

SCIENCE

Student Book

► **1st Grade** | Unit 9

.....

MACHINES AROUND YOU

SCIENCE 109

Introduction |1

1. Levers	4
Some Simple Levers 6	
Levers that Work Together 8	
How Levers Work 10	
Self Test 1 12	
2. Wheels	14
Wheels 16	
Gears 18	
Pulleys 20	
Self Test 2 22	
3. Incline Planes	24
Ramps 26	
Screws 28	
Wedges 30	
Self Test 3 32	

LIFEPAC Test |Pull-out



804 N. 2nd Ave. E.
Rock Rapids, IA 51246-1759

© MCMXCVI by Alpha Omega Publications, Inc.
All rights reserved.
LIFEPAC is a registered trademark of Alpha
Omega Publications, Inc.

All trademarks and/or service marks referenced in this
material are the property of their respective owners. Alpha
Omega Publications, Inc. makes no claim of ownership to any
trademarks and/or service marks other than their own and their
affiliates, and makes no claim of affiliation to any companies
whose trademarks may be listed in this material, other than
their own.

Author:

Phyllis A. MacDonald, M.Ed.

Editor:

Mary Ellen Quint, M.A.

Consulting Editor:

Harold Wengert, Ed.D.

Revision Editor:

Alan Christopherson, M.S.

Media Credits:

Page 1: © bluebearry, iStock, Thinkstock; **24, 30:**
© ttsz, iStock, Thinkstock; **26:** © ma_rish, iStock,
Thinkstock.

MACHINES AROUND YOU



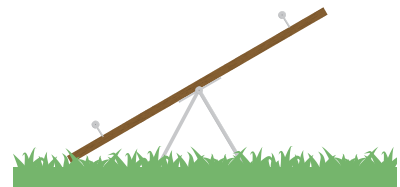
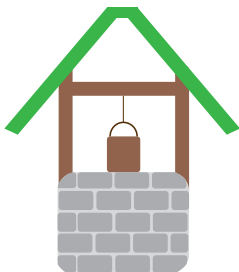
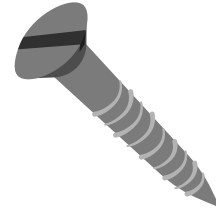
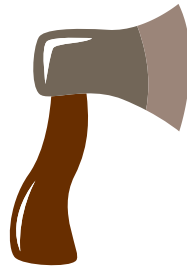
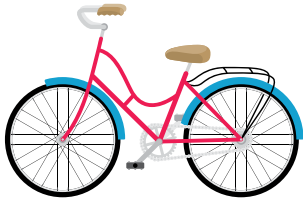
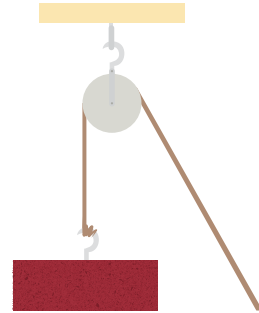
Lift it up.
Push it down.
Turn the wheel
Around and around.
Whatever the work
That you do,
A simple machine
Makes it easy for you.

Objectives

Read these objectives. They will tell what you will be able to do when you have finished this LIFEPAK®.

