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Grade 3



**The Ontario Ministry of Education's
Physical Education and Health Curriculum Expectations
Kindergarten to Grade 4**

A3. Safety

Grade 1:

A3.2 - identify environmental factors that pose safety risks during their participation in physical activity and describe ways of preparing themselves to enjoy outdoor activities safely.

C3. Making Connections for Healthy Living

C3.1 - *Personal Safety and Injury Prevention* - demonstrate an understanding of how to stay safe and avoid injuries to themselves and others in a variety of situations, using knowledge about potential risks at home, in the community, and outdoors.

A3. Safety

Grade 2:

A3.2 - identify ways of protecting themselves and others, including those with medical conditions, from safety risks while participating in physical activity.

C1. Understanding Health Concepts

C1.1 - *Personal Safety and Injury Prevention* - demonstrate an understanding of practices that enhance personal safety in the home and outdoors.

C2. Making Healthy Choices

Grade 3:

C2.2 - *Personal Safety and Injury Prevention* - apply their understanding of good safety practices by developing safety guidelines for a variety of places and situations outside the classroom.

A3. Safety

Grade 4:

A3.1 - demonstrate behaviours and apply procedures that maximize their safety and that of others during physical activity.

A3.2 - describe common precautions for preventing accidents and injuries while participating in different types of physical activity.

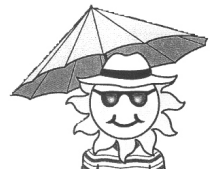
C2. Making Healthy Choices

C2.2 *Personal Safety and Injury Prevention* - apply a decision-making process to assess risks and make safe decisions in a variety of situations.



Safe Fun in the Sun Project

Grade 3



Learning Objectives

The students will:

1. Learn about skin cancer and how it is prevented.
2. Identify specific ways that they can protect themselves from the sun.
3. Learn that they can choose to protect themselves from the sun and understand the consequences of choosing not to protect themselves.
4. Learn from and understand the “*Diagram of the Solar Spectrum*” and the impact of the different types of rays.
5. Read the UV Index daily and use the rating to decide the degree of protection required.

For background information, see the Introduction.

Curriculum Resource Overview

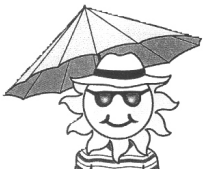
Class One:

- I. Discuss the “*Diagram of the Solar Spectrum*”
 - Discuss the different types of sun rays
 - Discuss the different ways to protect ourselves from the harmful rays
- II. Show the “*Safe Fun in the Sun*” Power Point presentation and the “*Agree/Disagree*” activity.
- III. Give out a parent-child home activity.

Class Two:

- I. Discuss the “*Diagram of the Skin*”
 - Discuss how and why the skin tans
 - Discuss the ABCs of sun protection
- II. Review parent-child home activity.
- III. Play the “*Sun Game*”.
- IV. Present the “*Safe Fun in the Sun*” certificate (page 21) and sticker. Stickers are available in the Sun Safety kit and/or through your Public Health Nurse.





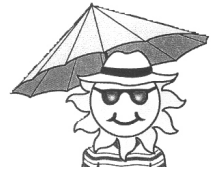
Suggested Lesson Plans

Class One:

I. Discuss the “*Diagram of the Solar Spectrum*” (see page 9).

1. Let's talk a little about the sun. What does the sun do? Draw a sun on the board with sunbeams coming from it. Brainstorm ideas about what the sun does, and write an idea on each sunbeam. Possibilities include: it shines and gives us light, it warms us up, it makes plants grow, etc. Be sure that “it makes us tan” is included.
2. Draw some clouds beneath the sun. Ask what happens on a cloudy day. Do we still get some light from the sun? Do we still get warm? Can we still get a tan? (Yes) So some of the sunlight must still get through the clouds. Ask them if they know of anything else that blocks or shades us from the sun. Possibilities include: umbrellas, trees, houses, etc. Some students may also know that the ozone layer is an invisible layer in the sky that blocks some of the sun's rays.
3. Point to the drawing on the board and explain that the sun has different kinds of sunbeams for different jobs. To demonstrate some of the different kinds of beams, carry out the following activities:
 - a) Have a student stand in front of a window, and let the sun shine on his/her back until he/she is warm. Alternatively, place a glass of water by the window at the beginning of the lesson. Ask a student to touch it to see if it has warmed up. Tell the student that the **infrared light** is the kind of sunbeam that warms us up.
 - b) Show the visible rays of light, by shining a flashlight through your hand in a darkened room. Tell the students that this is called **visible light**.
 - c) Tell the students that there is another kind of sunbeam that we can't see or feel. This kind of sunbeam causes suntans, sunburns, wrinkles, and blotches on your skin. It is called **ultraviolet (UV) light**.





