

HISTORICAL EVALUATION: HANDOUT C1
Science and Technology Connections
ASTRONOMY

The Chinese used armillary spheres to measure the positions of the stars. An armillary sphere is like a protractor for the sky or a set of star rulers. In the early Tang dynasty Li Chun Feng upgraded the armillary sphere to include three color-coded intersecting rings: red for the sun's path, white for the moon's path, and yellow for the stars' paths. One hundred years later, Tang Astronomical Administrator, Yi Xing, created an armillary sphere that was driven by water and had two wooden mannequins that struck a drum to indicate the time. Yi Xing was also the first astronomer to calculate the length of the Prime Meridian—the imaginary line that circles the earth.

During the Song dynasty astronomers constructed extensive star maps and made many complex instruments for measuring the movement and location of stars and planets. One star map made by the Prime Minister Su Song displayed over a thousand stars. Su Song also invented a 35-foot tall astronomical water-clock tower. According to legend Song spent seven years perfecting this device because an inaccurate Chinese calendar had caused him to deliver a birthday greeting one day too early and he had been very embarrassed by his mistake.

1. List an important Tang idea or invention.

2. List an important Song idea or invention.

3. What was one idea both dynasties shared?
