

2. Chinese Zodiac

Student learning outcomes

- Students will use JavaScript to draw the contents of an HTML table.
- Students will create a form to perform a mathematical calculation on user-supplied data.

Real world applications:

- Students will explore how to display data so that it can be understood efficiently.
- Students will explore how different user interfaces can make a page more useful.

Assignment requirements:

- This page displays the animals of the Chinese zodiac in a table.
- The table also includes a list of the birth years that correspond to each animal.
- The page includes a form where users can look up a birth year.
- The page uses these new HTML elements:
 - input with type of text
 - input with type of submit
- The page uses these JavaScript concepts:
 - Arrays
 - Functions
 - String concatenation
 - For loops
 - Created functions with input parameters and return values
- The page demonstrates how to use the modulo/remainder operator (%) to constrain a large number to a limited range for the purpose of table lookup.

Chinese Zodiac

Lookup: 1924 is year of the Rat.

| Rat | Ox | Tiger | Rabbit | Dragon | Snake | Horse | Goat | Monkey | Rooster | Dog | Pig |
|------|------|-------|--------|--------|-------|-------|------|--------|---------|------|------|
| 1948 | 1949 | 1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 |
| 1960 | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 |
| 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 |
| 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
| 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
| 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |