

LOOK AGAIN...



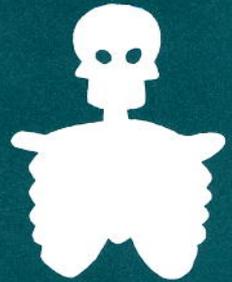
**explore...
wonder...
imagine...
question...
look again...**

Look Again

All children want to make sense of the world around them. Their curiosity leads them to explore, to experiment, to imagine possibilities, to make decisions, to solve problems, and to explain how the world works in their own terms. These six films without dialogue build upon and develop children's natural interest in their surroundings. The beautiful images and thoughtful cinematography invite the viewer to share the wonder of two children as they investigate a variety of natural phenomena:

- the seasons
- physical laws, such as gravity
- familiar living creatures
- night
- structures and their functions
- ecological relationships

By presenting familiar elements of the everyday world from unusual and changing viewpoints, these films encourage students to look more carefully and to appreciate the fascinating complexity of their environment.



Themes developed in the films

- ◀ ways of looking again to see things from different viewpoints
- ◀ processes of investigation and experimentation
- ◀ power of imagination
- ◀ respect and caring for the environment and other living things
- ◀ individual initiative and self-direction
- ◀ personal responsibility
- ◀ problem solving
- ◀ flexibility and tolerance for ambiguity

Using the films

These films are not intended to teach factual information about the environment. They are rich in opportunities for observing, questioning, analyzing, making hypotheses, imagining and creative problem solving. Teachers can encourage these processes by providing a learning climate in which students feel free to discuss their ideas without knowing the “right” answers. By exploring possibilities in an atmosphere of encouragement and acceptance, students will develop a greater tolerance for ambiguity and a desire to look again.

Each film stands on its own as a stimulus for classroom discussion about specific phenomena. Comparisons among two or more films can increase students’ awareness of the complexity of the environment and their relationships to it. When used together, the films complement one another in developing each of the themes suggested above.

The films provide starting points for many different learning activities across the curriculum. The accompanying materials offer a variety of suggestions for follow-up discussion and participatory activities.

To help teachers identify the individual films in the two videotape volumes, small coloured icons appear in the lower right corner of the screen.

Introduction to these support materials

The following ideas have been suggested by teachers who have field tested the films with children in their own classrooms at both primary and intermediate levels. The discussion questions and suggestions for getting involved are possibilities to consider when exploring the films with your own students. The sample activity for each film provides a model to use as a starting point. Most of the suggested activities can be adapted for children of any age in elementary school.

These support materials have been designed to help you develop students’ curiosity, attitudes of enquiry, and ability to use higher-level thinking processes. You will note that the discussion questions have many possible answers and that the activities allow for a wide range of approaches. The outcomes of some activities may not be clear or predictable in advance, which may be disconcerting at first to both students and teacher. However, as students learn to articulate possibilities, to evaluate alternatives, and to solve problems with minimal teacher guidance, their growth in confidence and independent thought will become apparent.

The concluding section of these materials, Making the Look Again Series, is intended to enhance the students’ understanding of the art and craft of film-making. Students should view the films once or repeatedly before they receive information about the secrets of the films’ construction. It is important that the students’ personal reactions to each film not be obstructed by too much background detail.

Between the Walls



Looking again

The situation and events depicted in **Between the Walls** can be examined and re-examined from many perspectives. As children observe and discuss this film, they may explore some of the following concepts.

- ◀ Many other living creatures may share our everyday living spaces.
 - What kinds of creatures did you observe in the film?
 - What other creatures might also have lived in the house?
 - What kinds of creatures have you observed in your own home? What other creatures do you think might live there?
 - How could you find out?
- ◀ People have different attitudes toward sharing their homes with other creatures.
 - Why do you think some creatures are called “pests”? How do you feel about having pests in your home?
 - What kinds of creatures do you accept in your home?
 - Which kinds do you think should be removed? How might you remove them if you didn’t want them there?
- ◀ We all have opportunities to make decisions and take actions that affect the creatures around us.
 - Do you agree with the girl’s decision to throw away the mousetrap she found in the kitchen? Could you explain the reasons for your opinion?
 - What other choices might the girl have made instead?
 - If you were the girl, what might you have done?
 - If you were the girl’s parents, how do you think you might have responded?
- ◀ Sometimes it takes more than one try to solve a problem.
 - What are some of the problems faced by the girl in the film? Which do you think is the most important problem?
 - What observations did you make about how the girl tried to solve the problem?
 - What helped her to solve the problem?
 - How might you have solved the problem?

Getting involved

Students will enjoy opportunities to test their own ideas in response to things they have observed in the film. Here are some possible follow-up activities for involving them in their own investigations.

- ◀ Design and build traps to catch real or imaginary creatures.
- ◀ Explore the school for signs of creature life.
- ◀ Bring creatures into the classroom for observation studies.
- ◀ Write stories based on events in the film (e.g., tell the story from the viewpoint of the mouse, cat, or spider).
- ◀ Role play and/or write a dialogue between the girl and her parents about the incident.
- ◀ Investigate and evaluate different ways that pests are removed from people’s homes.
- ◀ Investigate how this film was made (see final section of this booklet for further suggestions).

Sample activity plan

Important concepts

- ◀ Predicting can be a helpful strategy for viewing and understanding films.
- ◀ Young people can solve problems without help from adults.
- ◀ Young people can make decisions about their environment.
- ◀ Important decisions may involve taking responsibility for one's actions.

Target group

Primary or intermediate students.

Activity sequence

Before viewing the film...

