

Dear Educator:

Thank you for choosing City Museum for your class outing. We look forward to providing your group with an eclectic environment in which to expand the application of your in-class curriculum. Students will drop their scholastic guard to fully engage in the eccentric environment; there is no better condition than this to show children the existence of learning away from the desk. After the intrigue of the Museum sets in, curiosity and content blend to lead the student to an enriching scholastic experience. Though not intentionally designed to be an academic facility, City Museum lends itself well to the learning process as a laboratory of sorts, where practical knowledge can be applied with a whimsical, thoughtful and artistic flavor.

Your students will seek the answers to questions pertaining to items and features within City Museum. Some are simple concepts; some are more involved and should foster healthy discussion afterwards. The activities are arranged here by curriculum areas (Communication Arts, Mathematics, Science, Social Studies, and Art), though some challenges may be applicable in more than one area of study. The applicable field is designated by icon, and the Missouri and Illinois Goals/Standards are noted by each challenge. If some activities are beyond the scope of your classroom, please feel free to disregard them.

We suggest that you review concepts and content material prior to the visit. On the day of your visit, the students, independently or in groups of two to three, should enjoy the activity as they discover City Museum. Their time will be filled with wandering and exploring, all the while trying to solve the puzzles. Upon your return, we suggest you achieve closure by discussing/developing the students' answers and then discussing them together as a class. If the material represented by these questions is new to your group, then you have the opportunity to capitalize on their experience and excitement in your initial and follow-up instruction.

You'll notice that we've provided questions, but no answers. Many disciplines allow for varying answers, so we don't have THE correct ones. When you and your class have determined the absolute, no-doubt-about-it best answers, please let us know (the speculation is driving us crazy). When we receive your class letter of answers (and hopefully your poetry, too) we'll reply with a "Certificate of GeniuCity" (suitable for framing) for your classroom.

We can't wait until you get here.



Thanks to Ken Wolfe, who designed many of these challenges.

Challenge 1



MO 1.5, 1.9, 2.4, CA1, CA4-6, FA5, SS6

IL 1.A, 3.A, 5.A, 5.B

Find the artifact of the “misanthrope” in the Architectural Museum on the 3rd Floor. What do you think a misanthrope might be?

The artist, John Dudas, painted every inch of a three-story house (inside & out) with a constantly repeating theme. What caused him to do it?

Use some adjectives to describe what you think his personality was like.

Make a word picture of what you think he might have looked like.

Challenge 2



MO 1.5, 1.6, 1.9, 2.4, CA1-2, CA4-7, FA4-5, SS2, SS4-6

IL 1.A, 1.B, 3.A, 3.B, 5.A, 5.B

Read this selection from The Phantom Tollbooth by Norton Juster, in which Milo learns of a city that has become invisible because people are all so busy and no one looks up at all to see its beauty.

“Do many people live here in the forest?” asked Milo as they trotted along together.

“Oh yes, they live in a wonderful city called Reality,” he (Alec) announced, smashing into one of the smaller trees and sending a cascade of nuts and leaves to the ground. “It’s right this way.” In a few more steps the forest opened before them, and off to the left a magnificent metropolis appeared. The rooftops shone like mirrors, the walls glistened with thousands of precious stones, and the broad avenues were paved with silver.

“Is that it?” shouted Milo, running toward the shining streets.

“Oh no, that’s only Illusions,” said Alec. “The real city is over there.”

“What are Illusions?” Milo asked, for it was the loveliest city he’d ever seen.

“Illusions,” explained Alec, “are like mirages,” and realizing that this didn’t help much, he continued: “And mirages are things that aren’t really there that you can see very clearly.”

“How can you see something that isn’t really there?” yawned the Humbug, who wasn’t fully awake yet.

“Sometimes it’s much simpler than seeing things that are,” he said. “For instance, if something is there you can only see it with your eyes open, but if it isn’t there, you can see it just as well with your eyes closed. That’s why imaginary things are often easier to see than real ones.”

“Then where is Reality?” barked Tock.

“Right here,” cried Alec, waving his arms. “You’re standing in the middle of Main Street.” They looked around very carefully. Tock sniffed suspiciously at the wind and the Humbug gingerly stabbed his cane at the air, but there was nothing at all to see.

"It's really a very pleasant city," said Alec as he strolled down the street, pointing out several of the sights, which didn't seem to be there, and tipping his cap to the passersby. There were great crowds of people rushing along with their heads down, and they all appeared to know exactly where they were going as they darted down and around the nonexistent street and in and out of the missing buildings.

"I don't see any city," said Milo very softly.

"Neither do they," Alec remarked sadly, "but it hardly matters, for they don't miss it at all."

"It must be very difficult to live in a city you can't see," Milo insisted, jumping aside as a line of cars and trucks went by.

"Not at all, once you get used to it," said Alec. "But let me tell you what happened." And, as they strolled along the bustling and busy avenue, he began.

"Many years ago, on this very spot, there was a beautiful city of fine houses and inviting spaces, and no one who had lived here was ever in a hurry. The streets were full of wonderful things to see and the people would often stop to look at them.

"Didn't they have any place to go?" asked Milo.

"To be sure," continued Alec, "but as you know, the most important reason for going from one place to another is to see what's in between, and they took great pleasure in doing just that. Then one day someone discovered that if you walked as fast as possible and looked at nothing but your shoes you would arrive at your destination much more quickly. Soon everyone was doing it. They all rushed down the avenues and hurried along the boulevards seeing nothing of the wonders and beauties of their city as they went."

Milo remembered the many times he'd done the very same thing; and, as hard as he tried, there were even things on his own street that he couldn't remember.

"No one paid any attention to how things looked, and as they moved faster and faster everything grew uglier and dirtier, and as everything grew uglier and dirtier they moved faster and faster, and at last a very strange thing began to happen. Because nobody cared, the city slowly began to disappear. Day by day the buildings grew fainter and fainter, and the streets faded away, until at last it was entirely invisible. There was nothing to see at all."

"What did they do?" the Humbug inquired, suddenly taking an interest in things.

"Nothing at all," continued Alec. "They went right on living here just as they'd always done, in the houses they could no longer see and on the streets which had vanished, because nobody had noticed a thing. And that's the way they have lived to this very day."

"Hasn't anyone told them?" asked Milo.

"It doesn't do any good," Alec replied, "for they can never see what they're in too much of a hurry to look for."

Consider today's new buildings downtown compared to the older ones (if you can remember what they look like), and write a reaction to the selection.

Have you seen sculptures and ornamentations (like those on display in the Architectural Museum) on any new buildings these days? Think about that. How might Juster's idea be coming true?

Write a short story or poem from the point of view of one of the gargoyles watching the people in the street.

What decorations do you have in your bedroom? How do they make you feel when you look at them?

What kind of labor force created buildings with that level of ornamentation?

Could such buildings be built today?

Are the same materials available?

How can a building's design affect a neighborhood? A resident? An employee? A tourist?

Challenge 3



MO1.9, 1.10, 4.1, 4.3, CA1, CA4, CA6-7, SS4, SS6

IL 3.A, 3.B, 5.A, 5.B

Imagine yourself a spindle from a factory conveyor belt. Suddenly you have become a slide, or a painted post in the City Museum Grand Staircase. Do you miss working in a shoe factory? Do you like being in a museum? How do people touch you? How does that make you feel?

Challenge 4



MO 4.1, CA7

IL 3.A, 3.B

Over time, some features at City Museum have taken on nicknames, unknown to the public in general. For instance, you can guess how The Puking Pig got its name (do you know what and where it is?).

Find three other features of the Museum that appeal to you, and dream up names for them. Explain why you think the name fits the object.

Challenge 5



MO 1.6, 1.9, 2.4, 3.5, CA7, M1

IL 1.A, 5.A, 6.A

What is a cupola? How do you think the word cupola was created? How many cupolas can you find in MonstroCity?

Challenge 6



MO 1.6, 1.10, 2.1, 2.4, CA1, CA4, CA7

IL 3.A, 3.B

People who have never visited City Museum often wonder what kind of place it really is. Honestly, it's a difficult place to define. Don't let that stop YOU from trying! Write a short definition/description of City Museum, especially for someone who hasn't seen it. Be careful! You can use only four sentences to complete this challenge.

Challenge 7



MO 2.1, 2.4, CA1, CA4-5, CA7

IL 3.A, 3.B

The atmosphere in a story is the emotions & feelings that the author wants you to feel while you read. Usually an author will describe the atmosphere with creative adjectives, metaphors and similes. Visit these places in City Museum and describe the atmosphere – how does it smell, sound, look and feel? How does it make you feel?