Class One (Cont'd.):

4. Pass out the “*Diagram of the Solar Spectrum*” (see page 9). Have the students look at the three kinds of rays that are explained in #3, above (*ultraviolet, visible, and infrared*). Ask them what other kinds of rays are shown on the sheet (*gamma and x-ray*). What happens to them? Do they reach the earth? (*The rays do not reach the earth; they are blocked by the ozone layer.*)
 5. Explain that you want to look more closely at an invisible type of light (*ultraviolet*). Remind students that this type of light causes suntans and sunburns. Ask if anyone has had a sunburn. Ask when and where they got it. Ask them how it felt. Ask them if they want another one.
 6. Tell the students that it is important that they protect themselves from ultraviolet light. When a person receives years and years of this type of sunlight, it can cause wrinkles, spots, and even skin cancer.
 7. Ask the students for suggestions on how to avoid ultraviolet light. If a student suggests that the clouds will protect them, ask them to look at the “*Diagram of the Solar Spectrum*” again to see if all of the ultraviolet light is blocked.
 8. Brainstorm ideas of how to protect ourselves from the sun’s rays. Be sure to highlight the ABCs.
- II. Show the “*Safe Fun in the Sun*” Power Point presentation and the “*Agree/Disagree*” activity (included in the Power Point presentation and in the accordion folder in the sun safety bin).
- Discuss key concepts: How to dress safely for the sun and avoid a sunburn.
 - Emphasize the importance of sun protection behaviours for outdoor activities.
- III. Hand out a parent-child homework activity. Please choose from the “*Additional Activities List*” attached to this lesson.



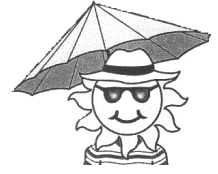


Class Two:

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- I. Discuss the “*Diagram of the Skin*” (see page 10).
 1. What do we already know about the skin? What does it do?
Brainstorm ideas. Write the students’ responses on a flip chart or on the board. Answers may include: it is the largest human organ, it protects us, it holds us together, it is elastic, it grows, it can be damaged, it comes in different colours, etc.
 2. We have talked about what happens when we spend time in the sun without protecting ourselves: suntan, sunburn, heat rash, etc. But why does our skin turn brown when we are in the sun? What is actually happening inside our skin that makes it do that?
 3. Let’s take a close look at our skin. Show the students the “*Diagram of the Skin*” (see page 10). What do we see here? How many layers are there? (*three*) What are they called? (*epidermis, dermis, and hypodermis*). All the layer names have “derm” in them, don’t they? What is a skin doctor called? (*dermatologist*). So if you see a word that has “derm” in it, what does it probably mean? (*skin*)
 4. Let’s focus on the top layer. What is it called? (*epidermis*) As you can see, the epidermis is made up of different kinds of cells. One important kind of cell is called the melanocyte, which makes melanin. Melanin is what gives your skin its colour. It is what makes you tan when you are out in the sun for a while. The dark colour happens as your body tries to protect your skin from the sun. Everyone has the same number of melanin producers no matter what colour their skin is. The difference is that in darker-skinned people, the melanin producers make more melanin than in fairer-skinned people. That is why people with dark skin have more natural protection. We need to remember, though, that everyone can get a sunburn, so we all need to protect ourselves.





Class Two (Cont'd.):



5. To reinforce the ABCs of sun protection, see page 11.

6. Other points to keep in mind:

- UV rays can damage your eyes, skin and weakens the immune system.
- UV rays can reflect off of water, sand, snow, and concrete.
- Know the Daily UV Index. Go to www.theweathernetwork.com/uvreport/uvyow to check the Daily UV Index.
- Beat the heat. Watch for a sunburn, and keep hydrated.

