

Middle School Activity Sheets



Physical Activity

Middle School



For the classroom teacher:

Physical activity and kids

Being physically active has many health benefits – and it’s fun, too! Regular physical activity improves strength and endurance, helps build healthy bones and muscles, helps control weight, reduces anxiety and stress, increases self-esteem, and improves blood pressure and cholesterol levels. Physically active and fit kids also tend to perform better academically.

Establishing an active lifestyle early in life is important, because kids who grow up being physically active tend to stay active as adults – and staying active can help reduce the risk of cancer, heart disease, high blood pressure, diabetes, depression, discrimination, and weight-related stigmatization.¹

Unfortunately, many kids do not meet the minimum physical activity recommendations. There are a number of reasons for this:

- Not enough safe, affordable places to play in neighborhoods, and community designs that lack sidewalks, bike lanes, parks, and green space
- Reductions in physical education requirements in schools
- Competition from more sedentary activities, such as playing video games, watching TV, or using a computer

Physically active lifestyles can benefit your students, your school, and your community. So help yourself and your students take steps toward better health by being more physically active each day!

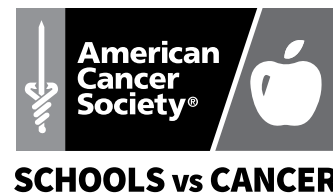
Did you know?

Getting enough physical activity is also important for maintaining a healthy weight. Too many American kids are sedentary, and that has led to many of them being overweight or obese. The combination of excess pounds and too little exercise is putting our youth at risk for serious health problems as they get older. The following statistics show just how serious this problem is:

- In 2013, 47% of US youth nationwide reported being physically active for at least 60 minutes per day on more than 5 days per week. Just over 15% reported less than a total of 60 minutes of physical activity over the past seven days!²
- Only 29% of youth attended physical education classes daily in 2013, and only 48% had physical education class at least once a week.²
- In 2013, 41% of youth played video or computer games or used a computer for something other than school work for 3 or more hours on an average school day. And just over 32% watched TV for 3 or more hours a day.²
- Approximately 17% (or 12.7 million) school-age children are obese.⁴
- Obese children are more likely to become obese adults. And obesity in adulthood tends to be more severe in those who were overweight as children.⁵



Physical Activity



American Cancer Society guidelines for physical activity

Parents and schools can help kids be physically active by remembering the American Cancer Society's guidelines for physical activity:

- Children and teens should get at least 60 minutes of moderate- or vigorous- intensity activity each day, with vigorous activity on at least three days each week.
- Adults should get at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity activity each week (or a combination of these), preferably spread throughout the week.
- Limit sedentary behavior such as sitting, lying down, and watching TV and other forms of screen-based entertainment.
- Doing some physical activity above usual activities, no matter what the person's level of activity, can have many health benefits.

Moderate physical activity includes walking, skating, or dancing, and sports, such as baseball, softball, volleyball, doubles tennis, or golf. Vigorous activities include jogging and running, swimming, martial arts, jumping rope, and sports like soccer, hockey, singles tennis, and basketball.

Physical activity and academic performance

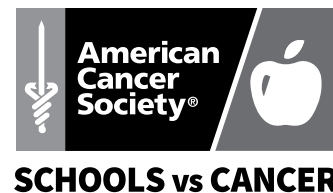
Physical activity is good for health and wellness, and schools are making changes. The percentage of districts that required elementary schools to teach physical education increased from 82.6% in 2000 to 93.6% in 2012.⁶ And about 59% elementary schools provide regular scheduled recess.⁵ But budget constraints and increasing pressure to improve standardized test scores continue to impact the time allotted to PE, recess, and other physical activity programs.

In some cases, school-based physical activity programs have been completely eliminated. However, the research on the relationship between physical activity and academic performance suggests the following:

- Cutting PE for classroom time does not improve academic performance. Studies show that students who had more time in PE or other activities at school, maintained or improved their grades and standardized achievements test scores, even though they received less instructional class time than students in control groups.
- Kids who are more physically active tend to perform better academically. Many studies have found that regular participation in physical activity is associated with improved academic performance.
- Short activity breaks throughout the day can improve students' concentration skills and classroom behavior. Studies have shown better on-task behavior and overall improved behavior when students were given regular brief activity breaks throughout the day.²



Physical Activity



Teaching your students about physical activity

The classroom activity sheets included in this folder support the following learning objectives:

- Students will learn how much physical activity is recommended for them.
- Students will identify ways to be more active throughout the day.
- Students will identify ways to make schools, neighborhoods, and households more conducive to physical activity.

Classroom activities

Worksheet activities are included, but here are some ideas to integrate physical activity into classroom discussions or activities:

Physical fitness

Option 1: If possible, take a walk around the school every day for a week. This will promote healthy habits and exercise. Get a map of the school, and divide the class into different groups. Make them “tour guides,” and during your daily walks have each group lead the class in different physical exercises at different areas of the school. For each activity, have the students find out how many calories they burned during the activity.

Option 2: Have a class discussion about the students’ favorite physical activity. Make a chart of each one, and discuss what muscles they use in each activity.

Option 3: Have each student make their own “personal trainer” workout. It should be at least 60 minutes long and include exercises that touch on endurance, strength, and flexibility.

More information is available online on your Schools vs Cancer website.

Additional resources

For parents: Physical activity –A family affair information sheet – This information sheet is designed to alert and motivate parents and caregivers to get active for themselves and for their families.

Physical Activity at your Schools vs Cancer event information sheet – This information sheet suggests activities you can use to highlight physical activity information during your event.

Resources

¹ Source: MMWR, A Report on Recommendations of the Task Force on Community Preventive Services; <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5410a1.htm>

² Source: Youth Risk Behavior Surveillance – United States, 2013; www.cdc.gov/mmwr/preview/mmwrhtml/ss6304a1.htm?s_cid=ss6304a1_w

³ Source: Health and Academic Achievement; www.cdc.gov/healthyyouth/health_and_academics/pdf/health-academic-achievement.pdf

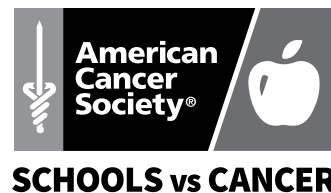
⁴ Source: Childhood Obesity Facts; www.cdc.gov/obesity/data/childhood.html

⁵ Source: Basics About Childhood Obesity; www.cdc.gov/obesity/childhood/basics.html

⁶ Source: Results from the School Health Policies and Practices Study 2012; www.cdc.gov/healthyyouth/shpps/2012/pdf/shpps-results_2012.pdf#page=39



Physical Activity



Just move it! Physical activity checklist

Name: _____

Date: _____

TV. Computers. Video games. These things may be fun, but when you're using them, you're probably not very physically active. The good news is that there are lots of fun ways to be more active each day.

Set a goal to be active for at least 1 hour each day. You can do it all at once, or break the time up during the day. This could mean 20 minutes of being active in PE class, 20 minutes of playing soccer after school, and a 20-minute walk or bike ride after dinner. (Don't forget to do your homework!)

Think about doing different types of activities that help stretch your muscles, make you stronger, build your bones, and give your heart a good workout.

Stretch and strengthen your muscles! Touch your toes, reach your arms high above your head, or do sit-ups, push-ups, and pull-ups. These help keep your muscles strong and help keep your body flexible.

Build your bones! Walk, jog, dance, ride your bike, lift weights, or climb the stairs. These are called "weight-bearing" exercises, and they help you build and keep strong, healthy bones.

