

Imagination

Creativity, risk taking, inventiveness

"All acts performed in the world begin
in the imagination."

Barbara Grizzuti Harrison

Have you ever plopped down on the grass and gazed up at the clouds? You might have imagined dragons, animal shapes, or even saucers in the billowy wisps. You probably did that as a child, too, and you should do it again and again, even when you're 80.

Do you remember lying in bed scared when you were little? You probably shivered and pulled the quilt up under your chin, afraid to move because a large, dark monster was swaying beneath the window. You might have screamed, and when

someone switched on the lights, you saw that the monster was only your own shirt hanging over a chair and blowing in the breeze. Your mom or dad might have said "See? There's no monster. You're just imagining things. Now stop being silly and go to sleep!" These words were meant to help you feel brave, but they might have had a different effect that wasn't as positive. They might have made you feel so embarrassed that you buried some of that rich "make-believe" imagination.

Imagination is a ripe, tempting fruit when you're young. You might have hidden some of that fresh sweetness as you grew older, partly because you might have been teased or scolded for it. Or you might have buried your imagination altogether. But don't panic. It's still there, although you might need to dig a little to find it.

"Creative minds have always been known
to survive any kind of bad training."

Anna Freud

If you've ever been hurt, your pain can become your molding clay for creating something that other people can feel, too. If you've ever been happy, you can call on those emotions and invent ways to communicate them to others. If you've ever been scared, who knows? Maybe you're the next Stephen King or R.L. Stine.

You imagi-"nation" is your private country where you're the only person with a passport. Imagination is born in the deepest parts of your



arm brush the net. The referee hadn't seen it. Nobody knew but Jana.

She hesitated for a moment. Then she grabbed the net, motioned to the referee, and said "I touched the net."

Jana's coach glowered and shouted at her. "Let the ref call the game!"

The referee called "Time out!" As he studied Jana's face, his eyes widened into circles. He paused. Then he blew the whistle, called the net ball, and gave the point to Morgan.

Jana took a long, scorching shower before she left the locker room. It was quiet. Her shoes squeaked as she crossed the empty gym floor. No one on her team had blamed her—but they hadn't congratulated her for being honest, either. No one had said much of anything to Jana after the game. But she knew that it took a whole team to win or lose, and she didn't blame herself, either. Although the state championship was blown away, Jana smiled, because inside she knew she had really won.

mind, and it can only be limited by your own thoughts. Imagination is the power to see things you can't see, hear things you can't hear, smell or taste things you can't smell or taste, and design or change the puzzle pieces of your own life.

Everything that humans have ever created or accomplished was first envisioned in someone's thoughts. Young people are especially good at imagining because they don't always know the way things are "supposed to be." You're free to wander uncharted streets in your mind. You haven't set up roadblocks that say "Stop! You can't do that!" or "Dead end!" or "Detour! That won't work!"

Sometimes harnessing your imagination is elusive, like trying to catch a shadow. The harder you try, the more unreachable it seems. At other times, imagination creeps up on you, most often when you aren't concentrating on it. You build and strengthen your imagination's muscles by relaxing, letting go, and removing all the obstacles.

Your imagination can go wild in your sleep. There's a period called REM (Rapid Eye Movement) sleep when you do most of your dreaming. Did you know that you have more than 1,000 dreams in a single year? Those dreams stimulate your imagination and even help you to solve problems in your sleep. Watch people who are sleeping, and if you see their eyes wiggle behind their lids, you'll know they're in REM sleep.

Albert Einstein once said "Imagination is more important than knowledge." Why do you think he said that? Do you think he meant that it wasn't important to study and learn? Hardly! Try interpreting his words this way: You can have all the tools of knowledge in the world at your fingertips, but unless you also have a dream of something you might build, those tools will lie there uselessly.

Bertrand Russell, another great thinker, once said "It is only through imagination that men become aware of what the world might be." Do you agree or disagree?

Creativity

"Make visible what, without you, might perhaps never have been seen."

Robert Bresson

When you use your imagination to design, build, change, or rearrange things, you're using *creativity*. Creativity is what you do with your imagination. Creativity is the car your imagination rides to its destination.

You might not be creative at drawing, but you might be creative in your ability to see solutions to problems, or in movement (such as running, dancing, or kicking). You might be creative in analyzing angles, arranging furniture, or calming someone who's angry. You might be creative in the way you cook, sing, fly a kite, race your bike, wear your clothes, or come up with alibis for not doing your homework.

Creative people aren't only artists, writers, musicians, and dancers. They're teachers, industrial workers, telephone operators, doctors, athletes, plumbers, singers, newspaper reporters, mothers, fathers, kids, electricians, even bank robbers. In other words, *everyone* is creative in some (or many) ways.

"Not me," you might say. "I'm not creative!" If that's what you think, you haven't dug deeply enough to uncover your own unique gifts. Your mind is a gold mine of creativity. Here's how to bring up your treasures for the world to see:

Brainstorm many ideas. Let yourself be silly, non-sensical, absurd. Explore new things, unusual things, unexpected twists.

Relax. Rest. Leave spaces in your searching.

Alone. Don't be afraid to be alone. Committees can come up with great ideas, but you need solitude to explore your own creative mind.

Investigate new ways of looking at things. Learn from experts. Turn ideas upside down; make them larger or smaller. Redesign the form, change the colors, change the order, put things together that don't fit together.

Notice what you're *not* searching for. Stop and look behind your thoughts. Go in the opposite direction for a while.

Struggle. Work hard. Practice. Get help. Don't give up at what you like to do or want to learn.

Trust your hunches. Even when experts insist that your idea is dumb, lame, impractical, or impossible, don't give up until *you* prove it wrong. As movie director Frank Capra once said, "A hunch is creativity trying to tell you something."

Opportunities. Keep your eyes and ears open for opportunities. Look for chances to learn new things, develop new talents, listen to people whose ideas are different from yours, and go places you haven't been.

Record your mistakes. Track your progress so you'll learn from your errors, wrong turns, and side trips. (Who knows, you might discover something interesting along the way.)

Make things up wherever you are. Train your eyes, ears, and mind to redesign whatever you're looking at, thinking about, or listening to: the doorway, a melody, a street sign, an advertising jingle, a dance, a picture, bacteria under a microscope, the shoes on your feet, the bus, a garden, a phrase, your teacher's hairpiece. . . .

CHECK IT OUT



A Whack on the Side of the Head: How to Unlock Your Mind for Innovation by Roger von Oech (New York: Warner Books, 1993). Learn how to open your mental locks, break rules, use impractical ideas as stepping-stones to practical ideas, and more. Ages 13 & up.

Creativity Web

<http://www.ozemail.com.au/~caveman/Creative/>

This Australian site includes information on Mind Mapping and Lateral Thinking, a Children's Corner, quotations, humor, creativity basics, and more.

Right Brain Works

<http://www.gocreate.com/>

Tools, techniques, resources, links, references, and more to promote and enhance creativity. Be sure to visit the QuotAmaze part of this site, where hundreds of quotes about creativity are linked in a random, free-association way. Use it to kickstart your thinking.

Risk Taking

"You can't steal second base and still keep your foot on first."

Frederick Wilcox

When you allow yourself to be creative, you take risks. Not daredevil risks; not foolish, jumping-off-of-cliff stunts. Creative risk taking means daring to explore your talents, taking off your mask, and letting people see the real you. The biggest risk of all is having the courage to be yourself.¹ That sometimes means making mistakes and doing things over again. Or falling down and getting back up. Or failing at something so many times that you don't think you can stand to try again . . . then trying again. (You succeed when you try *one more time* than your total number of failures.)

Successful Failures

💡 Giacomo Puccini's music teacher told him that he had no talent for music. Puccini went on to become one of the world's greatest composers, famous for operas including *La Bohème* and *Madame Butterfly*.

💡 Charles Goodyear was determined to find a way to make rubber flexible. He had some success by treating rubber with sulfur, but it wasn't good enough. One day he accidentally dropped a rubber-sulfur mixture onto a hot stove—and discovered vulcanization.

💡 When Marian Anderson wanted to sing in Constitution Hall in Washington, D.C., on

¹ See "Courage," pages 71–78.

Easter Sunday, 1939, she was barred because she was black. So she gave her concert on the steps of the Lincoln Memorial and drew a crowd of 75,000. Her open-air concert was a triumph over bigotry and helped to solidify her position as an international star.



Charles Darrow was an unemployed engineer when he invented the game Monopoly. He first presented his game to a toy company in 1935, and they gave him 52 reasons for rejecting it. Today the game is so successful that Parker Bros., the publisher, prints more than \$40 billion in Monopoly money each year—more than twice the amount of real money printed by the U.S. Mint.