- ◀ Ask students to discuss with a partner or small group (primary) or to write for three minutes (intermediate) about what the title suggests to them.
- ◀ Discuss as a class, "What do you think this film might be about?" Develop a climate for discussion in which students feel safe to explore possibilities and develop their ideas by
 - accepting all predictions without judging them;
 - inviting students to explain their predictions.
- ◀ Just before starting to screen the film, warn students that you will be stopping the film several times to make predictions.

While viewing the film...

- ◀ Stop the film several times and ask students to discuss in small groups or to write about their predictions at that point. Then discuss with the class, "What do you think might happen next?" One possible place to predict would be when the girl finds holes in her clothes and food.
- ◀ Freeze the film at a suitable frame for each of the three mousetraps. Ask students to observe the mousetrap carefully. Discuss the questions, "Do you think this trap will work? Why or why not?"
- ◀ Freeze the film at the point where the mouse is trapped. Ask students to discuss in small groups or to write for three minutes about what they think the girl might do next. Discuss their predictions. Ask them to suggest possible consequences of each idea.

After viewing the film...

- ◀ Discuss students' opinions about the girl's decision. For example:
 - "Do you agree with the decision she made? Why or why not?"
 - "If you discovered a mouse in your house, what could you do?"

Follow-up ideas

- ◀ Rewrite the story from the mouse's viewpoint.
- ◀ Role play an incident in which the girl's parents discover that she has thrown away their mousetrap.



Connections



Looking again

Connections encourages students to study relationships among physical structures and their functions using the processes of observing, comparing, and classifying. The following concepts may be addressed in relation to this film.

- ◀ Similarities in structures and functions can be found among natural objects and those made by humans.
 - What did you observe about the things you saw in the film?
 - Why do you suppose this film is called **Connections**?
 - How would you describe some of the connections you observed?
 - What other connections can you think of that were not shown in the film?
- ◀ Physical structures reflect their functions.
 - What kinds of work did you see being done in the film?
 - What structures were used for each kind of work?
- ◀ Many structures made by humans imitate those found in nature.
 - What similarities did you observe in the film between living and non-living structures?
 - Why do you suppose so many of our machines are like parts of living creatures?
 - What advantages might machines have over living things?
 - What disadvantages might they have?
 - What are some consequences of having powerful machines do our work for us?
- ◀ Making comparisons and drawing analogies can help us to understand connections.
 - How would you compare a cat skeleton to a human skeleton?
 - How would you compare a mask to a human face?
 - How is a wrestling match like a tractor pull?
 - What other analogies could you suggest?
- ◀ Respect for the environment involves caring for both living and non-living things.
 - What did you observe about the way the girl studied the skeleton?
 - Why do you suppose she put the bones back among the rocks?
 - How else can one show respect for the environment?

Getting involved

The connections shown in the film provide a springboard for students to use to investigate their own environment. By observing, comparing, classifying, problem solving, and creating, they can extend their understanding of how structures and functions are related.

- ◀ Study the human anatomy. Observe its structures and their functions. Work with a partner to learn about what your moving parts can do.
- ◀ Compare the moving parts of your body to simple machines. What can you do that a _____ can do? What part of your body is like a _____?
- ◀ Make up analogies and think of as many ways as you can to complete them, for example, “A face is to a mask as the skin is to _____” (clothes, shingles, the hull of a boat, etc.).
- ◀ In small groups, dramatize a machine with moving parts (e.g., a washing machine).
- ◀ Design a new machine to perform a specific function.

- ◀ Imagine that the parts of the body were mixed up (e.g., that your head was on the end of your arm). Make hypotheses about what your life might be like if the body were put together differently.
- ◀ Research how artificial limbs work.
- ◀ Imagine that you were a bionic person. Write a story about your life.
- ◀ Watch the film, **I'll Find a Way**. Make hypotheses about how life would be different if you were to lose one of your physical functions.
- ◀ Take a field trip (e.g., to the beach). Collect and organize information about the structures you observe.
- ◀ Analyze movements in slow motion using videotape. Identify which parts of your body perform each function in a movement sequence.
- ◀ Bring a machine (e.g., a bicycle) to the classroom. Study its structures and their functions. Take it apart and put it back together.
- ◀ Collect objects with moving parts. Compare and classify them.
- ◀ Develop a classroom bone collection. Study the bones. Classify them in different ways.
- ◀ Make hypotheses about how the cat skeleton came to be on the beach. Write the skeleton's life history.

Sample activity plan

Important concepts

- ◀ Structures can be classified according to their similarities and differences.
- ◀ Different structures perform different functions.
- ◀ Natural objects and those made by humans can be similar in structure and function.

Target group

Late primary or intermediate students.

Activity sequence

Before viewing the film...

- ◀ Bring some simple machines into the classroom. Observe and compare their structures and functions.
- ◀ Look for other simple machines in the classroom and school. Create a list of machines and classify them.

While viewing the film...

Observe carefully.

After viewing the film...

- ◀ Discuss students' observations of the film.
- ◀ Add to the list of machines developed earlier. Reclassify the list in different ways.
- ◀ Make a list of moving parts in the human body. Classify them.

Follow-up ideas

- ◀ Work in small groups to design machines which would perform a specific function.
- ◀ Conduct motion studies by videotaping a movement sequence and analyzing it in slow motion.

Snowballs and Sandcastles



Looking again

Snowballs and Sandcastles invites students to look more carefully at seasonal changes and their impact. The following ideas might be developed through discussion.

- ◀ Living things are affected by environmental changes, such as the seasons.
 - What observations did you make about the people in the film?
 - What did you observe about the other living creatures?
 - What did you observe about the vegetation?
- ◀ Humans adapt their lives and activities to the changing seasons.
 - What adaptations do people have to make to the seasons? What adaptations do we make to different kinds of weather?
 - What kinds of objects do we use to help us adapt to the seasons? What kinds of objects do we use to help us adapt to the weather?
 - Imagine a Saturday in summer and a Saturday in winter. Which of your activities might be similar? Which ones might be different?
 - If there were no seasons, how would your life be different?
- ◀ Each season has both positive and negative aspects.
 - What do you like about winter? What do you dislike?
 - What do you like about summer? What do you dislike?
- If you had to choose one season to live with for the entire year, which would it be?
- What are some reasons for your choice?
- ◀ People can have fun outdoors in many different ways.
 - What are your favourite winter activities?
 - What do you especially like to do in summer?
 - What comparisons could you make between winter and summer activities?
 - How are they alike? How are they different?
 - What kinds of outdoor activities might you choose if you lived in Hawaii? In Switzerland?
- ◀ Film-makers use a variety of techniques to affect our emotions.
 - How did you feel at the beginning of the film?
 - At what point did your feelings change?
 - Why do you suppose this happened?
 - Suppose you were going to make a film about school: What kinds of images would you choose if you wanted people to have positive feelings about school? What kinds of images would you choose to develop negative feelings?

Getting involved

Activities following from this film can extend students' awareness and appreciation of both their own surroundings and also the global environment. Here are some suggestions for hands-on investigation.

- ◀ Observe and compare paintings or photographs of scenes in different seasons. Cluster descriptive words for each season.
- Write a poem or descriptive passage to capture your impressions of one of the scenes.

- ◀ Brainstorm action words for different times of the year. Classify them.
- ◀ Draw an outdoor scene. Re-create the drawing by photocopying it several times. Experiment with colour washes to create different moods and seasonal impressions.
- ◀ Collect weather data for your community. Create a timeline for the seasons in our area. Describe what happens in each month. Discuss the transitions: When does winter end? What signs might you look for?
- ◀ Compare seasonal changes at different points on the earth. Make hypotheses about what the climate would be like in each place if the earth were not tilted.
- ◀ Compare weather data from locations around the world. Make hypotheses about what kinds of activities people might be doing in each location.
- ◀ Role play a dialogue between two people in different parts of the world who are having a long distance conversation about the weather.
- ◀ Collect and organize information about employment patterns in your community. What kinds of work change with the seasons?
- ◀ Research the effects of seasons on animals.
- ◀ Study a weather map. Write weather reports for a specific location based on the information found on the map.
- ◀ Critique the statement, "Summer is to winter as day is to night."
- ◀ Play the sound track of the film without the visual images. Trace the mood changes conveyed by the music.

Sample activity plan

Important concepts

- ◀ Seasonal changes follow predictable patterns.
- ◀ Some things remain the same while others change with the seasons.
- ◀ Seasonal changes affect lifestyles and activities.

Target group

Primary or intermeditate students.

Activity sequence

Before viewing the film...

- ◀ Cluster students' associations with the word "snowballs." Cluster associations with the word "sandcastles."
- ◀ Compare a snowball to a sandcastle.

While viewing the film....

- ◀ Observe to notice comparisons.

After viewing film...

- ◀ Work in small groups to list as many similarities and differences between summer and winter as possible. Create a class chart of similarities and differences.

Follow-up ideas

- ◀ Draw a scene (e.g., the beach, a park) to show things that stay the same all year. Make four copies. Create a visual timeline for the four seasons of the year. On each of the four scenes, colour and/or paint in the things that change with the seasons.
- ◀ Add human figures to the scenes. Show what activities they might be doing in each season.

Night



Looking again

This lyrical film deserves to be appreciated first for its rich visual and auditory images. Following one or more screenings, students may wish to discuss some of the following ideas.

- ◀ Night brings different feelings to different people.
 - How do you feel about being out at night?
 - Where do you think those feelings come from?
 - What is your favourite place to be at night?
 - Why does the night sometimes seem mysterious?
 - How did you feel when you saw and heard the night storm?
 - How did you feel when you saw the sunrise?
 - Why do you suppose the moon is often associated with love?
- ◀ Night and day differ in many ways.
 - What comparisons could you make between night and day?
 - What are some reasons for the differences between night and day?
 - Suppose that there were no daylight? How might our lives be different?
- ◀ We use our senses differently at night than during the day.
 - What senses do we use to gather information about our environment at night?
- How is night vision different from daytime vision?
- How is hearing at night different from hearing during the day?
- What kinds of objects might we use to help us see things at night?
- ◀ Our perceptions of places may change according to the time of day.
 - What kinds of places did you observe in the film? How did they look to you at night?
 - What do you think those places might look like during the day?
 - How does your own neighbourhood change at night? What things stay the same?
- ◀ People and animals sometimes behave differently during the night than during the day.
 - What did you observe people doing in the film? How do their activities compare with daytime activities?
 - What creatures did you observe in the film? How might their behaviour be different at night than during the day?
 - How is your night life different from your daytime life? What things remain the same?

Getting involved

Night lends itself to follow-up activities involving comparing, interpreting, and imagining. Here are some possibilities.

- ◀ Compare your day self and your night self. Describe your activities and feelings and explain some of the differences.
- ◀ Make a list of light sources. Classify them. Discuss how different kinds of light make you feel.
- ◀ Choose a scene or incident that you observed in the film. Make hypotheses about what happened just before and just after the scene you chose.

