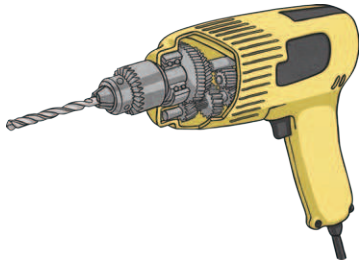


Lever, Gear or Pulley?

drill



tweezers



clock



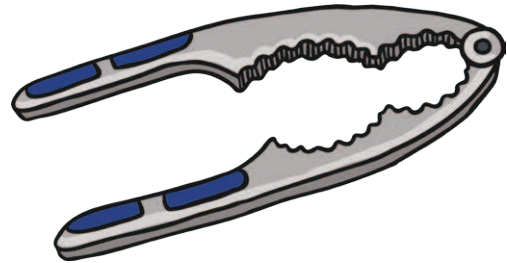
window blinds



hammer



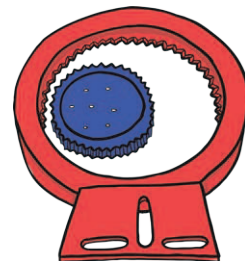
nut cracker



bicycle



spirograph





Marvellous Machines

Design your marvellous machine in the box below.

Machine Name:

What is your machine's aim?

Mechanisms Jigsaw

Levers

Pulleys

Gears or cogs

Use the fraction strips to add fractions within 1

Now you have finished the video here are a few more to try:

1. $\frac{2}{3} + \frac{2}{9}$

2. $\frac{3}{4} + \frac{1}{12}$

3. $\frac{1}{3} + \frac{2}{12}$

4. $\frac{5}{6} + \frac{1}{12}$

5. $\frac{1}{4} + \frac{3}{8}$

6. $\frac{1}{4} + \frac{3}{8}$

7. $\frac{1}{2} + \frac{2}{5}$

8. $\frac{1}{4} + \frac{1}{8}$

9. $\frac{5}{8} + \frac{1}{4}$

10. $\frac{7}{12} + \frac{1}{6}$

11. $\frac{5}{9} + \frac{1}{3}$

12. $\frac{5}{10} + \frac{2}{5}$

Fraction wall - complete

| | | | | | | | | | | | | | | | | | | | | |
|----------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|--|-----------------|-----------------|-----------------|-----------------|
| 1 | | | | | | | | | | | | | | | | | | | | |
| $\frac{1}{2}$ | | | | | | $\frac{2}{2}$ | | | | | | | | | | | | | | |
| $\frac{1}{3}$ | | | | $\frac{2}{3}$ | | | | $\frac{3}{3}$ | | | | | | | | | | | | |
| $\frac{1}{4}$ | | | $\frac{2}{4}$ | | | $\frac{3}{4}$ | | | $\frac{4}{4}$ | | | | | | | | | | | |
| $\frac{1}{5}$ | | $\frac{2}{5}$ | | $\frac{3}{5}$ | | $\frac{4}{5}$ | | $\frac{5}{5}$ | | | | | | | | | | | | |
| $\frac{1}{6}$ | | $\frac{2}{6}$ | | $\frac{3}{6}$ | | $\frac{4}{6}$ | | $\frac{5}{6}$ | | $\frac{6}{6}$ | | | | | | | | | | |
| $\frac{1}{7}$ | | $\frac{2}{7}$ | | $\frac{3}{7}$ | | $\frac{4}{7}$ | | $\frac{5}{7}$ | | $\frac{6}{7}$ | | $\frac{7}{7}$ | | | | | | | | |
| $\frac{1}{8}$ | $\frac{2}{8}$ | | $\frac{3}{8}$ | | $\frac{4}{8}$ | | $\frac{5}{8}$ | | $\frac{6}{8}$ | | $\frac{7}{8}$ | $\frac{8}{8}$ | | | | | | | | |
| $\frac{1}{9}$ | $\frac{2}{9}$ | | $\frac{3}{9}$ | | $\frac{4}{9}$ | | $\frac{5}{9}$ | | $\frac{6}{9}$ | | $\frac{7}{9}$ | | $\frac{8}{9}$ | $\frac{9}{9}$ | | | | | | |
| $\frac{1}{10}$ | $\frac{2}{10}$ | | $\frac{3}{10}$ | | $\frac{4}{10}$ | | $\frac{5}{10}$ | | $\frac{6}{10}$ | | $\frac{7}{10}$ | | $\frac{8}{10}$ | | $\frac{9}{10}$ | | $\frac{10}{10}$ | | | |
| $\frac{1}{11}$ | $\frac{2}{11}$ | | $\frac{3}{11}$ | | $\frac{4}{11}$ | | $\frac{5}{11}$ | | $\frac{6}{11}$ | | $\frac{7}{11}$ | | $\frac{8}{11}$ | | $\frac{9}{11}$ | | $\frac{10}{11}$ | $\frac{11}{11}$ | | |
| $\frac{1}{12}$ | $\frac{2}{12}$ | | $\frac{3}{12}$ | | $\frac{4}{12}$ | | $\frac{5}{12}$ | | $\frac{6}{12}$ | | $\frac{7}{12}$ | | $\frac{8}{12}$ | | $\frac{9}{12}$ | | $\frac{10}{12}$ | | $\frac{11}{12}$ | $\frac{12}{12}$ |