1. I can tell about some levers.
2. I can tell about some wheels.
3. I can tell about some inclined planes.

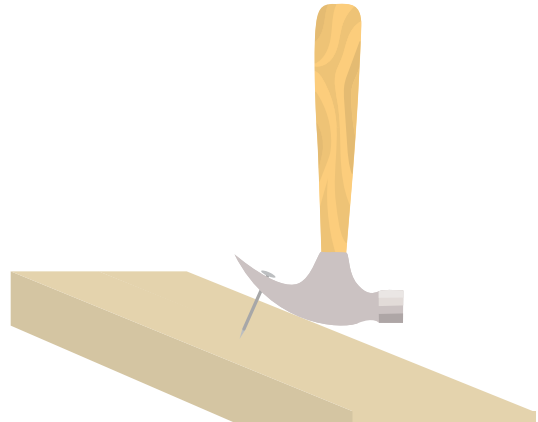
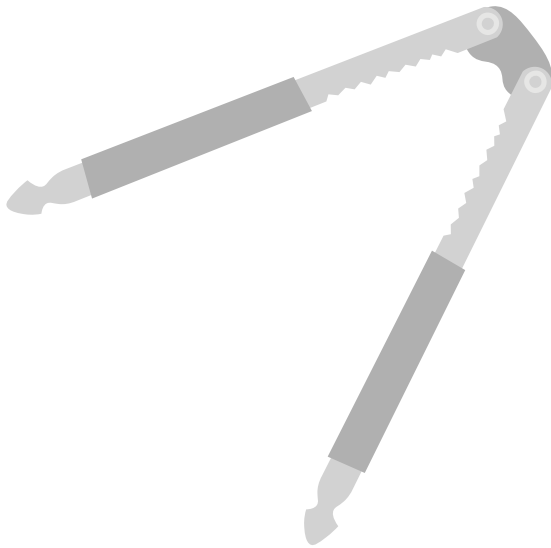
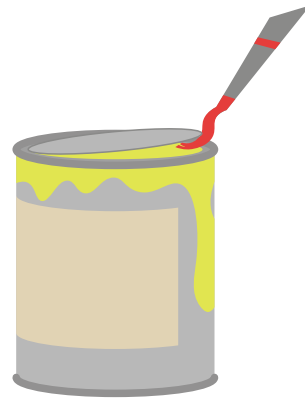
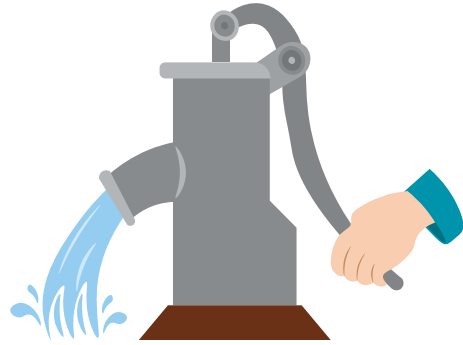
Here are some simple machines.
Tell what work they help you do.



1. LEVERS

To open a can
Or fill a pail,
To crack a nut
Or pull a nail,

Do you know
What you should use?
A lever is
The one to choose.



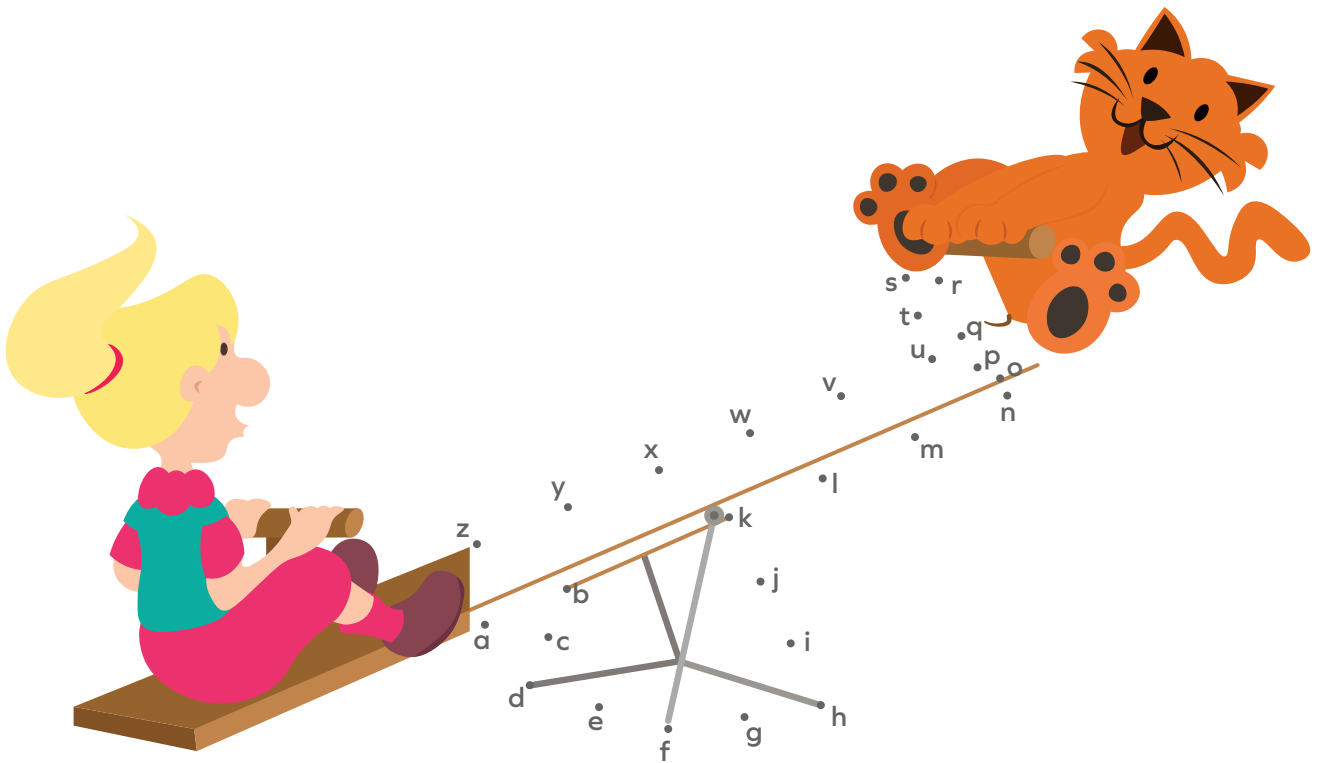
A lever is a simple machine.



