A representation is a pattern of symbols.

List examples of representations.

A coding scheme is a set of rules for converting from one representation to another.

Recall that characters can be represented as sequences of symbols and list examples of character coding schemes.

Recall that representations are used to store, communicate, and process information.

Symbols are abstractions and independent of their physical carrier.

Provide examples of how symbols are carried on physical media.

Measure the length of a representation as the number of symbols that it contains.

Explain what binary digits (bits) are, in terms of familiar symbols such as digits or letters.

Recall that binary digits are used to represent all information that is stored, transmitted, and processed by computers.

Provide examples of the different ways that binary digits are physically represented in digital devices.

Measure the size or length of a sequence of bits as the number of binary digits that it contains.

Provide examples of different units of representation size.

Convert a decimal number to binary and vice versa.

Describe how characters are represented as sequences of binary digits.

Describe how natural numbers are represented as sequences of binary digits.

Follow-up unit: binary representations of images and sounds.

Resources are updated regularly - the latest version is available at the-cc.io/curriculum.

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