

All about Rabies!

An entertaining, activity-based, educational package for children aged 6-14, focusing on responsible pet ownership, rabies prevention and treatment.

Based on the **Multiple Intelligences Theory**

LEVEL 3 (ages 12-14 approximately)

Includes:

- Individual & group activities
- Activity sheets
- Homework sheets
- Games
- Learning Centers
- PowerPoint presentation about rabies

For use in *Language & Literature, Math, Science, Visual Arts and Music & Drama!*

QuickTime™ and a
decompressor
are needed to see this picture.

QuickTime™ and a
decompressor
are needed to see this picture.

INDEX

. Introduction Section	2
Teachers' notes	
The framework behind the educational materials: The Multiple Intelligences Theory.	
. Language & Literature Section	15
Activity 1: "Jumping Joey's story"	
Activity 2: "Be a journalist! The risk of rabies"	
Activity 3: "What do you do if you're bitten by a dog?"	
Activity Worksheet: "Jumping Joey's Story"	
Homework: "Crosswords"; "Trivia"	
. Science Section	28
Activity 1: "Research and explain to your friends about rabies"	
Activity 2: "From Bite to Brain"	
Activity 3: "Comparing diseases"	
Activity Worksheet: "Rabies facts and talking points"	
Homework: "True or false?"; "Circle the correct answers"; "Quiz- Test your knowledge about rabies"	
. Visual Arts	38
Activity 1: "Design an advertisement: Rabies is 100% preventable"	
Activity 2: "Fashion design for pets"	
Activity 3: "Comics to prevent rabies"	
. Math	42
Activity 1: "Venn diagram for animals"	
Activity 2: "Stray Report"	
Activity 3: "Bar graphs of Rabies"	
Activity Sheet: "Bar Graphs of Rabies"	
Homework: "Problem Solving"	
. Music & Drama	50
Activity 1: "The Rabies Song Contest"	
Activity 2: "Role-Play: My dog has been bitten! ... or...An animal has bitten me!"	
. Closing Activity	53
Games for Logical and Drama Centers	
. Information about rabies	63
. Useful links & notes	66

Dear teacher,

We hope you and your class will enjoy working with this teaching material. It has been developed to commemorate World Rabies Day, which aims to raise worldwide awareness about the impact of rabies and how we can work together to bring an end to the disease. Education plays a huge role, giving people the information they need to stay safe, which, along with animal control and vaccination, will help stop the spread of the virus.

This program has been designed to allow your students to apply their multiple intelligences as they practice skills in five domains (arts, math, language & literature, music & drama, science) and learn about rabies prevention and treatment. In this way, you have the chance to include the activities in your daily schedule, while helping children become more aware about rabies.

The material is divided into three levels: level 1 (ages 6-8 approximately), level 2 (ages 9-11 approximately) and level 3 (ages 12-14 approximately). In each level you will find:

- Language & Literature: 3 Activities + Homework sheets + Activity sheets
- Math: 3 Activities + Homework sheets + Activity sheets
- Science: 3 Activities + Homework sheets + Activity sheets
- Visual Arts: 3 Activities + Homework sheets + Activity sheets
- Music & Drama: 2 Activities + Activity sheets
- Closing Activity: 3 Learning center activities
- PowerPoint presentation about Rabies
- Games to copy and play!

Although we recommend applying all the activities, you can choose which ones you would like to use, as most of them are not correlated. We strongly recommend finishing this project with the closing activity, because children will have the chance to apply all the concepts they learned in a fun way!

Throughout the activities, children are encouraged to work in groups, research, use their creativity, their body and much more!

We hope that as you go through the activities with your students you'll take the opportunity to reach out to the wider community as well so that, together, we can prevent rabies victims in the future.

We thank you for your commitment and hope you and your students find the materials beneficial for the class.

The framework behind the Educational Materials: Multiple Intelligences Theory

The Multiple Intelligences theory was developed by Dr. Howard Gardner, Professor at the Harvard Graduate School of Education, more than 25 years ago, and it has been widely accepted and implemented by educators.

The Multiple Intelligences theory (M.I.) provides the framework for understanding human capacities. The theory shows teachers that children have a wide range of intelligences, that they learn in different ways and that it is crucial to give children opportunities to explore diverse areas in order to develop their capacities. Teachers using this theory are conscious that it is essential to provide varied ways of engaging students. It also provides the key to raising children to live in a global world, nurturing each child according to his or her learning styles and then offering contexts and opportunities to enhance that potential.

MI theory proves that there is not one way to be intelligent, but at least 8!

The eight intelligences are: linguistic, logical-mathematical, musical, bodily-kinesthetic, spatial, interpersonal, intrapersonal and naturalist. We all have these intelligences, but each of us has a unique intellectual profile. This means, because of our biological predisposition and our educational opportunities, we develop some intelligences more than others.

Imagine a child who belongs to a “musical” family, in which both parents work in a philharmonic. That child must have been exposed to music since he was in the womb, and it is likely that his parents will give him the opportunity to learn to play an instrument from an early age. It is therefore very probable that this child will develop his musical intelligence more than a child whose context does not allow him to explore this area.

Imagine also that the same child is having some trouble learning the alphabet, and does not seem to be interested in reading and writing. It seems that his linguistic intelligence is not very well developed. However, because we can take advantage of

all our intelligences to learn the same topic, this child who is very good at music could use his musical intelligence to learn the alphabet.

How? Teachers or parents can teach him an alphabet song, and encourage him to play that song with the instrument he learned to play at an early age. Furthermore, he could create a new rhythm to the alphabet song and show it to his friends.

The educational materials presented in this project will work on rabies education. The children, using their multiple intelligences, will learn and become more aware of this content.

The eight intelligences are...

Interpersonal intelligence

"Denotes a person's capacity to understand the intentions, motivations and desires of other people, and consequently, to work effectively with others."

Intrapersonal intelligence

"Involves the capacity to understand oneself, to have an effective work model of oneself - including one's own desires, fears, and capacities-and to use such information effectively in regulating one's own life."

Linguistic intelligence

"Involves sensitivity to spoken and written languages, the ability to learn languages and the capacity to use languages to accomplish certain goals."

Musical intelligence

"Entails skill in the performance, composition and appreciation of musical patterns."

Logical-Mathematical intelligence

"Involves the capacity to analyze problems logically, carry out mathematical operations and investigate issues scientifically."

Spatial intelligence

"Features the potential to recognize and manipulate the patterns of wide space (those used, for instance, by pilots and navigators), as well as the patterns of more confined areas (such as those of graphic artists, chess players or surgeons)."

Bodily-Kinesthetic intelligence

"Entails the potential of using one's own body or parts of the body (like the hand or the mouth) to solve problems or fashion products."

Naturalist intelligence

"Designates the expertise in the recognition and classification of numerous species - the flora and fauna - of one's own environment. This discrimination can be mobilized with cars, sneakers, and the like".

References: Gardner, Howard (1999). *Intelligence Reframed*. Basic Books:USA.

Gardner, Howard (2006). *The development and education of the mind*. Great Britain: Routledge.

Multiple Intelligences in the Classroom

As teachers, you can guide children to make the most of their learning experiences. Educators can apply the M.I. theory in many ways, including the Entry Points approach, Learning Centers, the Pathways Model, and the Reggio Emilia approach.

Entry Points Approach

Researchers at Project Zero propose that the same content can be understood, shown and discovered in various ways to approach learning. These "windows" for learning are:

- 4 *Narrative*. This entry point allows students to explore and understand a topic or content through the narration of stories.
- 4 *Foundational*. This entry point involves abstract thinking and reflection. Children

can understand and explore a topic by questioning their meaning and the consequences of certain behaviors.

4 *Logical*. Relating to others may not seem to have a logical aspect, but it does. When they are trying to solve a problem, children have to plan how to do it by following a logical sequence of steps.

4 *Numerical/Quantitative*. This entry point invokes numerical aspects of a topic.

4 *Aesthetic*. Through this entry point students understand and explore a topic or content by relying on visual and sensory information.

4 *Experiential*. This entry point involves learning and understanding through “hands-on experience” such as experimenting, acting out scenarios and making products.

4 *Social*. This focuses on examining social experiences and using collaborative and introspective approaches to learning experiences.

Learning Centers

This is a practical way to apply the Entry Points Approach by designing learning centers in which small groups of students work at the same time, on the same content. However, each group learns through a main entry point. The main goal is that the teacher has a guidance role, and students become more autonomous in their learning.

