Next, have your students work in small groups to brainstorm a list of patterns, shapes, and examples of Fibonacci numbers they observe in their own community. You might assign this as homework or take a walk outside with your group to help generate ideas. Review the lists together once the groups are done. Then, have each group create a piece of artwork to demonstrate their findings. (Students might work independently if you deem it more appropriate.) If possible, allow students to choose the medium they want to work with to create the artwork.

**ACTIVITY FOUR: IT'S SHAPEING UP!**

To start this activity, recap the geometric shapes that students observed when they created their lists and artwork for Activity Three. Next, copy and distribute the activity sheet. Ask your group if they found any of the shapes seen on this page (triangle, spiral, rectangle, and pentagon) when working on Activity Three. Students should use these shapes to create an abstract interpretation of the design they created in Activity Three, or an image representative of something found in nature. As an alternative, you might have each student create a piece of artwork that they feel represents themselves. Let students choose the option and medium that they feel most comfortable with, but provide them with some guidelines by reviewing the notes on the activity sheet. This is an activity that students might also do on the computer if it suits their needs. Once done, display the completed artwork. Reproduce Activity Two and ask students to use these questions to evaluate and critique their classmates’ artwork. The artists should then describe how they developed their concepts and what they see in their own work. Encourage your students to notice that each piece of artwork differs, even if the subject matter is similar. Ask your class to talk about any challenges they faced when completing the task.

**EXTENSION ACTIVITIES**

- Introduce students to the lives and works of other artists with disabilities by having them research the artists. Students should find an artist of interest to them, and either write a report about the artist, replicate a piece of his/her artwork, or create an original piece of artwork to honor the artist. (See the resource list.)
- Work as a class to create a mural or collage representative of the group or the community. Each student’s contribution should highlight his/her individual strengths.
- Create an abstract mural in which students enlarge and apply the portion of the art they created for Activity Three or Four.
- To raise awareness of and an appreciation for people with physical or learning disabilities, students should brainstorm potential barriers to people with disabilities. Then, either working in small groups or individually, students should design and create an object to provide equal access for people with disabilities.
- Illustrate a mathematical sequence. Create a series of sequences that students have to figure out, and then ask them to illustrate these sequences.
- Use the shapes from the activities to help students better understand proportions. You might make copies of the students’ artwork and ask them to increase or decrease the shapes proportionally to test their measuring skills.

**RESOURCES AND BIBLIOGRAPHY**

**WEB SITES**
- www.vsaarts.org—VSA arts
- www.aep-arts.org—The Arts Education Partnership features links to arts organizations and research
- www.chadd.org—Children and Adults with Attention-Deficit/Hyperactivity Disorder
- www.health.gov/nhc—National Health Information Center
- www.naccd.org—National Association of Councils on Developmental Disabilities
- www.nariic.com—National Rehabilitation Information Center
- www.ccc.sped.org—Council for Exceptional Children
- www.nichcy.org/kids—Zigwaart! The National Information Center for Children and Youth with Disabilities (NICHCY) site for kids with information on various physical disabilities and learning styles
- www.maafa.org—The Mathematical Association of America
- www.pbs.org/parents/issuesadvice/inclusivecommunities—PBS Parents has information for parents about creating inclusive communities

**BOOKS**

**DEAR EDUCATOR,**

Every day you encourage your students to do their best. To help them succeed, you strive to create an inclusive environment that supports their individual learning styles and diverse needs. The stage you set can help students find their strengths—which is important to their growth, development, and self-efficacy. Many students find their strengths and success through the arts.

VSA arts is a nonprofit organization dedicated to providing educational opportunities through the arts for children, youth, and adults with disabilities. As part of its effort, VSA arts educates the public about people with disabilities by illustrating the valuable contributions they make to our communities. VSA arts does this through encouraging best practices and creating awareness. The desired result is the recognition, appreciation, and inclusion of diverse individuals into society—much like the community a school aims to create.

In addition to their own importance, the arts can be used as a teaching strategy. To encourage teachers to use the arts as a teaching tool with students with varied abilities, and to help students gain self-confidence, VSA arts teamed up with Lifetime Learning Systems to create this educational program, Let Your Style Take Shape. The program introduces students to visual artist Kong Ho, his work, and his disability. The imagery in Kong Ho’s work is influenced by his interest in patterns found through math and science. Students can use his artwork to further explore the many places math can be found in nature. They will then use this knowledge to create their own designs.

According to Secretary of Education Margaret Spellings, “In many instances, we’ve seen combining music, art, and dance with teaching subjects such as math, reading, and language can be highly effective. Since every child learns differently, it’s important that we continue to integrate these more creative learning methods because they obviously have a positive impact for many children.” This program will reinforce this message and apply it to students with special needs.

Sincerely,

Soula Antoniou
President
VSA arts

Katy Dobbs
Editorial Director
Lifetime Learning Systems®, Inc., A Division of Weekly Reader
HELPFUL TIPS FOR AN INCLUSIVE ENVIRONMENT

Research shows that inclusive classrooms can be beneficial for students with disabilities, as well as their classmates. One factor that is vital to this success is the educator’s comfort level for teaching students with special needs, including physical, emotional, or learning disabilities. Since the term “special needs” encompasses a wide array of abilities and concerns, it is important that educators work together to research strategies that are specific to each individual student. The simple tips listed below may help you maintain an inclusive classroom and create a setting for success.

ACTIONS SCHOOLS CAN TAKE

- Educate yourselves about the needs of your students so that you feel confident that you are doing all that you can to help them succeed.
- Keep lines of communication open between parents, specialists, and the school faculty so that you can determine and implement the best strategies to meet the needs of your students with disabilities.
- Work collaboratively with special education teachers and other specialists when planning lessons to problem solve and determine the best strategies for presenting the curriculum.
- Organize team meetings to review and discuss the progress of students with special needs to ensure that the strategies in place are working.

GETTING PREPARED

- Ask your students questions instead of presuming that a prescribed strategy will work best for them.
- Encourage students with disabilities and special needs to give you feedback on what works for them and what does not.