



Designing online, educational games about: Microbes, Hand and Respiratory Hygiene and Prudent Antibiotics Use for Junior Pupils in Europe



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Project Introduction

- The e-Bug project is a European-wide, EC funded, antibiotic and hygiene teaching resource.
- e-Bug reinforces an awareness of microbes, hand and respiratory hygiene and the benefits of prudent antibiotic use.
- e-Bug consists of two lesson packs which will be made available to junior and senior schools and a website with educational games.

Objectives

- to create a game targeted at and suitable for 9-11 year olds
- to create a game that is enjoyable enough to be played by the audience in their own discretionary time
- to create a game which compliments but can be used independently of the e-Bug pack
- to cover a series of agreed learning outcomes as defined by the project's domain experts

Methods

- regular discussions and meetings with the project's domain experts to check scientific validity of game designs and implementation
- focus groups and email based iteration of game designs with teachers
- examination of popular games and media targeting our audience
- regular playtests with pupils

Contact Details

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Learning Outcomes

Introduction to Microbes

- bacteria, viruses and fungi are three different types of microbe
- microbes are found everywhere
- microbes come in different shapes and sizes

Good and Bad Microbes

- good microbes can keep us healthy
- bacteria can be put to good use
- sometimes microbes can make us ill

Hand, Respiratory and Food Hygiene

- infection can be spread through unclean hands
- hand washing can prevent the spread of infection
- infection can be spread through sneezing and coughing
- sneezing or coughing in your hand can still spread infection
- microbes can be found on our food and can transfer to humans
- cooking food properly can kill harmful microbes

Antibiotic and Vaccine Use

- most common infections get better on their own through time, rest, liquid intake and healthy living
- if antibiotics are taken, it is important to finish the course
- there are not vaccines for all infections

Game Show Theme



each section of the game is connected by a game show that the player takes part in

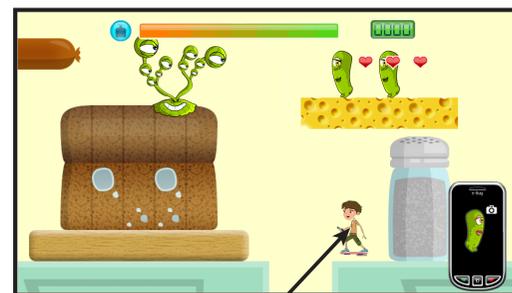
scores provide an incentive to answer questions correctly and encourage repeat play

questions are asked before and after each section to encourage critical thinking and assess learning



Platform Game Sections

in the kitchen



the player is "shrunk" to allow interaction with microbes

on skin



player washes bad microbes off skin

fungi are shown larger than bacteria which are larger than viruses

good microbes prevent bad microbes from entering the body

different missions such as "photograph bacteria" are used to convey learning outcomes

inside the body



player throws "natural body defenses" to kill bad microbes

player delivers antibiotics to heal a "serious infection"

Sorting Game Section



player has a small amount of time to correctly store food

player must use tissue when sneezing or will ruin the current food item

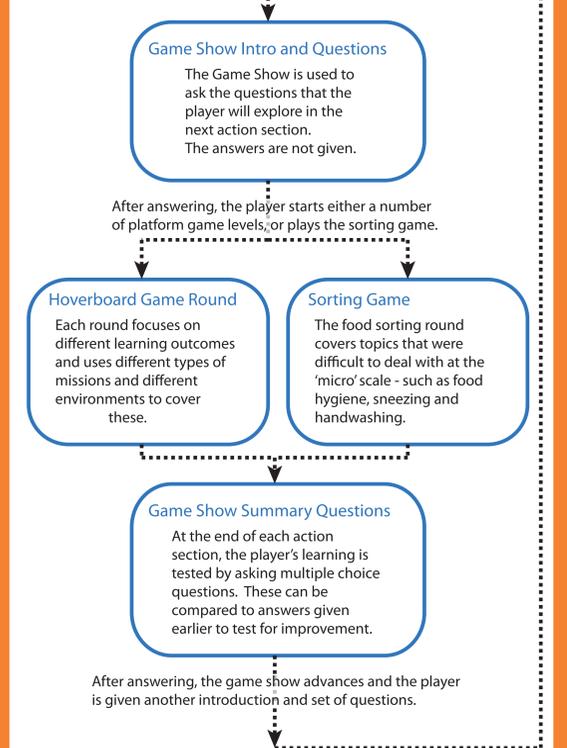
raw meat must be wrapped with film

items put in the fridge must be placed on correct shelf (no raw meat on high, barred shelves etc.)

player must wash hands after handling raw meat or sneezing

spoiled items must be put in the bin

Game Flow



Future Work

- further playtests to refine gameplay
- review final draft with project scientists for approval
- formal evaluation from September 2008 in UK, Czech Republic and France

We are also creating game content to compliment the e-Bug Senior School Pack targeting 13-15 year olds. This is currently being developed and will be implemented to draft level by July 2008.

Demo at ECCMID 2008

If you fancy seeing the game in action or asking any further questions, then please come to our demo!

When: Tuesday, 22nd April 2008, 13.30

Where: The NeLI Exhibition Stand