- ◀ Choose a scene from the film. Extend it into a story drama (e.g., people on the plane travelling at night).
- ◀ Make a collection of night myths. Study their characteristics. Write your own night myth.
- ◀ Describe the night from the viewpoint of a person or creature you saw in the film.
- ◀ Brainstorm words to describe night. Create a poem using some of your words.
- ◀ Create a collage of night sounds using the tape recorder. Play the tape to other students so they can interpret the sounds.
- ◀ Play the film sound track without the visual images. Describe the kinds of scenes you associate with the sounds.
- ◀ Study the habits of nocturnal animals.
- ◀ Study myths and legends involving the moon.
- ◀ Tell the story of the cyclist who appears in the film. What else do you suppose happens to him?
- ◀ Observe paintings and drawings of night scenes. Study the techniques used by the artists to depict night. Create your own night pictures.
- ◀ Experiment with shadows, using different light sources. Create a shadow play using puppets or your hands.
- ◀ Describe a place at different times of day and night. Write about how it looks and feels.
- ◀ Investigate how the film was made. Study the special effects techniques used by the film-maker (see the final section, **Making the Look Again series**, for further information).
- ◀ Take a field trip at night. Take the same field trip during the day. Compare observations made on the two trips.

Sample activity plan

Important concepts

- ◀ Night evokes different feelings for different people.
- ◀ The mysteries of night provide many opportunities for using the imagination.

Target group

Primary or intermediate students.

Activity sequence

Before viewing the film...

- ◀ Read a poem or observe a painting about night which is appropriate to the students' level (e.g., **The Highwayman** by de la Mare, or **Starry Night** by Van Gogh).
- ◀ Discuss students' associations with night. Cluster their ideas on a chart or blackboard.
- ◀ Present the title of the film. Predict what the film might be about.

While viewing the film...

- ◀ Observe to appreciate the visual and auditory images.

After viewing the film...

- ◀ Compare what was in the film to students' predictions.
- ◀ Extend the cluster of associations developed before viewing the film.
- ◀ Discuss feelings about night evoked by the film.
- ◀ Invite students to create a poem, story, or piece of art which reflects their feelings about night.

Follow-up ideas

- ◀ Imagine a particular place at different times of day and night. Write about the place you have chosen from both daytime and nighttime perspectives.
- ◀ Draw the same scene twice using indelible ink or wax crayons. Paint over the picture to show the scene during the day and at night.
- ◀ Create a classroom display of night images.
- ◀ Listen to the symphonic piece, **Night on Bald Mountain** by Mussorgsky. Compare the images of night created in the music to those created in the film.



Topsy-Turvy



Looking again

This magical film invites children to explore the mysteries of possible and impossible phenomena. Some concepts that might be developed using this film are identified below.

- ◀ Anything can happen in our dreams and imaginations.
 - What did you observe in the film that seemed like magic?
 - What happens to your thinking when you see something that looks like magic?
 - What kinds of dreams have you had about things that couldn't really happen?
 - How might you tell whether something is real or imaginary?
 - What kinds of magic would you like to be able to do?
 - Imagine that you had a dream about the dragon. How might your dream have been different?
- ◀ The unexpected is often surprising to us.
 - What surprised you in this film?
 - What did you observe about the boy's reactions?
 - How do you react when someone or something surprises you?
 - What makes some things surprising to us?
- ◀ Natural phenomena are predictable and can be explained and verified.
 - Which events in the film could be possible in everyday life?
 - What natural laws can you suggest that would help us to predict whether something is possible or not?
 - How might we prove whether something is possible or impossible?
 - How do you think the film-maker was able to show impossible things happening?
- ◀ There is value in imagining things that seem impossible.
 - What kinds of things are possible today that were not possible years ago?
 - How do you think these changes have happened?
 - What changes do you think might happen in the future?
 - How do you think people who died 200 years ago might react to today's world? What would seem magical to them? How do you think they might explain these things?

Getting involved

This film will stimulate the thinking operations of observing, imagining, making and testing hypotheses, and identifying assumptions about how things work in the everyday world. Children will enjoy trying their own magical activities like some of the ones below.

- ◀ Experiment with magic tricks. Have a class magic show.
- ◀ Tell or write about the wildest dream you ever had.
- ◀ Imagine a world in which the physical laws are different to the ones we know. Make up a new set of natural laws. Describe your imaginary world and some of its events.
- ◀ Imagine that one of the technologies we use every day (e.g., electricity) suddenly vanished. Create scenarios based on your "What if..." hypothesis. Dramatize or write about your ideas.
- ◀ Write a sequel to this film, titled "The Next Night."
- ◀ Create magical creatures from play dough or plasticine. Describe what kinds of magic they can perform.

- ◀ Create a timeline showing the development of technologies we take for granted today.
- ◀ Develop a play about a time traveller from the past who arrives in the present and discovers new kinds of “magic.”

Sample activity plan

Important concepts

- ◀ Natural laws govern what is possible and impossible.
- ◀ Things that seem magical can often be explained when we study them more carefully.
- ◀ Anything is possible in one’s imagination.

Target group

Primary or intermediate.

Activity sequence

Before viewing the film...

- ◀ Conduct a series of predictions with the class. Ask them to predict what will happen if you:
 - flick a light switch;
 - keep pouring water into a glass;
 - crack a raw egg.
- ◀ For each prediction, ask students to explain why they expect their predictions to happen. Then test the predictions to see if their predictions are accurate.
- ◀ Discuss how students were able to predict the outcomes of each activity.