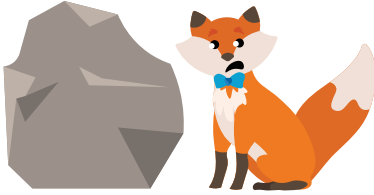
Can you name some levers you might find in the kitchen or in a toolbox?



Follow the dots to see a lever you can ride.



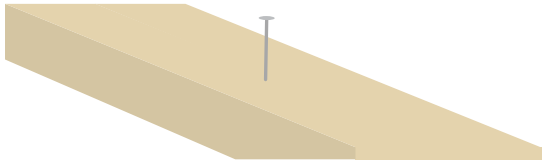
Some Simple Levers



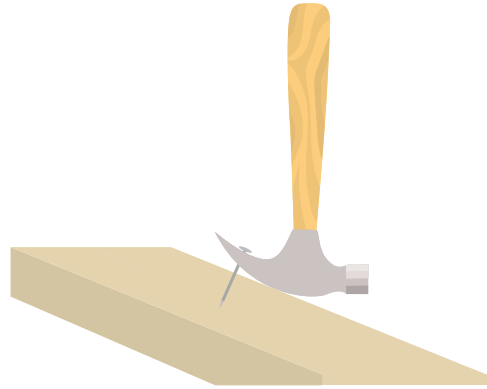
The rock is too big.



A lever can help.



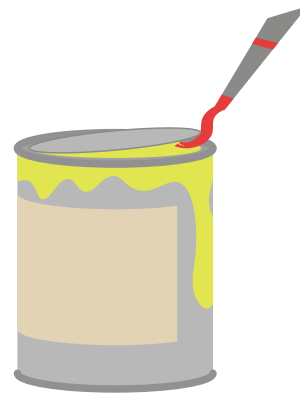
The nail is stuck.



A lever can help.



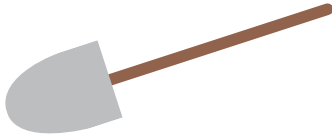
The cover is too tight.



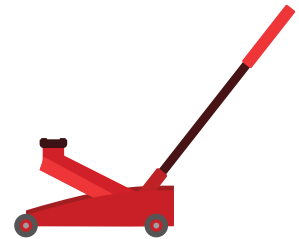
A lever can help.



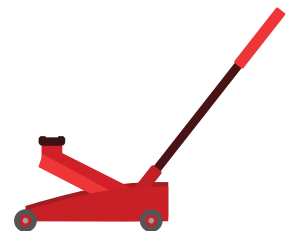
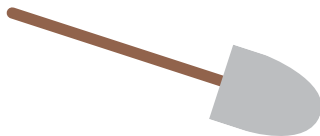
The boy needs to dig a hole. Circle the lever he will use.



This girl wants to open a bottle. Circle the lever she will use.

