THE MATHEMATICAL ASSOCIATION OF VICTORIA

INVESTIGATIONS
FAT BEAR WEEK by Lindy Sharkey

Annenberg Foundation founded https://annenberg.org/initiatives/explore, which hosts a range of live stream web cams. One of those live stream web cams supports Fat Bear Week.

In Katmai National Park, Alaska, dozens of brown bears feast on salmon from late June to mid-October in preparation for hibernation.

Fat Bear Week started in 2014 to celebrate fat bears and Katmai's ecosystem. The live cams watch the bears and gives viewers the chance to vote for the fattest bear.

Fat bears live longer, survival depends on eating approximately one year's worth of food in six months. You can vote for the fat bear of your choice and track the data or investigate Fat Bear Week using the activities here.

SALMON

Have students count the number of salmon over a specified period and use the observed values to estimate the salmon population.

CURRICULUM CONNECTIONS

Distinguish between a population and a sample and investigate techniques for collecting data, including census, sampling and observation. (VCMSP297)

Explore the practicalities and implications of obtaining data through sampling using a variety of investigative processes. (VCMSP298)

EXPLORING DATA

Explore the duration of hibernation, the average body temperature and the changes in weight, respiratory rate and heart rate of a bear over the year or compare across different bear species.

CURRICULUM CONNECTIONS

Calculate mean, median, mode and range for sets of data. Interpret these statistics in the context of data. (VCMSP270)

Compare data displays using mean, median and range to describe and interpret numerical data sets in terms of location (centre) and spread. (VCMSP326)

INTERPRETING DATA

Explore the escapement data and forecasts released by Alaska Fish and Game to construct, interpret and compare a range of data displays or as an introduction to time series.

CURRICULUM CONNECTIONS

Interpret secondary data presented in digital media and elsewhere. (VCMSP236)

Identify and investigate issues involving numerical data collected from primary and secondary sources. (VCMSP268)

ADDITIONAL RESOURCES

Find other Explore live cams: https://explore.org/livecams

Learn more about classroom suggestions from National Park Service classroom activity ideas: www.nps.gov/katm/learn/kidsyouth/fat-bear-week-in-the-classroom.htm

Alaska Fish and Game resources: www.adfg.alaska.gov/index.cfm?adfg=commercialbyareabristolbay.salmon#forecasts