Give your heart a good workout! Aerobic exercise helps keep your heart healthy. Activities like running, skate boarding, jumping rope, and swimming are good ways to get aerobic exercise. These are just a few of the activities that give you an aerobic workout and strengthen your heart and lungs, too.



Physical Activity



Exercise your brain by answering the following questions:

1. How much time should you spend being physically active each day?
2. True or false: Some types of exercise can help you build strong bones.
3. True or false: Exercise helps keep your heart healthy.
4. Name 2 ways to stretch your muscles:

5. List ways you could be physically active for at least 1 hour (60 minutes) each day. Write down your favorite activities and how long you would need to do them to add up to 60 minutes.

Activity: _____ Time: _____

Activity: _____ Time: _____

Activity: _____ Time: _____

Activity: _____ Time: _____

Activity: _____ Time: _____

Total Time _____ = 60 Minutes



Physical Activity



Go for the goal! Physical activity tracker

Name: _____

Date: _____

Being active for at least 1 hour each day is good for you – and can be lots of fun, too. Think about all the ways you like to be active, and set a goal to increase how much physical activity you do each day. Use this sheet to write down your goal and how much activity you do each day. Then answer the following questions.

My goal: _____

How I did: _____

Day 1: _____

Day 2: _____

Day 3: _____

Day 4: _____

Day 5: _____

Day 6: _____

Day 7: _____

Did I meet my goal? _____

If I didn't meet my goal, what things got in my way of not being as active as I wanted?

What could I do differently the next time to meet my goal?

What was the best part about setting a goal to be more active each day?

Physical Activity



For parents: Physical activity – A family affair

Being active as a family has great rewards – not only can being active together help your whole family stay well, but it can also give you some wonderful quality time together. Here are some ideas to get you started:

- Go for a walk after dinner.
- Set a “no” or “not too much” TV time rule during the week; encourage outdoor activity instead.
- When you watch TV, make it a “family rule” to do something active during commercials, such as sit-ups, squats, or jumping jacks.
- Walk wherever you can, whenever you can: to the store for a few items, to the library, to a neighborhood restaurant, to the dry cleaners.
- Spend active time together on the weekends. Go for a hike, a bike ride, or play basketball.
- Keep track of your activity. Keep a calendar and write down what activity you do as a family. Start a contest to see who does the most each week.
- Take active vacations: Go on a bike tour or a camping trip where you hike to your campsite.
- Get in the habit of parking your car as far as you can from the front door of the grocery store, mall, library, restaurant, or school. Extra steps add up!
- Try geocaching. Add a high-tech hide-and-seek game to your outdoor adventures by searching for a geocache. Using a handheld GPS device, navigate to a cache stashed in your area (find them at geocaching.com). Pick up a prize, and leave one of your own.
- Get wet. Splash parks and the local pool are all perfect for helping cool off and being active all at once.
- Strap on some skates. Adding wheels to outdoor activities almost always makes them more appealing. Outfit everyone with quad or inline roller skates, helmets, and pads.
- Ride a bike. Everyone can go farther when they’re pushing pedals. Besides being an easy mode of transportation, bicycling makes for a fun family outdoor activity.
- Plant a garden. Outdoor family activities don’t always have to be just fun and games. Try putting everyone to work in the garden. Rake, dig, weed, or water. If you don’t have a yard of your own, stroll a farmer’s market or visit a “you-pick-it” farm.
- Play soccer. While team play requires discipline and cooperation, kicking the ball around in your backyard doesn’t! Practice dribbling, passing, or shooting at a makeshift goal.
- Shoot some hoops. There’s a reason why every school yard and many suburban homes boast a basketball hoop just waiting for action. It’s fun and versatile, since you can keep score or not, or even just “HORSE” around.
- Set and spike. You don’t need a beach to play volleyball (although that’s awfully fun, too). A net at your local park or in your backyard works just as well. Some community pools or ball fields even have their own sand courts.

You can also give gifts that encourage physical activity, such as:

- Bikes, skateboards, and scooters
- Balls, bats, gloves, and rackets
- Athletic shoes or workout clothes
- Gift cards for athletic stores to purchase sports equipment

Physical Activity



Physical activities at your Schools vs Cancer event

- Have a band (or some online music videos and good speakers), and get people dancing.
- Count your laps! As students complete each lap, give them a paper clip or a bead and some string so that they can make a chain. At the end of the Schools vs Cancer event, they will have something to commemorate their laps.
- Have an aerobics class. Check with local universities, YMCAs, or athletic clubs for some volunteer instructors.
- Set up volleyball or badminton nets and equipment.
- Provide balls, Frisbees, croquet, or bocce balls for people to play with when they aren't walking.
- Organize active games like dodgeball, volleyball, or flag football.
- Have activity-based contests:
 - Who can do the most jumping jacks without stopping
 - Who can dance the longest
 - Who can do the most push-ups

Pass out awards to:

- People playing Frisbee, volleyball, walking extra laps, etc.
- Adults playing games with kids

Announce “special laps,” and invite the following groups to take a lap:

- Any PE instructors, exercise leaders, or fitness trainers
- Anyone who tries to get in physical activity each day
- Anyone who regularly takes the stairs instead of the elevator
- Anyone who works out with a friend or family member
- Anyone who gets up early to work out
- Any kids who take PE class
- Any kids who would rather ride their bike, roller skate, or play outside than watch TV

Have ongoing announcements throughout the Schools vs Cancer event, such as:

- Be active! Set a goal of being active at least 1 hour each day, and remember – more is better!
- Get up ... get moving ... have fun!
- Add more physical activity to your day! Try:
 - Taking a family walk after dinner
 - Riding your bike
 - Playing with your kids
 - Dancing and skipping
 - Parking your car farther from your office
 - Taking the stairs
 - Joining your Schools vs Cancer team for walk breaks during the day

Physical Activity

Answer Key



Just move it!

1. How much time should you spend being physically active each day?

At least 1 hour each day - either all at once or broken up over the day

2. True or false: Some types of exercise can help you build strong bones.

True

3. True or false: Exercise helps keep your heart healthy.

True

4. Name 2 ways to stretch your muscles:

Touch toes, reach arms up over head, sit-ups, push-ups, pull-ups



Nutrition



Nutrition for the classroom teacher

Nutrition, cancer, and general health

There's no doubt about it – eating a healthy diet is important so that kids get the nutrients they need to be healthy and grow strong. Eating well is also important to help kids to do their best in school.

Unfortunately, there are many things working against our children's health, contributing to poor diets and increasing the number of youth who are overweight or obese. Among them:

- Families are eating out more often than they used to. These meals tend to be less nutritious and higher in calories than what's made at home.
- Restaurant and fast-food portion sizes have dramatically increased, and so has the number of calories we consume with these meals.
- There is extensive food advertising and marketing of low-nutrient, high-calorie foods and beverages on TV, the Internet, food packages, and even in schools.

While healthy eating begins at home, what children learn in the classroom, as well as the foods and beverages that are available to them at school are important, too. Working together, we can encourage kids and their families to eat better and make changes at school, at home, and in our communities, making it easier for children to make healthier choices each and every day.

Did you know?

Eating well isn't only important for delivering nutrients to growing bodies. It's also key to maintaining a healthy weight. Too many American kids are overweight or obese, putting them at risk for serious diseases like diabetes and heart disease.