While viewing the film...

- ◀ Watch for unexpected events or surprises in the film.

After viewing the film...

- ◀ Make a list of surprises observed in the film.
- ◀ Discuss the boy’s reactions to the surprises. Compare the students’ own reactions to those of the boy in the film.
- ◀ Discuss why these events were surprising. Identify which natural laws were violated by each event.
- ◀ Discuss how these events could be possible in a film.

Follow-up ideas

- ◀ Learn some magic tricks. Teach them to classmates.
- ◀ Have a magic show.
- ◀ Design and conduct experiments to see if the special effects in the film can be recreated in the classroom.

Journey of the Blob



Looking again

This film explores concepts of environmental interdependence and personal responsibility. Questions for discussion might focus on some of the following ideas.

- ◀ There are many journeys happening around us.
 - How would you retell the story of the blob's journey?
 - What other things do you know of that journey through our environment?
- ◀ Water follows a cycle in its journey through the environment.
 - What observations did you make about water in this film?
 - What do you think happens to water after it goes down the drain in your house?
 - Where did you see water being used in the film?
 - What are some other ways that water is used?
- ◀ When we dispose of chemicals and other waste in the environment they do not vanish forever.
 - How do you think the boy felt when the blob came out of his garden hose?
 - Why do you suppose the film-maker decided to tell the story of the blob's journey?
- ◀ Everyone makes choices about how to dispose of waste.
 - What observations did you make about the boy's behaviour in the film?
 - What decision did he make? Why do you suppose he decided to throw the blob in the creek?
 - What other choices could he have made?
 - If you were the boy, what might you have done?
 - What are some of the choices you make about the garbage in your home?
 - Why do you think we are sometimes called the "throwaway society"? How do you feel about this label?
- ◀ The decisions we make about waste disposal affect the environment.
 - What observations did you make about the behaviour of the other living creatures in this film?
 - Why do you suppose they reacted that way?
 - What might have happened if the blob had been an oil slick?
 - What might have happened if the blob had been a toxic chemical?
- ◀ Special effects are sometimes used in films to get a message across.
 - Which events in this film could really happen? Which do you think would be impossible? Explain your ideas.
 - Could a substance really behave the way the blob does? What materials do you know of that might behave like the blob?
 - What do you think actually happens when we put substances into the water? How could you test your ideas to find out for sure?

Getting involved

This film involves sensitive issues which may cause concern to some students. It is important that students feel they have some power to influence environmental issues, even in small ways. We suggest that, rather than discussing environmental issues on a global scale, the teacher focus on problem solving at an individual, family, or community level so that students feel they do have some decision-making power. Some of the following activities may help to increase students' belief in their ability to make responsible decisions.

- ◀ Retell the story of the blob's journey in your own words.
- ◀ Write a persuasive article about water pollution from the duck's viewpoint.
- ◀ Create a branching storyline for a drop of water. Show different paths it could take.
- ◀ Select and research an environmental issue in your community. Analyze the issue from different points of view. Conduct a debate or role play a town council meeting.
- ◀ Brainstorm and classify the uses of water.
- ◀ Identify areas in which students make personal choices which could affect the environment. Examine possible choices and their consequences. Develop individual contracts in which students make a commitment to responsible choice in one area.
- ◀ Compare an orange and a styrofoam container. Discuss reasons why some people are concerned about the use of styrofoam.
- ◀ Trace the journey of an object (e.g., a leaf) through its life cycle. Tell its life story. Compare its life cycle to the story of the blob.
- ◀ Design a class project to influence one environmental issue in your community (e.g., litter in the school yard). Address the following questions:
 - What is the problem?
 - Why do we think this is a problem?
 - Do we need more information about this problem? If so, how might we get it?
 - Where and how might we help solve the problem?
 - What actions are possible?
 - What might hinder our success? What can we do to be sure of success?
 - Where shall we start?
- ◀ Make a list of all the objects thrown away at your house in one day. Classify the items on your list. Make hypotheses about what happens to them after they leave your house.
- ◀ Research the waste management system in your community.
- ◀ Conduct scientific experiments to find out which parts of the blob's journey could be true and which are scientifically impossible.
- ◀ Retell the story from different viewpoints (e.g., the duck, a fish, the blob itself).
- ◀ Make a chart grouping chemicals in your home according to the information on the containers.

Sample activity plan

Important concepts

- ◀ Our decisions and actions have consequences for the environment.
- ◀ Water follows a cycle which continues constantly.

Target group

Primary or intermediate students.

Activity sequence

Before viewing the film...

- ◀ Collect water samples from three or four spots in the community (e.g., a drainage ditch, a household tap, a lake, an ocean, or a river). Observe and compare the samples. Make hypotheses about the similarities and differences observed among the samples.
- ◀ Make hypotheses about how the water got to each point and where it might go next.

While viewing the film...

- ◀ Observe to follow the journey of the blob.

After viewing the film...

- ◀ Retell the journey of the blob. Imagine other events that might have happened on the journey which are not shown in the film.
- ◀ Create a story map showing the blob's journey.
- ◀ Discuss the boy's decision and its consequences.

Follow-up ideas

- ◀ Create a branching story map for a drop of rain water, showing some of the journeys it could take.
- ◀ Take a field trip to look for signs of pollution in local areas.