For example, if you are teaching a topic on wild animals to eight year-old children, you can create four learning centers: art, drama, logical and language.

- Art center: On different posters, draw wild animals that live in a forest, in a jungle, and in a savanna.

- Drama center: Think of a specific wild animal. How would it behave if it felt threatened? Pretend to be that animal and create a story, then act it out.

- Language: write a story about the relationship between human beings and wild animals.

- Logical: play a bingo game that includes wild animals from different habitats.

Pathways Model

The Pathways Model (Baum, Viens & Slatin, 2005) is an effective way to implement the Multiple Intelligences Theory in education. This model consists of five pathways, and each pathway can be applied at different times during the school year.

- 4 The *Exploration pathway*: adults can observe children's strengths and interests and enrich the environment to give children experiences across diverse domains.
- 4 The *Bridging pathway*: teachers can take into account the child's areas of strength to support literacy development and skills mastery.
- 4 The *Understanding pathway*: educators can provide students with opportunities to access material and show their understanding in ways that align with their areas of strength and interest.
- 4 The *Authentic Problems pathway*: students can implement authentic, problem-based learning experiences based on the MI framework.
- 4 The *Talent Development pathway*: educators can develop programs that identify and nurture children's talents.

Reggio Emilia Approach

The Reggio Emilia approach encourages documentation, focuses on project work and emphasizes the learning process. The power of documentation is central to the Reggio Emilia approach. Documentation includes photographs, transcription of children's remarks, discussions and any form of representation of their thinking and learning. It facilitates better understanding of children's experiences, and promotes discussions and professional growth among teachers. Documentation is also crucial for systematically following and studying the ways in which groups of children develop theories, ideas and understandings (Project Zero & Reggio Children, Italy, 2001).

The learning experiences in the Reggio Emilia approach are inquiry-based projects. Ideas for projects can originate in a variety of experiences where children and teachers have constructed knowledge together.

Educators can take these key concepts and apply them to their students' own initiatives and ideas.

Multiple Intelligences and the application of the theory to rabies educational materials

The educational materials in this project have been designed to encourage students to become aware of rabies prevention and treatment, and responsible pet ownership, by practicing the intelligences in a meaningful way. Given that students have different ways of learning, the main concepts are shown through *entry points* or “windows” for learning.

The activities are organized in five subjects or disciplines: language, arts, music & drama, math and science. There is also a closing activity for each level, in which the students put into practice the concepts they have learned.



Language

The core intelligences involved in the activities from this discipline are linguistic and interpersonal. The linguistic intelligence is crucial for communicating effectively with others. The activities developed in this program stimulate linguistic intelligence as students build their vocabulary related to pet care and rabies. They help students to practice literacy skills and reading comprehension, and encourage them to express themselves verbally. For example, students from the three levels have homework such as crosswords, trivia, matching definitions and terms, and activities for completing the missing words. During the activities they are challenged to read

Introduction

LEVEL 3 (ages 12-14)

information, write articles or posters, prepare presentations, etc.

The activities under this discipline use the following entry points:

- Narrative:

. The *Jumping Joey* story helps students to understand concepts of rabies prevention and animal care.

- Foundational:

. Through *Jumping Joey's* story, and other activities such as “ Do’s and don’ts of taking care of pets”, or “The risk of rabies”, students reflect on human and animal interactions, and question the consequences of certain behaviors (for example, interacting with wild animals, or touching a dog while it is eating)

- Logical:

. The activity, “What to do if you're bitten by a dog” encourages students to learn and follow a logical sequence of steps.



The core intelligences involved in the activities from this discipline are spatial and bodily- kinesthetic. The spatial intelligence is applied mainly through communicating concepts or ideas about rabies prevention and animal care through the arts. For example, students draw and paint the pictures for the story *Jumping Joey*, design an ad to stop rabies, and make a comic book to prevent rabies. Moreover, students develop fine motor skills associated with the bodily-kinesthetic intelligence by repeatedly practicing activities such as cutting, gluing, painting and drawing.

The activities under this discipline use the following entry points:

- Aesthetic:

Introduction

LEVEL 3 (ages 12-14)

. Students have the opportunity to explore how to take care of pets while designing a fashion show for pets, or creating a pet for the classroom.

- Experiential:

. The activities in this discipline are mainly hands-on, so children learn by doing.



The core intelligence involved in the activities from this discipline is logical-mathematical. The logical-mathematical intelligence is applied mainly through the use of problem solving and basic operations. For example, homework activities for students from the three levels include solving problems according to their level of numeracy (addition, subtraction, multiplication, division, percentages, etc.). The main activities include making surveys, Venn diagrams and bar graphs.

The activities under this discipline use the following entry points:

- Numerical/Quantitative:

. Students work on numeracy skills while acquiring information about rabies control.

- Logical:

. Activities such as “Venn Diagrams”, “Pet Survey” and “Stray Report” encourage students to make relationships between variables.



Science

The core intelligences involved in the activities from this discipline are naturalistic and linguistic. The naturalistic intelligence is applied by recognizing and comparing animals and diseases, and by learning about how the rabies virus spreads through the body. Linguistic intelligence is used when acquiring information through reading and listening.

The activities under this discipline use the following entry points:

- Logical:

. The activities “Research and explain to your friends”, “M&R memory game”, “Comparing diseases” challenge students to establish relationships between variables and to find a logical procedure.

- Experiential:

. The activities in this discipline are mainly hands-on, so children learn by doing.



Music and Drama

The core intelligences involved in the activities from this discipline are musical and bodily-kinesthetic. Musical intelligence is used when identifying different tunes and creating lyrics that fit with the tune. The bodily-kinesthetic intelligence is applied during the activities in which students pretend to be animals or people in particular

circumstances.

The activities under this discipline use the following entry points:

- Experiential:

. The activities in this discipline are mainly hands-on, and the children use their bodies, so they learn by doing.



Closing Activity

Students have the opportunity to choose between three learning centers: logical, arts, and drama. The choice is made using their intrapersonal intelligence. In other words, they will need to reflect on their learning styles and choose the learning center which is most appropriate to their strengths.

Learning Centers:

- Drama

Students mainly apply their bodily-kinesthetic intelligence, moving their bodies to pretend to be a certain animal or person in a situation related to rabies prevention or treatment.

Introduction

LEVEL 3 (ages 12-14)

- Arts

Students mainly apply their spatial intelligence by creating fashion products that communicate their understanding of rabies.

- Logical:

Students mainly apply their logical-mathematical intelligences while playing a Bingo or Memory Game.

Interpersonal intelligence is involved in ALL the subjects. Most of the activities are group-based, so students need to interact with their peers, solve problems, exchange ideas, communicate their findings, etc.

ACTIVITY 1 “Jumping Joey’s story”

INTELLIGENCES IN ACTION

- Linguistic
- Logical-mathematical
- Interpersonal
- Intrapersonal
- Bodily-kinesthetic
- Musical
- Spatial
- Naturalist

Objectives

- . Satisfy students' curiosity about pets and animals.
- . Learn about caring for animals.
- . Learn how to approach and handle animals.
- . Learn how to avoid being bitten by an animal.
- . Learn to apply first aid for pet bites.
- . Learn that seeking medical help after first aid is a necessity.
- . Reach out to parents and community.

Skills practiced

- . Reading Comprehension: answering questions about the text.
- . Writing: grammar and content.
- . Using creativity in writing.
- . Cooperative learning.

Materials

- . Activity sheet with the story: one per child or one for every two children.
- . Pens and paper.
- . PowerPoint about rabies.
- . Homework Worksheets: “Word Search; Crosswords”.
- . Where possible: additional information gathered by the teacher.

TIME: 60 min. approx

Step-by-step Instructions

4Let the students read the story for themselves. Tell them it is a story for younger children, and you would like them to analyze what the story is trying to teach them.

4Analyze the text with the students. What is it about? Is it a true story or fiction? Why? Who is the main character? How is the text arranged (introduction – development – resolution)? What do they think of Tyson? What do they think of Maiko? Is he a responsible father and pet owner? What is the story trying to teach the reader?

4Discuss the importance of vaccination, the threat of diseases (both for humans and animals) and caring for pets.

4Split the class into groups of 5 or 6. Invite the students to write a creative story that includes topics such as caring for pets, rabies, handling animals, first aid, etc.

4This will be a collaborative writing exercise and will proceed as follows:

- o Each student in the group will write the first lines of a story. When the teacher tells them to stop (after 10 or 15 minutes), the students will

Language & Literature LEVEL 3 (ages 12-14)

pass their story to the person on their right. This student will then continue his or her classmate's story.

