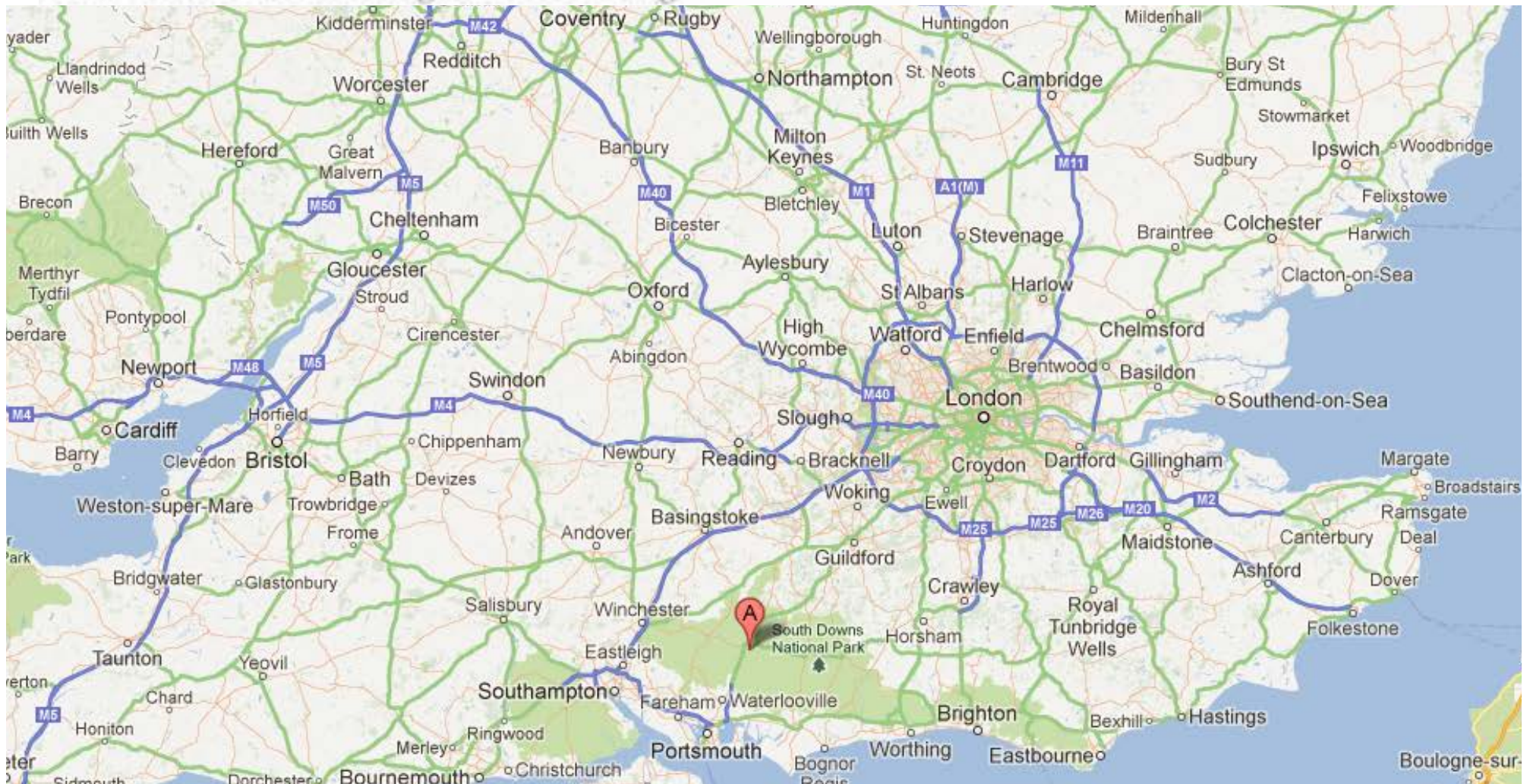


# THE PETERSFIELD SCHOOL



*An Outstanding Academy*



# **Our Project: Weird and wonderful diseases of the world.**

- We decided on a research project and were all interested in diseases.
- We split into continents and each had to find out about a weird disease
- We all found different disease information and then wondered how we were going to present all the information
- We came up with the idea of top trumps
- Here is our presentation

Common Name: Elephantitis

Latin Name: elephantiasis filariasis



### Bio-Stats

Effect: 9 /10

Spreadability: 6 /10

Reproducibility: 7 /10

People killed: 800/10yrs

Killer rating: 4 /10

Area covered: 8 /10

### Bio-facts

It is spread through an infectious parasite, called a nematode/roundworm.

The disease makes your legs swell up a lot, because of a substance released by the round worm.

This causes fluid to build up in the legs and causes it to swell.

The infection can be treated with a drug called Albendazole.

Currently, more than 250 million people suffer from the disease worldwide!

More people suffer from Elephantitis than from Malaria.