The Enchanted Forest (mezzanine)

The Wave Cave (1st Floor)

The Museum of Mirth, Mystery & Mayhem (3rd Floor)

The Vault Room (2nd Floor)

Challenge 8



MO 1.2, 1.5, 1.9, 2.1, 2.5, 4.3, CA1-4, CA7, FA1, FA5

IL 3.A-C, 5.A-C, 16.A, 25.A, 26.B

Castle towers figure prominently in both history and fiction. Give at least three examples of events and/or stories that occurred in a tower or castle. Climb the tower and give an improvisational performance of one of those stories. Invent your own story that takes place in a realm called MonstroCity.

Challenge 9



MO 1.9, 2.1, 2.2, 2.5, CA2, CA7, FA2, FA4

IL 3.A, 3.B

City Museum challenges you to express your thoughts about us in a limited number of syllables!

To meet the challenge, you must write three Haiku verses. Haiku poetry is three lines:

First = 5 syllables

Second = 7 syllables

Third = 5 syllables

Here are some examples to inspire you.

City Museum

Bright, mosaic, children laugh

Funky place downtown

Puke! O ye Pig! Puke!

Regurgitate unto me!

Your gut swells once more.

Corn dog, corn dog, ah!

Sweet corny meat on a stick.

Steamy snack of dreams.

Challenge 10



MO 3.1, 3.5, M3

IL 6.D.3, 7.C.4c

At a rate of 500 gallons per 90 seconds, calculate how long it would take the Puking Pig to fill an Olympic-sized swimming pool (which, by the way, holds 90,000 gallons of water).

Challenge 11



MO 3.1, 3.5 M1

IL 6.B.1, 6.B.2, 6.B.3a

Each lizard in the Lizard Lounge is composed of 320 watchbands, and 350 bands make the snake. How many faces would you need to complete all the watches?

Challenge 12



MO 3.1, 3.5, M3

IL 6.B.2, 6.B.3a, 6.B.4

The Big Chain near the entrance weighs 1500 pounds.

How much weight must each tie rod underneath it support?

If an average adult can lift and hold 120 pounds, then how many adults would it take to hold the chain?

If an average child can lift and hold 45 pounds, then, with only four adults, how many children are needed to hold the chain?

Challenge 13



MO 3.1, 3.5, M3

IL 6.B.2, 6.B.3a, 6.B.4, 7.C.4c

The red granite boulder behind the Front Desk weighs 25,000 pounds. (Did you know this is the same granite carved into Mt. Rushmore?)

If you dropped it into the fish tank, how many little Styrofoam balls would you need to attach to it to keep it afloat (assuming each ball would support 4 ounces)?

How much tape (in feet) would you use to attach the Styrofoam balls if each ball took 3 inches to secure to the boulder?

Challenge 14



MO 3.1, 3.3, 3.5, M2-3

IL 6.B.3a, 6.B.3c, 7.C.3b, 7.C.4c, 9.A.2b, 9.A.5

Find the circumference (in inches) of a painted conveyor spindle from the railing of the Grand Staircase (could you get an accurate measurement by somehow using a part of your shoe?).

What is the distance (in feet) represented by all the spindles' circumferences added together?

Challenge 15



MO 3.1, 3.3, 3.5, M2

IL 7.C.3b, 9.A.3c, 9.A.5, 9.B.4

Find the diameter of the everydaycircus circle, without using any standard measuring tool.

Challenge 16



MO 3.1, 3.5, M1

IL 6.D.3, 7.A.2b, 7.C.4c

How many cents would you pay per ounce of bottled water in the Lizard Lounge?

Challenge 17



MO 3.1, 3.5, M1

IL 6.B.1, 6.B.2, 6.B.3a, 6.C.1a, 8.A.3c

Someone who didn't know that it's harmful to the fish, foolishly threw 22 quarters, 3 half dollars, 17 dimes, 136 nickels, and 42 pennies into the tank. Total the amount of money they foolishly dropped.

Challenge 18



MO 3.1, 3.5, M2-3

IL 6.C.1b, 7.B.3

The Mastodon on (and in) the First Floor is known to have been an average of 10 feet tall from his foot to the top of his shoulder. If the concrete floor were actually water, how deep would it be?

Challenge 19



MO 3.1, 3.5, M1, M3

IL 6.B.2, 6.B.3a, 6.B.4, 7.C.4c

Peking at the rate of 500 gallons each 90 seconds, how many 12 oz. cans of your favorite beverage would the Peking Pig puke per minute (you MUST use the word “puke” in your answer).

Challenge 20



MO 3.1, 3.5, M1, M5

IL 6.B.1, 6.B.2, 6.B.3a, 6.B.4, 6.C.1a, 6.C.1b

If mice still lived in the aluminum cages (5 mice per cage), how many mice would surround the bathrooms? How can you find the number of cages without counting?