II. Review the parent-child homework activity.

III. Play the “*Sun Game*” in the gym. The game must be booked through your school nurse.

IV. Present the “*Safe Fun in the Sun*” certificate (page 21) and sticker. Stickers are available in the Sun Safety kit and/or through your Public Health Nurse.





Reminder Activities:

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Although we suggest two class periods to introduce sun protection, we encourage you to do a reminder activity each week until the end of the school year. On some weeks you may only have time to assign one of the activities included in this curriculum. You may want to choose from the support activities on page 12 and/or the additional activities on page 20. The activities may be easily included in a language or writing lesson. If there is no time to do any of the activities, the **reminder** could be as simple as asking the students on Friday what they plan to do over the weekend, and then asking them if they remember what they should do to protect themselves from the sun.

Thank you for teaching “*Safe Fun in the Sun*” and helping your students to reduce their risk of developing skin cancer.



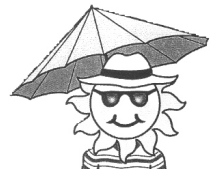
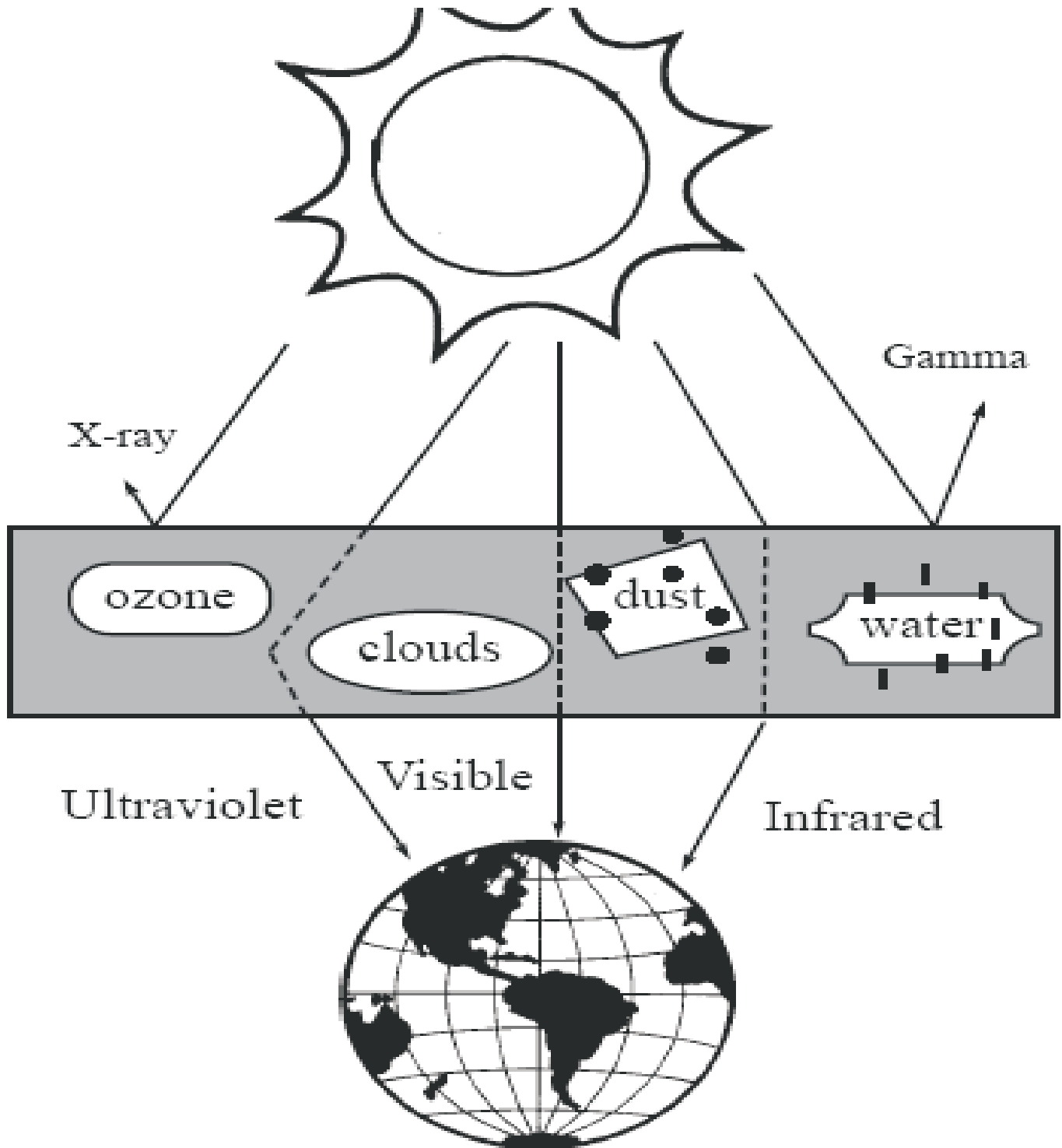


