MATH IN SCIENCE

Scientists use **MATH** each and every day when they are working in **SCIENCE**!

Let's look at some examples where we use science and math together in your 2nd grade studies.

Charts and Graphs

Scientists often use graphs to show clearly the results of their experiments.

Scientists use bar graphs to help show their results.
A **bar graph** uses **bars and numbers** to show information.

Scientists also use many different charts to easily show the information they have learned and discovered when they do experiments. A **column chart** has facts in **columns or sections** which makes the information easy to read.

Animal	How Fast it Ran
Animal A	15 kmph (kilometers per hour)
Animal B	20 kmph (kilometers per hour)
Animal C	45 kmph (kilometers per hour)
Animal D	30 kmph (kilometers per hour)

Studying Plants

Scientists often use graphs when recording the results of the experiments. You use graphs in MATH too!

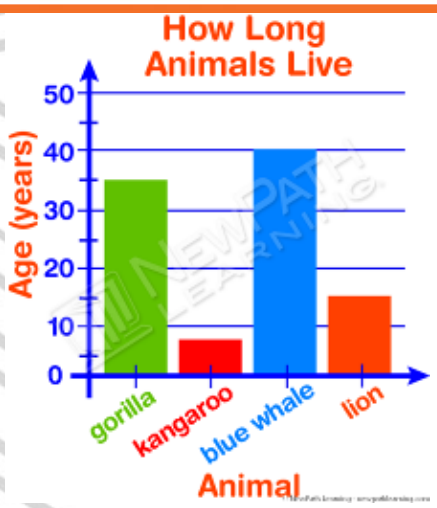
Look at this bar graph. Which plant grew **taller** – plant A or plant B?

Plant B gre

Studying

Scientists

Look at thi



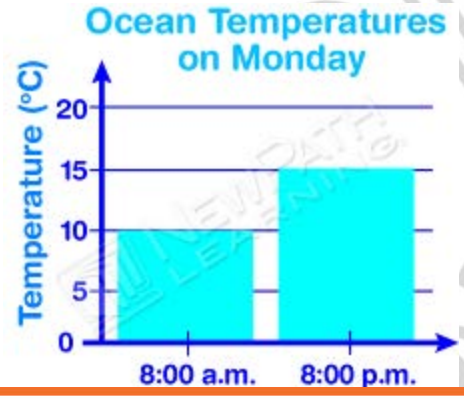
You can see on the column chart that the blue whale lives the longest.

Let's check what we have learned so far:
Why would a scientist make a graph?

Studying Water Habitats

Scientists use thermometers and graphs to chart the temperature outside and of water.

Look at this chart. What was the temperature of the ocean at 8:00 a.m.?



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Studying
Scientists

For example, they use numbers and a calendar to figure out that a Monarch butterfly lives for about 2-6 weeks.

Studying How Plants and Animals Live Together
Scientists often add and subtract when they are observing things and conducting experiments.

For example: Scientists may add how many centimeters a plant grows during the week, how many birds come to a bird feeder, or how many snakes live in a certain habitat.

Day of the Week	Number of Birds that Came to Birdfeeder
Monday	8
Tuesday	15
Wednesday	17

Studying Energy Needs

Scientists use math and graphs to sort out their findings.

For example: How long did it take to move box A **without** using the pulley?

Box	Time it took to move using the pulley	Time it took to move WITHOUT using the
Box A		
Box B		

The chart s *ulley.*

Studying

Scientists may use tools to measure things during experiments too.

For example: Scientists may use a rain gauge to measure how many centimeters of rain fell over night.

Let's check what we have learned so far:
How do graphs help scientists?

Studying the Sun and the Earth

Scientists use numbers when talking about the Earth and space too!

For example: Scientists know that one rotation of Earth equals 24 hours.

Studying the Moon, Stars, and Planets

Scientists also use numbers to figure out how far the planets are away from the Sun.

For example: Earth is 150 million kilometers from the Sun.

Planet	Distance from Sun
Mercury	58 million kilometers
Venus	80 million kilometers

How l ation?

Studying Earth, Yesterday and Today

Scientists sort and group objects when conducting experiments too. We sort and group in Math too!

Rocks, Soil, and Water

Scientists COUNT too in science! Counting is MATH!

Scientists count the layers of the Earth and the layers of soil too!

Fossils and Dinosaurs

Scientists use numbers when talking about how many years ago different animals lived on Earth.

Using and Saving Natural Resources

When you are helping to save the Earth – you can count how many bottles and cans you recycle each week!

The more you recycle, the more help you are giving to make the Earth a better place!

Studying

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They also d effort using simple machines saves!

Studying Matter All Around

Scientists use numbers and clocks during experiments.

If a scientist is testing to see how long it takes an ice cube to melt, he will use a clock to measure the amount of time that goes by while the ice cube is melting.

Time ice cube taken out of freezer:	Time ice cube melted:
1:00 p.m.	1:15 p.m.

Studying Sound and Light

What sound was the loudest? Scientists use numbers and different tools to figure this out!

Which of the following listed on the chart below produced 100 decibels of sound?

a) telephone
b) large truck
c) train horn
d) rock concert

Decibels of Sound

Telephone	60
Large truck	90
Train horn	100
Rock concert	150

The chart

Studying

Scientists e
attracted b

Studying

Scientists use numbers and graphs to see how much technology helps our world!

Hands-on Lab Skills

Scientists use tools to **MEASURE**!

For example: Scientists use a **MEASURING CUP** to measure how much of a liquid there is.

Scientists use a **CLOCK** to tell the time and to measure how long it takes to do something.

Scientists use a **THERMOMETER** to measure the temperature outside and inside.

Scientists use a **BALANCE** to measure the weight of an object.