



Teacher's Resource Masters

GRADE 3 VOLUME 1

Topics 1-7

- Home-School Connection Letters
- Pick a Project
- enVision®** STEM Activities
- Daily Review
- Reteach to Build Understanding
- Build Mathematical Literacy
- Enrichment
- Fluency Practice/Assessment

Grade 3

Volume 1: Topics 1–7

Topic 1

Understand Multiplication and Division of Whole Numbers

Topic 1 Home-School Connection
(English and Spanish)

Topic 1 Pick a Project A–C

enVision® STEM Activity..... 1-2, 1-5

Daily Review (D) 1-1 through 1-6

Reteach to Build

Understanding (R) 1-1 through 1-6

Build Mathematical

Literacy (M) 1-1 through 1-6

Enrichment (E) 1-1 through 1-6

Topic 2

Multiplication Facts: Use Patterns

Topic 2 Home-School Connection
(English and Spanish)

Topic 2 Pick a Project A–D

enVision® STEM Activity..... 2-2, 2-6

Daily Review (D) 2-1 through 2-6

Reteach to Build

Understanding (R) 2-1 through 2-6

Build Mathematical

Literacy (M) 2-1 through 2-6

Enrichment (E) 2-1 through 2-6

Topic 3

Apply Properties: Multiplication Facts for 3, 4, 6, 7, 8

Topic 3 Home-School Connection
(English and Spanish)

Topic 3 Pick a Project A–C

enVision® STEM Activity..... 3-2, 3-4

Daily Review (D) 3-1 through 3-7

Reteach to Build

Understanding (R) 3-1 through 3-7

Build Mathematical

Literacy (M) 3-1 through 3-7

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Topic 4

Use Multiplication to Divide: Division Facts

Topic 4 Home-School Connection (English and Spanish)

Topic 4 Pick a Project A–D

enVision® STEM Activity..... 4-5, 4-8

Daily Review (D) 4-1 through 4-9

Reteach to Build

Understanding (R) 4-1 through 4-9

Build Mathematical

Literacy (M) 4-1 through 4-9

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Topic 5

Fluently Multiply and Divide within 100

Topic 5 Fluency Practice/Assessment

Topic 5 Home-School Connection
(English and Spanish)

Topic 5 Pick a Project A–C

enVision® STEM Activity.....5-1, 5-3

Daily Review (D).....5-1 through 5-6

Reteach to Build

Understanding (R).....5-1 through 5-6

Build Mathematical

Literacy (M) 5-1 through 5-6

Enrichment (E) 5-1 through 5-6

Topic 6

Connect Area to Multiplication and Addition

Topic 6 Home-School Connection
(English and Spanish)

Topic 6 Pick a Project A–D

enVision® STEM Activity.....6-1, 6-5

Daily Review (D).....6-1 through 6-7

Reteach to Build

Understanding (R).....6-1 through 6-7

Build Mathematical

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Topic 7

Represent and Interpret Data

Topic 7 Home-School Connection
(English and Spanish)

Topic 7 Pick a Project A–C

enVision® STEM Activity.....7-1, 7-4

Daily Review (D).....7-1 through 7-5

Reteach to Build

Understanding (R).....7-1 through 7-5

Build Mathematical

Literacy (M) 7-1 through 7-5

Enrichment (E) 7-1 through 7-5

Name _____

Understand Multiplication and Division of Whole Numbers

Dear Family,

Your child is learning how to multiply. Help him or her think of multiplication as joining equal groups. For example, 5×2 is 5 groups of 2. So, $5 \times 2 = 10$.

Your child is also learning how to divide. Help him or her think of division as sharing equally. For example, $42 \div 7$ can be thought of as 42 crayons and 7 boxes. Each box has an equal number of crayons. There are 6 crayons in each box.

Do the activities below with your child to help him or her learn multiplication and division concepts and facts.

Multiplication Stories

Give your child a multiplication fact, such as 4×3 . Have your child tell you a multiplication story for that fact. Sample story: Jake has 4 bags of apples. There are 3 apples in each bag. How many apples does Jake have in all? Repeat the activity with a different multiplication problem.

Division Stories

Give your child a division fact, such as $32 \div 8$. Have your child tell you a division story for that fact. Sample story: Sally has 32 pictures. She puts an equal number of pictures on 8 pages. How many pictures does Sally put on each page? Repeat the activity with a different division problem.

Observe Your Child

Ask your child to explain the relationship of the factors in multiplication to the number of equal groups and the number in each group.