DIAGRAM OF SOLAR SPECTRUM

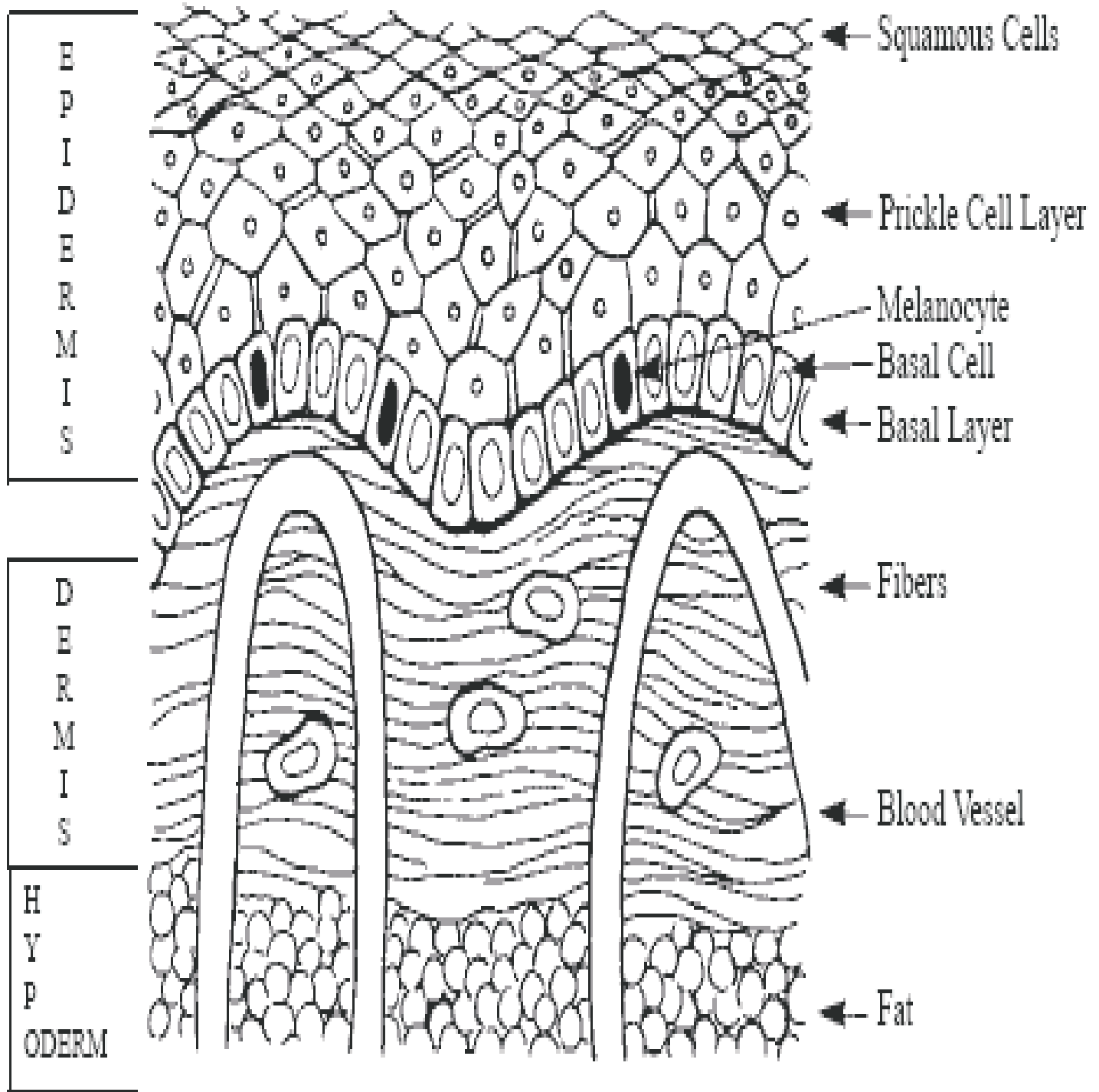


* Used with the permission of Health Canada





DIAGRAM OF THE SKIN



* Used with the permission of Health Canada

The ABCs of Sun Safety

Avoid the Sun

Avoid the sun from 11:00 am to 4:00 pm., when the sun's rays are the strongest. If it is impossible to avoid the sun during peak hours, seek shade under an umbrella, a tree or a building overhang. Drink water when playing outside in hot weather.

Block the Rays

Apply sunscreen with a Sun Protection Factor (SPF) of 30 or greater on all exposed body parts. Make sure to re-apply sunscreen every couple of hours and after swimming. Applying a lip balm with an SPF of 30 or greater will also protect the lips.

Cover Up

Wear a wide-brimmed or legionnaire hat, long-sleeved clothing, and sunglasses with 100% protection from UVA and UVB rays.

Say Something/Tell Everyone.

Tell your family, friends, and neighbours about how important it is to protect ourselves from the sun. Tell them that they can be safe in the sun by using long-sleeved clothing, hats, sunglasses, and sunscreen and lip balm with SPF 30 or higher.





Support Activities

Activity	Type of Activity						
	Arts	Language	Science	Math	Computer Lab	Physical Education	Group Activity
No Burn for Me, Please!	✓	✓					
Shadow Test			✓	✓			✓
Sunscreen Frisbee			✓				✓
Speedy Sun Relay Race						✓	✓
Playing Safely in the Sun	✓						
Making Summertime Placemats	✓						
Websites for Interactive Classroom Games and Activities					✓		

No Burn for Me, Please!

Goal:

To familiarize children with the proper ways of protecting themselves from the sun.



Procedure:

- (1) Hand out the Health Canada Sun Safety colouring pages that illustrate people (in Sun Safety accordion folder) enjoying their favourite outdoor activities.
- (2) Colour the pictures using different textures, colours, paint, crayons, pencils, etc.