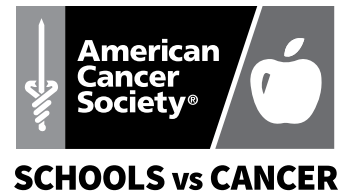
Overweight kids are apt to be severely obese in adulthood, when those excess pounds raise their risk for cancer and many other dangerous health problems. This is a serious problem: In 2012, more than one-third of children were overweight or obese.¹

Nutrition statistics

- Empty calories from added sugars and solid fats make up about 40% of the daily calorie intake for children and teens ages 2 to 18 years. This affects the overall quality of their diets. About half of these empty calories come from 6 sources: soda, fruit drinks, dairy desserts, grain desserts, pizza, and whole milk.²
- Of the more than \$200 billion children and youth spend each year, the top 4 items children ages 8 to 12 select, without parental permission, are high-calorie and low-nutrient foods and beverages.³
- Food and beverages – specifically candy, soda, and salty snacks or chips – are among the top items that teens ages 13 to 17 buy with their own money.³



Nutrition



Advertising and marketing food to kids

- Food advertisements affect children's preferences, purchasing behaviors, and eating habits for different food and beverage categories, as well as for different product brands.³
- Food and beverage advertising on TV influences children ages 2 to 11 to prefer and buy high-calorie and low-nutrient food and beverages.³
- Based on actual dollars spent in 2009, child- and teen-directed advertising is most often done to market fast-food restaurants, carbonated beverages, breakfast cereal, and snack foods.⁴
- Middle school is an important time for students to learn to make healthy decisions about what they consume and how commercial advertising is used to influence their decisions.

American Cancer Society nutrition guidelines

Parents and schools can help kids eat healthy by following the American Cancer Society's guidelines for nutrition:

- Eat a healthy diet, with an emphasis on plant foods.
- Choose foods and drinks in amounts that help you get to and stay at a healthy weight.
- Eat at least 2½ cups of vegetables and fruits each day.
- Choose whole grains instead of refined grain products.
- Limit intake of processed meats (like hot dogs, bologna, and deli meats) and red meat.

Choosing foods based on these guidelines and adopting a physically active lifestyle will help children and adults stay at a healthy weight, another important factor for improving overall health and reducing cancer risk.

Good nutrition and academic performance

Eating a healthy diet also is important for academic performance. Students who are well-nourished tend to be better students, while poorly nourished children tend to not perform as well and score lower on standardized achievement tests.

Not getting enough of the key food groups deprives children of nutrients they need for optimal cognitive function. Poor nutrition can also impact energy levels and immune function. Chronically undernourished children get lower scores on standardized achievement tests, are more irritable, have more trouble concentrating in the classroom, and have lower energy levels. Because they have decreased resistance to infection, they are more likely to become sick and miss school, which can negatively impact academic achievement, since attendance is positively related to school completion and academic success.

Hungry children and those at risk for being hungry tend to have significantly lower standardized test scores and are more likely to repeat a grade, and be suspended from school. Teachers also report higher levels of hyperactivity, absenteeism, and tardiness among children who are hungry or at risk for being hungry than among their peers who are not hungry.



Nutrition



Skipping breakfast can interfere with learning, even in well-nourished children. Numerous studies have found that increased participation in school breakfast programs is associated with increases in academic test scores, daily attendance, and class participation; it has also been linked to reductions in absences and tardiness. Both parents and teachers report that students participating in these breakfast programs are calmer in class and have more energy for studying.

Emerging evidence suggests an association between being overweight and lower academic achievement. It could be that this is related to absenteeism, which has been clearly and directly linked to poorer academic performance. Being overweight can contribute to a variety of chronic medical conditions in school-age children, including asthma, joint problems, diabetes, high blood pressure, high cholesterol, depression, and sleep apnea. All of these have the potential to cause students to miss class time through absences or visits to the nurse's office. Overweight students may also face physical, psychological, and/or social problems that are directly related to their weight and lead to academic challenges.

Resources

¹ Source: CDC Healthy Youth, Childhood Obesity; www.cdc.gov/HealthyYouth/obesity/index.htm

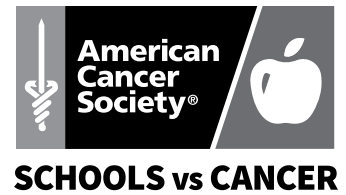
² Source: Nutrition and Health of Young People; www.cdc.gov/healthyouth/nutrition/facts.htm

³ Source: Overview of the IOM Report on Food Marketing to Children and Youth: Threat or Opportunity?; www.iom.edu/~media/Files/Report%20Files/2005/Food-Marketing-to-Children-and-Youth-Threat-or-Opportunity/KFMOverviewfinal2906.pdf

⁴ Source: FTC, A Review of Food Marketing to Children and Adolescents, Dec 2012; www.ftc.gov/sites/default/files/documents/reports/review-food-marketing-children-and-adolescents-follow-report/121221foodmarketingreport.pdf



Nutrition



The following are activity ideas that could be included in current lesson plans.

My meal plan

Home: Students create a meal plan for one day utilizing the USDA’s “my plate” diagram. (See choosemyplate.gov) They may include the nutrition information for each meal selection.

School: This project may be completed in groups for a 5-day meal plan.

Make ‘my plate’ activities

Students may utilize the USDA’s “my plate” illustration and create their own reference guide by using a white paper plate. They may draw the portion sizes and color in the different nutritional needs, such as protein, vegetables, and grains.

Option 1: For one day or even a week, have students write down everything they eat (including snacks, meals, drinks, etc.). Then show them the new nutrition plate and discuss the different food groups and proportions in each area. After the discussion, have the kids compare their eating habits to the recommended food plate.

Option 2: Have students put everything they ate the day before into the different food groups of the plate. Have them estimate how many portions they ate, too. Then ask them where they are doing well, where they are lacking, and what they can do to change their diet to match the nutrition plate.

Option 3: Have students write down their favorite foods and put them into the correct sections of the nutrition plate. Discuss healthy snacks that can be eaten instead of junk food.

Option 4: Have students write down, draw, and/or bring in their favorite healthy food. It can be anything from a snack to a whole meal.

Option 5: Have each student study the new nutrition plate guidelines and design a week’s worth of healthy, nutritious meals, including breakfast, lunch, and dinner.

Dare you!

Home: Students will select a food they have never tried before. They must fill out a log showing the nutritional value of each food and what they thought of the new items.

School: Have a station set up with 1 or 2 food items from each group that may be new to students. Give students a chance to try them. It may be possible that a local grocery or vegetable stand would offer a coupon for students or even donate foods to your school.



Nutrition



Match the meal

This activity could be used in the classroom or at home.

- Show pictures of some of the most popular meals from national franchises. Rank the meals in order of calories/fats from highest to lowest.
- Show pictures or list names of popular drinks for students, and have them rank the drinks in order of the highest calorie and sugar content to the lowest.

To put a slant on this, calories/fats could be included on one side and a picture of the meal on the other side of the page. Have them jumbled and ask students to match the information to the meal.

My favorite things

Ask students to pick their favorite meal(s) from 1 or 2 restaurants and then look up the nutritional information for them. When students are looking up their favorite meal, ask them to include their favorite drink, the size of the drink, and have them add in the calories and sugar intake from the drink. Then ask students to make healthy alternative choices from the same restaurant.

Nutrition Quick Links:

choosemyplate.gov

nutrition.mcdonalds.com/getnutrition/nutritionfacts.pdf

wendys.com/redesign/wendys/pdf/en_US_nutrition.pdf

<https://order.dominos.com/en/assets/derived/pdf/DominosNutritionGuide.pdf>

<https://order.pizzahut.com/nutrition-information>

tacobell.com/nutrition/information

kfc.com/nutrition/pdf/kfc_nutrition.pdf

ljsilvers.com/nutrition

starbucks.com/menu/nutrition



Nutrition



For parents: Help your child eat right

We all want to do everything we can to make sure our kids get a good start on healthy eating habits for life. Good nutrition is important to help kids grow well and be healthy, and it can even help them do better in school.

