SCIENCE

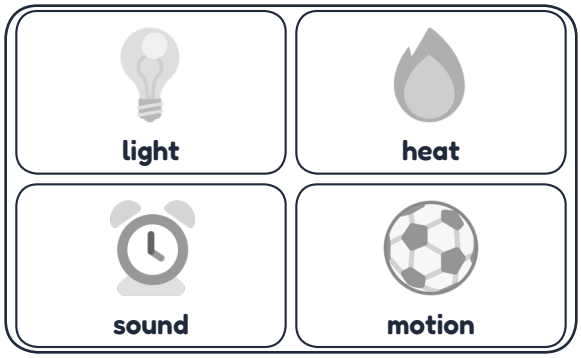
Forms of energy

Name _____ Date _____

I can name forms of energy and find them around me.

1 How it works

Energy is what makes things move, change, light up or warm up. It comes in many forms: light, heat, sound, motion and electricity. Energy can change from one form to another. A lamp changes electricity into light and heat, and a speaker changes electricity into sound. Energy is never used up; it just changes form.



2 Which form of energy?

Use the words in the box.

light **heat** **sound** **motion** **electricity**



a campfire
It warms your hands.

_____



an alarm clock
It rings to wake you up.

_____



a kite
The wind lifts it up high.

_____



a lamp
It lights up the room.

_____



a wall socket
It powers the TV.

_____



a rolling ball
It rolls across the floor.

_____

How did I do? ☆ ☆ ☆

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Energy changes

Name _____ Date _____

I can tell how a machine changes energy.

1 How does it change energy? Draw a line.

 **a lamp**	light to electricity
 **a phone speaker**	fuel to motion
 **rubbing your hands**	electricity to light
 **a solar panel**	motion to heat
 **a car engine**	electricity to sound

2 Fill in the blanks

Use the words in the box.

change **light** **energy** **sound**

1. Energy can _____ from one form to another.
2. A lamp changes electricity into _____.
3. Food gives your body _____.
4. A drum makes _____ energy.

How did I do? ☆ ☆ ☆

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Think like a scientist

Name _____ Date _____

I can explain how energy changes from one form to another.

1 Think about it

1. Where does the energy in food come from? _____
2. What energy does a toaster use? _____
3. What energy does a moving car have? _____
4. Name something that makes light and heat. _____

2 True or false? Circle it.

1. Heat is not a form of energy.	**true**	**false**
2. A lamp changes light into electricity.	**true**	**false**
3. Energy can change from one form to another.	**true**	**false**
4. Sound is a form of energy.	**true**	**false**
5. Moving things have energy.	**true**	**false**

3 Draw one machine at home. Show the energy that goes in and comes out.

How did I do? ☆ ☆ ☆

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Try it: the energy hunt

Name _____ Date _____

I can find energy changing form all around me.

1 You need

- a clipboard
- a pencil
- a partner
- a classroom or a home
- 10 minutes

2 What to do

1. Walk around the room with your partner.
2. Find 5 things that use energy, such as a lamp, a clock or a fan.
3. For each one, write the energy that goes in.
4. Then write the energy that comes out.

3 I predict

What kind of energy will go into most things you find?

_____

_____

4 What I see

Thing	Energy in	Energy out
1		
2		
3		
4		
5		

How did I do? ☆ ☆ ☆

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FOR TEACHERS AND PARENTS

Answer key: forms of energy

1 Page 1

Answers: 1) a campfire: heat; 2) an alarm clock: sound; 3) a kite: motion; 4) a lamp: light; 5) a wall socket: electricity; 6) a rolling ball: motion.

2 Page 2

Changes: 1) a lamp: electricity to light; 2) a phone speaker: electricity to sound; 3) rubbing your hands: motion to heat; 4) a solar panel: light to electricity; 5) a car engine: fuel to motion.

Blanks: 1) change; 2) light; 3) energy; 4) sound.

3 Page 3

Think: 1) From the sun, through plants; 2) Electricity, changed into heat; 3) Motion energy; 4) The sun, a lamp or a fire.

True or false: 1) false; 2) false; 3) true; 4) true; 5) true.

Drawing: answers will vary, for example a lamp with electricity going in and light and heat coming out.

4 Page 4: Try it!

Most things children find use electricity going in: lamps make light and heat, speakers make sound, fans make motion and toasters make heat. A few use other energy: a wind-up toy uses stored motion energy from winding, and a person running uses energy from food. Energy is never used up; it changes form.

5 Teaching tip

Ask "what goes in and what comes out?" for every machine children name. A fan: electricity in, motion and a little sound out. The pattern sticks quickly.

Safety: look but do not touch plugs, sockets or anything hot.

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