Challenge 21



MO 3.1, 3.3, 3.5, M2-3

IL 6.B.2, 6.B.3, 6.B.4, 6.D.3, 7.C.4c

If the Shoelace Factory produces about 18 inches of lace in a minute, figure out how many shoes it could lace in an hour. How could you find the average length of shoelaces?

Challenge 22



MO 1.1, 1.3, 3.3, 3.5-7, 4.1, S3-4, S8

IL 3.A, 3.B, 5.A, 5.B, 11.A, 12.A, 12.B, 12.E

Look carefully at the tree located outside, under MonstroCity. Though this 150 year old tree is not living anymore, it's still chock full of life. How can that possibly be so?

Challenge 23



MO 1.1, 2.4, 3.1, 3.5, 4.1, S1, S3, S6-7

IL 12.D

Beatnik Bob was carelessly standing on the track of the miniature train. Behind him the 800 pound swiftly moving train emerges at full speed from the tunnel and knocks him on his gluteal

muscles. The kids and engineer all lurch forward with the impact, but the train continues without derailing.

Which of Newton's Laws of Motion are at work in this scenario? How?

Challenge 24



MO 1.1, 2.4, 3.1, 3.5, 4.1, S1, S3, S6-7

IL 3.A, 3.B, 5.A, 5.B, 12.A, 12.B, 12.C, 13.B

Compare the red granite boulder behind the Front Desk to the water in the Missouri Stream and the fish tank. Decide which is the more powerful (has more capability to affect change). Justify your answer with explanation and examples, if you can find them.

Challenge 25



MO 3.5, 4.1, S3

IL 1.A, 1.B, 3.A, 3.B

Your lunch in the Lizard Lounge consisted of a sample of bacterial culture between two slices of bacterial infested product, covered in the froth of bovine excretion and lightly oxidized on both sides. Add a serving of carbonated caramel water and oil-saturated tuber slices, and you have a tasty lunch. What exactly did you eat?

Challenge 26



MO 1.2, 1.3, 3.1, 3.3, 3.5, 4.1, S2, S6

IL 11.A-B, 12.D

Time yourself and your teacher going down the conveyor belt slide. How does science, especially physics, explain why you traveled at different speeds?

Challenge 27



MO 3.5, 4.1, S1, S6, S8

IL 12.C, 13B

City Museum is filled with examples of welding. List at least 5 of them. How can fire cut metal and make it stick together?

Challenge 28



MO 1.1-3, 1.6, 2.3, 3.5, 3.7, CA1, CA4, CA6, M2, S2

IL 7.C, 9A

When this building was a shoe factory, the shoe shafts in the Enchanted Caves, were used to convey shoes to each level of the factory. Why do you think the shoe shafts are in spiral columns? Can you design another layout for the shoe shafts?

Challenge 29



MO 1.1-2, S1, S6, S8

IL 1.A, 12.A, 12.C, 13.A-B

The Enchanted Caves blend a “man-made” natural setting with imagined creatures and industrial features. The crystals, located on the lower level of the caves, are a perfect example of this principle. What is clearly man-made in the crystal exhibit, yet loosely based on one of the natural properties of crystal? Name at least two inventions that use the semiconductor properties of crystals (bonus points if you can explain “semiconductor”).

Challenge 30



MO 1.2, 2.4, 3.5, S1, S8

IL 1.A, 5.A, 12.D, 13.B

Reinforced Bar (rebar) keeps our concrete roads and buildings strong. Feel the rebar Beanstalk in MonstroCity. How does the texture “deformation” in the metal help reinforce the concrete? Can you think of a culinary duo that works on the same principal? (Hint: Italian roads are reinforced too!)

Challenge 31



MO 1.5-6, 1.8

IL 25.A, 26.A, 27.A-B

City Museum is located in a building that used to be a shoe factory, and we have many objects here that originally had industrial uses, which are now used as decorative fences. List the objects and tell where the fence or wall is located (main museum, Enchanted Caves, or MonstroCity).

Challenge 32



MO 3.1, 3.3, 3.5, M1-2, S2, S7

IL 6.A-C, 7C, 8D, 10A, 12.D

Locate all the types of transportation in MonstroCity. How many are there? What direction is each vehicle pointing? If they all moved forward from their current positions, would any of them crash near or at City Museum? Where would the crash occur?