It's also important to develop healthy habits early – the habits we develop as children tend to stay with us through adulthood. And healthy eating habits throughout life can help our kids stay healthy and reduce their risk of developing chronic diseases – such as cancer, heart disease, and diabetes – in the future.

Follow these tips to help get and keep your kids on the path to lifelong healthy eating:

- First and foremost, be a good role model for healthy eating. Parents who eat well tend to have children who eat well. Be sure your kids see you eating a wide variety of healthy foods, including fruits, vegetables, and whole grains.
- Offer your kids a variety of different foods each day, and don't give up if they turn up their nose the first time around. It may take kids multiple times of trying something new for them to figure out they like it!
- Prepare foods in different ways. While your kids might not like cooked spinach, fresh spinach might be OK. Maybe they don't like the texture of baked sweet potatoes, but crispy baked sweet potato fries may have them asking for more.
- Keep healthy snacks available and in easy-to-reach places. Think baby carrots in the refrigerator, a bowl of apples on the counter, or frozen 100% juice bars in the freezer.
- Have your kids help plan and prepare meals and shop for food. Let them pick a new recipe to try. Have them pick a new and different fruit or vegetable to eat each week. Get their help with mixing, pouring, and measuring.
- Look for ways to add more fruits, vegetables, and whole grains to their day. Slice a banana on top of their cereal, or whip up a smoothie for breakfast. Chop up peppers in their quesadillas. Make sandwiches with whole-wheat bread.
- As much as possible, sit down to eat as a family. With crazy schedules and family members coming and going, this can be hard to do, but it will pay off many times over. Not only do meals eaten at home tend to be healthier than those eaten out, but family mealtime is a great time to catch up with each other and stay connected, too.



Nutrition



Nutrition activities for your Schools vs Cancer event

The American Cancer Society Schools vs Cancer is a great time to promote healthy living! People are walking. They're running. They're eating. They're drinking. Take the time to plan some fun events and announcements that encourage all your Schools vs Cancer participants to eat their way to better health!

Activities

- Have a nutrition scavenger hunt. Have students look for people eating healthy foods, such as fruits, vegetables, and whole grains.
- Play nutrition bingo or Jeopardy.
- Develop a nutrition “pit stop,” where fresh fruits, vegetables, and 100% juices are offered to Schools vs Cancer participants.
- Ask local restaurants or well-known chefs to do a food demonstration and/or have a taste-testing.
- Announce “special laps” throughout the event. Invite the following people to walk:
 - Anyone who is eating a fruit or vegetable right now
 - Anyone who usually eats at least 2 1/2 cups of fruits and vegetables each day
 - Anyone who has made positive changes in their eating habits
 - Anyone who has asked for healthier foods at their workplace, school, or at a restaurant
 - Anyone who ate a healthy breakfast that day
 - Anyone who has eaten a fruit or vegetable for a snack that day

Make general announcements throughout the event, such as:

- Eat your way to good health!
- Eating well and being active can help you stay well and reduce your risk of cancer and heart disease.
- Eating well and being active can help you look good and feel good!
- Remember the guidelines for physical activity and nutrition.
- Get regular physical activity.
- The best thing to do to stay well and reduce your risk of cancer? Don't smoke. The next best thing? Eat better and be active!
- Eat more fruits and vegetables – try to eat at least 2 1/2 cups of fruits and vegetables each day!
- Fruits and vegetables with the most color are the most nutritious!
- Fight cancer by eating more fruits and vegetables.



Tobacco and Alcohol Prevention



Tobacco and tobacco use

While the number of younger Americans who smoke cigarettes has been going down since the late 1990s, tobacco use continues to be an issue. Each day, nearly 3,000 kids under the age of 18 try their first cigarette and another 700 become regular, daily smokers.¹ About one-third of these smokers will die prematurely from a smoking-related disease.

According to the 2012 Surgeon General's Report, very few people start smoking after age 25; in fact, 99% of adult smokers first smoked by age 26. Nearly 9 out of 10 adult smokers had their first smoke by age 18 – while they were still in school!² The younger a person is when they start using tobacco, the more likely they are to use it as an adult. And people who start regularly using tobacco when they are younger are more likely to have trouble quitting than people who start later in life. This means if we can keep kids tobacco free until age 18, most will never start using it.

Kids spend nearly one-third of their waking hours in school. Schools are in a powerful position to help prevent tobacco use by educating youth about the many risks of tobacco. In the face of aggressive and widespread tobacco marketing, it's important for kids to know the dangers of using tobacco.

Did you know?

These numbers on tobacco use among US middle school students come from a 2012 survey by the CDC.³ (Middle school includes children in grades 6, 7, and 8.)

- Nearly 7% of middle school students reported using some form of tobacco – cigarettes, spit or other oral tobacco, cigars, hookahs, pipes, electronic cigarettes (e-cigarettes), and flavored cigarettes like bidis or kreteks – at least once in the past 30 days.
- 3.5% of the students had smoked cigarettes, and 2.8% had smoked cigars. Nearly 2% had smoked pipes, 1.3% had smoked hookahs, and 1.1% had used e-cigarettes. Around 0.5% had used kreteks and about the same number had smoked bidis (0.6%).
- 1.7% used spit or other smokeless tobacco. Nearly 1% had used snus (a newer form of snuff). Half a percent (0.5%) had used dissolvable tobacco.
- Boys (about 8%) were more likely than girls (about 6%) to use some form of tobacco.
- Each year in the US, tobacco use results in about 176,000 deaths.⁴
- Smoking accounts for at least 30% of all cancer deaths.⁴

The 2013 Centers for Disease Control and Prevention's Youth Risk Behavior Survey (YRBS)⁵ data revealed that:

- Nationwide, more than 41% of students had tried cigarette smoking.
- Nearly 16% of students were reported to be current cigarette smokers. Almost 4% of students smoked daily.
- Almost 9% of students reported current use of chewing tobacco, snuff, or dip.
- Just over 22% of students reported current use of some form of tobacco (cigarettes, cigars, or smokeless tobacco).



Tobacco and Alcohol Prevention



Smoking and academic performance

The health and behavior problems linked to tobacco use are associated with absenteeism, suspension, and expulsion – all of which are linked with lower academic performance. Studies have shown that smokers are more likely to miss school than non-smokers and absenteeism is linked with lower grades.

Keeping students healthy, in school, and ready to learn is the responsibility of parents, educators, and the medical community. Most importantly, it's the responsibility of the students themselves. Schools can play a vital role by offering classroom health education, as well as opportunities for students to practice health-enhancing skills and behaviors during the school day.

Alcohol and alcohol use

Alcohol is the most commonly used and abused drug among US youth – more than tobacco or illegal drugs.⁵ Despite declining rates, nearly 1 out of 5 students (18.6%) has consumed alcohol (more than just a few sips) for the first time before age 13.⁶

Alcohol use is widespread among US youth and a major public health problem. Although drinking alcohol under than the age of 21 is illegal in all states, underage youth find it relatively easy to get alcohol, often from adults. In fact, people 12 to 20 years of age drink 11% of all alcohol consumed in the United States.⁵ Students and parents need to be aware of the dangers of alcohol, and schools are in a powerful position to educate families about the many risks of alcohol use at any age.

