



Tick Tock

The Big Ideas

Time is often seen or felt and for this reason it can be a difficult measurement to comprehend. Time can be thought of as the duration of an event from its beginning to its end. Comparing events of different durations is helpful here. The clock is the common tool used to measure time. Learning to tell time has little to do with the measurement of time and more with the skills of learning to read a dial type of instrument.

For primary students beginning with a one-handed clock is helpful as it can be read more easily. Using language that approximates time is also recommended.

For junior students who are having difficulty with time, using one handed clocks may be the help needed. For other junior students who can read an analog clock working on elapsed time would be recommended. A sketch of an empty time line can be helpful in solving elapsed time problems.

Curriculum Connections Measurement

Attributes, Units and Measurement Sense:

Grade 3

- read time using analogue clocks, to the nearest five minutes, and using digital clocks (e.g., 1:23 means twenty-three minutes after one o'clock), and represent time in 12-hour notation

Grade 4

- estimate, measure (i.e., using an analogue clock), and represent time intervals to the nearest minute;
- estimate and determine elapsed time, with and without using a time line, given the durations of events expressed in five-minute intervals, hours, days, weeks, months, or years (Sample problem: If you wake up at 7:30 a.m., and it takes you 10 minutes to eat your breakfast, 5 minutes to brush your teeth, 25 minutes to wash and get dressed, 5 minutes to get your backpack ready, and 20 minutes to get to school, will you be at school by 9:00 a.m.?)

Grade 5



Water Alarm Clocks...

BOOK: The Warlord's Alarm by Virginia Walton Pilegard

Cross-curricular: mathematics, science/technology (Grade 5: Conservation of Energy and Resources) and social studies (Grade 5: Ancient Civilizations).

Do you think we can tell time using water? In teams, students work together to design a water alarm clock using the chart paper and markers provided. Once designed, students share their ideas with each other discussing the accuracy and ingenuity of their ideas. Once shared, the class will listen to the book The Warlord's Alarm by Virginia Walton Pilegard.

A Quick synopsis: While traveling to an important feast in ancient China, Chuan and his friend Jing Jing devise a water "alarm" clock to make sure their party reaches the emperor's palace before rival warlords.

After hearing the book students will edit their designs and create a list of materials needed to actually create their clocks. Once materials are collected, students will build and test their water alarm clocks the following few days. The winning design will be voted on and the clock that wins will be used to keep time in the classroom.

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