Making the **Look Again** series

A variety of special techniques have been used to present the ideas in these films. Students may be interested in learning more about how the films were made, and may wish to try some film-making techniques themselves. Here are some background details and examples from the series. **It is important that students view the films before they learn about these techniques. Questions should arise from the students' own curiosity about how the films were made.**

Filming

Bill Maylone, the director of this series, began thinking about making a science film because educators had complained that there weren't enough good resources available. He started with the idea of an animated film which would present some basic science concepts in an attractive but didactic mode. After discussing his ideas with teachers and doing background research on child development, he realized that what young children need most of all is to be scientists themselves — to open their eyes to the world, to question and to experiment. His vision became a film series which would encourage children to see the everyday world in new ways. Bill hoped teachers would not just show these films, but would use them as starting points for investigation. His commitment to this goal remained clear throughout the project. Educators were invited to respond to the film proposals and footage at several stages of development, the films were shown to children in both primary and intermediate classrooms before final editing, and a team of teachers produced the materials in this package after field testing some of the activities with their own students. In Bill's opinion, "Film-making is a cooperative effort. It's good to work with talented people and to carefully consider their ideas."

According to Bill Maylone, the essence of the film-making process is creative problem solving.

As this series illustrates, the director may start out with an idea for a specific film in mind, but is likely to change it many times before the final product is complete. Changes happen for numerous reasons: people who work on the project contribute new ideas and skills; the director's own ideas grow through experimentation and discovery; and sometimes plans just don't work out and new approaches have to be found. "Even if you went through a training program and were taught all the major film-making techniques, you wouldn't be anywhere unless you could apply the knowledge to solve problems in new ways," says Mr. Maylone. The film-maker also has to work within constraints of time, budget and energy which limit his or her choices.

Bill notes that young people often want to know about the special effects used in making films. He says that many techniques or "tricks" have a simple basis, but deciding how and when to apply them is the film-maker's most important skill. While making the **Look Again** series, Bill and his crew encountered many situations where trial and error and lots of patience were required to work out the best ways of handling a shot. Many of the scenes they wanted to show had never been tried before, and the techniques had to be developed one by one during the filming. Here are some examples from **Journey of the Blob**.

Making the "green blob"

Eight different methods were used to show the green blob as it changed states during its journey. Each time the blob changed form, the crew had to decide how to make it look realistic on film. Other people were sometimes called in to give advice on these problems, but often it took several tries before the team found a way to get just the right effect.

Mixing the chemicals. When the boy first mixed the chemicals, water and food colouring were used to create the coloured liquids. Green vinegar and baking soda were used to create the bubbles when it started to foam.

The blob in the beaker. The thick mixture was created by boiling flax seed in water to create a jelly-like substance. Food colouring was added to make it green. A special effects technician helped with this solution. This turned out to be a dangerous strategy because the solution plugged up the film-maker's kitchen sink.

The blob floating in the creek. A flexible plastic material was shaped in a mould by another special effects technician for this part.

The blob evaporating. According to the director, the most difficult problems make for some of the most interesting adventures. He and the cameraman spent a day figuring out how to make the blob look as if it were evaporating. They decided to film the event very close to the water at a local beach, when the tide was going out. They chose dry ice to create the mist. The dry ice was placed in a bread pan hidden in the sand and some beach rocks were placed over the pan to hide it. A hose with a funnel at one end was connected to the bread pan under the sand so that hot water could be mixed with the dry ice to make it steam. The blob was initially arranged on top of the pan and part of the shot made. With the camera locked off, the blob was removed and the rest of the shot taken. The two parts were

dissolved together to make the blob appear to evaporate. Naturally, it took several tries to get the effect wanted, and each time they had to move the set to follow the receding tide. It was a challenging but satisfying scene.

The blob in a cloud. This shot required a mirror, some green cellophane and some clouds in the sky. The camera was pointed at the reflection of a cloud in the mirror. A small green shape to represent the blob was placed on the mirror, and the shot made. This had to be done quickly, given the speed with which clouds move in the sky, and required many takes.

The blob falling as snow. The film-maker experimented with many different materials to get the effect of green snow falling. The best one turned out to be the fluffy parts of turkey feathers, dyed green and cut up into very tiny pieces. These were carefully shaken out of a paper bag. It was hard to get them to fall evenly so that they looked like snow!

The blob in dripping icicles. Green food colouring was again used to colour the icicles so they would form green drops when they melted.

The blob coming out of the garden hose. Some of the flax seed mixture was shot through the hose using a large syringe. The hose was only about 4 feet long, and the syringe was just out of camera range.

How special effects work in film-making

Film-makers count on the audience to make assumptions as they are watching a movie. They know that our minds will put together the images we see in a way which makes sense to us, and we will believe that what we see on the screen is exactly what happened when the picture was being filmed.

One way this works is that we extend the images in our minds beyond what we see on the screen, making a full picture out of the small part that the camera shows us. For instance, we assume that the events we see in **Between the Walls** are actually happening in the house we saw at the beginning of the story. We may even believe we

see the whole house in a particular scene, although what we are shown looks like a window or a corner of the basement. In fact most of the interior scenes, including all of those in the kitchen as well as the special shots (between the walls, under the cupboard, in the ducts, etc.) were shot in a studio in small specially designed sets made to look like the appropriate part of the house. Only the girl walking up and down the stairs was shot in a real basement — but in a completely different house than the one seen on film.

We also make assumptions about familiar objects or characters who play important roles in the

story we are watching. Each time we see a mouse in **Between the Walls**, we believe it is the same one, even though six different mice were used during the shooting of this film. In the same way, we want to believe that when we see the green blob it is the same material actually going through the changes we observe as it moves through the environment. Often a film-maker will use special effects to show us things that would

be very difficult or impossible to film naturally. Sometimes we know these are unrealistic, but we are able to accept and “believe” them as part of a story.