Challenge 33



MO 1.2, 1.6, 3.5, S1, S6, S8

IL 1.A, 11.A, 12.E

Oxidation occurs when untreated metal is exposed to air. What is another name for oxidation? Find 3 different types of metals that have oxidized (how can you tell they are different metals by the way they oxidize?). How can you prevent oxidation?

Challenge 34



MO 1.5, 1.6, 1.9, 1.10, 2.4, 4.1, CA1, CA4-7, SS2, SS6

IL 3.A, 3.B, 5.A, 5.B

Find the cornice (decoration that hangs on the edge of a building's roof) that has shields with "V/B" on them. Take a good, long look at it and notice the detail and the art that went into its creation. From what kind of building was this salvaged? Art Museum? City Hall? Some house of a family named VonBruegge? Nope! This cornice used to be on the showroom of a car dealership. V/B stands for Vesper Buick!

Have you ever seen a dealership today with the same artistic detail? Try to recall anything outstanding or special about any car dealer's building you have ever seen. From the evidence here

on the wall, how would you describe the attitude people had about their cars in 1927 (when this was built)?

Why do you think they felt this way about their cars and the car-buying experience?

Has our society changed that attitude since 1927? If you think so, tell why.

How will you feel when you buy a car?

Challenge 35



MO 1.6, 1.9, 2.4, 4.1, SS2, SS5-6, FA1-2

IL 3.A, 3.B, 5.A, 5.B

Tie dying was first popular during which decade(s) in American History?

Can you find any similarities between that period in history and today?

Why do you think tie dying is popular again today?

What kind of person is likely to wear a tie-dyed shirt? Why?

Challenge 36



MO 1.6, 1.9, 2.4, 4.1, SS2, SS5-6, FA2-4

IL 3.A 3.B, 5.A, 5.B

Examine the hats in Art City.

Identify the style hat associated with different professions or personalities. Why is that hat suited to that profession?

What happens to the nature of the hat when it is decorated? Why?

How does function affect style? How does style affect function?

Challenge 37



MO 1.6, 1.9, 2.4, 4.1, SS2, SS4-6, CA1, CA4-7

IL 3.A, 3.B

Consider the log cabin in the parking lot. When it was first built, it was quite a fancy and modern place!

Use some creative adjectives to describe the cabin.

Name some character qualities that people would need to live in such a structure.

List the things you would add or install in order to live in it today.

What character qualities would people require to live in the new and improved cabin?

Can you draw any conclusions from your observations?

Challenge 38



MO 1.9, 4.1, 4.3, SS2, SS6

IL 3.A, 3.B

Spend a quarter on a pinball game in the Museum of Mirth, Mystery & Mayhem. At one time, these games were the best and coolest around. Would you consider them the best and coolest now? Why or why not?

How are today's games different?

When these machines were new, some parents thought that they were a bad influence on children. Can you think of any reasons this might have been true?

From what do parents want to protect their children these days? Do you agree?

How does the difference between these "threats" show a change in our society? What do you think?

Challenge 39



MO 1.9, 3.2, 3.4, 3.7, 4.1, SS2, SS4

IL 3.A, 3.B

It has been said that necessity is the mother of invention. Find these inventions throughout the Museum. Decide what necessity caused their inventors to figure out how to create them.

Conveyor belt spindles

Safe Deposit Box

Stanchion

Fire Hydrant

Shoelace machines

Trolley Car

Largest windmill

Largest pair of underwear

Challenge 40



MO 1.6, 1.9, SS6

IL 3.A, 3.B

Bob Cassilly, the artist who created City Museum, loves to say, “If you have enough of something, it becomes a brick.” That is, if you start with a large enough amount of anything, no matter how big or small, you can start to build with it.

Look around City Museum and find at least 3 applications of that concept.

What objects in your home or classroom can you think of that could become a wall?

What objects in your home or classroom can you think of that could support a railing?

Challenge 41



MO 1.9, SS6, SS4

IL 3.A, 3.B

Most of the things in City Museum are junk, big stuff and small stuff and weird stuff and regular stuff, thrown out because someone thought they were obsolete or “unusable.” Now those things have new uses and life.

List as many re-used items (and their old and new uses) as you can find during your visit.

Our society is very good at throwing things away. What happens to all the stuff that doesn't find a use at City Museum?

Can you name at least 3 items that used to be re-fillable, or long-lasting, that are now single-use, and then disposable?

Challenge 42



MO 1.5, 2.4, FA2, FA5

IL 1.A, 25.A, 27.A-B

“Mosaic” is a Greek word referring to an image made up of many smaller pieces, segments or images. List some examples of mosaic on the first floor and mezzanine (from the Latin for “between”).