Did you know?

- Drinking among youth has been linked to accidental injuries, car crashes, physical fights, higher school absenteeism rates, academic underachievement, poor or failing grades, higher suicide risk, and illegal behaviors.⁵
- Each year, an estimated 4,300 people under the age youth die from alcohol-related injuries.⁵
- Kids who begin drinking before age 15 are 5 times more likely to develop alcohol dependence or abuse alcohol later in life than those who start drinking at or after age 21.⁵
- More than 90% of the alcohol consumed by kids is in the form of binge drinks (having 5 or more drinks in a row).⁵ Binge drinking is a huge public health concern – it can cause alcohol poisoning, which can lead to coma and even death.
- Long-term alcohol misuse increases the risks of liver disease, many types of cancer, and heart disease, as well as dementia, depression, and anxiety.⁷
- Youth who drink alcohol are more likely to experience social problems, memory loss, disruption of normal growth and sexual development, physical and sexual assault, and changes in brain development that may have long-term effects.⁵

Resources

1 Source: Results from the 2013 National Survey on Drug Use and Health: Summary of National Findings; www.samhsa.gov/data/NSDUH/2013SummNatFindDetTables/NationalFindings/NSDUHresults2013.htm#ch4

2 Source: Preventing Tobacco Use Among Youth and Young Adults, Fact Sheet; www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/factsheet.html

3 Source: Tobacco Product Use Among Middle and High School Students – United States, 2011 and 2012; www.cdc.gov/mmwr/preview/mmwrhtml/mm6245a2.htm

4 Source: American Cancer Society Cancer Facts & Figures 2014; www.cancer.org/research/cancerfactsstatistics/cancerfactsfigures2014/index

5 Source: Facts Sheets – Underage Drinking; www.cdc.gov/alcohol/fact-sheets/underage-drinking.htm

6 Source: Youth Risk Behavior Surveillance – United States, 2013; www.cdc.gov/mmwr/preview/mmwrhtml/ss6304a1.htm?s_cid=ss6304a1_w

7 Source: Facts Sheets – Alcohol Use and Your Health; www.cdc.gov/alcohol/fact-sheets/alcohol-use.htm

Tobacco and Alcohol Prevention



Tobacco and alcohol

Before beginning any of these activities, review the statistics from the previous sections with your students. These facts should get your students thinking about the dangers of using tobacco before going on to the awareness activities. Because middle school students are beginning to become aware of alcohol and its effects, we are combining some alcohol awareness activities with the tobacco awareness activities.

Option 1: Here is a math project: Using this statistic from above, “4,300 students try a cigarette every day, 1,700 of them become regular smokers, and 1 out of 3 of those will die early from smoking-related diseases,” have the students calculate how many of their classmates will:

- Try a cigarette
- Become a smoker
- Eventually die from smoking

This will really put into perspective the number of kids just like them who are affected by tobacco use.

Option 2: Have students make their own anti-tobacco or anti-alcohol ad or commercial. If they make posters, place them around the school to show other classes the risks involved in tobacco use or drinking alcohol.

Option 3: Gather pictures of a smoker and non-smoker’s lungs and a drinker and non-drinker’s liver. Then have the children compare the differences, and write down the reasons they would not want to smoke or drink.



Tobacco and Alcohol Prevention



Tobacco-free classroom activity ideas

- Find out the cost of a pack of cigarettes in your area.
 - Ask students to figure out what it would cost if they smoked a pack of cigarettes every day for a week, a month, a year, 5 years, and a lifetime.
 - Ask students to create a list of the things that they could buy or do with the same money if they didn't smoke.
- Discuss the social and societal implications of choosing to smoke. Make 3 lists on the chalkboard, and have students consider the immediate, short-term, and long-term implications of choosing to smoke.
- Discuss the “cost” of cigarettes. Have students consider:
 - The actual price of the pack of cigarettes
 - The “cost” to the individual smoker’s health
 - The “cost” that the smoker’s family “pays”
 - The “cost” of smoking-related illness
 - The “cost” of an early death due to lung cancer
 - The “cost” of a fire caused by a burning cigarette

Alcohol-free classroom activity idea

- Find out the cost of a 6 pack, 12 pack, 24 pack of beer in your area.
 - Ask students to figure out what it would cost if they were regularly buying alcohol and having 2 drinks every day. What if they drank a 6 pack every Friday and Saturday night?
 - Ask students to create a list of the things that they could buy or do with the same money if they didn't drink.
- Find out what the local penalties are for underage drinking.
 - Ask students to figure out all the “costs” associated with underage drinking:
 - Fines that they might have to pay if caught
 - Other penalties they might face if caught drinking underage (such as suspension from school, juvenile record, community service, or even jail time)
 - Fines and other penalties imposed on adults caught buying or supplying alcohol for minors
- Discuss the social and societal implications of choosing to drink. Make 3 lists on the chalkboard, and have students consider the immediate, short-term, and long-term implications of alcohol use.
- Discuss the “cost” of alcohol. Have students consider:
 - The actual price of alcohol
 - The “cost” to the individual’s health
 - The “cost” that the individual’s family “pays”
 - The “cost” of alcohol-related illness
 - The “cost” of an early death due to alcohol-related illnesses
 - The “cost” of an alcohol-related death such as a car accident or alcohol poisoning

Tobacco and Alcohol Prevention



What are cigarettes, and what do they do to my body? Classroom discussion and activity

Objective: To learn how smoking harms your body

Materials:

- Plastic straws
- Chalkboard/flip chart

Activity:

Pass out the straws, and have the children blow through them to simulate having emphysema. (Emphysema is a long-term progressive lung disease that makes it hard to move air in and out of the lungs. This cumulative damage is often caused by cigarette smoke.) At first it is easy to breathe, but after a minute, your lungs will have trouble keeping up. Ask students what it would be like to breathe like this the rest of their lives. (10 minutes)

Ask students to brainstorm for a minute and then have them share everything they know about cigarettes. If they have trouble, here are some questions you can ask to get them started:

- What is a cigarette?
- What does smoking do to your body?
- Can smoking hurt your body even if you're not smoking?

This should give you a good idea about what they know and what you need to cover. (10 minutes)

Explain what smoking does to the body. Talk about the dangers of secondhand smoke. Don't forget to discuss smokeless or spit tobacco, too. Tell them how these things affect the skin, teeth, lungs, liver, and heart.

For more information, please visit:

[cancer.org/Cancer/CancerCauses/TobaccoCancer/QuestionsaboutSmokingTobaccoandHealth/index](https://www.cancer.org/Cancer/CancerCauses/TobaccoCancer/QuestionsaboutSmokingTobaccoandHealth/index)

[cancer.org/Cancer/CancerCauses/TobaccoCancer/tobacco-related-cancer-fact-sheet](https://www.cancer.org/Cancer/CancerCauses/TobaccoCancer/tobacco-related-cancer-fact-sheet)

[cancer.org/Cancer/CancerCauses/TobaccoCancer/CigaretteSmoking/index](https://www.cancer.org/Cancer/CancerCauses/TobaccoCancer/CigaretteSmoking/index)

[cancer.org/Cancer/CancerCauses/TobaccoCancer/secondhand-smoke](https://www.cancer.org/Cancer/CancerCauses/TobaccoCancer/secondhand-smoke)

[cancer.org/Cancer/CancerCauses/TobaccoCancer/SmokelessTobaccoandHowtoQuit/index](https://www.cancer.org/Cancer/CancerCauses/TobaccoCancer/SmokelessTobaccoandHowtoQuit/index)

[cancer.org/Cancer/CancerCauses/TobaccoCancer/ChildandTeenTobaccoUse/index](https://www.cancer.org/Cancer/CancerCauses/TobaccoCancer/ChildandTeenTobaccoUse/index)



Tobacco and Alcohol Prevention



Selling tobacco

Tobacco sales to youth

All states have laws that make it illegal to sell cigarettes to anyone under the age of 18. Yet in 2013, more than 12% of students under the age of 18 who currently smoked cigarettes reported they usually bought their own cigarettes in a store or gas station.¹

How does this happen?

