

# GO, GALILEO!

by Mark Burrows

Who said the earth revolves around the sun?

Galileo. Go, Galileo!

Who said the earth revolves around the sun?

Galileo. Go, Galileo!

Who built on work Copernicus had done?

Galileo. Go, Galileo!

Who was a master of philosophy?

Galileo. Go, Galileo!

Who was a master of philosophy?

Galileo. Go, Galileo!

Who taught mechanics and geometry?

Galileo. Go, Galileo!

He dropped things from the leaning tow'r

But no matter what their weight,

The force of gravity made those things

Fall at the exact same rate.

Who made improvements on the telescope?

Galileo. Go, Galileo!

Who made improvements on the telescope?

Galileo. Go, Galileo!

Who made mistakes, but never gave up hope?

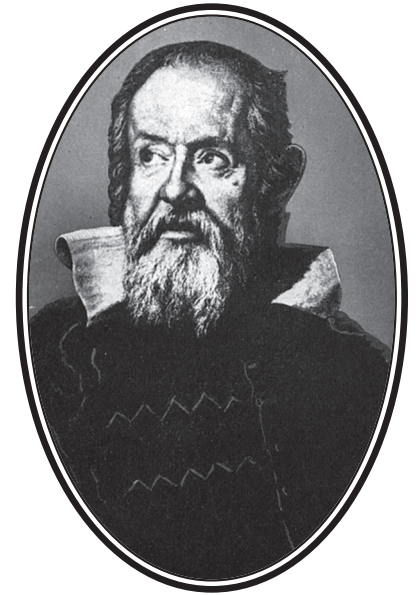
Galileo. Go, Galileo!

Galileo. Go, Galileo!

Galileo. Go, Galileo!

**SPOKEN**

Go, Galileo!



Portrait of Galileo Galilei

*The piccolo is the smallest of the woodwind instruments, and weighs a fraction of what the immense Sousaphone weighs. But...if you take both instruments to the top of a building, and drop them at the same time, they should hit the ground at the same time. This is known as universal gravitation. (Note: Don't actually do this.)*



# GO, GALILEO!

50s Rock 'n' roll ♩ = 152

Words and music by Mark Burrows

G F7 C G

5 C7

1. Who said the earth re - volves a - round the sun? \_\_\_  
 2. Who was a mas - ter of phi - los - o - phy? \_\_\_  
 D.S. Who made im - prove - ments on the tel - e - scope? \_\_\_

7 Gal - i - le - o. Go, Gal - i - le - o!

9 F7

Who said the earth re - volves a - round the sun? \_\_\_  
 Who was a mas - ter of phi - los - o - phy? \_\_\_  
 Who made im - prove - ments on the tel - e - scope? \_\_\_

11 C7

Gal - i - le - o. Go, Gal - i - le - o!

13 G F

Who built on work Co - per - ni - cus had done? \_\_\_  
 Who taught me - chan - ics and ge - om - e - try? \_\_\_  
 Who made mis - takes, but nev - er gave up hope? \_\_\_

15 C7 *last time to Coda* ⊕

Gal - i - le - o. Go, Gal - i - le - o!

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17 C 1

21 C7 F

24 C C7 F

27 G

29 *whistle* *D.S. al Coda*

32 CODA C

34

36 C

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# GO, GALILEO!

## YOU CAN CALL ME...

Galileo is often referred to as the “Father of Modern Science.” In a similar manner, Franz Joseph Haydn is often referred to as the “Father of the Symphony.” Yet interestingly, neither was the first to explore their given areas. Galileo built a great deal of his work on that of Copernicus, while Haydn was certainly not the first composer to write a symphony.

In this activity, students will match a composer to his nickname.

### Materials

16 index cards (8 white and 8 of another color, such as yellow)

### Preparation

Before the students arrive, write the name of each of the composers listed below on a white index card. Write each of the nicknames on a yellow card.

#### *Composer*

Johannes Brahms  
Franz Joseph Haydn  
Giovanni Pierluigi da Palestrina  
Henry Purcell  
Franz Schubert  
John Philip Sousa  
Johann Strauss, Jr.  
Antonio Vivaldi

#### *Nickname*

Hedgehog  
Papa (yep, he had more than one nickname)  
Prince of Music  
English Orpheus  
*Schwammerl* (“Tubby”)  
March King  
Waltz King  
The Red Priest

### Process

Shuffle the cards and give each student a card. Have the students stand and try to find their partners by matching the composers’ names with the corresponding nicknames.