- The teacher will ask them to repeat this step again after 10 or 15 more minutes.

4 There will therefore be as many stories as students. However, the stories will not belong to individual students but to the entire group.

4 At the end of the class, the stories will be read out loud.

4 You can publish the stories on the wall outside the classroom. You can also gather the best stories in a book and contact a local radio station to have them read by a local artist or by the students themselves.

 **work:** You can hand out the homework sheets and review them in groups in the next class.

ACTIVITY 2 “Be a journalist! The risk of rabies ”

*

INTELLIGENCES IN ACTION

- Linguistic
- Logical-mathematical
- Interpersonal
- Intrapersonal
- Bodily-kinesthetic
- Musical
- Spatial
- Naturalist

Objectives

- . Learn about the risks of rabies.
- . Reflect on the importance of taking care of pets, both for the animal itself and for the people who are in contact with it.
- . Reach out to parents and community.

Skills practiced

- . Distinguishing between types of text.
- . Expressing their own ideas and opinions in writing.
- . Respecting the opinions of others.

Materials

- . Rabies information: Rabies Facts and Talking Points.
- . PowerPoint presentation about rabies.
- . Pens and paper.
- . Homework Worksheets: “Word search; Crosswords”.
- . Where possible: additional information gathered by the teacher.

TIME:

It may take two sessions of 45 min.

* This activity should be done after Activity 1 from Science. They should also have done a Language Arts activity, as they need to have read *Jumping Joey’s Story*.

Step-by-step Instructions

- 4 Invite your students to be JOURNALISTS. Explain to your students that they will experience various aspects of the job of a journalist:
 Research, writing, editing and proofreading, communicating.
- 4 They will write a short newspaper article or a radio script that informs dog owners of the risks of rabies and what they can do to prevent it.
- 4 Introduce the topic of rabies to your students. Remind them about “Jumping Joey’s story”.
- 4 Also, review the contents of Activity 1 from Science and / or ask your students to read the information about rabies.
- 4 Provide examples of newspaper articles and radio scripts so the students will have a model to work on.
- 4 You can ask the students to do the activity individually or in pairs.

Language & Literature LEVEL 3 (ages 12-14)

- 4 Have them re-read the fact sheet, search the internet if this is available and / or show them the PowerPoint presentation.
- 4 They then need to write a first draft.
- 4 Once they have finished a draft of the article or script, get the students to hand their paper to another student for editing and proofreading.
- 4 Have the students check the suggestions from the other person, and make any necessary changes before handing it in. They may need a second round of editing.
- 4 You can plan to share the articles or script with a newspaper or radio station. They may decide to publish it!



work: You can hand out the homework sheets and review them in groups in the next class.

ACTIVITY 3 "What do you do if you're bitten by a dog?"

INTELLIGENCES IN ACTION

- Linguistic
- Logical-mathematical
- Interpersonal
- Intrapersonal
- Bodily-kinesthetic
- Musical
- Spatial
- Naturalist

Objectives

- . Learn about first aid for pet bites.
- . Reflect on the importance of seeking medical help after first aid.

Skills practiced

- . Writing skills: using parts of speech, spelling.
- . Communicating a procedure.
- . Listening to others.
- . Following instructions.

Materials

- . Pens and paper (colored pens or markers are preferred).
- . PowerPoint about rabies.
- . Rabies information: Rabies facts and Talking Points.
- . Where possible: additional information gathered by the teacher.
- . Homework Worksheets: "Word search; Crosswords".

TIME: 45 min. approx

Step-by-step Instructions

- 4 Open the discussion by asking if a pet has ever bitten them or anyone they know. Get the children to describe what happened, and ask questions to clarify what happened before, during and after the event.
- 4 Emphasize what happened after.
- 4 Explain the first aid steps and the importance of seeking medical attention, either by using the PowerPoint provided or by explaining the key concepts and writing them on the blackboard.
- 4 Invite the children to share their knowledge with a younger class by making a poster.
- 4 Encourage them to include steps to follow after a bite.

 **work:** You can hand out the homework sheets and review them in groups in the next class.

ACTIVITY WORKSHEET

Activity sheet 1 “ Jumping Joey’s story”

Jumping Joey, by Bert Sonnenschein

Timo is brushing Joey in the yard. “I want you to look beautiful today,” says Timo. Joey barks joyfully.

- “I’m sorry about yesterday Joey, I had a lot of homework to do. But today we’ll go and play. Promised!” Timo says.

-“You really think he understands you, don’t you?” Timo’s Mom laughs.

-“He does Mom, look.” “Sit and stay,” commands Timo.

Joey sits up straight. He inclines his head to the right and sticks his left ear straight up in the air. Timo takes a distance, holds up a hoop with his left hand and holds his right hand in front of the hoop.

- “Ladies and gentleman, may I please ask your attention for ‘Jumping Joey’,” Timo announces, “Jump Joey!”

Joey runs towards Timo and jumps through the hoop, making a somersault, grabbing a piece of biscuit out of Timo’s hand and landing on his feet.

- “Did you see that Mom!” asks Timo.

Joey runs up to Timo, barking and waving his tail excitedly. Timo gives him another piece of biscuit. “Good boy, Joey, good boy.”

-“Wow, the two of you should do your tricks at the market. Maybe you can make some money and buy me some biscuits.” Mom laughs.

- “Do you mean that, Mom, really? Come on Joey!” says Timo and off they go. “Hey...” shouts Mom, but Timo and Joey have not waited for an answer and have disappeared.

Timo jumps through the streets as Joey weaves through his legs with every step. When they make the corner they see Tyson, the neighborhood’s biggest dog, barking and jumping wildly around an old car wreck that has been in the street for a long time. As they come closer they hear a child crying.

It's B-Boy, the youngest son of Maiko, the owner of Tyson. He's trapped inside the car.

On the other side, B-Boy's friends try to chase Tyson away by throwing stones. But it only annoys Tyson even more. He runs up and down between the boys and the car wreck, threatening the boys and B-Boy.

-“Tell them to stop!” barks Joey.

-“What?” says Timo looking at Joey.

-“Tell them to stop throwing stones and freeze,” barks Joey.

-“Hey, stop throwing stones,” Timo shouts.

-“B-Boy is trapped in there!” the kids reply.

Timo looks at Joey, not knowing what to do.

-“We have to calm him down.” Joey says, “Freeze and don't look into his eyes. He'll think you're a tree.”

Still in doubt, Timo freezes, crosses his hands in front of him and looks to the ground.

-“I hope your trick works,” he whispers.

-“Trust me,” Joey commands.

The other kids follow Timo's example. Amazed, Timo and the kids see how Tyson slowly calms down.

-“Stay frozen,” Joey barks. “If you don't move, you're not a threat! ... Nor food!”, he adds, smiling.

In no time at all, Tyson loses interest and disappears.

Timo walks up to the car wreck and opens the door. B-Boy is still in tears.

-“Did he bite you?” Timo asks. B-Boy shows him his hand.

- “Joey, get me some soap!” he commands.

Timo starts flushing the wound with plenty of water. Joey comes back with soap.

-“Good boy,” says Timo, as he cleans the wound. “We have to take you to the hospital and report the bite.”

In the hospital, the doctor examines the wound.

-“That was a wise thing to do Timo,” praises the doctor. “I wonder if Tyson is vaccinated ...”

-“He’s not,” interrupts a big man walking in. “He’s my dog. How is my boy?”

-“The boy is fine,” says the doctor, but we’ll have to take Tyson to the vet to test him for rabies.

-“Are you kidding me?” the man says. “The last time I tried to take Tyson to the vet he bit me! Tyson is scared to death of injection needles!”

Timo laughs as he looks at Joey, who cannot believe his ears: Big Tyson afraid of needles.

-“In that case I’ll have to treat B-Boy for rabies,” the doctor says. “But we still have to find a way to get Tyson to the vet to be vaccinated.”

-“Joey can get him to the vet!” says Timo.

-“Who’s Joey?” Maiko wants to know.

Joey barks and jumps up.

-“Your dog can get my dog to the vet?” Maiko questions in disbelief.

-“They speak the same language,” Timo replies with a smile on his face.

-“You’re kidding me!” Maiko responds. “For a pack of biscuits?” Timo challenges Maiko.

Joey barks.

-“Two packs of biscuits,” Timo corrects.

Early evening Timo and Joey walk into the yard.

-“Where have you been?” Mom questions. Timo doesn’t answer.

With a big smile he places three packs of biscuits in front of her.

-“One for each of us,” he says. Joey jumps up and barks happily.

Timo winks at his mother: “We understand each other.”

HOMEWORK

Word Search

The Origins of Rabies Vaccine

In 1885, a French scientist named Louis Pasteur developed a vaccine to prevent rabies.

Find out which other useful vaccine Louis Pasteur developed.

Find out what the word 'pasteurisation' means.

HOMEWORK

Crosswords

Language & Literature LEVEL 3 (ages 12-14)

Down

1. A viral infection
2. What you do to prevent your cat from getting rabies
5. A dog will not bite a ...
8. Person you should see after flushing a bite wound
10. What a cat likes to play with
11. A dog can smell this...
12. What you do after being bitten by an animal

Across

3. Animals that can spread rabies
4. You use this to train your dog
6. The faster of the two: dog or cat
7. An animal can bite to protect its
9. According to a Chinese legend, the father of the cat
10. For animals, this might mean danger
11. What you do to calm down a dog
12. Never..... animals that don't know you

Language & Literature LEVEL 3 (ages 12-14)

Trivia

Use the information below to complete the crosswords.

- 4 A story in which animals or plants are given human qualities, like talking, is called a fable.
- 4 In the animal world, everything that moves is either food or danger.
- 4 To calm down a dog, freeze like a tree. When attacked, pretend to be a rock.
- 4 The oldest proof of animals and humans living together is 15,000 year-old graves (in Germany) in which humans and dogs are buried together.
- 4 There is about 1 dog for every 35 people on earth, amounting to some 2-3 hundred million dogs altogether across the globe.
- 4 Worldwide, the top 3 pets are: 1 - dogs, 2 - cats and 3 - fish.
- 4 The fastest dog in the world is the greyhound, with a speed of 72 km/h or 45 m/min. The fastest domestic cat is the Egyptian Mau, clocking in at 58 km/h or 36 m/min.
- 4 In Chinese culture, the Fu-dog is believed to bring happiness and good fortune.
- 4 Dogs have been reported to howl when their owners die, even when they are kilometers apart.
- 4 Around 450 BC, anyone who killed a cat in Egypt was punished by death.
- 4 A Chinese legend tells us that the cat is a cross between a lioness and a monkey - the lioness endowing her with dignity and the monkey with curiosity and playfulness.
- 4 The highest fall a cat is reported to have survived is 46 stories, or over 100 meters.
- 4 Dogs can smell fear and some diseases. They can also smell fingerprints that are over a week old.

Language & Literature LEVEL 3 (ages 12-14)

- 4 Cats can see six times better than humans in the dark.
- 4 The rabies virus can live in any mammal, including dogs and cats. Rabies attacks the nervous system and the brain.
- 4 About fifty-five thousand people die of rabies each year. First aid for rabies involves flushing the wound with water and soap, or disinfectant, for about 15 minutes.
- 4 A person with a probable rabies infection should start medical treatment within 24 hours.

ACTIVITY 1 “Research and explain to your friends about rabies”

INTELLIGENCES IN ACTION

- Linguistic
- Logical-mathematical
- Interpersonal
- Intrapersonal
- Bodily-kinesthetic
- Musical
- Spatial
- Naturalist

Objectives

- . Learn about rabies and its characteristics in animals and people.
- . Reflect about the importance of taking care of animals in order to prevent rabies.
- . Reach out to parents and community.

Skills practiced

- Inquiry Skills:
 - . Observing and understanding data.
 - . Asking questions.
 - . Making inferences.
 - . Making predictions.
 - . Interpreting data.
- Other:
 - . Reading comprehension.
 - . Teamwork.
 - . Oral presentation.

Materials

- . Activity worksheet: Rabies Facts and Talking Points.
- . Pens and paper.
- . PowerPoint presentation about rabies.
- . Rabies information: Rabies Facts and Talking Points.
- . Connect on the web:
<http://www.youtube.com/watch?v=ZX2EvXkn8OM&feature=related>
- . Homework worksheets: “Circle the correct answer”, “Quiz”, “ True or false”.
- . Where possible: additional information gathered by the teacher.

* TIME: 60-90 min. approx

* This activity may be divided into two parts. For example, the children can prepare the presentation in one class period and present it the following day.

Step-by-step Instructions

- 4 Invite children to become researchers for a few hours by investigating rabies.
- 4 Split the class into groups of 4 or 5 and provide copies of the rabies handout. If you have a projector, you can show the PowerPoint presentation and / or the video to one of the groups. Each group should have different information, so when they do the presentation, the rest of the groups will learn about a different topic. For example, you can have each group answer a different question:
 - . What is rabies?
 - . How do you know when an animal has rabies?
 - . What can happen if a rabid animal bites you?
 - . What should be done to prevent rabies?
- 4 Get the children to read and discuss the information for about 20 minutes.

- 4 Have a leader of each group make the presentation to the entire class.

 **work:** You can hand out the homework sheets and review them in groups in the next class.

ACTIVITY 2 “From Bite to Brain”

INTELLIGENCES IN ACTION

- Linguistic
- Logical-mathematical
- Interpersonal
- Intrapersonal
- Bodily-kinesthetic
- Musical
- Spatial
- Naturalist

Objectives

- . Learn about the infectious path of the virus in the body.
- . Become more aware of strategies to prevent rabies.

Skills practiced

- . Making a hypothesis.
- . Backing up a hypothesis with information.
- . Reading comprehension.
- . Communicating understanding through visual means and language
- . Working in groups.

Materials

- . PowerPoint presentation about rabies.
- . Big white sheets of papers for the posters.
- . Black and / or colored markers.
- . Rabies information: Rabies Facts and Talking Points.
- . Homework worksheets: “Circle the correct answer”; “Quiz”; “ True or false”.
- . Where possible: additional information gathered by the teacher.

TIME: 40-60 min. approx

Step-by-step Instructions

- 4 Introduce the question: How do you think the rabies virus affects our bodies?
- 4 Write the hypothesis on the blackboard.
- 4 Divide the class into groups of 4 or 5 and distribute information from the PDF.
- 4 Have each group read the sheet and explain to the rest of the class what they understood from the text.
- 4 Invite them to design and create an informative poster showing the infectious path of the rabies virus, from bite to brain.
- 4 Discuss ways to prevent the rabies virus. The students may wish to include this information on the poster as well.
- 4 You can hang the posters on the walls of the school so all the students will have a chance to view them.

 **work:** You can hand out the homework sheets and then review them in groups in the next class.

ACTIVITY 3 “Comparing diseases”

INTELLIGENCES IN ACTION

- Linguistic
- Logical-mathematical
- Interpersonal
- Intrapersonal
- Bodily-kinesthetic
- Musical
- Spatial
- Naturalist

Objectives

- . Learn about zoonotic diseases.
- . Compare and contrast diseases that affect humans (vs. diseases that affect animals).
- . Be aware of how diseases are transmitted.

Skills practiced

- . Comparing information.
- . Reading comprehension.
- . Making inferences.
- . Communicating findings.
- . Teamwork.

Materials

- . Pens and paper.
- . PowerPoint presentation about rabies.
- . Rabies information: Rabies Facts and Talking Points.
- . Homework worksheets: “Circle the correct answer”; “Quiz”; “ True or false”.
- . Where possible: additional information gathered by the teacher (and brochures from veterinary and medical services).

TIME: 40-60 min. approx

Step-by-step Instructions

- 4 Split the class into groups of 5-6. Introduce the theme by asking questions about which diseases they know about. They can give examples of diseases that can affect their families, animals or community.
- 4 If you have done Activity Sheet 1, rabies will be one of the diseases they mention. If they do not mention rabies, suggest it yourself.
- 4 It would be preferable to have some leaflets and brochures from veterinary and medical services, NGOs or UN organizations, so that the students can consult them.
- 4 Pair the diseases two by two and ask the students to compare and contrast the two diseases using the information they have. Introduce the questions from the chart below.
- 4 Challenge the groups by giving them 10 points for every response they answer correctly.
- 4 If they do not have the answer to some questions, they can ‘buy’ answers from the other groups.
- 4 Reserve the last 20 minutes for group presentations. The groups present the outcomes, and for each good answer they score a full point. If they bought the answer from another group, both groups get half a point.
- 4 Congratulate the winning team and the rest of the teams for completing the chart.

