SCIENCE

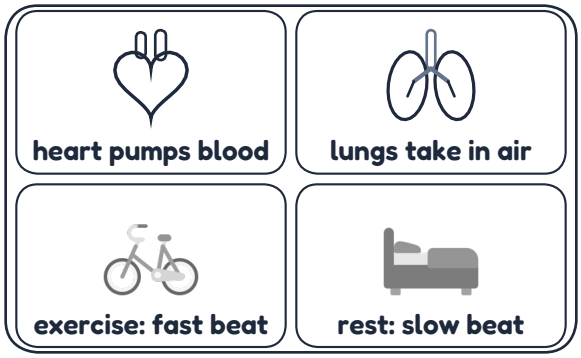
Heart and lungs

Name _____ Date _____

I can explain how the heart and lungs work together.

1 How it works

Your heart is a strong muscle about the size of your fist. It pumps blood all around your body, day and night. Your lungs breathe in air with oxygen. Blood picks up oxygen in the lungs, and the heart pumps it to every part of you. When you run, your heart beats faster to bring more oxygen to your muscles.



2 Fast or slow heartbeat? Circle one.



riding a bike fast slow



running a race fast slow



playing soccer fast slow



watching clouds fast slow



reading a book fast slow



sitting in a chair fast slow



climbing stairs fast slow



sleeping fast slow

How did I do? ☆ ☆ ☆

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Air and blood

Name _____ Date _____

I can follow air and blood through the body.

1 What does it do? Draw a line.

nose and mouth ○	○ use oxygen to move
 **lungs** ○	○ carries oxygen to every part
 **heart** ○	○ breathe air in and out
 **blood** ○	○ pumps blood around the body
 **muscles** ○	○ take oxygen from the air

2 Fill in the blanks

Use the words in the box.

muscle **lungs** **oxygen** **faster**

1. The heart is a _____ that pumps blood.
2. We breathe air in with our _____.
3. Blood carries _____ to the body.
4. When we run, the heart beats _____.

How did I do? ☆ ☆ ☆

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Think like a scientist

Name _____ Date _____

I can explain why my heart beats faster when I move.

1 Think about it

1. Why does your heart beat faster when you run? _____
2. Why do you breathe hard after a race? _____
3. How can you keep your heart healthy? _____
4. Where can you feel your heartbeat? _____

2 True or false? Circle it.

1. The heart beats faster when you run.	**true**	**false**
2. The heart pumps blood.	**true**	**false**
3. The lungs are for eating food.	**true**	**false**
4. Blood carries oxygen.	**true**	**false**
5. The heart stops when you sleep.	**true**	**false**

3 Draw a heart and two lungs. Add arrows to show where air and blood go.

How did I do? ☆ ☆ ☆

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Try it: count your heartbeat

Name _____ Date _____

I can measure how exercise changes my heartbeat.

1 You need

-  a clock or timer
-  two fingers
-  a clear space to jump
-  a pencil

2 What to do

1. Sit still for one minute. Put two fingers on the side of your neck or inside your wrist to feel your pulse.
2. Count the beats for 15 seconds while a partner times you.
3. Jump in place for one minute, then count again.
4. Rest for 2 minutes and count one more time.

3 I predict

Will your heart beat faster after jumping?

_____

_____

4 What I see

When	Beats in 15 seconds	Fast or slow?
resting		
after jump		
after rest		

How did I do? ☆ ☆ ☆

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FOR TEACHERS AND PARENTS

Answer key: heart and lungs

1 Page 1

Answers: 1) riding a bike: fast; 2) running a race: fast; 3) playing soccer: fast; 4) watching clouds: slow; 5) reading a book: slow; 6) sitting in a chair: slow; 7) climbing stairs: fast; 8) sleeping: slow.

2 Page 2

Jobs: 1) nose and mouth: breathe air in and out; 2) lungs: take oxygen from the air; 3) heart: pumps blood around the body; 4) blood: carries oxygen to every part; 5) muscles: use oxygen to move.

Blanks: 1) muscle; 2) lungs; 3) oxygen; 4) faster.

3 Page 3

Think: 1) Your muscles need more oxygen; 2) To take in more oxygen; 3) Exercise, eat healthy food and sleep well; 4) At your wrist, neck or chest.

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

Drawing: answers will vary. Look for air going into the lungs and blood going from the heart to the body.

4 Page 4: Try it!

The numbers are different for every child. The count after jumping is higher than the resting count, because working muscles need more oxygen, so the heart pumps faster. After a short rest the count goes back down toward the resting number.

5 Teaching tip

Let children make a fist and squeeze it about once a second for a minute. It shows how hard the heart muscle works without ever taking a break.

Safety: jump on a flat, clear floor and stop if you feel dizzy. A child who should not jump can be the timer.

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