- (3) Ask the students to make a list of the ways in which the characters in the pictures are having “*Safe Fun in the Sun*” and what else they could be doing.

Examples:

- They are wearing a hat
- They are wearing a shirt
- They are in the shade
- It is not between 11:00 a.m. - 4:00 p.m.
- They should be wearing sunscreen
- They are wearing wrap-around sunglasses
- They are under a beach umbrella
- They shouldn't be wearing a baseball cap

- (4) Ask the students to pick their favourite summer activity. Ask them to write a short text in their journals about how they and their family stay safe in the sun while doing this activity. They should also mention how they can pass on the message to other participants of this activity. Here are some examples of fun summertime activities:

- Baseball
- Soccer
- Going to the beach
- Horseback riding
- Skiing/snowboarding
- Skateboarding
- Swimming



Shadow Test!

Goal:

To familiarize children with the way shadows change throughout the day depending on where the sun is in the sky. N.B. The longer their shadow is, the more sun safe they will be.

Estimated Total Time: 2.5 hours

Procedure:

- (1) Pair up students two by two. One student stands in a sunny area on the asphalt, while the other student draws around the feet and shadow of the student who is standing. This procedure can be done every few hours (e.g., 8:30 a.m., 11:30 a.m., and 2:30 p.m.). Students can take turns drawing their partner's shadow. The student must stand at the same spot every time a new shadow is drawn.
- (2) Older students in grades 3 and 4 must then take the measurements of their shadow; the perimeter, width, and length. They must write the time at which the shadow was drawn next to each drawing.
- (3) Once all the shadows are drawn, compare their shapes and dimensions. Discuss what causes the shadows to change shapes and sizes. The children may enter the information in a table.