What could be done to prevent it?

Tobacco marketing

Cigarette companies spend billions of dollars each year to promote their products. Since children and teenagers make up the largest number of new smokers, the industry's advertising and promotion campaigns are often designed to have special appeal to young people.

What do cigarette companies do to attract young people to smoking?

Unfortunately, tobacco marketing works. Most young smokers choose one of the more heavily advertised brands.

Can you name 3 brands of cigarettes? Why do you know what they are?

Why do cigarette companies need to spend so much money to attract young people to smoke?

Resources:

¹ Source: Youth Risk Behavior Surveillance — United States, 2013; www.cdc.gov/mmwr/preview/mmwrhtml/ss6304a1.htm?s_cid=ss6304a1_w



Tobacco and Alcohol Prevention



Schools vs Cancer activities

I kicked butt

Make a giant cigarette, and hang it up at your Schools vs Cancer event. Encourage the students to sign a pledge stating they will live a smoke-free life, and then let them kick the hanging cigarette. Each student who kicks the cigarette and takes the pledge can be given an “I Kicked Butt” sticker, which are available through your American Cancer Society staff partner.

Making the cigarette kicking bag:

- 12-inch-by-24-inch piece of sturdy tan fabric (filter portion of the cigarette)
 - 36-inch-by-24-inch piece of white fabric (cigarette section)
 - 5-inch-by-24-inch gray fabric (ash portion of the cigarette)
 - Fiber-fill stuffing or crumpled paper
 - 1 24-inch (circumference) circle of white fabric
 - 1 24-inch (circumference) circle of gray fabric
1. Stitch the tan piece of fabric to the white fabric along the 24-inch section.
 2. Stitch the gray piece of fabric to the opposite side end of the white “cigarette” along the 24-inch section
 3. Fold in half along the longest edge, and stitch all the way up.
 4. Use the white circle to sew on the top of the cigarette at the filter portion of the cigarette.
 5. Stuff the cigarette with the fiber fill or paper.
 6. Attach the gray circle.

Your cigarette is now ready to be kicked!

Creating the pledge wall:

Using butcher paper, create a large pledge sheet that states:

I know that smoking is unhealthy for my body and the people around me so I pledge to live a smoke-free life.

Encourage students (and parents and staff) to sign the pledge wall.

Other ideas

Encourage teams to develop their own anti-smoking/anti-tobacco advertising campaign. Hold a competition, and showcase the top advertising campaigns during the event.

Have kids create posters with the before and after effects of smoking on facial appearance.

Simulate the impact of cigarette smoke on lungs by providing a demonstration. Visit quit.org.au/downloads/schools/Tar_Extractor.pdf for detailed instructions on an experiment showing the amount of smoke in an inhale and exhale.

Knock down cigarettes in a bowling tournament. Make bowling pins that look like cigarettes, and knock them down with a bowling ball. Some have used frozen turkeys as the “ball” to indicate that you can quit cold turkey!



Tobacco and Alcohol Prevention



For parents: Help your child stay tobacco-free

Parents' attitudes and values influence those of their children, including their opinions about smoking and their behavior related to tobacco use. Remember that despite the impact of movies, music, and peers, parents can be the greatest influence in their kids' lives.

Parents can take the following actions to help ensure that their children remain (or become) tobacco-free:

- Talk to your kids about the risks of tobacco use. Studies have shown that this works! If loved ones suffer with or died from tobacco-related illnesses, let your kids know. Let them know, for instance, that tobacco use strains the heart, damages the lungs, and can cause a lot of other problems, including cancer. Also mention what it can do to the way a person looks and smells: smoking makes hair and clothes stink, causes bad breath, and stains teeth and fingernails. Spit and smokeless tobacco cause bad breath, stained teeth, tooth decay, tooth loss, and bone loss in the jaw.
- The children of parents who smoke are much more likely to smoke themselves. But if you use tobacco, you can still make a difference. Your best move, of course, is to try to quit. Meanwhile, don't use tobacco around your children, don't offer it to them, and don't leave it where they can easily get it.
- Start talking about tobacco use when your children are 5 or 6 years old, and continue through their high school years. Many kids start using tobacco by age 11. And many are addicted by age 14.
- Know if your kids' friends use tobacco. Talk about ways to say "no" to tobacco.
- Talk to your kids about the false glamorization of tobacco in the media, such as ads, movies, and magazines.

If you use tobacco yourself and don't want your children to start, know that you can still influence their decisions. You may even have more power, because you've been there. You can speak to your child firsthand about:

- How you got started and what you thought about it at the time
- How hard it is to quit
- How it has affected your health
- What it costs you, financially and socially

Here are some more things that you can do to address the additional factors that influence kids to use tobacco:

- Explain to your kids that tobacco ads and the images in them are designed to make people associate tobacco use with glamour, beauty, and popularity.
- Ensure that your kids' school environments and campuses are tobacco-free.
- Encourage tobacco prevention training for teachers, and work to ensure that all middle schools have tobacco-prevention education programs and that this education is reinforced in high school.
- Support local and state tobacco-prevention and restriction efforts by being aware of regulations and laws in place. Support stronger laws and restrictions on tobacco use.
- Support local, state, and federal programs to prevent and reduce tobacco use among kids and to ensure that adults have access to the help they may need to quit.



Sun Safety



For the classroom teacher:

Sun exposure and cancer risk

Although some sun exposure can be enjoyable, and even helps the body make vitamin D, too much sun is dangerous. Exposure to the sun's ultraviolet (UV) rays appears to be the most important environmental factor in developing skin cancer. This makes skin cancer a largely preventable disease when sun safety practices are used consistently.

Did you know?

Everyone should practice sun-safe behaviors, but some people have a greater chance of developing skin cancer. You may have an increased risk of skin cancer if you have one or more of these risk factors:

- You spend a lot of time outdoors.
- You have light skin color, hair color, or eye color.
- You have a family history of skin cancer, especially melanoma.
- You have a personal history of skin cancer.
- You live or vacation at high altitudes or in tropical or subtropical climates.
- You have freckles and burn quickly.
- You have many moles, irregularly shaped moles, or large moles.
- You have had an organ transplant.
- You have a weak immune system.
- You take certain medicines.

Skin cancer stats

- Skin cancer is the most common form of cancer in the US.
- More than 91,000 cases of melanoma were estimated to be diagnosed in the US in 2018.¹
- Melanoma, the most serious form of skin cancer, can spread to other parts of the body quickly and is responsible for most deaths from skin cancer.

Understanding the science of sunburns

- Sunburn is a burn to living skin tissue caused by overexposure to ultraviolet (UV) radiation, which comes from the sun's rays.
- UV radiation from artificial sources, such as tanning beds and lamps, can also cause sunburn.
- Sunburn is a reaction of the body when the skin cells are damaged by overexposure to UV radiation. This damage is recognized by the body, and it triggers a process to repair the skin cells – the skin cells die and are then replaced.