There are many different film techniques used in the **Look Again** series. Here are the director’s answers for some of the questions students often ask about these films.

Some questions and answers about making these films

How were the animals trained for **Between the Walls**?

Six different mice were used for **Between the Walls**. A mouse-handler was hired to partially train and help control the mice, but the mice usually did their bit through trial and error, accident and many attempts. The mice were filmed, for the most part, in small sets designed to look like parts of a house. These sets were built to strictly limit what the mouse could do, but it was usually a long wait and many tries before a mouse would do the right action at the right speed in the right way. Four or five people were usually involved in any of the mouse sequences, and everybody contributed ideas. The hardest shots to make were those of the mice approaching and looking through the vent

— they did not like going towards the light. Approximately 50 seconds of film were shot for every 1 second of mouse footage used.

Several different spiders were also used for this film. The scene of the mouse and the spider “meeting” on the clothesrack had to be taken at least 30 times to get the spider and the mouse going in the right direction, at the right speed so as to meet in front of the camera. With all this action, all the handling necessary, and the hot movie lights, the animals got tired quickly and after every few attempts the spider or the mouse would have to be replaced with a fresher animal.

How did the objects move in **Topsy-Turvy**?

Many different methods were used to make things look as if they were moving in unusual ways. For example, when the crayon seemed to be colouring by itself, each part of the crayon’s movement was filmed separately, one frame at a time. The crayon was held up vertically by a pin stuck through the end of the crayon and into the surface of the table.

The same kind of frame-by-frame animation was used to film the dragon’s movements. This took a lot of time and patience, because the dragon’s position had to be changed just slightly between each frame shot — and it takes 24 frames to make just 1 second of film. To make the dragon look as if it jumped onto the refrigerator, a special rig was built to slide it up and down. In the shots in which the boy and the dragon are both in frame, a stick puppet version of the dragon was made to create and control the dragon’s movement.

The refrigerator was moved by placing it onto a large bearing and rolling it back and forth or around. In all these shots people are pushing, pulling or spinning from behind, below, or inside the refrigerator. You might note that the back of the refrigerator is never seen. All of the working parts of the refrigerator have been removed to reduce weight and provide operating room, and this would be obvious if the lower back of the fridge were seen. In one of the spinning shots, the motion was suggested by changing the shadows on the boy’s face and body. In this case the refrigerator was kept still and people holding the lights moved around the boy.

How were the orange juice tricks done in **Topsy-Turvy**?

The orange juice sequence was an especially interesting series of shots to do. Two pitchers and two glasses, exactly the same, were used — one of each normal, and one with a hole and tube in the bottom leading to a bladder below the counter. The kitchen was a set, so the cupboards were all false and holes were drilled in the counter. In the “filling” shots, a crew member was

below the counter squeezing the full bladder of orange juice up into the cup or pitcher. In the “emptying” shot, the orange juice was allowed to run from the glass into the bladder. Coordinating the speed of the action and the amount of juice involved, between the on-camera and off-camera performers was very tricky and took many tries to make it believable.

How was the lightning created for the film **Night**?

A still colour photograph was cut along the horizon line (the mountains) so that a variety of skies could be added. The lightning was drawn by graphic artists. By animating these drawings and using some interesting lighting effects, a believable lightning storm was created. The clouds blowing across the moon setting up the storm were carefully arranged tufts of cotton moved

across another photograph. In fact, most of the moon and sky shots in this film are special effect shots using photographs and animation techniques. These include: the plane across the moon, the satellite and shooting stars, the searchlight on the clouds, the downtown clock, and the moon set.

How do you keep cars off the street when you are making a film?

In **Snowballs and Sandcastles**, the scene of the car skidding was taken during a winter storm when there was very little traffic. The crew set up and then waited until no other cars were coming. This was a scary scene for the film director,

because he was driving the car and had to let it go out of control. In more elaborate film productions the film company may take out permits and pay the city for police to direct traffic and use trained stunt people to do the driving.

How long did it take to make the film series?

Many different stages and many people besides the director and film crew are involved in making a film. After the shooting is finished, editing must be done to select the best shots and put them together, and then titles and sound must be added. It took more than one and a half years

of concentrated work during the shooting phase alone of this series. Other jobs added even more time before the project was completed.

The film-maker

Bill Maylone, director and principal creator of the **Look Again** series, lives in New Westminster, B.C. His family includes two children and one of the mice who played a role in **Between the Walls**. He presently designs and teaches college courses, contributes to film-related projects as

a consultant and director, and likes to visit schools and libraries to talk about film and film-making. His work for the National Film Board includes this series and **64,000,000 Years Ago**, an animated film about dinosaurs.

Look Again series

Cast

girl
Alice Lau
boy
Scott Ingram

Production

concept and direction
Bill Maylone
editing
George Johnson
Charles Wilkinson
cinematography
Tom Turnbull
Bill Schmalz
music
John Forrest
production design
David Dorrington
art director
Karen Firus
special effects
Bill Maylone
Tom Turnbull
Robert Thompson
production manager
Mal Hoskin

sound editors
Debera Baranger
John Ogis
Tina Schliessler
re-recording
Robert Madge
Dave Slagter
camera assistants
Robert Thompson
Sharon McGowan
Gary Viola
music studio
Blue Wave
foley
Cal Schumiatcher
Marco Ciccone
Scott Goodman
M.O.P. Studios
title art
Dennis Smith
title design
Cecilia Ohm-Eriksen
story consultant
Charles Wilkinson
educational advisors
Pat Holborn
Selma Wassermann
Heather Buchan

production co-ordinator
Kathryn Lynch
unit administrator
Bruce Hagerman
producer
George Johnson
executive producer
Barbara Janes