 **work:** You can hand out the homework sheets and then review them in groups in the next class.

Example of a presentation:

Disease	AIDS	Rabies
What causes the disease?	The HIV virus	The rabies virus
Who carries the disease?	Humans	All mammals, including humans
How does the disease enter your body?	Through unsafe sex, sharp blood-infected objects, Mother-to-child	Via bites and scratches
How do you know you have the disease?	Testing after a few weeks	Observing and testing the animal that bit you
Where in the body can you find the virus?	Body fluids like sperm and blood	Saliva
What does the disease do?	The disease destroys the immune system	The disease attacks the nervous system and the brain
What are the symptoms of the disease?	Initially none. Later skin problems, coughing and tuberculosis	Initially none. Then a light flu: malaise, loss of appetite, feeling feverish, headache; Later spasms, hydrophobia (fear of water), moments of aggressiveness
Is the disease fatal?	Yes, if not treated	Yes, if not treated
How long after the infection does the disease become apparent (incubation time)?	3 months – 10 years	3 days – 3 months (sometimes longer)
How can you avoid becoming infected	Safe sex	Handle animals with proper care.

		<p>Avoid animal bites and scratches</p> <p>Have your pets and livestock vaccinated</p> <p>Avoid stray animals and wildlife</p> <p>Receive preventive vaccination yourself</p>
How can you cure the disease?	No cure available.	<p>No cure available once the virus is spread and the disease becomes apparent.</p> <p>By washing the wound and receiving the proper injections soon after the bite, you can prevent the virus from spreading and you can avoid getting the disease.</p>
Can you live with the disease?	Yes, with proper medicine	No, you have to receive the treatment before the signs of the disease appear.
When do you have to start treatment?	Any time recommended by the doctor	As soon as possible after the bite. Preferably within 24 hours.

HOMEWORK

Circle the correct answers

1. How many people die each year from rabies?

550 5,500 55,000 555,000

2. How old are most dog-bite victims?

under 15 over 15

3. Most of the people who die from rabies are bitten by infected:

cats horses monkeys dogs mice

4. The time between the bite and seeing symptoms can be:

minutes hours days weeks months

5. Animals and people get rabies from infected:

urine saliva blood faeces

HOMEWORK**Quiz - Test your knowledge about rabies.**

To calm down a dog you should

- fondle its back
- pretend to be a rock
- freeze and pretend to be a tree
- freeze and look it straight in the eyes

Animals that can transmit rabies are

- cats and dogs
- all animals that bite, like dogs and snakes
- all mammals
- only cats and dogs

To avoid rabies spreading you should

- vaccinate yourself
- vaccinate only your cats and dogs
- vaccinate all mammals around your house, including cattle, goats and pigs
- vaccinate all your livestock, including chickens and ducks

When you are bitten by an animal you should:

- A. flush the wound for 15 minutes
- B. freeze like a tree
- C. seek a doctor
- first a) then c)

To teach a dog tricks, you should:

- practice everyday
- eat lots of biscuits
- reward every good move
- all three of the above

Cats can see in the dark ...

- better than you
- worse than a dog

- better than both
- cats don't see but smell in the dark

Bats are ...

- birds
- flying rats
- mammals
- flying dogs

You can always tell if an animal has got rabies.

- not true
- when it bites
- if it drools
- if it behaves very aggressively

In Chinese culture the Fu-a cat brings happiness and fortune.

- True.
- Not true, it brings sadness and misfortune
- Not true, it is the Fu-dog
- Not true it is in ancient Egypt

Rabies is a disease in all countries.

- Not true, only north of the equator
- Not true, only south of the equator
- True
- True, but not in my country.

HOMEWORK

True or False?

1. Rabies is caused by a virus.
2. All dogs have rabies.
3. You can get rabies from a vaccinated animal.
4. Only mammals get rabies.
5. You cannot cure rabies.
6. You cannot prevent rabies.
7. Rabies is transmitted through blood.
8. It is easy to tell if an animal has rabies.
9. Wildlife usually gets rabies from dogs.
10. Rabies is a disease that attacks the brain and the spinal cord.

ACTIVITY 1 “Design an advertisement: Rabies is 100% preventable” *

INTELLIGENCES IN ACTION

- Linguistic
- Logical-mathematical
- Interpersonal
- Intrapersonal
- Bodily-kinesthetic
- Musical
- Spatial
- Naturalist

Objectives

- . Learn about rabies and its characteristics in animals and people.
- . Reflect on the importance of taking care of animals in order to prevent rabies.
- . Reach out to parents and community.

Skills practiced

- . Communicating through a visual medium.
- . Identifying and implementing ways of persuasion.
- . Creativity.
- . Using an art technique that has been learned in class.

Materials

- . Large sheets of white paper to make the posters.
- . Pens, colored pencils, and/or markers.
- . Printed advertisements from magazines, the Internet, etc.
- . PowerPoint presentation about rabies.
- . Rabies information: Rabies Facts and Talking Points.
- . Where possible: additional information gathered by the teacher.

TIME: 45 min. approx

* This activity is best done after any of the Science activities.

Step-by-step Instructions

- 4 Invite the students to organize a school campaign for rabies prevention.
- 4 Split the class into groups of 5 or 6. Make sure you have an ad from a glossy magazine for every group. If you have the option, you can download advertising from the Internet as well. You might also be able to get posters from a local shop, or print the adverts attached here. If you have only one large poster, stick it to the blackboard. Do not use public health posters; use only advertising from commercial products and services.
- 4 Introduce the theme: Arts & Advertising. Get the students to analyze the ads. Which elements (photo, text, logos) are used? What is the photo like (attractive, scary) and what is it telling us? What is the text trying to tell us? Which style does the text use? (Commanding, attractive, poetic). Which audience do they think the poster is trying to attract? Analyze the purpose of advertisements.
- 4 Discuss the aim of persuading and seducing potential clients by using beautiful pictures and poetic texts with lots of adjectives and humor. Discuss how the advert influences the customer’s sub-conscious.

- 4 Recall Jumping Joey's story by asking some questions. The task is for each group to make a poster or advert for a public health campaign about caring for pets, using the art forms and techniques of advertising.
- 4 Possible themes are: Interacting safely with animals – (make children freeze, not throwing stones); Taking good care of their family and pets by vaccinating them; Saving a child's life by knowing what to do when they are bitten by an animal. Make sure each poster has only one theme!
- 4 Display all the posters in the classroom and have the children express their ideas, doubts and feelings about each one of the posters. If some of the posters do not communicate their ideas clearly, encourage these students to make some changes.
- 4 You can hang the posters on the walls of the school to help build awareness about rabies prevention.

 **work:** Share the ad with your family and friends.

ACTIVITY 2 “Fashion design for pets”

INTELLIGENCES IN ACTION

- Linguistic
- Logical-mathematical
- Interpersonal
- Intrapersonal
- Bodily-kinesthetic
- Musical
- Spatial
- Naturalist

Objectives

- . Satisfy the student’s curiosity about pets and animals.
- . Reflect on the importance of taking care of animals in order to prevent rabies.
- . Reach out to parents and community.

Skills practiced

- . Communicating through a visual medium.
- . Exploring the use of fashion to express an idea.
- . Creativity.
- . Fine motor skills.

Materials

- . White sheets of paper, colored markers.
- . Pieces of cloth, buttons and any other material to create clothes.
- . Glue or a sewing kit.
- . Where possible: additional information gathered by the teacher.

Step-by-step Instructions

- 4 Talk with your students about taking care of pets. Explore whether they have pets or other animals at home, whether they take them to the animal doctor, etc. Don’t spend more than 10 minutes on this.
- 4 Discuss how to take care of a pet: providing shelter, food and water, taking it to the vet, etc.
- 4 In the context of an art class, invite the students to become fashion designers for the day, and design clothes for pets!
- 4 You can provide the students with sheets of paper and colored markers to draw the designs.
- 4 If the materials are available, get them to make the clothes out of pieces of cloth, buttons, etc.
- 4 If possible, organize a Pet Fashion Show, in which pets will wear the clothes your students have
- 4 made!

 **work:** Share your clothes with your family and friends.

ACTIVITY 3 “Comics to prevent rabies”

INTELLIGENCES IN ACTION

- Linguistic
- Logical-mathematical
- Interpersonal
- Intrapersonal
- Bodily-kinesthetic
- Musical
- Spatial
- Naturalist

Objectives

- . Satisfy students’ curiosity about pets and animals.
- . Reflect on the importance of taking care of animals in order to prevent rabies.
- . Reach out to parents and community.

Skills practiced

- . Communicating through a visual medium.
- . Exploring the comics to express an idea.
- . Creativity.
- . Fine motor skills.

Materials

- . White sheets of paper, colored markers.
- . PowerPoint presentation about rabies.
- . Rabies information: Rabies Facts and Talking Points.

Step-by-step Instructions

- 4 Talk with your students about taking care of pets. Explore whether they have pets or other animals at home, whether they take them to the animal doctor, etc. Don’t spend more than 10 minutes on this.
- 4 Discuss the importance of how to take care of a pet: providing shelter, food and water, taking it to the vet, etc.
- 4 In the context of an art class, invite the students to create their own comic book to communicate rabies awareness to others in their community.
- 4 They can create the stories individually or in pairs.
- 4 Have them share their comics with other students, who can review and edit them.
- 4 As soon as the comics are ready, the students can take a copy to the school library and even distribute copies to students from other levels.



work: Share your comics with your friends and family.

ACTIVITY 1 "Venn Diagram for animals"

INTELLIGENCES IN ACTION

- Linguistic
- Logical-mathematical
- Interpersonal
- Intrapersonal
- Bodily-kinesthetic
- Musical
- Spatial
- Naturalist

Objectives

- . Satisfy students' curiosity about pets and animals.
- . Reflect on the importance of rabies prevention.

Skills practiced

- . Ratios.
- . Using graphs to communicate results.
- . Problem solving.

Materials

- . Activity Sheet: Problem Solving.
- . Pens and Paper.
- . Where possible: additional information gathered by the teacher.

TIME: 40 min. approx

Step-by-step Instructions

A Venn diagram is a mathematical concept used for classifying and analyzing data. It is a simple graph that shows the relationships between different types of data. It is a first step towards probability, statistics, logic and computer programming. Playing around with the concept of a Venn diagram can be fun for students.

- 4 Ask students to form a large circle and hold hands. Count how many children there are and remember the number. If you are in the classroom, draw a large circle on the blackboard and next to it write: student population = n .
- 4 Ask the students which of them is a dog lover. Get them to step into the circle and form a smaller circle holding hands, then get them to count the number of dog lovers.
- 4 Draw a smaller circle on the blackboard inside the larger circle and write: dog lover population = n_1 .
- 4 Ask them to subtract the number of dog lovers from the total number of students. This gives the number of 'non dog lovers' in the population of students. Write inside the larger circle: population of non dog lovers = n_2 .
- 4 Ask them to calculate the ratio of dog lovers as part of the total students (n_1/n). Do the same for the ratio of non dog lovers, (n_2/n). Ask them to sum the ratios: $n_1/n + n_2/n = (n_1+n_2)/n = n/n$. Conclude that the answer is 1.
- 4 Repeat the entire exercise for cat lovers. The larger circle may be left with few or no students, but it remains clear on the blackboard. If you are doing this exercise in the playground, use chalk, cones or stones to mark the bigger circle.
- 4 Now ask the students which of them is both a dog and a cat lover. Get these students to form a third circle so that the dog lovers and cat lovers intersect with the other two circles (see drawing). Get them to count the number of exclusive dog lovers (I_1), exclusive cat lovers (I_2), dog and cat lovers (I_3) and non animal lovers

(14). Verify with them:

The total number of students $n = L1+L2+L3+L4$

The total number of animal lovers $n3 = L1+L2+L3$

The total number of dog lovers $n4 = L1 +L3$

The total number of cat lovers $n5 = L2 + L3$

The total number of non animal lovers $n6 = n - L1 - L2 - L3 = n - n3$

4

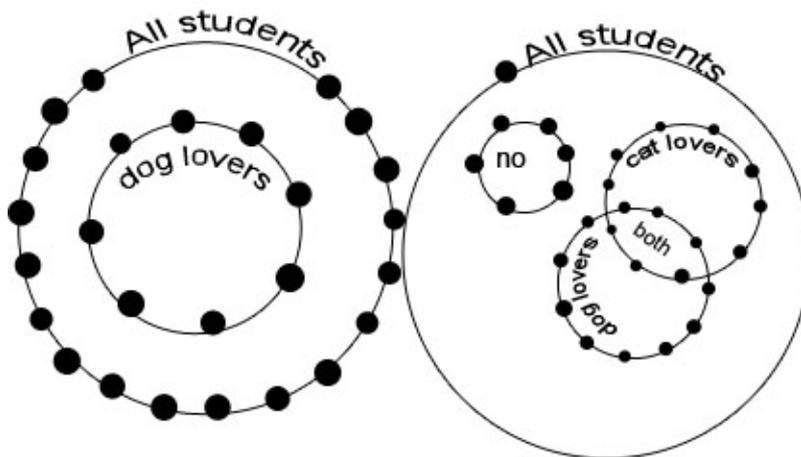
Get them to calculate the ratios, $r3, r4, r5, r6$.

Verify that $r3 + r4 + r5 + r6 = 1$.

4 Then invite the children to use Venn diagrams with other information, such as the number of children who have pets (dogs or cats) and whether their pets have been vaccinated, or the number of children who have pets compared to those who don't, and whether they have been bitten or not, etc.

4 Ask the children to draw Venn diagrams to explain their results.

4 Discuss with the children how they can prevent rabies in their community. Focus on the importance of vaccination and visiting the veterinarian with their pets.



 **work:** You can hand out the homework sheet and then review the answers in groups in the following class.

ACTIVITY 2 "Stray Report"

INTELLIGENCES IN ACTION

- Linguistic
- Logical-mathematical
- Interpersonal
- Intrapersonal
- Bodily-kinesthetic
- Musical
- Spatial
- Naturalist

Objectives

- . Satisfy students' curiosity about pets and animals.
- . Learn about caring for animals.
- . Differentiate between stray and non-stray animals.
- . Find ways to help stray animals.
- . Reach out to parents and community.

Skills practiced

- . Observation.
- . Comparison.
- . Using graphs to gather and interpret information.
- . Percentages.
- . Problem solving.

Materials

- . Activity sheet: Stray Report.
- . Pens and paper.
- . Homework worksheet: Problem Solving.
- . Where possible: additional information gathered by the teacher.

TIME: 45 min. approx

Step-by-step Instructions

- 4 Invite the students to research stray animals in their community and show their results in a Stray Report during the next week.
- 4 Discuss how they can research and take notes: visit a vet, observe streets, search the internet, etc.
- 4 They should communicate their findings in numbers and choose a way to share these findings: using graphs, percentages, etc.
- 4 Get them to gather information on the number of stray dogs in their neighborhood, city, country; the amount of government money spent on this issue, and strategies applied; compare the number of stray and non-stray dog bites, etc.
- 4 Students can research and present either in groups or individually. The idea is to discuss the results all together during the next class.



work: You can hand out the homework sheet and review the answers in groups in the next class.

ACTIVITY 3 “Bar graphs of rabies”

INTELLIGENCES IN ACTION

- Linguistic
- Logical-mathematical
- Interpersonal
- Intrapersonal
- Bodily-kinesthetic
- Musical
- Spatial
- Naturalist

Objectives

- . Satisfy students’ curiosity about pets and animals.
- . Learn about procedures to follow after a bite.
- . Reach out to parents and community.

Skills practiced

- . Problem solving.
- . Using graphs to interpret information.
- . Team-building.
- . Communicating findings.

Materials

- . Activity Sheet: Choose between the two projects.
- . Rabies Facts
- . Pens and paper.
- . PowerPoint about rabies.
- . Rabies information: Rabies Facts and Talking Points.
- . Homework worksheet: Problem Solving.
- . Where possible: additional information gathered by the teacher.

TIME: two sessions of 45 min.
approx

Step-by-step Instructions

- 4 Tell the students to form teams of 4 or 5 members. Each team will have the opportunity to choose between two projects.
- 4 Explain each project and invite the students to choose one. Make sure you have an even number of teams in each project.
- 4 Distribute the instructions and have the teams work on their own.

Project A: Survey about bites

Instructions:

- . Make up a survey and interview 10 people to find out if they have ever been bitten by a dog. Did they know the dog? What were they doing when they were bitten? What part of the body was bitten?
- .Collect everyone’s results and make a graph to show the findings.

Project B: Rabies in Africa and other countries

Instructions:

- Did you know that, out of the 55 000 rabies deaths that occur each year, 24 000 deaths occur in Africa?