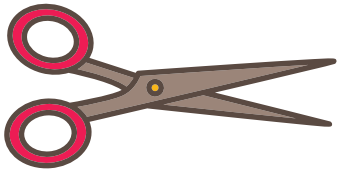


Father needs to lift his car. Circle the lever he will use.



Levers that Work Together

Some tools are made of levers.
The levers work together.



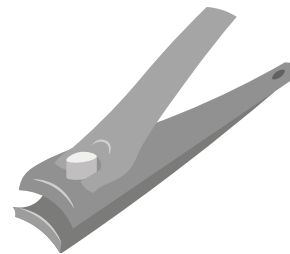
Scissors



Pliers



Nutcracker



Nail Clippers



Can you name some jobs these tools can do?

How Levers Work

A lever needs a force.

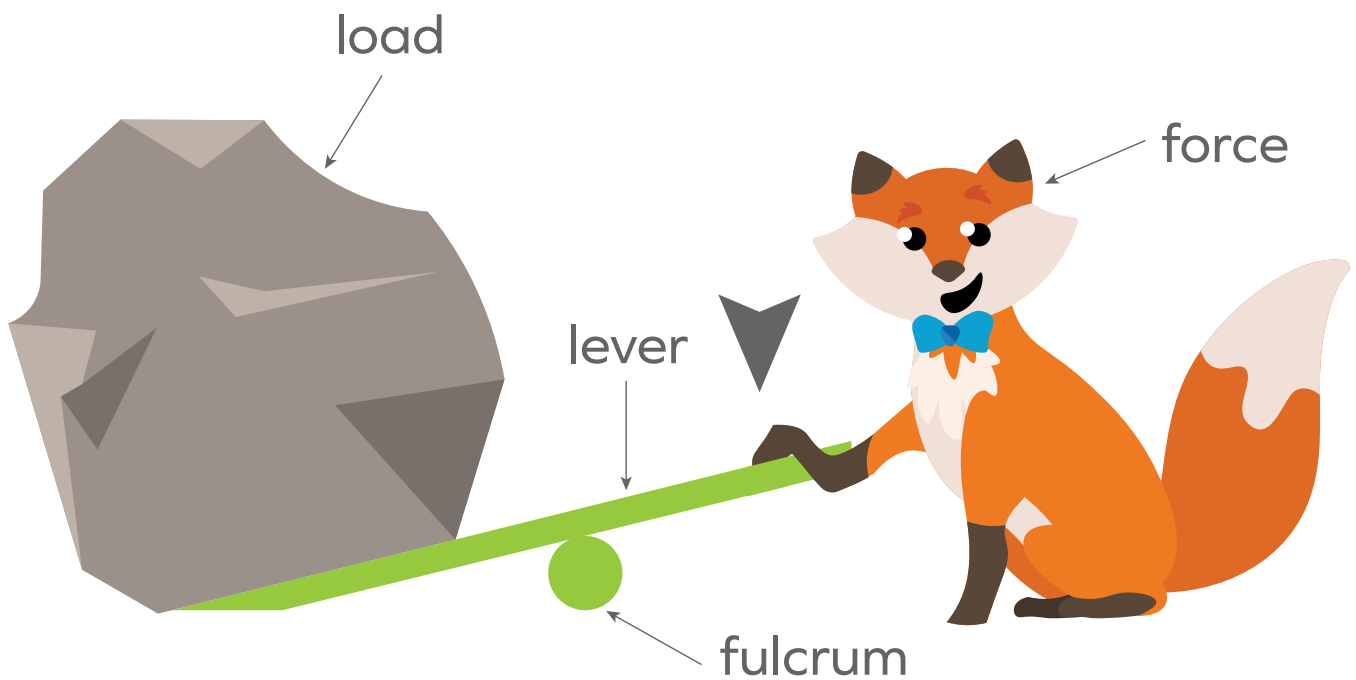
Filmore is the force.

A lever moves a load.

The rock is the load.

A lever needs a fulcrum.