Sun Safety



- Help protect your skin from sunburn. Broad-spectrum sunscreen with a sun protection factor (SPF) of 30 or higher should be generously applied at least 30 minutes before exposure to sun and then reapplied at least every 2 hours or after swimming or sweating.
- Clothing, including a hat with a 2- to 3-inch brim all around, is highly recommended to help protect your skin from the sun. You should also try to avoid direct sun exposure between 10 a.m. and 4 p.m. when the UV rays are strongest.
- Repeated sunburns, especially as a child or teen, can raise the risk of developing skin cancer in adulthood.
- Although some skin creams can help with the symptoms, the only cure for sunburn is slow healing. The most important thing you can do is take steps to keep from getting sunburned in the first place!

Sun safety for kids

Parents, caregivers, schools, and communities have a responsibility to provide young people with sun-safe environments, as well as the knowledge and skills necessary to practice sun-safe behaviors. Kids may spend a great deal of time outdoors during school-related activities, such as physical education classes, recess, field trips, or sports practice. Parents, caregivers, and school staff must serve as role models, making sure schools work toward adopting policies and programs that promote sun safety and reduce the risk of skin cancer.

As an educator, you can have a profound influence on the health of your students. Giving a student the knowledge and skills needed to protect their skin from the damaging effects of the sun beginning at a young age can literally save a life. Youth are particularly at risk of overexposure since a substantial amount of the average person's lifetime UV exposure occurs before the age of 18.

Sun-safety basic recommendations

The American Cancer Society recommends that people remember this simple phrase when it comes to sun safety: *Slip! Slop! Slap!® and Wrap!* It promotes the following sun safe behaviors:

- *Slip on a shirt.* A long-sleeved, dark-colored shirt made of tightly woven fabric is best. If you choose a short-sleeved shirt, be sure to use sunscreen on the skin that is exposed.
- *Slop on sunscreen.* Use broad-spectrum sunscreen with a sun protection factor (SPF) of 30 or higher. To be effective, sunscreen needs to be generously applied at least 30 minutes before sun exposure and reapplied every 2 hours and after swimming or sweating.
- *Slap on a hat.* The head and neck are common places for skin cancer to start. For maximum protection, wear a hat with 2- to 3-inch brim all around. Be sure to use sunscreen on your ears and neck if you wear a smaller hat or a baseball cap.
- *Wrap on sunglasses.* Large-framed, wrap-around sunglasses protect both the eyes and the skin around the eyes from harmful UV rays. Choose sunglasses that block 100% of both UVA and UVB rays.
- *Seek shade.* Because the sun's UV rays are most intense between 10 a.m. and 4 p.m., outdoor activities should be minimized during this time. If you are outside during this time, find some shade and keep cool under a tree, umbrella, or structure.

It's also important to avoid indoor tanning beds, booths, and sunlamps. Like the sun, these are sources of harmful UV radiation. Indoor tanning devices are not safe!



Sun Safety



Sun safety and academic performance

Although there is no data that links sun safety behaviors to academic achievement, it is clear that severe sunburn can lead to absence from school. High absenteeism is linked to lower academic achievement. The good news is that youth who engage in overall healthy behaviors tend to perform better at school.

Teaching sun safety to your students

The classroom activity sheets included in this folder support the following learning objectives:

- Students will learn about and understand the link between UV radiation exposure and their life-long risk for skin cancer.
- Students will understand and be motivated to practice sun-safe behaviors to protect themselves from skin cancer risk.

Materials in this kit

- Classroom activity: *Sun science* student activity
- *For parents: Be a sun-safe family* – This information sheet is designed to alert and motivate parents and caregivers to practice sun-safe behaviors for themselves and for their families.
- *Sun-safe activities for your Schools vs Cancer event* – This information sheet gives suggested activities to highlight sun-safety information at your event.

Resources

¹ Source: American Cancer Society Cancer Facts & Figures 2014, www.cancer.org/research/cancerfactsstatistics/cancerfactsfigures2014/index

Sun-safety activities follow, but here are a few activities that can be integrated into current lesson plans or activities

Option 1: The best way to reduce the risk of developing skin cancer is to limit sun exposure – especially between the hours of 10 a.m. and 4 p.m., wear protective clothing, and apply sunscreen at least 30 minutes before going outside and reapply every 2 hours and after swimming or sweating. Have the students come up with a list of activities that they can do in the shade or indoors on a hot, sunny day.

Option 2: Have the students research jobs that are done in the sun (e.g., construction work, farming, or gardening), and ask them to develop a skin cancer prevention plan for each. Describe what workers can wear and what they can do to minimize sun exposure while on the job.

Option 3: Since most sun exposure is received within the first 18 years of life, it is essential that students be aware of the risks and dangers. Have them write down their normal day-to-day activities for both summer and winter and describe what they can do to be more sun safe and decrease their risk of skin cancer.



Sun Safety



Sun-safety activity: Seeing UV rays

Estimated time: 15-20 minutes

Supplies:

- Clear plastic cup
- Tonic water
- Black paper
- Sunscreen
- Transparency sheet,
- Tap water

Learning objective: This activity allows students to see UV rays and the effect that sunscreen has on UV rays.

Directions: Fill a plastic cup with tonic water. Put the cup in direct, overhead sunlight, and hold black paper behind it. Have students describe what they see. (The tonic water should have a blue glow at the surface.) Explain that a special ingredient in tonic water (quinine) glows in UV light.

Spread a thin coating of sunscreen on a clear overhead transparency sheet. Place the coated sheet between the sun and the cup. What happens? (The sheet should absorb some of the UV rays and decrease the glow effect.)

Try the experiment again with plain water to show how UV rays are invisible.

Questions

1. Would a lower position of the sun affect your results? *Students can repeat the experiment to find out. Less UV should decrease the glow.*
2. What is the difference between using plain water and tonic water? *There is no glow with the plain water because UV rays are invisible.*



Sun Safety



Sun safety: Take the sun quiz

1. I can stay in the sun for as long as I want if I'm wearing sunscreen.
True False
2. I don't sunbathe, so there's no way I could get skin cancer.
True False
3. Waterproof sunscreen will not always protect me after swimming or sweating.
True False
4. If I put sunscreen on in the morning, I do not need to put any more on in the afternoon.
True False
5. I need to protect my skin on cool or cloudy days.
True False
6. The only way for me to protect myself from skin cancer is to stay indoors.
True False



Sun Safety



Sun safety: Sun science

Estimated time: 10 minutes to set up the experiments, one week for them to run, and 30 minutes for discussion

Supplies:

- Newspaper
- Construction paper
- Paper or plastic letters or other uniquely shaped objects
- Apple or another thick-skinned fruit

Learning objectives: This activity will provide a mental and visual connection for students between the damaging effects that sun has on the experimental objects, and what the sun's harmful UV rays can do to their own skin cells.

The students will also have visual evidence of how being protected will guard against or help prevent sun damage.

Assess the students' comprehension by asking them to predict the effects of the sun on their skin, eyes, and other objects over a period of time. Students should show understanding of the differences of the sun's effects on organic versus inorganic matter.

Directions: Have the students place a sheet of newspaper in a sunny spot and another in the shade, and leave the paper for a week.

Place an apple or another whole piece of fruit in the sun as well and leave one in the shade.

Have the students place some uniquely shaped solid objects on pieces of construction paper in the sun. They can use the plastic letters to spell out their names.

Leave all of the objects exposed for a week.

A week later, view and discuss the results of these experiments with the class. Once the students have had the opportunity to see the sun's effects on the various items, ask them to imagine how the sun affects their skin when they are exposed to its harmful rays without protection. Remind them that the fruit is made of cells just like they are.