"People fail forward to success."

Mary Kay Ash

CHECK IT OUT



Girls and Young Women Inventing: 20 True Stories About Inventors Plus How You Can Be One Yourself by Frances A. Karnes and Suzanne M. Bean (Minneapolis: Free Spirit Publishing, 1995). Not just for girls and young women, this book will inspire *all* young people to think more creatively. Includes first-person stories of 20 successful young inventors, step-by-step instructions on how to be an inventor, and resources. Ages 11 & up.

The Kid's Invention Book by Arlene Erlbach (Minneapolis: Lerner, 1996). Tells about young inventors, their creations, and how the inventions came to be. Ages 9–12.

16 Ways to Take Risks

1. Color outside the lines.
2. Change the rules in a game so everyone has more fun.
3. Wear clothing you design instead of wearing what your friends like.
4. Write the truth in your journal about how you feel, what you dream, what you worry about, what you plan to do with your life, what gives you nightmares, and what you hope for yourself and the world.²

² See "Endurance," pages 88, 89, and 92, for journaling resources.

5. Solve a math problem in a new or unusual way—different from the established or "proper" way.
6. Take dance lessons if you're a boy. Take shop class if you're a girl. Explore any talent that interests you, especially one you "shouldn't" explore because you're the "wrong" gender, age, race, or whatever.
7. Speak up for what you believe.
8. Make new friends.
9. Go new places. (Whenever you have the chance to travel, take it.)
10. Challenge the old way of doing things if you see a better way. Shake up the status quo.
11. Go with your hunches.
12. Dare to make mistakes and look ridiculous.
13. Keep trying even when others are laughing at you.
14. Spend time alone.
15. Reach farther than you think you can reach.
16. Don't stop at 16.

"Go for the moon. If you don't get it,
you'll still be heading for a star."

Willis Reed

Character Dilemmas

For journaling or writing essays, discussion, debate, role-playing, reflection

Suppose that . . .

- ① You get an assignment from your geography teacher to draw a map of the United States, showing the products each state specializes in, like corn, mining, and so on. You'd like to add three-dimensional objects to your map—a real corn kernel, a small piece of ore. Your teacher is very strict and doesn't allow students to change the rules. What should you do? Is it worth the risk to do the assignment your way? What might happen if you *always* follow assignments exactly?

2 Manuel's grandparents have left him a trust fund to pay for his college education. But Manuel's father died recently, and his mother needs financial help raising the three younger children. What should Manuel do? Should he risk his trust fund? Can you come up with other creative solutions to Manuel's dilemma?

3 Your friend Erica is thinking about entering an after-school speech contest. She writes very well, and she has wise things to say, but she's very shy. You talk her into entering. Meanwhile, Erica's mother tells her that she has to come home every night after school to baby-sit her brothers. Her mother also tells her not to bother with the speech contest; Erica is "too shy" and "shouldn't waste her time." When Erica tells you about these latest developments, she bursts into tears and says that her mom is right; entering the contest was stupid. What might you do to help your friend regain her confidence, stay in the contest, and not get in trouble with her mother?

4 A young man lives in a primitive culture whose traditions dictate that reading is evil. The young man yearns for knowledge and feels that there's much to be learned from other cultures. Some missionaries secretly give him books and start teaching him how to read. The young man knows that if he's caught, he'll be shamed and banned from becoming a tribal leader, and no young women from his tribe will ever want to marry him. What do you think the young man should do? Can you think of other examples in which a culture might prevent a person from becoming what he or she wants to be? Does this ever happen in the United States? In other countries? If so, where and how?

5 You've been asked to serve on an international committee of scientists, researchers, and ethicists. The purpose of the committee is to consider the implications of cloning and determine standards. Most of the world's countries have agreed to abide by the standards set by your committee. What are some of the issues you might raise? What position might you take? Will you recommend strict standards or more lenient standards? Will you decide that cloning should be allowed or forbidden?

6 You're someone who's afraid to take risks. You like it when things are safe, predictable, and planned out. One day you come across this quotation by author Erica Jong: "The trouble is, if you don't risk anything, you risk even more." What does this say to you?

Activities

IMAGINE EACH OF THE FOLLOWING SITUATIONS. What would you do? Talk them over with your friends or family. **TIP:** Be aware that there might not be one "right" or "best" response.