Wham-O UMAX Frisbee ®

Goal:

To show the students the impact of sunscreens with different levels of Sun Protection Factors.

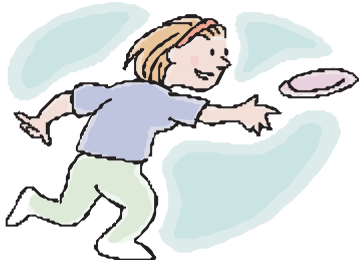
Estimated Total Time: 15 - 20 minutes

Supplies:

- Four Wham-O UMAX Frisbees ® (in UV sun safety bin)
- Sunscreen with SPF of 4, 8, 15 and 30
- Markers
- Masking tape
- Plastic wrap

Procedure:

- (1) Make groups of students, and hand each group a SunWise Frisbee.
- (2) Cover the frisbee with plastic wrap.
- (3) Apply circles of sunscreen (SPF 4,8, 15 and 30) on the wrapped frisbee.
- (4) Identify the various SPF's using masking tape and markers.
- (5) Ask the older students what they think will happen to the frisbee.
- (6) Cover the frisbee with newspaper and place it in the sun until it changes colour.
- (7) Uncover the frisbee, and have students observe the frisbee as it changes colour.
- (8) Explain why the colour of the frisbee changes. What are the effects of the various sunscreens? For example, why does an SPF of 4 change colour faster than with an SPF of 30?



Speedy Sun Relay Race

Goal:

To challenge students to think quickly about sun safety behaviours.

Estimated Time: 30 minutes



Supplies:

- Sun safety articles: long sleeved shirt, long pants, wide-brimmed hat, “UVA and UVB protection” sunglasses, empty bottles of sunscreen with an SPF of 30 or higher, and an umbrella.
- Articles that are not sun safe: tank top, baseball cap, empty bottles of sunscreen with an SPF under 30, shorts, visor, tanning lotion, sunglasses with little or no “UVA and UVB protection”, etc.

Procedure:

- (1) Organize the class into teams of five. There must be an even number of teams.
- (2) Line up the teams on one side of a 20 yard field, and place the pile of clothing on the opposite side.
- (3) Place two hula-hoops in front of each line-up of students. Label one “SunSafe” and the other “SunFoolish”.
- (4) In a relay race style, the teams must compete to get the most articles from the pile and place them in the correct hula-hoop.

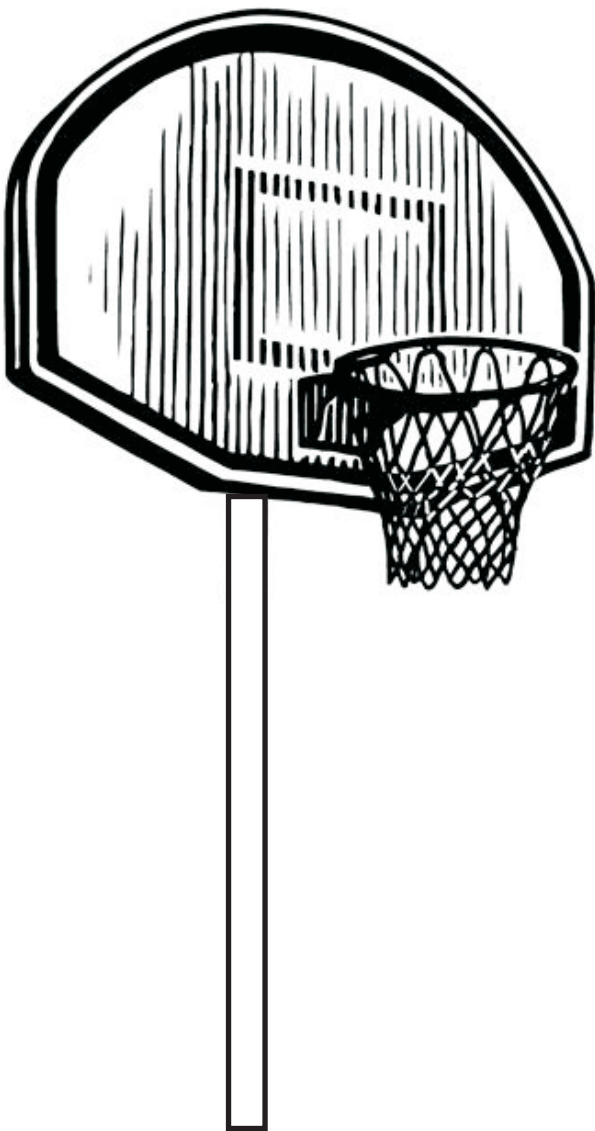
The team with the most articles in the appropriate hula-hoop wins!!