Questions and answers:

How does the sun affect the newspaper over the course of a week? The newspaper left in the sun is faded and yellowed. Determine whether the students make the connection between the fading of the paper and the sun's possible effects on their own skin.

How does the light affect the decomposition of the fruit? The fruit in the sun decomposed faster than the fruit in the shade. Determine whether the students understand that the sun's harmful UV rays can have some of the same unhealthy effects on their own skin.

What do you see on the construction paper after a week? The solid objects protected the portion of the paper they covered from fading. Discuss how clothing helps protect their skin from the sun.



Sun Safety



Sun safety: Sun scoop

Estimated time: 30-60 minutes

Supplies:

- Video camera (optional)
- Voice recorder (optional),
- Paper and pencils
- Research materials

Learning objective: This activity uses journalism to raise awareness about the science and risk of the sun’s harmful UV rays and about ways to be sun safe.

Directions: Assign each student, or group of students, a story angle. If possible, arrange for a science teacher, nurse, or local weather forecaster to come to your classroom. Let the students interview the “expert.” Have the students respond to the following questions as a class and then write their interview stories individually or in groups.

Determine what the students have learned by asking them to include the following in their story:

- At least 3 ways to be sun safe
- The effects of ignoring precautionary measures
- Background information about the sun and UV radiation

Questions to help prepare for the interviews

1. What questions will you ask the expert? *Students should list 3-5 questions.*
2. What is the most important part, or lead of your story? *Students should select one fact as the lead.*
3. Of the facts gathered, which should be included in your story? *Students should list the facts they will include in their story.*



Sun Safety



Sun safety: UV Index Scale

Meteorologists often include a UV Index number when reporting the daily forecast. What, if any, changes should we make in our sun-safety preparations based on the UV Index?

Sometimes on cloudy, overcast, and even on cold winter days where you might not think there is much risk of sunburn, the UV Index can be high. By understanding what the levels mean, you can be better prepared. Remember, while a lower UV Index number indicates lower UV exposure, you still should practice sun-safe behaviors.

UV Index Number	Exposure Level
2 or less	Low
3 to 5	Moderate
6 to 7	High
8 to 10	Very High
11+	Extreme



Sun Safety



For parents: Be a sun-safe family!

Winter, spring, summer, or fall, kids and adults enjoy spending time outdoors and in the sun. Although some sun can be enjoyable, too much is dangerous.

Overexposure to ultraviolet (UV) radiation in sunlight and from indoor tanning devices can result in serious health effects, including skin cancer. Youth are particularly at risk of overexposure since a substantial amount of the average person's lifetime UV exposure occurs before the age of 18.

Even one severe sunburn in childhood can increase the risk of developing skin cancer later in life. Most people are not aware that skin cancer, while largely preventable, is the most common form of cancer in the US.

By following some simple steps, your entire family can enjoy time outdoors while protecting themselves from overexposure to UV radiation. The American Cancer Society recommends that you ...

- **Slip on a shirt.** A long-sleeved shirt is best. If you choose a short-sleeved shirt, be sure to apply sunscreen on the skin that is exposed.
- **Slop on sunscreen.** Use broad-spectrum sunscreen with a sun protection factor (SPF) of 30 or higher. To be effective, sunscreen needs to be generously applied 30 minutes before sun exposure and reapplied every 2 hours and after swimming or sweating.
- **Slap on a hat.** The head and neck are common places for skin cancer to appear. For maximum protection, wear a hat with 2- to 3-inch brim all around. Be sure to apply sunscreen to the ears and neck if you wear a smaller hat or a baseball cap.
- **Wrap on sunglasses.** Sunglasses can protect the eyes and the skin around the eyes. Choose sunglasses with large, wrap-around frames and lenses that block 100% of both UVA and UVB rays.
- **Seek shade.** Because the sun's UV rays are most intense between 10 a.m. and 4 p.m., outdoor activities should be minimized during this time. If you are outside during this time, find some shade, and keep cool under a tree, umbrella, or structure.
- **Say no to artificial rays.** Avoid indoor tanning beds, booths, and sunlamps, and do not allow your kids to use them. Like the sun, these are also sources of harmful UV radiation. Indoor tanning devices are not safe!

The truth about indoor tanning

Nearly all communities have local businesses that advertise and promote indoor tanning as a safe alternative to outdoor sunbathing. The fact is that this is not true. Many older tanning devices used light sources that emitted shortwave ultraviolet rays (UVB) that caused burning. This led to new tanning devices that were designed to emit mostly long-wave ultraviolet rays (UVA).

UVA rays reduce the risk for burns, but they penetrate more deeply than UVB and weaken the skin's inner connective tissue. Despite overwhelming evidence of the link between indoor tanning and the risk for skin cancer, many tanning salons around the country continue to entice people to get a "healthy tan." Unfortunately, many of users are under 25 years of age.



Sun Safety



Indoor tanning facts

- There are just as many risks associated with indoor tanning as outdoor tanning.
- Tanning beds, booths, and lamps release high levels of dangerous UV radiation, which can increase the risk of skin cancer.
- Indoor tanning to get a “base” tan does not protect you from sunburn.
- Contrary to advertisements you see, the risks of skin injury far outweigh the small benefit of vitamin D absorption that that body gains from UVB/UVA radiation exposure. It is better to get vitamin D through food and supplements.



Sun Safety



Sun-safe activities for your Schools vs Cancer event

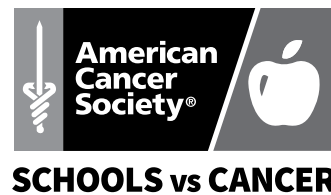
Your Schools vs Cancer event is a great opportunity to educate your students in a fun and engaging way about the importance of practicing sun-safe behavior. Below are some ideas that can be used during your Schools vs Cancer event.

- **Show students how much sunscreen they should put on** by measuring it out in different ways, such as with a small breakfast glass, two big spoons, or a handful of candy. Have a race to see who can rub in their sunscreen first. The winner gets a cool prize.
- **Make bracelets out of UV-detecting beads** (you can order these online), and explain to the students that if the beads are white, they are safe from the sun, but if they change color, they need to remember to Slip! Slop! Slap!® and Wrap!
- If the Schools vs Cancer event is on the same day as the school's field day, **let students get lathered up with sunscreen and then go down a water slip-and-slide**. This is a great way to remind them that even if they put on sunscreen, they will need to reapply after swimming or sweating, at least every 2 hours, etc.
- **Have a Slip! Slop! Slap! and Wrap! relay race**. Divide students into teams of 5, and have them race to 4 different stations to perform the actions (slipping on a shirt, slopping on sunscreen, slapping on a hat, and wrapping on sunglasses) so they learn and remember these steps. The first team to finish wins!
- **Have students put small sunscreen samples into packets with sun-safety information to give to each team**. During the Schools vs Cancer event, have them pass out the kits to each team and remind them to Slip! Slop! Slap! and Wrap!
- **Ask students to write short facts or sun-safety reminders on poster boards shaped like the sun**. Display them at the event. (For example, "Indoor tanning gives you saggy, wrinkled skin later in life.")
- **Have the students create a skit** that they can perform during the opening ceremony if the Schools vs Cancer event is outside. (This can be during the "friendly reminders" portion of the opening.) Use props such as an umbrella, a beach blanket, or a beach hat.



Sun Safety

Answer Key



Answer key

Sun quiz answers

1. False
2. False
3. True
4. False
5. True
6. False