- ▲ You're a girl and you want to play football on your high school team.
- ▲ You're a boy who has a beautiful, high voice and loves to sing, but everyone makes fun of your high voice.
- ▲ You're a talented artist and you want a \$250 set of watercolors, but your parents won't buy them for you.
- ▲ You love to write poems, but your English teacher tells you that your poetry is "trite and unimaginative."
- ▲ Your P.E. teacher tells you that you're too short to play basketball.
- ▲ You're in a wheelchair and you want to learn how to swim.
- ▲ You're totally bored in school and would rather spend your time reading and studying on your own.

LEARN ABOUT RISK TAKERS IN NATURE. Are there any animals that seem to be creative risk takers? *Example:* When a goose flying with its flock becomes ill or is shot or wounded, two other geese drop out of formation and follow the stricken goose down. They stay with the goose to protect it until it recovers or dies. Then the two protectors must launch out *on their own* to find another flock or catch up with their original flock. Can you find other examples?

RESEARCH CREATIVITY AND RISK TAKING in science. You might learn about Copernicus, Galileo, Thomas Edison, and/or Marie Curie. In what ways were they

creative? What risks did they take? What were the consequences of those risks? Were their discoveries or inventions accepted at first?

RESEARCH THE RISKS THAT ASTRONAUTS take. You might want to start by learning about the early days of the space program. What were the risks taken by Alan Shepard, the first U.S. astronaut to fly into space? Or John Glenn, the first U.S. astronaut to orbit the earth? Or Neil Armstrong, the first man to set foot on the moon? Or the crew of the *Apollo 13*? Compare the risks taken by astronauts in the 1960s to those taken by astronauts today.

CHECK IT OUT



International Space Station

<http://station.nasa.gov/>

Up-to-the-minute information about the International Space Station and its astronauts.

The NASA Homepage

<http://www.nasa.gov/>

INVENT A NEW WAY TO TEACH THE MULTIPLICATION tables to younger children. Or concepts of carrying, place value, or anything else that requires practice and memorization to learn.

Variation: Design a game for teaching a math concept to younger children. Play it with your younger brother or sister, or volunteer at an elementary school, hospital, or shelter.³ **TIPS:** You might create a board game (like Monopoly, Candyland, Chutes & Ladders, or Life); a card game (like Go Fish or Concentration); or a mime game patterned after Charades.

MAKE A COMIC BOOK showing imaginative, creative, risk-taking, and inventive events in the history of your state or province, your country, or the world. Narrow your focus a bit by choosing a theme. *Examples:* inventions, science, art, literature, music, military/warfare, medicine/health, technology, communication, language development, transportation, finance, sports, recreation, agriculture, industry, business, philosophy, archaeology, or anything else you choose.⁴

³ See "Empathy," pages 81–82, for guidelines on how to volunteer.

⁴ See "Choice and Accountability," page 32, for a resource about comics.

CHECK IT OUT



For inspiration when preparing your comic book, visit your library or bookstore and look through one (or more) of the cartoon histories by Larry Gonick including *The Cartoon History of the Universe* (New York: Doubleday, 1990, 1994) and *The Cartoon History of the United States*.

When deciding what events to portray, you might want to start by paging through *The Timetables of History* by Bernard Grun (New York: Touchstone Books, 1991). There are other *Timetables* books on *African-American History*, *American History*, *Jewish History*, *Science, Technology*, and *Women's History*.

RESEARCH RISK TAKERS IN HISTORY. Pick your favorite hero or heroine from history and write a report on him or her. Answer these questions: 1) What risk-taking activities did the person do? 2) How were the person's ideas/activities accepted at first? 3) What obstacles did the person overcome? 4) When did the person's ideas become widely accepted?

BOLDLY GO WHERE YOU'VE NEVER GONE BEFORE—in your imagination. Make a list of all the places you'd like to go someday. Pick one, then invent a new vehicle to take you there. Make a three-dimensional model to show your class or club as you explain how your vehicle works.

