks after arrival at university and happens to coincide with the seasonal surge in the outbreaks of colds and influenza in the Northern Hemisphere.

Work in small groups:

a) **Identify 5 reasons why students are susceptible to illness**

b) **Prepare a leaflet with advice for first year students concerning fresher' flu**

4.Reading

How the Flu Virus Can Change: "Drift" and "Shift"

Glossary

Drift	a driving movement or influence; impulse
Phylogenetic tree	a branching diagram or "tree" showing relationships among various items—their phylogeny—based upon similarities and differences
Hemagglutinin	a glycoprotein found on the surface of the influenza viruses.
neuraminidases	enzymes that are required for influenza virus replication.
influenza A	There are three types of influenza viruses: A, B and C. Human influenza A and B viruses cause seasonal epidemics.

Influenza viruses are constantly changing. They can change in two different ways.

One way they change is called "antigenic drift." These are small changes in the genes of influenza viruses that happen continually over time as the virus replicates. These small genetic changes usually produce viruses that are pretty closely related to one another, which can be illustrated by their location close together on a phylogenetic tree. Viruses that are closely related to each other usually share the same antigenic properties and an immune system exposed to an similar virus will usually recognize it and respond. (This is sometimes called cross-protection.)

But these small genetic changes can accumulate over time and result in viruses that are antigenically different (further away on the phylogenetic tree). When this happens, the body's immune system may not recognize those viruses.

This process works as follows: a person infected with a particular flu virus develops antibody against that virus. As antigenic changes accumulate, the antibodies created against the older viruses no longer recognize the "newer" virus, and the person can get sick again. Genetic changes that result in a virus with different antigenic properties is the main reason why people can get the flu more than one time. This is also why the flu vaccine composition must be reviewed each year, and updated as needed to keep up with evolving viruses.

The other type of change is called "antigenic shift." Antigenic shift is an abrupt, major change in the influenza A viruses, resulting in new hemagglutinin and/or new hemagglutinin and neuraminidase proteins in influenza viruses that infect humans. Shift results in a new influenza A subtype or a virus with a hemagglutinin or a hemagglutinin and neuraminidase combination that has emerged from an animal population that is so different from the same subtype in humans that most people do not have immunity to the new (e.g. novel) virus. Such a "shift" occurred in the spring of 2009, when an H1N1 virus with a new combination of genes emerged to infect people and quickly spread, causing a pandemic. When shift happens, most people have little or no protection against the new virus.

While influenza viruses are changing by antigenic drift all the time, antigenic shift happens only occasionally. Type A viruses undergo both kinds of changes; influenza type B viruses change only by the more gradual process of antigenic drift.

Tasks

1. **Explain these processes**

A "antigenic drift."

B "antigenic shift."

2. **Word formation**

1. Changes in the genes of influenza viruses that happen……. over time. CONTINUE

2. The flu vaccine ……..must be reviewed each year. COMPOSE

3. People do not have……to the new virus. IMMUNE

4. A virus with a new ……. of genes emerged. COMBINE

5. Most people have little or no……..against the new virus. PROTECT

6. Antigenic shift happens only …….. . OCCASION

3. **Find the English equivalents for these phrases.**

a) antigenní vlastnosti
b) imunitní systém
c) vyvinout protilátku
d) vyvíjející se viry
e) náhlá změna
f) změna vyústí v nový podtyp
g) způsobující pandemii
h) prodělat změny

IRREGULAR PLURALS. Complete the missing singular or plural forms.

1. axis	……..	6. radius	……
2. ……..	theses	7. ……..	nuclei
3. analysis	……..	8. focus	……..
4. criterion	……..	9. fungus	…….
5. ……..	phenomena	10. formula	…….

Sources
http://www.englishclub.com/speaking/agreeing-disagreeing-expressions.htm
http://en.wikipedia.org/wiki/Freshers%27_Flu
http://www.cdc.gov/flu/about/viruses/change.htm *reading*