# South America & Elaphantitis by Tori

- Caused by a nematode parasite
- It makes your legs swell up
- More than 250million people suffer from the disease

Common Name: Chagas disease

Latin Name: American trypanosomiasis



### Bio-Stats

The disease is spread by a bug called the kissing bug.

After the kissing bug bites, it drops faeces onto the skin. The germs that cause Chagas disease are in the bug's faeces.

Chagas disease is spreading worldwide due to lack of knowledge.

Chagas disease can cause swelling of the eye and palpitations - irregular heartbeat.

Effect: 6 / 10

Spreadability: 7 / 10

Reproducibility: 7 / 10

People killed: 140000 / 10yrs

Killer rating: 8 / 10

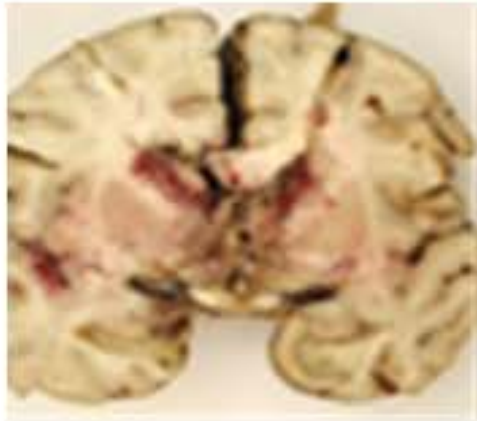
Area covered: 7 / 10

# South America & Chagas disease by

## Daniels

- Chagas is a disease spread by a bug called the 'kissing bug'
- The kissing bug drops its faeces into the skin.
- It causes swelling of the eye and heart palpitations

Common Name: Brain eating amoeba  
Latin Name: Naegleria fowleri



**Bio-facts**

Amoebas are single-celled organisms. The species was discovered in 1963. It makes its home in warm fresh water in the American Southwest. N. fowleri normally eats bacteria. But when the amoeba gets into humans, it uses the brain as a food source. If you were to drink a glass of water infested with N. fowleri amoeba, you would not get a brain infection. It infects people by getting into your nose. Once it finds its way up into your brain, your life has pretty much come to an end. The seizures start, followed by a coma. The parasitic amoeba chews through your brain matter, and since you kind of need your brain to live, that means your time has come for you and your parasitic, opportunistic amoeba friends.

### Bio-Stats

Effect: 10/10

Spreadability: 0/10

Reproducibility: 2/10

People killed: 33 /10yrs

Killer rating: 9 /10

Area covered: 5/10

# North America & Brain eating amoeba by Katie

- A single celled organism
- Enters through your nose and eats your brain
- Once inside, you die as you need your brain to live

Common Name: Katayama fever, Swimmer's itch, Bilharzia

Latin Name: *Schistosomiasis*



## Bio-facts

You get ~~Schistosoma~~ *Schistosoma* infection through contact with contaminated water. The parasite burrows into the skin, matures into another stage and then migrates to the lungs and the liver where it develops into an adult. Once an adult it moves to the bladder, intestines, liver, spleen, lungs and veins. Symptoms vary from fevers, lymph node enlargement and a rash to abdominal pain and diarrhoea. The symptoms can change depending on how heavy the infestation is. It can be treated with drugs.

## Bio-Stats

Effect: 8 /10

Spreadability: 0/10

Reproducibility: 8/10

People killed: 2mil/10yr

Killer rating: 8 /10

Area covered: 7/10

# Asia and Swimmers itch by Miranda &

## Mercedes

- Usually caught by swimming in 'dirty water'
- Caused by a parasite that burrows into your skin
- The parasite moves around and grows in your body
- Can be treated with drugs

Common Name: travellers diarrhoea

Latin Name: *diarrhoea*



Insomnarhea.

## Bio-facts

Traveller's diarrhoea is a common condition that can affect people who travel abroad. It's usually mild, but it can ruin a holiday. Symptoms of traveller's diarrhoea include frequently passing watery stools (three or more a day), stomach cramps and feeling or being sick. Traveller's diarrhoea is caused by consuming food or water that has been contaminated by bacteria, viruses or (less commonly) parasites. This is most likely to happen in parts of the world where levels of hygiene and sanitation are poor, such as Central and South America and most of Asia, Africa and the Middle East. However, traveller's diarrhoea can happen anywhere. You can reduce your risk of traveller's diarrhoea by taking some simple precautions when travelling, such as drinking only sealed bottle water.