The next page, separates the fractions into family groups, where you can see the equivalent fractions more easily

Fraction wall - halves, quarters, eighths

| | | | | | | | |
|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1 | | | | | | | |
| $\frac{1}{2}$ | | | | $\frac{2}{2}$ | | | |
| $\frac{1}{4}$ | | $\frac{2}{4}$ | | $\frac{3}{4}$ | | $\frac{4}{4}$ | |
| $\frac{1}{8}$ | $\frac{2}{8}$ | $\frac{3}{8}$ | $\frac{4}{8}$ | $\frac{5}{8}$ | $\frac{6}{8}$ | $\frac{7}{8}$ | $\frac{8}{8}$ |

Fraction wall - thirds, sixths, twelfths

| | | | | | | | | | | | |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|
| 1 | | | | | | | | | | | |
| $\frac{1}{3}$ | | | | $\frac{2}{3}$ | | | | $\frac{3}{3}$ | | | |
| $\frac{1}{6}$ | | $\frac{2}{6}$ | | $\frac{3}{6}$ | | $\frac{4}{6}$ | | $\frac{5}{6}$ | | $\frac{6}{6}$ | |
| $\frac{1}{9}$ | $\frac{2}{9}$ | $\frac{3}{9}$ | $\frac{4}{9}$ | $\frac{5}{9}$ | $\frac{6}{9}$ | $\frac{7}{9}$ | $\frac{8}{9}$ | $\frac{9}{9}$ | $\frac{10}{9}$ | $\frac{11}{9}$ | $\frac{12}{9}$ |
| $\frac{1}{12}$ | $\frac{2}{12}$ | $\frac{3}{12}$ | $\frac{4}{12}$ | $\frac{5}{12}$ | $\frac{6}{12}$ | $\frac{7}{12}$ | $\frac{8}{12}$ | $\frac{9}{12}$ | $\frac{10}{12}$ | $\frac{11}{12}$ | $\frac{12}{12}$ |

Fraction wall - halves, fifths, tenths

| | | | | | | | | | | |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|--|
| 1 | | | | | | | | | | |
| $\frac{1}{2}$ | | | | | $\frac{2}{2}$ | | | | | |
| $\frac{1}{5}$ | | $\frac{2}{5}$ | | | $\frac{3}{5}$ | | $\frac{4}{5}$ | | $\frac{5}{5}$ | |
| $\frac{1}{10}$ | $\frac{2}{10}$ | $\frac{3}{10}$ | $\frac{4}{10}$ | $\frac{5}{10}$ | $\frac{6}{10}$ | $\frac{7}{10}$ | $\frac{8}{10}$ | $\frac{9}{10}$ | $\frac{10}{10}$ | |