Draw a circle graph to show this information.

Remember to add labels to your graph.

- Find out the number of rabies deaths that occur on other continents.

Draw another circle graph to show this information.

- Find out the number of rabies deaths that occur in your country.

Draw another circle graph to show this information.

4 Have the groups share their findings with the rest of the class.



work: You can hand out the homework sheet and review the answers in groups in the next class.

ACTIVITY WORKSHEET**Activity 3: “Bar graphs of rabies”**

Choose one of these projects with your group.

Project A: Survey about bites

Instructions:

. Make up a survey and interview 10 people to find out if they have ever been bitten by a dog. Did they know the dog? What were they doing when they were bitten?

What part of the body was bitten?

.Collect everyone’s results and make a graph to show the findings.

Project B: Rabies in Africa and other countries

Instructions:

- Did you know that, out of the 55 000 rabies deaths that occur each year, 24 000 deaths occur in Africa?

Draw a circle graph to show this information.

Remember to add labels to your graph.

- Find out the number of rabies deaths that occur on other continents.

Draw another circle graph to show this information.

- Find out the number of rabies deaths that occur in your country.

Draw another circle graph to show this information.

HOMEWORK**PROBLEM SOLVING**

1. Annually, 15 million people get post-exposure rabies treatment. There are 300 million dogs in the world. Assuming that all 15 million people were bitten by a dog, (which is not completely true) and every dog bites only one person, how many dogs will be needed before one person is bitten?

2. Compare this number to the number of dogs in the class or community. How many classmates will be bitten every year?

3. Each post-exposure rabies treatment costs 40 USD, (make this into local currency). Vaccination costs 1 USD per dog per year. How much money does it cost to vaccinate every dog each year?

4. Is treatment more expensive than vaccination, or less expensive? How many times?

5. Research and write down how many dogs there are in the country. Make sure you have an estimate from a reliable source, or take the average estimate of the class. Worldwide there are 300 million dogs and 55,000 rabies deaths/annually.

What is the deaths/dog ratio?

With the estimate of the number of dogs in the country, what is the prediction of annual rabies death in the country?

Would your country be above or below the world average? Why?

ACTIVITY 1 “The Rabies Song Contest”

INTELLIGENCES IN ACTION

- Linguistic
- Logical-mathematical
- Interpersonal
- Intrapersonal
- Bodily-kinesthetic
- Musical
- Spatial
- Naturalist

Objectives

- . Satisfy students’ curiosity about pets and animals.
- . Learn about caring for animals.
- . Learn about rabies prevention.
- . Reach out to parents and community.

Skills practiced

- . Using music to express ideas.
- . Adding lyrics to a tune.
- . Differentiating and using rhythms.

Materials

- . Activity Sheet: Samples of Songs
- . Rabies information: Rabies Facts and Talking Points.
- . PowerPoint about rabies.
- . Where possible: a CD with songs and a CD player
- . Pens and paper

TIME: 45 min. approx

Step-by-step Instructions:

- 4 Invite the students to create a Rabies Song.
- 4 Split the class into groups of 5 or 6. Ask the students to name a few of the most popular songs. Divide the songs among the groups. Make sure there is at least one student in each group who knows how to sing that song well.
- 4 Before they begin, refresh the students’ memories with information about rabies and encourage them to reflect on what they learned in previous activities. For example, ask about Jumping Joey’s story, review the steps to follow if someone gets bitten by an animal, and reflect on ways people can keep from getting rabies.
- 4 You can also provide information from the PowerPoint presentation or PDF to help review these topics. Students may find it helpful to use parts of the text for their lyrics.
- 4 First of all, have the students write down the lyrics from the songs they know. Then ask them to change the text so that the new song is about pets, human-animal interactions and accurate rabies knowledge. The activity sheet for this exercise includes examples of songs from different countries that may be useful for your class.
- 4 Invite the groups to present their songs. During the presentations, make sure the songs contain the correct message about animal-human interactions. After each presentation, emphasize the message and correct any misinformation, or have the class point out any inaccuracies.
- 4 You can organize a contest in your school or your district, or even reach out to wider communities on the web.

Music & Drama

LEVEL 3 (ages 12-14)

4If you have the option, encourage your students to record their songs and upload them on to YouTube. Consult the WRD website for more information:
www.worldrabiesday.org

 **work:** Write a poem about taking care of pets.

ACTIVITY 2 "Role-play: My dog has been bitten! ... or... An animal has bitten me!"

INTELLIGENCES IN ACTION

- Linguistic
- Logical-mathematical
- Interpersonal
- Intrapersonal
- Bodily-kinesthetic
- Musical
- Spatial
- Naturalist

Objectives

- . Satisfy students' curiosity about pets and animals.
- . Learn steps to follow if an animal bites you.
- . Learn how to take care of and handle pets.
- . Learn how to apply first aid for pet bites.
- . Learn that seeking medical help after first aid is a necessity.
- . Reach out to parents and community.

Skills practiced

- . Using the body to represent an idea.
- . Coordinating gross motor skills.
- . Team-work.
- . Interpreting other people's intentions and ideas.

Materials

- . Rabies information: Rabies Facts and Talking Points.
- . PowerPoint about rabies.
- . Pens and paper.

TIME: 45 min. approx

Step-by-step Instructions:

- 4 Ask the students if an animal has ever bitten any of them, or if they know of someone who has been bitten. Ask them to describe the situation, why they think they were bitten and what procedures they followed after the bite. Then ask if another animal has ever bitten their pet, and explore what happened in that situation.
- 4 Explain to the students the steps to follow in both situations. You can use the PowerPoint presentation or the PDF text to support your explanation.
- 4 Invite the children to perform a skit based on either of these situations: an animal bites an animal, or an animal bites a person.
- 4 Make groups of 3 to 5 students. Each participant on the team should have a role in the performance.
- 4 Provide 15 minutes for the groups to brainstorm ideas. Make sure they plan out the place where the action will take place, what the human-animal interaction will be like, etc. The students can take notes, write down the script, or improvise.
- 4 Help the students remember the steps to follow after a bite by having the information on the blackboard, or provide a copy of the WRD fact sheet.
- 4 Have each team perform the play in class, and if possible, organize an event in your school and share it with the other classes.



work: Write a poem about taking care of pets.

CLOSING ACTIVITY

This closing activity is intended to provide students with the opportunity to apply the concepts and skills learned in the previous activities.

- Linguistic
- Logical-mathematical
- Interpersonal
- Intrapersonal
- Bodily-kinesthetic
- Musical
- Spatial
- Naturalist

Two options are provided. One can be applied by students in your classroom and the other involves outreach to the community.

Option 1: In the classroom

Design learning centers around the subjects applied in the Rabies Project:

Art center, Logical center, Drama center

The main goal of this activity is to allow your students to apply their multiple intelligences as they practice the contents and skills learned in the previous rabies activities.

The students will have autonomy in their learning: they will choose the learning center they would like to participate in and implement the activity as a team, without the guidance of the teacher.

Step-by-step Instructions:

- 4 Prepare the layout of the classroom: divide the chairs and/or tables into groups of 3 or 4 (according to the number of centers you are setting up).
- 4 Have the materials ready for each center.
- 4 Introduce the students to the activity: they will have the chance to work in learning centers. Although each center will be related to a different way of learning, they will all have the same topic: rabies awareness. The difference between each center is that the students will express their understanding of the topic in different ways, be it through art, language, logical-mathematical or drama.
- 4 Explain what each center is about and encourage students to reflect on their learning style and strengths before choosing their center.
- 4 It is recommended that each center have about the same number of students. If one center is too crowded, encourage the students to find creative ways of splitting into other groups. You could also suggest that students choose their two favorite centers and then assign an even number of students to each center.
- 4 Provide the materials and instructions for each center and have the students do the activity on their own.
- 4 At the end of the activity, invite each group to share their learning with the rest of the class.

Closing Activity

LEVEL 3 (ages 12-14)

ART CENTER

Materials: if you apply Activity 2 or 3 from the Visual Arts activities, please look for the materials on the corresponding page. For the activity described below, provide a large sheet of white paper, magazines, colored pencils or markers, scissors and glue. If possible, play-dough, or recycled pieces of paper and plastic.

- 4 You can choose to apply Activity 2 or 3 if you have not already done so.
- 4 Or invite the students to choose either a major concept they learned about rabies, or something that attracted their attention, and express it using visual arts.
- 4 This can be in the format of a poster, or 3D, using play-dough or plastic.
- 4 Encourage them to use their creativity and work as a team.
- 4 It should communicate their understanding of rabies and how to prevent it.

