



Spread of Infection: Animal and Farm Hygiene

Students play an interactive memory card game to highlight the similarities between human and animal health.

Curriculum Links

Science

Working scientifically, Living things and their habitats; Animals, including humans

PSHE/RSHE

Health and prevention

English

Reading and comprehension

Key Words

Pet, Microbes, Transmission, Infection
Prevention, Vaccines, Farm, Hygiene

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[e-bug.eu/eng/KS2/lesson/
Animal-Farm-Hygiene](http://e-bug.eu/eng/KS2/lesson/Animal-Farm-Hygiene)

Learning Outcomes

All students will:

- Understand that what you do to help your pet be healthy is the same as what you need to do for yourself.
- Understand that, just like us, animals should only take antibiotics if necessary and it is important to finish the course.
- Understand that harmful microbes can be found on the farm and that these microbes can spread to humans.
- Understand that by washing our hands and following some basic rules we can reduce the chance of picking up an infection on the farm.

Most students will:

- Understand that some microbes can be transmitted from animals to humans and vice versa.

Resources Required

Starter Activity: **Class Discussion** *Per class*

- Copy of PP1 (available from the e-bug.eu website)

Main Activity: Memory Game *Per group*

- Copy of SH1 (a-d)

Extension Activity 1: Animal Quiz *Per student*

- Copy of SW1

Extension Activity 2: Poster *Per student*

- A4 paper
- Colouring pens/pencils

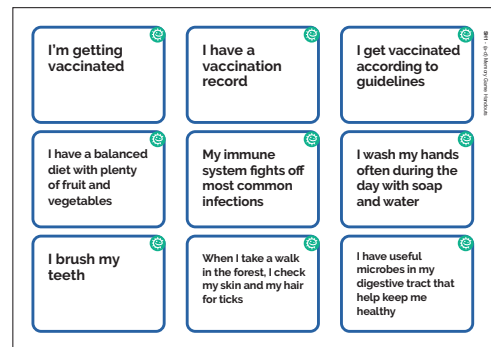
Extension Activity 3: **Farm Fun Game** *Per student*

- Device to Access the e-Bug website (e-bug.eu)

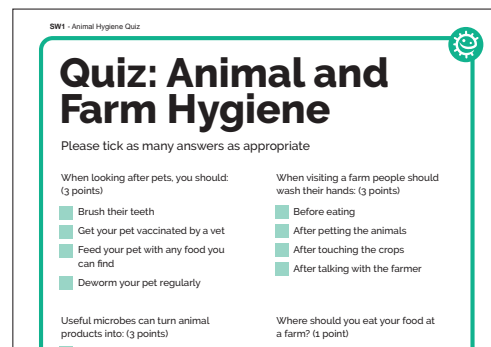
Advance Preparation

Print and glue on cardboard and/or laminate and cut out the memory game cards illustrating human and animal health issues (SH 1 a-d).

Supporting Materials



SH1 (a-d) Memory Game Handouts



SW1 Animal Hygiene Quiz



PP1 MSPowerPoint –
Taking Care of Your Pet



Lesson Plan



Introduction

1. Begin the lesson by asking how many of your students own a pet, what type of animal it is and how they got it.
2. Discuss students' experience of looking after their pet, ask them where it sleeps, where it is fed. Explain that there are many similarities between human and animal health (you can use the MS PowerPoint presentation: Taking care of your pet, PP1 to explain this to the class).
3. Both people and animals harbour microbes. Useful microbes can help to keep animals in good health, while certain harmful microbes can make them ill, just as they can in people. Animals can also catch specific infections limited to their species, such as viral infections that can be deadly, like feline leukemia in cats and Parvovirus in dogs.
4. Some harmful microbes can spread from animals to humans (e.g. ringworm from cats or dogs) and vice versa, usually through touch. The best way to stop this happening is to wash our hands often.
5. Explain that pets must be properly fed, de-wormed, their teeth and fur should be checked regularly, and they should be washed with suitable products. Pets should also have a dedicated spot of their own and their bedding should be regularly disinfected.
6. Animals also need to be vaccinated to protect them against certain severe infections. Each species has its own vaccination schedule. For instance, rabies has disappeared in some countries thanks to vaccination, just like smallpox in the human population. When our pet gets sick it must be taken to a vet. The vet can do special rapid tests to check for certain diseases. If the vet diagnoses a bacterial infection that needs antibiotics, the prescribed dosage and duration of treatment must be strictly followed. Left over antibiotics from a previous illness should never be used, they should be taken back to the vet or to the pharmacist.
7. Antibiotic use follows the same rules as for people; not using antibiotics properly can lead to bacterial resistance so that the antibiotics don't work. After using antibiotics in both humans or animals, resistant bacteria may grow in the gut and then spread easily from animals to people, or vice versa, and of course between people. For example MRSP (Methicillin-Resistant *Staphylococcus pseudintermedius*) can be spread from humans to animals.
8. Explain to the class that they are going to learn how to prevent infections in their pet.