You probably see an electronic mosaic everyday (in fact, they say the average young American looks at one for 4 hours every day). What is it? How is it a mosaic?

Can you think of any other popular uses of this art form?

Challenge 43



MO 1.5, FA2, FA5

IL 1.A, 27.A-B

Pop art is an artistic movement where commonplace objects such as road signs, hamburgers, comic strips or soup cans are used as subject matter and are often physically incorporated in the work.

Where in the museum can you find many examples of pop art?

Challenge 44



MO 1.6, 1.9, 2.5, FA1-2, FA4

IL 3.A, 3.B, 25.A-B, 27.A-B

Some art is simply decorative, while some also is functional. Explain the difference between the two styles.

Why would you want a functional object to be artistic?

Visit Art City and make two projects: the first decorative, the second functional.

Challenge 45



MO 2.5, FA1-2

IL 1.A, 25.A-B, 26.A-B, 27.A-B

Pinch, coil, and mold are all techniques in what kind of 3D art? How do each of those techniques add to the decoration of the finished product?

Visit Art City and make a decorative or functional project from clay, using all three techniques.

Challenge 46



MO 2.5, FA2-3

IL 1.A, 25.A-B, 26.A-B, 27.A

What is the first thing you think of when you hear the word, “Art?” Probably a picture on the wall. But did you ever think that the frame around the picture can be art, too?

Visit Art City and create a picture, then make a frame especially for it.

Challenge 47



MO 2.5, FA4-5

IL 1.A, 25.A

Have you ever heard the term “wearable art?” Can you name at least 3 types of wearable art?

Visit Art City and create a piece of wearable art.

Challenge 48



MO 1.9, 2.5, FA1-2

IL 1.A, 25.A-B, 26.A-B, 27.A-B

Paper cutting is one of China's most popular and characteristic folk arts. The tradition can be traced back to the 6th century, but maybe existed even earlier. Paper cutting works ornament gate, window, wall, columns, mirrors, lamps and lanterns in homes. It is still widely used today. People cut animals, flowers and figures in the paper with a pair of scissors. In Japan, paper cutting is called “kirigami” and is as popular there as it is in China.

Visit Art City and make a paper cut Snowflake.

After your visit to City Museum, try making your own pattern for a paper cut project.

Challenge 49



MO 1.9, 2.5, FA1-2, FA4

IL 1.A, 9.A-B, 25.A-B, 26.A-B

If you have ever made a paper airplane or boat, you have made an “origami” art project. Origami is the art of paper folding. (Since kirigami means paper cutting, and origami is paper-folding, can you guess the Japanese word for paper?)

Visit Art City and make an origami project.

You have started with a square. How many different shapes are in your finished project?

Challenge 50



MO 2.5, FA1-2

IL 1.A, 25.A-B, 26.A-B

What happens when you start with a flat surface, and add other flat surfaces to it (such as photographs, newspaper articles, string, wallpaper, or illustrations)? It becomes 3 dimensional! The word for this is collage. (Can you think of other words that begin the same way? Why are they similar?)

Visit Art City and make a collage of your own. Use as many “found objects” as you can.

Challenge 51

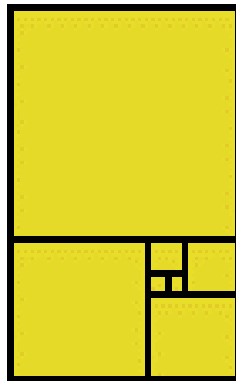


MO1.2, 1.3, 1.5, 1.6, 2.5, FA1-2M2, M4-5

IL 6.A, 8.A, 9.A-B 25.A, 26.A-B

The Golden Spiral (and the Fibonacci number series) is found all through nature, and all through City Museum. Beginning with the shoe shafts in the Enchanted Caves, find examples of the Golden Spiral in each area of City Museum (Enchanted Caves, MonstroCity, and main museum). HINT: Don't forget the printing blocks surrounding the elevators.

Using the Golden Rectangle pattern, draw the Golden Spiral, and decorate your mathematical masterpiece in Art City.



Challenge 52



MO 1.1, 1.6, 1.8

IL 26.A-B

The mice that used to live in the Mouse Cages now on the first floor of City Museum, often were tested on their ability to find their way out of a maze. Many people think that the Enchanted Caves are a large, multi-level maze. Draw a map of the lower level of the Enchanted Caves, and trace the mouse's way out.