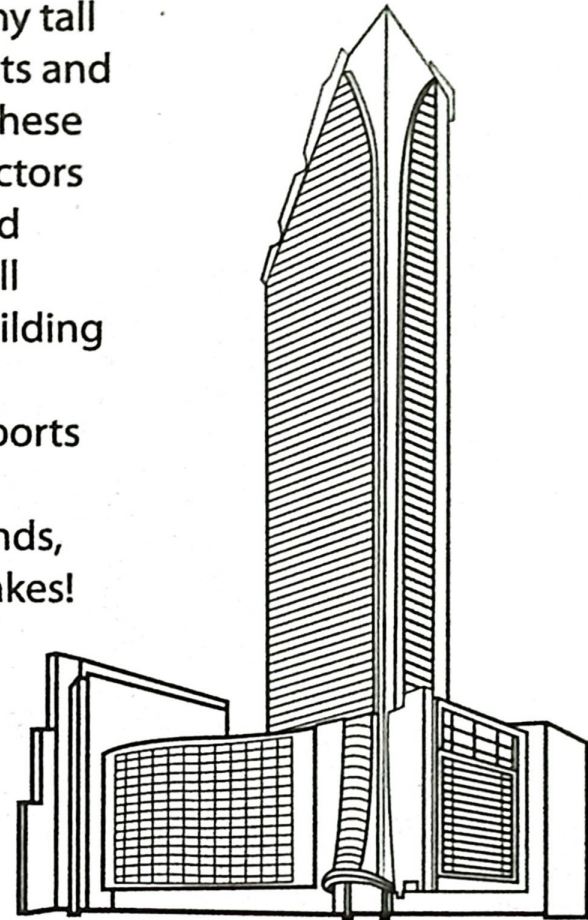
Tall Buildings

Project 1A



Big cities have many tall buildings. Architects and engineers design these buildings. Many factors must be considered when designing tall buildings. A tall building must have a good structure that supports its weight and can withstand high winds, and even earthquakes!

In 2017, the Panorama Tower in Miami was completed. It became the tallest building in the state of Florida at that time. It is 868 feet tall and has 82 floors!

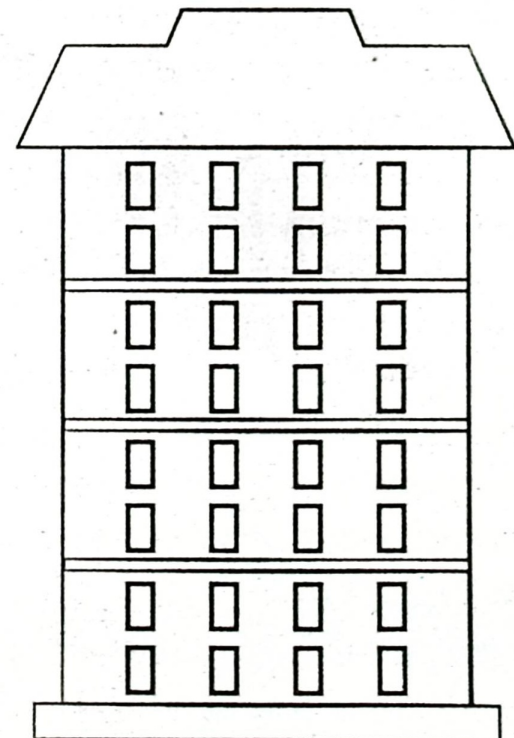


Panorama Tower

Your Project Construct a Tall Building

Use construction paper to construct your own building. Your building should have fewer than 10 floors. Cut out and glue windows onto your building. Arrange the windows in an array.

Use addition and multiplication to tell the total number of windows in your building and the number of windows in each row and column.



8 rows of 4 windows

$$4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 = 32$$

$$8 \times 4 = 32$$

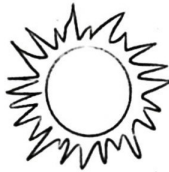
Name _____

Pick a Project

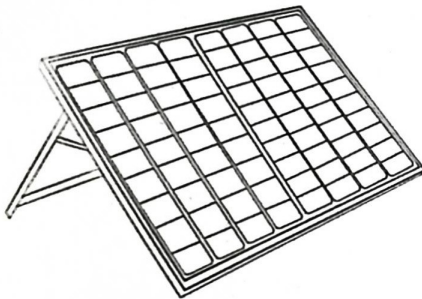
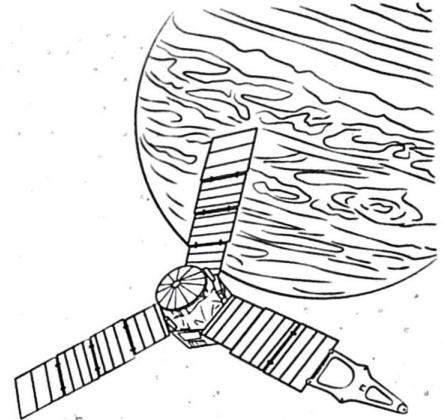
Project 1B

Juno and Jupiter

NASA (National Aeronautics and Space Administration) sent the space probe Juno to the planet Jupiter. It arrived in July 2016, after traveling almost 5 years! It circled the planet and sent pictures and data back to scientists on Earth.