Main Activity: Memory Game

1 Divide group into two teams; human health (blue) and animal health (green)

2 Shuffle cards and place facing down on a table

3 In turns, pick a card and try to match the pairs

4 The team with the most pairs wins



Main Activity: Memory game

This activity is a memory card game that highlights the similarities between human and animal health. Each card (SH1 a-d) displays a situation which students may encounter when caring for their pet and a parallel situation concerning their own health.

Rules

- Two cards should be matched, one for human health (blue) and one for animal health (green).
- Divide the class into two teams, one for human health (blue), the other for animal health (green).
- Shuffle the cards and lay them face down on a table.
- In turn, a player from each team picks a card of their team's colour, shows it to the class and puts it back where it was, face down.
- All players try to memorise the location of the cards.
- When a player thinks he or she has memorised a pair of cards and it is his or her turn to play, he/she can keep this pair and play again. The team gets a point for each matched pair of cards.
- Warning. If a player makes a mistake, then the team must give back a pair of cards that it had already won.
- One of the animal health cards has no match for human health (I must deworm my pet). The team who gets this card must give back a pair of matched cards.
- The team with the most matched pairs is the winner.

Discussion

What must be done to keep a pet in good health?

Make sure to check your animal's general and dental hygiene, keep its resting spots clean and don't forget to wash your hands with soap and water afterwards, feed and regularly de-worm your pet properly, get your pet vaccinated as soon as possible according to the recommended schedule for the species concerned.

Make sure the students have understood the many similarities between human and pet health by asking the following questions:

What must be done if a pet is sick? It should be shown to a vet. If the vet prescribes antibiotics, make sure to follow the prescription and give the full course even if the animal appears to recover quickly.

Extension activity

Animal and Farm Hygiene Quiz

Provide SW1 to groups of 3 or 4 students. The team with the most points wins. Alternatively the quiz can be completed at the beginning of the lesson to measure understanding. Answers are available on the e-Bug website.

Animal Poster Design

Ask the students to create a poster as a group (drawings, collages...) to help them understand the similarities between human and animal health and to suggest appropriate slogans. Students should include animals they own, or pets they would like, in similar situations i.e. receiving a vaccination.

Farm Fun Interactive Game

Visit e-bug.eu for this fun game that can be combined with a farm visit. Students are asked to spot the mistakes young visitors are making during the visit and explain why each action may lead to harm.

Learning Consolidation

At the end of the lesson, ask the class if they can name different ways they can look after a pet:

For example:

- Make sure to check pets general and dental hygiene regularly.
- Keep its resting spots clean and to wash my hands afterwards.
- Feed and de-worm pets correctly.
- See a vet to get pets vaccinated.
- If the vet prescribes antibiotics, make sure to follow the prescription correctly.





I get vaccinated according to guidelines



I wash my hands often during the day with soap and water



I have useful microbes in my digestive tract that help keep me healthy



I have a vaccination record



My immune system fights off most common infections



When I take a walk in the forest, I check my skin and my hair for ticks



I'm getting vaccinated



I have a balanced diet with plenty of fruit and vegetables



I brush my teeth





If my doctor
prescribes
antibiotics, I finish
the treatment
prescribed to me



I never take
antibiotics
from a previous
treatment



I don't feed
my pet while
I'm cooking
or eating




If I get sick, I only
take antibiotics if
my doctor
prescribes them




I will return
any leftover
antibiotics to
my pharmacy







I have my pet vaccinated according to the vaccine schedule of its species



I wash my pet with suitable shampoos when it is dirty




My pet has useful microbes in their digestive tract that help keep them healthy




My pet has a vaccination certificate



My pet has immune defenses that fight most common infections




When I take a walk in the forest with my pet, I check their fur for ticks



I will vaccinate my pet



My pet has a balanced diet adapted to its species



I check the dental condition of my pet





If the vet prescribes
antibiotics to my pet,
I give them all the
prescribed course
of treatment



I deworm my
pet regularly



I never give
antibiotics from a
previous treatment
to my pet



I let my pet eat
its food in their
own bowl



If my pet gets sick,
I only give them
antibiotics if the vet
prescribes them



I will return
any leftover
antibiotics to
my vet





Quiz: Animal and Farm Hygiene

Please tick as many answers as appropriate

When looking after pets, you should:
(3 points)

- Brush their teeth
- Get your pet vaccinated by a vet
- Feed your pet with any food you can find
- Deworm your pet regularly

Useful microbes can turn animal products into: (3 points)

- Milk
- Yoghurt
- Cream
- Cheese

We can help prevent the spread of infection between animals and humans by:
(2 points)

- Washing our hands with soap and water after playing with animals
- Kissing or putting our face close to the animals face
- Regularly wash pets with suitable products
- Having separate resting spots for pets that are regularly cleaned

When visiting a farm people should wash their hands: (3 points)

- Before eating
- After petting the animals
- After touching the crops
- After talking with the farmer

Where should you eat your food at a farm? (1 point)

- On the floor away from the animals
- A designated picnic area/café
- Next to the animals so you can share food
- Near the toilets

If prescribed antibiotics for your pet by the vet, you should:
(2 points)

- Give your pet the full course of treatment
- Give your pet antibiotics from a previous treatment
- Leave any remaining antibiotics at home
- Follow the required dosage of the prescription