Playing Safely in the Sun

Tommy is missing some things that protect him from the sun and heat. Draw three things he needs to play safely in the sun (sunglasses, long-sleeved shirt, shady tree, sunscreen bottle, hat, water bottle, etc.)



Making Summertime Placemats

Goal:

To make placemats that show fun summertime activities that are enjoyed in the sun. There are two ways to do this project. Select whichever you prefer.



Drawing Option <i>(recommended for Grade 2)</i>	Magazine Cut Out Option <i>(recommended for Grade 3 and 4)</i>
<p><i>Materials:</i></p> <ul style="list-style-type: none"> • Photo of each child (or hand drawn picture) • White poster board cut to 11"x17" • Pencils, crayons, markers • Blank address labels or name tags (optional) <p><i>Procedure:</i></p> <ul style="list-style-type: none"> • Select a photo of each child to use • Show each child this photo and ask him/her to illustrate the setting to go around it (<i>the beach, park, play area, etc.</i>) • The child can draw directly on the poster board • Laminate the placemats and use them in the classroom 	<p><i>Materials:</i></p> <ul style="list-style-type: none"> • Photo of each child (or hand drawn picture) • Poster board cut to 11"x17" (scraps can be used in this project) • Scissors • Glue • Blank address labels or name tags (optional) • Old magazines <p><i>Procedure:</i></p> <ul style="list-style-type: none"> • Select a photo of each child to use • Show each child this photo and ask him/her to design the setting to go around it (<i>the beach, park, play area, etc.</i>) • The child can cut pictures (<i>pool, beach umbrella, etc.</i>) out of old magazines and glue them onto the poster board • Laminate the placemats and use them in the classroom



After the children have created the scenes in which they see themselves, glue each child's picture on his/her setting. Write "_____ is playing safely in the sun!" on a label and stick it below the child's picture. Laminate the placemats (optional), and use them in the classroom.

Websites for Interactive Classroom Games and Activities

City of Ottawa: Ottawa Public Health:

http://ottawa.ca/en/health_safety/living/outdoor/sun_safety/index.html

Canadian Cancer Society for pamphlets re: sun safety, fun exercises:

<http://www.cancer.ca>

Canadian Dermatology Association:

<http://www.dermatology.ca>

<http://www.dermatology.ca/skin-hair-nails/skin/sun-safety>

Gatorshade for crosswords, drawings, videos, and sun safety activities:

<http://www.gatorshade.ufl.edu/> (Grades 3 to 5)

Select the following videos (click on “Activities”, then “Sun Scoop Video”)

Health Canada (2 sites)

<http://www.hc-sc.gc.ca> (under “Search” type “Sun Safety”)

UV Index Sun awareness Program

<http://www.hc-sc.gc.ca/hl-vs/sun-sol/index-eng.php/>

Norris Cotton SunSafe in the Middle Years (cross curricular UV and Sun Safety Resources for Grades 5-8)

http://www.cancer.dartmouth.edu/melanoma_skin/sunsafer_middle_school_years.html

Sun Safety for Kids (sun safety lessons)

<http://www.sunsafetyforkids.org/>

Sun Smart Millionaire Interactive Computer Game

<http://www.sunsmartmillionaire.com.au>

Go to:

- 1) “The Game”: A “Who Wants to Be A Millionaire-styled game where students have to answer sun safety questions
- 2) “The Lab”: Experiments using UV beads (information on where to obtain
- 3) “The Brainiac”: A fun way to learn about sun safety!