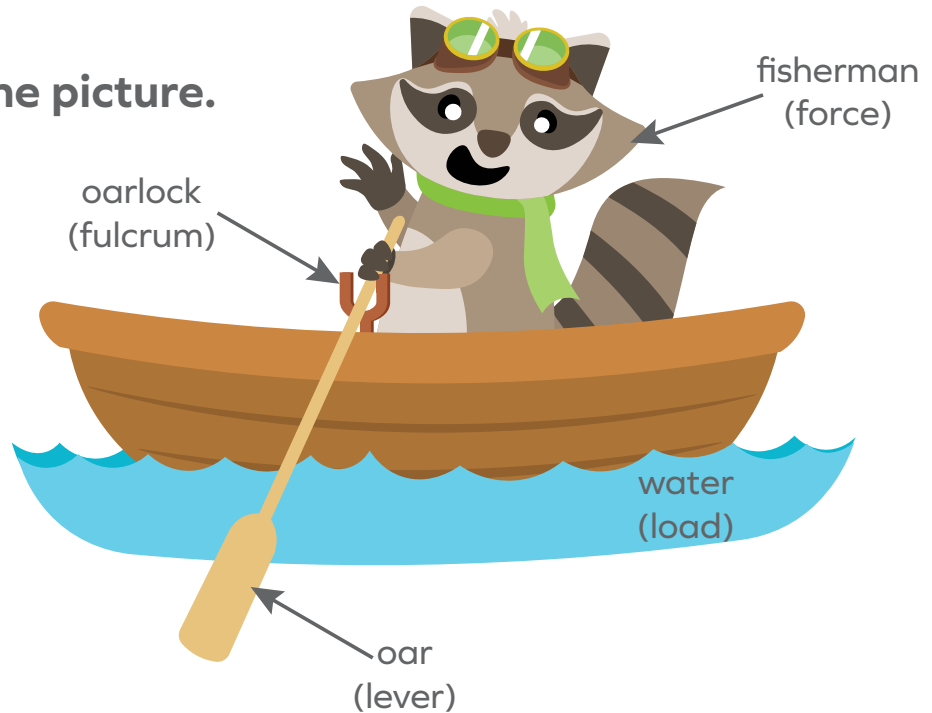
The log is the fulcrum.



Can you show the force, the load, and the fulcrum on a teeter-totter or on a pump?



Look at the picture.



Write the words.

fisherman

oar

water

oarlock

The _____ is a lever.

The _____ is the force.

The _____ is the load.

The _____ is the fulcrum.



Before you take the Self Test, study what you have read and done. The Self Test will check what you remember.

SELF TEST 1

Each answer = 1 point

Write the words.

bottle

lever

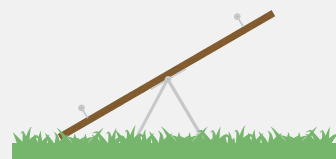
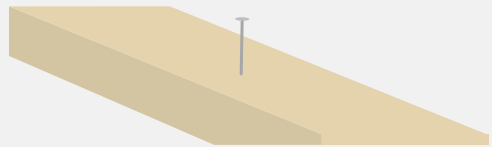
scissors

A _____ is a simple machine.

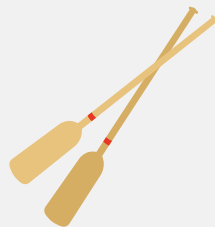
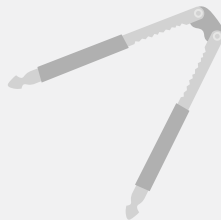
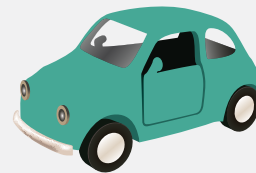
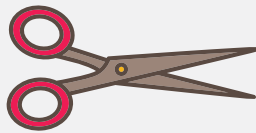
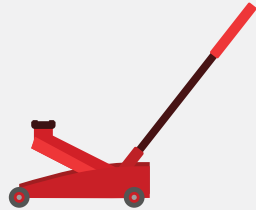
A lever can open a _____.

A pair of _____ is two levers working together.

Circle the levers that will work to pull the nail.



Match the levers with the jobs they do.



Teacher Check

Initial Date



My Score



804 N. 2nd Ave. E.
Rock Rapids, IA 51246-1759

800-622-3070
www.aop.com

SCI0109 – Feb '17 Printing

ISBN 978-0-86717-709-1



9 780867 177091