

Activity Worksheet

The purpose of this activity is to think together and discuss with your small group how a particular standard might be enacted in a general education classroom. Your task is to describe possible lesson tasks, what challenges might arise for one or more student with disabilities included in that class, and the supports that could be implemented.

Standard:			
Activities/ Performance Task	Supports Needed for Students with Disabilities or Others	General Education Teacher Considerations	Special Education Teacher Considerations

Grade 4 ELA Lesson

Standard:

Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text

Performance Task: Students *explain the relationship between time and clocks using specific information* drawn from Bruce Koscielniak’s *About Time: A First Look at Time and Clocks*. [RI.5.3]

Text Exemplar:

Koscielniak, Bruce. *About Time: A First Look at Time and Clocks*. Orlando: Houghton Mifflin, 2004. (2004)

Sometime around 1440, the spring-powered clock was invented. Instead of depending on the pull of weights for power, this type of clock used a flat metal spring wound tightly into a coil. The escapement allowed the spring to unwind by turning one gear tooth at a time. With the use of a spring, smaller, truly portable clocks could be made.

The first well-known watches, made in Germany around 1510 by Peter Henlein, were so named because guards or “watchmen” carried small clocks to keep track of how long to stay at a particular duty post.

Many different skills went into making a clock, and new tools and methods were constantly being invented to make ever smaller, more complicated mechanisms that worked with greater precision.

Founders melted and poured metal into a mold to make clock parts.

Spring makers hand-forged (heated and pounded into shape) and polished steel clock springs.

Screw makers cut screws used to fasten clocks together by using a small lathe devised by a German clockmaker in 1480. Earlier, only wedges or pegs were used.

Gear-tooth cutting had been done by hand until the mid-1500s, when Giannelo Torriano of Cremona, Italy, invented a machine that could cut perfect gear teeth. Brass replaced iron for clock making.

Engravers, gilders, and enamellers decorated clock cases and dials.

Glass -making shops made and cut glass.

Woodworkers made clock cases.

Excerpt from ABOUT TIME: A First Look at Time and Clocks by Bruce Koscielniak. Copyright © 2004 by Bruce Koscielniak.

Grade 7 Literacy/Science and Technical Subjects

Standard:

Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.

Performance Task: Students analyze the structure of *Untangling the Roots of Cancer* to explain how the major sections contribute to our understanding the causes of cancer.

Text Exemplar

Gibbs, W. Wayt. “Untangling the Roots of Cancer.”

Scientific American Special Edition June 2008.

Recent evidence challenges long-held theories of how cells turn malignant—and suggests new ways to stop tumors before they spread.

What causes cancer?

Tobacco smoke, most people would say. Probably too much alcohol, sunshine or grilled meat; infection with cervical papillomaviruses; asbestos. All have strong links to cancer, certainly. But they cannot be root causes. Much of the population is exposed to these carcinogens, yet only a tiny minority suffers dangerous tumors as a consequence.

A cause, by definition, leads invariably to its effect. The immediate cause of cancer must be some combination of insults and accidents that induces normal cells in a healthy human body to turn malignant, growing like weeds and sprouting in unnatural places.

At this level, the cause of cancer is not entirely a mystery. In fact, a decade ago many geneticists were confident that science was homing in on a final answer: cancer is the result of cumulative mutations that alter specific locations in a cell’s DNA and thus change the particular proteins encoded by cancer-related genes at those spots. The mutations affect two kinds of cancer genes. The first are called tumor suppressors. They normally restrain cells’ ability to divide, and mutations permanently disable the genes. The second variety, known as oncogenes, stimulate growth—in other words, cell division. Mutations lock oncogenes into an active state. Some researchers still take it as axiomatic that such growth-promoting changes to a small number of cancer genes are the initial event and root cause of every human cancer.