## Bio-Stats

Effect: 7 / 10

Spreadability: 5 / 10

Reproducibility: 9 / 10

People killed: 18m / 10yr

Killer rating: 4 / 10

Area covered: 6 / 10

# Australasia and Travellers diarrhoea by

## Will

- Usually caused by drinking 'dirty water' with many microorganisms in it
- Can occur all over the world
- Kills approximately 1.8million people a year

**Common Name:** Ebola Virus Disease (EVD) or Ebola haemorrhagic fever

**Latin Name:** Ebolavirus



### Bio-facts

Ebola is a virus. There are five types of Ebola and while infection with some (such as Ebola Reston, found in the Western Pacific) are so mild that people rarely get symptoms, other types such as Ebola Zaire (found in Africa) may be rapidly deadly. EHF outbreaks occur primarily in remote villages in Central and West Africa. The virus is transmitted to people from wild animals and spreads in the human population through human-to-human transmission. Fruit bats of the Stercorariidae family are considered to be the natural host of the Ebola virus. There is no treatment or vaccine available for either people or animals

### Bio-Stats

Effect: 7/10

Spreadability: 6 /10

Reproducibility: 4 /10

People killed: 2237/10yr

Killer rating: 7/10

Area covered: 3/10

# Africa & the Ebola Virus by

## Greg

- The Ebola virus cause severe fever and can be rapidly deadly
- It is caught from animals but then can pass between humans
- There is no



Common Name: Nodding Disease/Syndrome

Latin Name: Nutus Morbus



## Bio-facts

It was first documented in 1962 in Southern Tanzania. It is a disease. It affects only children, typically 5 – 15 year olds. It is debilitating both physically and mentally. Growth is stunted completely and permanently. The growth of the brain is also stunted, leading to mental retardation of the affected individual. The disease is named nodding syndrome due to the characteristic, pathological nodding seizure. The seizure often begins when the children begin to eat, or sometimes when they feel cold. These seizures are brief and halt after the children stop eating or when they feel warm again. Severe seizures can cause the child to collapse, leading to further injury. A curious feature is that no seizures occur when victims are given an unfamiliar food; for example, a candy bar. There is no known cure.

## Bio-Stats

Effect: 7 /10

Spreadability: 5 /10

Reproducibility: 6 /10

People killed:2000/10yr

Killer rating: 7/10

Area covered: 2/10

# Africa & Nodding disease by

- Only ~~Jack~~ affects children
- Called nodding due to seizures which make you nod
- No one knows what causes it
- There is no cure

Common Name: Mad Cow Disease

Latin Name: Bovine spongiform encephalopathy (BSE)



Mad Cow disease is spread through the feed, but not from cow to cow. A tiny trace amount of prions in the feed, enough to not even be noticeable by the naked eye, can affect a few animals to a whole herd. These prions get in the feed by being exposed to some portion or trace amount of brain or spinal matter, whether it be on the floor or by someone's gloves, shoes or clothing or even from tools like shovels, scis, etc. The more serious concern is when the feed is purposely mixed with animal-based protein, which could come from anywhere be it a BSE-infected cow or a ruminant with TSE or even an altogether different animal that consumed BSE/TSE-infected feed.

### Bio-facts

Mad cow disease makes your brain go all wet and soggy and you can squeeze it like a sponge. The only way humans can get BSE or Creutzfeldt-Jakob disease is by eating contaminated meat that was exposed to the brain and spinal column of a BSE-infected animal or came from that animal that was known or suspected to have Mad Cow Disease. That is why the government and producers highly recommend to put a BSE-suspected cow down, and burn or bury it, allowing no part of the carcass to enter any form of the livestock and/or human food chain.

### Bio-Stats

Effect: 5/10

Spreadability: 2/10

Reproducibility: 3/10

People killed: 0

Killer rating: 4/10

Area covered: 10/10

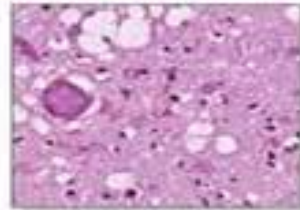
# Europe & Mad Cow Disease by Joel

- Mad Cow Disease affects cattle
- It is caused by abnormal proteins called prions
- Humans can get this form of the disease through eating infected cattle

Common Name: CJD

Latin Name: Creutzfeldt-Jakob disease

Brain shrinkage and deterioration occurs rapidly



Brain section showing spongiform pathology characteristic of Creutzfeldt-Jakob

ADAM

## Bio-facts

CJD is assumed to be a virus although not many people have it so scientists cannot be sure. In total it only affects around one in one million people but these unlucky individuals have a 90% chance of dying in about 1 year of the disease. The disease is very similar to mad cow disease. That is what is expected to cause CJD, eating beef of a cow that had mad cow disease. The actual effects of CJD are making the brain and spinal cord go like a sponge. Early indications of the disease include loss of memory blindness and strange jugged movements. But the good news is that it isn't in the air so you can't just catch it like flu and it is not inherited.

## Bio-Stats

Effect: 9/10

Spreadability: 1/10

Reproducibility: 3/10

Deaths: 60,000/10yrs

Killer rating: 10/10

Area covered: 8/10

# Europe & CJD by Connor

- CJD is the human form of Mad Cow Disease
- It can be a sporadic disease with no transmission
- It makes your brain like a sponge

# **Our Project: Weird and wonderful diseases of the world.**

- We produced a set of top trump cards and had them made. A representative from your school should be able to collect a set for you to play at the end of the day.
- We gave each disease Bio stats for the game and interesting facts to read
- Thank you for watching, we enjoyed our research