LOGICAL CENTER

Materials: if you apply Activity 2 or 3 from Math activities, please look for the materials on the corresponding page. For the activity described below, make a copy of the activity sheets for the Bingo Game and cut out each card. Make sure you have copies for each student.

- 4 You can choose to apply Activity 2 or 3 if you have not already done so.
- 4 Or invite the students to play a Bingo Game. One student is chosen to lead the game, shuffling the cards and reading them to the group.
- 4 You have the cards ready to cut at the end of this activity. You are welcome to create new ones too!

DRAMA CENTER

Materials: if you apply Activity 2 from Music & Drama activities, please look for the materials on the corresponding page. For the activity described below, make a copy of the activity sheets for the Charades Game and cut out each card.

- 4 You can choose to apply Activity 2 if you have not done already done so.
- 4 Or invite the students to play a game of charades. Each player takes a card and expresses the concept using his or her body, without using words. The rest of the team has to guess. The students take turns so everyone can participate.

Option 2: Outreach to the community

Prepare a school fair to showcase the projects from previous activities (posters, stories, role-play, graphs and / or surveys) to parents and community members.

Community outreach

The different posters can be used in various ways to reach out to the wider (school) communities. You can hang the posters outside the classroom or inside local shops. If you have the option, photograph or scan the posters and upload them to the WRD website: www.worldrabiesday.org

LOGICAL CENTER: BINGO GAME

- 4 Make copies of game boards A, B and C, one for each player. Also, make one copy of the cards and cut them out.
- 4 Place the calling cards in a box or bag.
- 4 Choose one student as the leader who will reach into the box or bag and select one calling card at a time.
- 4 As the leader reads the card aloud, the players will have to check their game boards to see if the answer from the calling card corresponds to any of their statements. If it does, they will cross out the statement.
- 4 The players who complete their cards first are the winners.
- 4 Invite the winners to read the full sentences out loud.

CARD A

<p>Animals that can transmit rabies</p>	<p>Rabies is transmitted through</p>
<p>Rabies is caused by a ...</p>	<p>One way to prevent rabies is to</p>
<p>A disease caused by a virus found in the saliva of rabid animals</p>	<p>If an animal bites you, you must</p>

CARD B

One way to prevent rabies is to

Never disturb a dog that is...

The time between the bite and seeing symptoms can be

There is no... for rabies

If not treated, rabies can be

Rabies is a ...

CARD C

The time between the bite and seeing symptoms can be

Rabies is transmitted through

One way to prevent rabies is to

Animals that can transmit rabies

If a dog comes close, stand like a ...

If an animal bites you, you must

Closing Activity

LEVEL 3 (ages 12-14)

CALLING CARDS

eating	cure	preventable disease
rabies	virus	mammals
saliva	vaccinate your pet	Visit the doctor .Report the bite to veterinary services
flush the wound with water and soap for at least 15 minutes	not touch wild animals	tree
weeks or months	fatal	keep your pet away from stray animals

DRAMA CENTER: CHARADES GAME

Cut out each card.

Pretend you are a rabid
dog

Pretend a dog has
bitten you, so you are
washing the wound
with soap

Pretend you are taking
good care of your dog

Pretend you are a
healthy dog

Pretend you are a bat
entering a house

Pretend you are a
veterinarian
vaccinating a cat to
prevent rabies

Pretend you are going to the vet because your pet has been bitten by another animal

Pretend an unknown dog is coming close to you, so you're standing like a tree

Pretend you are the rabies virus

Pretend you are a stray dog looking for food and shelter

(create your own prompt)

(create your own prompt)

Rabies Facts and Talking Points

What is rabies?

Rabies is a viral disease. The virus is present in the saliva of rabid animals (specifically mammals) and spreads to humans through bites and scratches. Although people are usually infected by dogs, they can also become infected by bats, raccoons, mongooses, and ferrets. Potentially, all mammals can spread the disease to humans. World-wide around 15 million people are bitten by mammals and receive medical care known as Post Exposure Prophylaxis, (PEP). Some 55,000 people die because they either go untreated or wait too long before seeking medical attention. Many are children.

What are the symptoms of rabies?

. *Rabies is a viral infection.* Like the AIDS infection, rabies can remain undetected for a period of time, usually from several days to three months. During this incubation period, the animal appears healthy. The virus takes time to multiply and travel through the spinal cord to the brain. Once the symptoms start, the disease progresses rapidly, and the animal always dies.

Like any sick person, a sick animal also behaves 'differently'. Any sign of 'unusual behavior' is usually suspicious and a sign of an illness, digestive disorder or injury. Rabid animals lack appetite, stop drinking, and may appear to want to be left alone. Some rabid animals bite at the slightest provocation, while others may become sleepy and drowsy. After the initial onset of symptoms, the animal may become vicious or begin to show signs of paralysis. Once the animal shows signs of paralysis, the disease progresses very quickly and the animal dies.

In the early stages, symptoms in humans can be mistaken for a light flu: feeling weak and feverish, with a slight head-ache. The symptoms then progress to acute pain, spasms, uncontrolled excitement, depression and hydrophobia or 'fear-of-water'. When the disease enters its final stage, the person experiences mania and exhaustion, and finally enters into coma and dies.

Rabies prevention starts with the animal owner

As an animal owner you are responsible for ensuring that your animal is healthy and presents no risk to the community. Protect your animals from being exposed to diseases by vaccinating them and not letting them roam freely, especially animals that are in frequent contact with people, like dogs, cats, ferrets, livestock and horses. If you own pets, you can spay or neuter them to reduce their tendency to roam and fight with other animals. This lowers the chances of the animal becoming infected with rabies or other diseases.

Reduce the risk of exposure to rabies from wildlife

Wild animals can bring rabies and other diseases to your pets and animals, and worse, to your family and children. Therefore it is wise not to attract wild animals to your home. Children are curious and feel attracted to that cute little animal that normally runs away. But they should be extra careful not to touch the ones that seem tame and don't run away. It is likely to be ill and might be infected with rabies. Teach children to enjoy wild animals from a distance and tell them to be especially aware of animals that react differently.

Keep your garbage securely covered and put empty bowls away after feeding and watering pets.

Open garbage and empty bowls will attract wild or stray animals;

Never handle unfamiliar animals – even if they appear friendly;

Wild animals should not be kept as pets. If you see a wild animal acting strangely, report it to the veterinary services;

Bats can carry rabies, so bat-proof your home.

What do you do if your pet has bite wounds?

If you find bite wounds on your pet or animal, it may have been in a fight with a rabid animal. If your pet has not been vaccinated, it might be infected with rabies or other diseases. Sooner or later it could fall ill and pass the disease on to you, your family or neighbors. If you do find bite wounds, take your pet to the veterinarian immediately and have it examined. Ask your veterinarian where you have to report the bite.

What do you do when an animal bites you?

Unlike for some other diseases, like polio, children are not vaccinated against rabies. Only people in high risk professions like veterinary doctors and wildlife rangers are vaccinated to prevent the disease. Each year 15 million people are bitten by animals that are potentially rabid and these people receive Post Exposure Prophylaxis. Some 55,000 people do not receive adequate medical care, and die from the disease. Rabies is a fatal disease. If your pet or an animal bites you, a family member, a student or a neighbor, and you do not know if the animal has been vaccinated against rabies, this is what you should do:

- . Flush the wound with plenty of water for at least 15 minutes, preferably with soap, disinfectant or ashes;
- . Seek medical help from the nearest health services or veterinary services;
- . Report the bite to the veterinary services;
- . If you can, safely capture the animal, and have it examined by a veterinarian.

Useful Links, Contacts & Notes LEVEL 3 (ages 12-14)

Links

World Rabies Day: www.worldrabiesday.org

GARC: www.globalrabiescontrol.org

CDC: www.cdc.gov/rabies

WHO: www.who.int/rabies/en/

NASPHV: www.nasphv.org/documentsCompendia

Contacts

World Rabies Day: peter.costa@worldrabiesday.org

+1-570-899-4885 (USA)

This package has been developed to commemorate World Rabies Day, celebrated on the September 28th of each year.

Developed by Valeria Fontanals, Ed.M

Edited by Belen Hornos

Special thanks to Bert Sonnenschein. Some activities are based on *Jumping Joey's* educational materials published by FAO.

Published by GARC, December 2011.