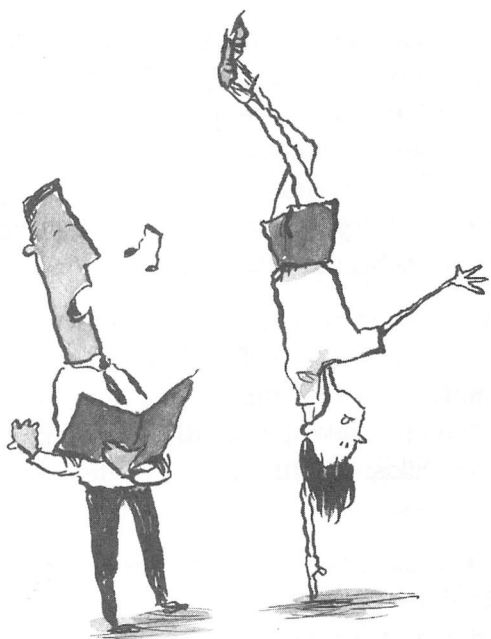
CREATE A COMMERCIAL to "sell" people on a talent you have. *Example:* If you play the piano, you might start by playing a recording by another pianist. Tell how long you've been studying and/or playing. Explain how you might use your talent to make a contribution to others. End by performing—perhaps the same piece you played at the beginning of the commercial. Record your commercial on videotape.

Variation: If everyone in your class creates a 1-minute commercial, you might show them all at your school's Open House or Parents' Night.

ESTABLISH A MENTOR FILE. Gather names, telephone numbers, and descriptions of experts and other talented people in your community who are willing to help young people develop their talents. You might look for leaders in music, art, architecture, writing, drama, medicine, science, space, technology, math, engineering, law, etc. Ask if they'd be willing to be

listed in a Mentor File. Explain that students might be calling on them for advice, assistance, or guidance. **IMPORTANT:** If you meet with your mentor in person, go with a chaperon.

ORGANIZE AND PRESENT A TALENT SHOW for your class, club, or school. Remember that there are many types of talents: visual (drawing, painting, sculpture, graphics), performing arts (singing, dancing, playing an instrument, doing a karate demonstration), public speaking (speeches, debates, recitations, readings), etc. Your talent show might include a dramatic skit, a speech contest or debate, a math/science/history competition, and/or a science fair.



INVITE SPEAKERS WITH SPECIAL TALENTS to speak to your class, club, or school. Ask them to talk about how they first became aware of their talents, how they developed their talents, who encouraged them to develop their talents, what advice they might have for someone else who's interested in developing those talents, etc.

PLAY A "HUMAN SCULPTURES" GAME. This game promotes free expression and creativity, courage and risk taking, flexibility and trust. Start by dividing into groups of 3. One person is the artist; one is the model; and one is the "clay." To play:

1. The artist and the "clay" must close their eyes and keep them closed until step 5. If it helps, the artist may want to wear a blindfold.


2. The model sits comfortably and poses with whatever facial expression he or she chooses (smiling, frowning, happy, angry, peaceful, thoughtful, etc.).


3. The artist feels the model's face and head (gently) for 15 seconds.


4. The artist sculpts the "clay" (the third person) in the same expression the model was wearing (again, gently). The artist can't go back and reexamine the model's face. He or she must sculpt from memory.


5. The artist and the "clay" open their eyes to see if the "clay" matches the model.


READ IMAGINATIVE STORIES. Look for these books:

 *The Dark is Rising* by Susan Cooper (New York: Atheneum, 1973). On his 11th birthday, Will learns that he's one of the "Old Ones," a group of people with special powers. Will must quickly harness his powers to defeat the forces of evil and save his sister. Ages 10–13.

 *The Hobbit* by J.R.R. Tolkien (New York: Galahad Books, 1989). Bilbo Baggins, a home-loving hobbit, is enticed to join a party of adventurers in search of treasures. Ages 11 & up.

 *The Phantom Tollbooth* by Norton Juster (New York, Random House, 1961). Neither words nor numbers can excite young Milo. One day, a tollbooth appears, allowing Milo to enter into a land where numbers and words are constantly at war with one another. Ages 9–13.

 *Rondo in C* by Paul Fleischman (New York: Harper & Row, 1988). As a young piano student plays Beethoven's Rondo at her recital, each audience member is stirred by memories. Ages 6–10.

 *Topsy Turvies: Pictures to Stretch the Imagination* by Mitsumasa Anno (New York: Walker/Weatherhill, 1970). Optical illusions form structures in which strange little men can go up stairs to get to a lower place, hang pictures on the ceiling, and walk on the walls. All ages.