The SunWise Safety Program (SunWise sun safety program)

http://www.epa.gov/sunwise/educator_resources.html

Look under supporting files for SunWise lessons



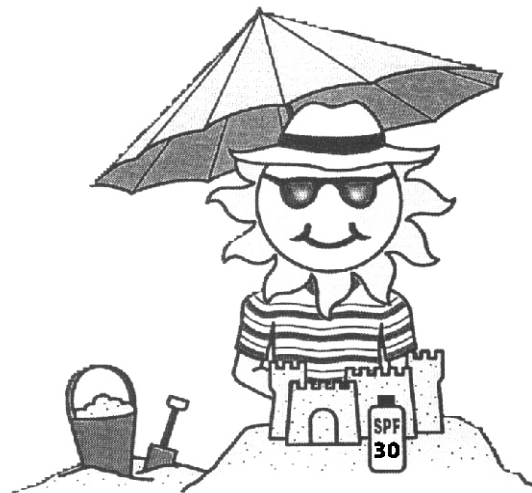
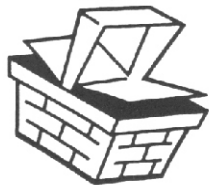
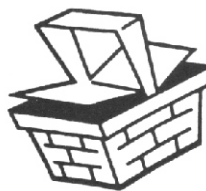
Additional Activities



All of the following activities are included in the Protect Yourself Against Ultraviolet Radiation Sun Safety Kit (accordion folder) which you must book through your school nurse.

Activity	Recommended Grade Level
<i>Activity Village (In accordion folder):</i> Sun Safety Dress Up Dolls and Clothes	Grades 2 - 4
<i>Canadian Cancer Society (CCS) (In accordion folder):</i> Be Sun Smart Activity Book Sunsense Fortune Teller (Contact CCS for full class sets)	Grades 2 - 4 Grades 3 - 4
<i>Canadian Dermatology Association</i> www.dermatology.ca/ click programs/resources DVD "Sun Safe Play Everyday"	Kindergarten - Grade 2 Kindergarten - Grade 2
<i>Health Canada - UV Index Sun Awareness Program (In accordion folder):</i> Sun Safety Word Search and Quiz Sun Safety Colouring Pages Sun Savvy School Club Activity and Information Guide "Be Sun Smart" Poster Sun-sensitive Paper UV Detection Activities Ultraviolet Sunlight Meter Instructions Sun-Bow ® UV Detection Bead Instructions	Grades 2 - 4 Grades 1 - 4 Grades 3 - 4 Kindergarten - Grade 4 Grades 3 - 4 Grades 3 - 4 Grades 3 - 4
<i>Ottawa Public Health - In support activities (attached to lesson plans):</i> No Burn for Me, Please! Playing Safely in the Sun Shadow Test Speedy Sun Relay Race Wham-O UMAX Frisbee ® Frisbee (4 frisbees present in UV and Sun Safety Bin which must be booked through your school nurse) UV Safe Fun In The Sun Power Point Presentation (available through your school nurse) <i>In accordion folder:</i> Sun Safety Mobile Activity Sun Safety Quiz Sun Safety "Agree/Disagree Activity" Sun Sensitivity Test	Grades 2 - 4 Grades 2 - 4 Kindergarten - Grade 4 Grades 3 - 4 Grades 3 - 4 Kindergarten - Grade 4 Kindergarten - Grade 4 Grades 3 - 4 Kindergarten - Grade 4 Grades 3 - 4



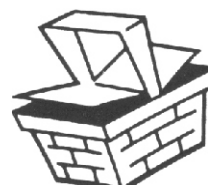
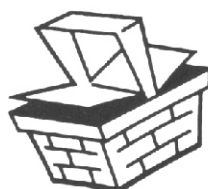


Safe Fun in the Sun



(Name)

Knows how to have safe fun in the sun!



Avoid the sun

Block the rays

Cover Up

Say Something / Tell Everyone