Juno was powered by sunlight and had 11 large solar panels for its journey to Jupiter.



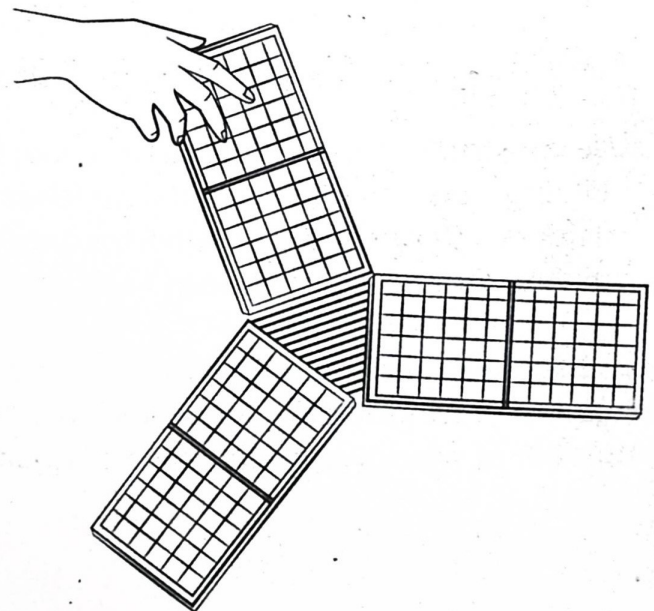
Solar panels are a great way to provide power to spacecraft. Solar cells turn sunlight into electricity. The cells are arranged in arrays on the panels.

Your Project: Build a Space Probe

Build a space probe with wings of solar panels. Have 2 to 4 wings with the same number of panels on each wing.

Tell how many wings are on your space probe and how many panels are on each wing.

Use multiplication to describe how many wings are on your probe, how many panels are on each wing, and the total number of panels on your probe.



$$1 \text{ probe} \times 3 \text{ wings per probe} = 3 \text{ wings}$$

$$1 \text{ wing} \times 2 \text{ panels per wing} = 2 \text{ panels}$$

$$3 \text{ wings} \times 2 \text{ panels per wing} = 6 \text{ panels}$$

Name _____

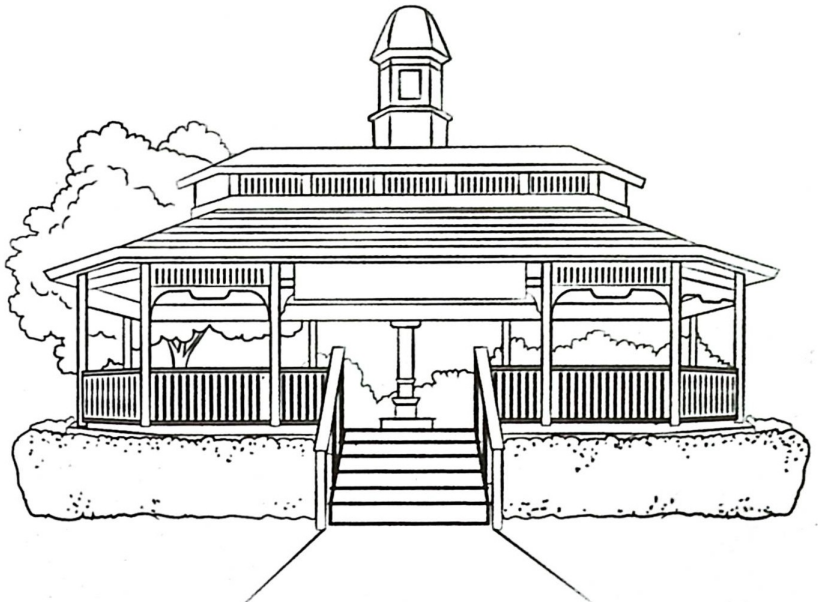
Pick a Project

Project 1C

Around the Block

Many cities and towns have areas called *blocks*. A block is the smallest area in a city or town that is surrounded by streets. Blocks can be many different sizes. Land developers plan where different blocks and streets will be located.

There can be many different things on a city block. In Madison, Florida, one park takes up an entire block!



Gazebo from Four Freedoms Park
in Madison, Florida

Your Project Draw a Neighborhood

The shaded area in this drawing shows a city block.

Design your own neighborhood with at least 12 blocks. Arrange your blocks in an array. Make the streets straight and label them with names. Label some items, such as houses, stores, or parks, in your neighborhood.

Use multiplication and division to describe the blocks in your neighborhood. Tell how many total blocks are in your neighborhood and the number of blocks on a certain street or streets.