If you have more than 16 students (and most classes do) collect the cards after the game and play again. In fact, you can play several times until the students can more easily refer to the composers by their nicknames.

## SYMPHONIC NICKNAMES

For a real challenge, adapt the above activity to match symphonies to their nicknames.

#### *Work*

Symphony No. 3 in E-flat Major, by Ludwig van Beethoven  
Symphony No. 6 in F Major, by Ludwig van Beethoven  
Symphony No. 9 in E Minor, by Antonín Dvořák  
Symphony No. 94 in G Major, by Franz Joseph Haydn  
Symphony No. 1 in D Major, by Gustav Mahler  
Symphony No. 5 in D Minor, by Felix Mendelssohn  
Symphony No. 41 in C Major, by W.A. Mozart  
Symphony No. 3 in C Minor, by Camille Saint-Saëns  
Symphony No. 9 in C Major, by Franz Schubert  
Symphony No. 6 in B Minor, by Peter Ilyich Tchaikovsky

#### *Nickname*

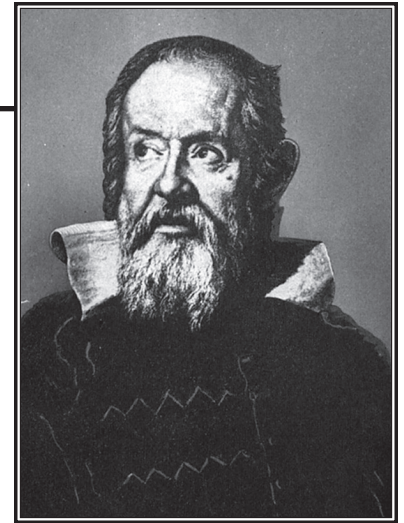
*Eroica*  
The Pastoral  
New World  
Surprise  
Titan  
Reformation  
Jupiter  
Organ  
The Great  
*Pathétique*



# GALILEO GALILEI

Called the “Father of Modern Science” by Albert Einstein, Galileo Galilei contributed more to the different areas of science than many other philosophers and scientists combined. He was a determined and curious man who took “I’ll believe it when I see it” to heart!

Galileo was born in Pisa, Italy in 1564. His interest in the sciences began at a young age, as his father, Vincenzo Galilei, was a musician who was very interested in the physics of string instruments. It is thought that Vincenzo and Galileo worked together to learn about the relationship between string tension and pitch. Growing up, Galileo originally planned to become a priest but changed his mind (at his father’s urging) and applied for medical school in 1585. While at school, Galileo became very interested in mathematics, and eventually decided to make it his profession. He taught private lessons and gave lectures, and was soon appointed the chair of mathematics at the University of Pisa in 1589, and again at the University of Padua in 1592.



Portrait of Galileo Galilei  
by Giusto Sustermans, 1636

At this time, much of science was based on the ideas of Aristotle, an ancient Greek philosopher. Aristotle (384BC–322BC) taught that when a heavy object and light object were dropped at the same time, the heavier object would fall to the ground at a faster speed. Galileo disagreed with this theory, and performed many experiments to find the truth. One story tells of Galileo dropping balls of different weights from the top of the Leaning Tower of Pisa to see which would hit the ground first. While we do not know whether or not this story is true, we do know that Galileo’s experiments helped prove that the speed in which an object falls does not depend on its weight.

Galileo continued to experiment in math and physics. He worked with projectiles, pendulums, and inclined planes. He invented a simple thermometer and a compass that helped the military improve their use of cannons. Galileo even began working with light, and while he was unable to determine its exact speed, his experiments served as a stepping stone for future scientists.

But perhaps Galileo’s greatest success was his improvement and use of the telescope. Very simple telescopes had already been invented, but Galileo made several important changes to allow the user to see much greater distances. Through his telescope, Galileo was able to see that the moon’s surface was rough—not smooth as everyone had previously thought. He discovered four moons of Jupiter, observed the stars of the Milky Way, and was among the first to see the rings of Saturn (even though he didn’t know that’s what he was looking at!).

Because of his observations, Galileo was able to determine that the earth is not the center of the universe. This did not follow the teachings of the church at the time, and many people became very angry with Galileo. He was forbidden to talk about his findings, which were only to be treated as an idea, not as fact. Many years went by before Galileo published a book about his space discoveries, and in 1633 Galileo was placed under house arrest for the remainder of his life for *heresy* (open disagreement with the church).

Galileo discovered many ideas that are very important in our lives today. Even though people disagreed with him, he continued to work towards discovering new ideas about our world. And when he had questions, he wasn’t afraid to climb to the top of a crooked building to find the answers!