Study Guide

Pat Holborn
Faculty of Education,
Simon Fraser University, B.C.
Heather Buchan
Vancouver School District, B.C.
Sabina Harpe
Richmond School District, B.C.
Brenda Krause
North Vancouver School District, B.C.
Gary Squire
North Vancouver School District, B.C.
Bill Maylone
Director, **Look Again** series
Jan Clemson
Study guide co-ordinator, NFB
Dennis Smith
Design and layout

16 mm films

Between the Walls	10:15 min.	C 0089 039
Connections	9:58 min.	C 0089 044
Snowballs and Sandcastles	8:10 min.	C 0089 042
Night	9:08 min.	C 0089 040
Topsy-Turvy	8:59 min.	C 0089 041
Journey of the Blob	9:46 min.	C 0089 043

Videotape

Look Again, Volume One containing Between the Walls Connections Snowballs and Sandcastles	28:48 min.	C 0089 066
Look Again, Volume Two containing Night Topsy-Turvy Journey of the Blob	28:23 min.	C 0089 067

*Le catalogue de films et vidéos **La Pomme verte ... et plus** contient une fiche d'exploitation pédagogique française pour chacun des films de la série **Look Again/Mieux voir**.*

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BETWEEN THE WALLS What choices and responsibilities arise when people and animals live in close proximity? A girl discovers a mouse that lives between the walls of her home and solves a problem when it is threatened. Students can predict what she might do and observe how she solves the problem realistically and sensitively. **10:15 min.**

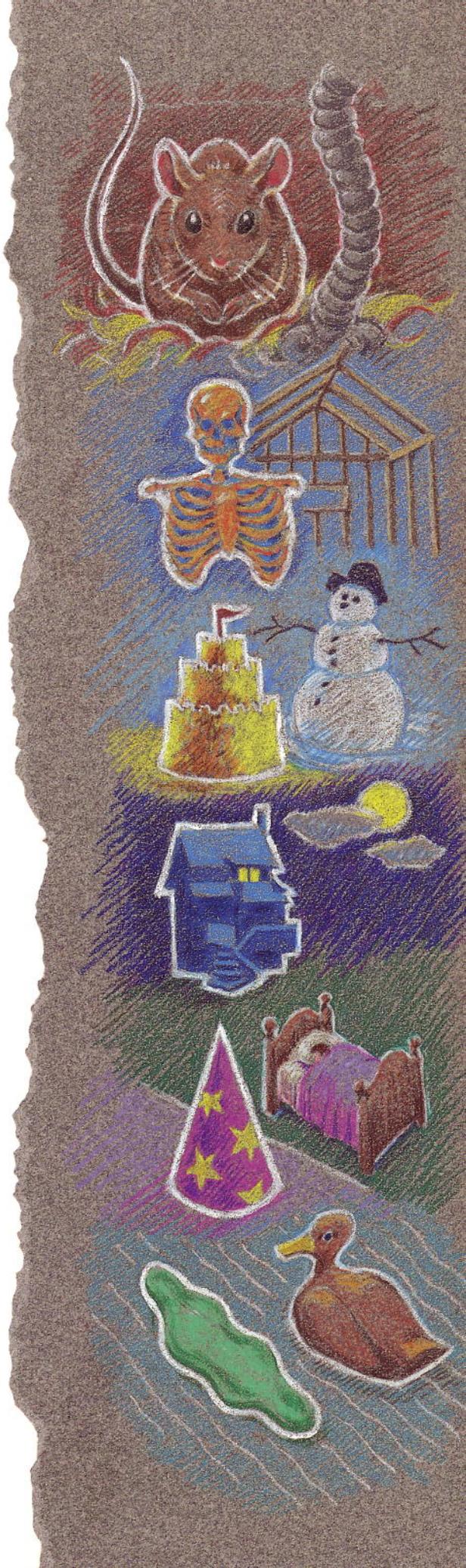
CONNECTIONS The discovery of an animal skeleton in a riverbed stimulates a girl to imagine the many connections among the structures and functions of living creatures and machines. The film provides a springboard for exploring patterns and relationships among many elements of the environment. **9:58 min.**

SNOWBALLS AND SANDCASTLES The seasonal opposites of winter and summer create very different worlds to be explored and enjoyed by people of all ages. How can comparisons help us appreciate the endless variety of the changing seasons? This film provides opportunities for students to examine their assumptions about winter and summer and to discuss the effects that changing seasons have on our everyday lives. **8:10 min.**

NIGHT What is it about the night that stirs the imagination toward enchantment and mystery? A girl views the city at night from her balcony, wondering about the sights and sounds of her familiar world after dark. Several viewings will allow students to look again and experience the magic of night from different perspectives. **9:08 min.**

TOPSY-TURVY In a young boy's dream world anything can happen — even magic. What magic is there in the child's world of fantasy? What magic is there in everyday things such as electricity and magnetism? Students of intermediate grades will want to discuss the scientific principles behind the impossible events and try their own "magic tricks" while younger children can make hypotheses about why some events cannot really happen. **8:59 min.**

JOURNEY OF THE BLOB A boy makes a decision about how to dispose of a green glob he has concocted. What will happen if he dumps it into a stream? Where does water come from and where does it go? This film illustrates the water cycle and raises many questions about environmental responsibility and the consequences of our decisions. **9:46 min.**





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