

Valentine's Day

Activity Pack

Basic Anatomy of the Human Heart

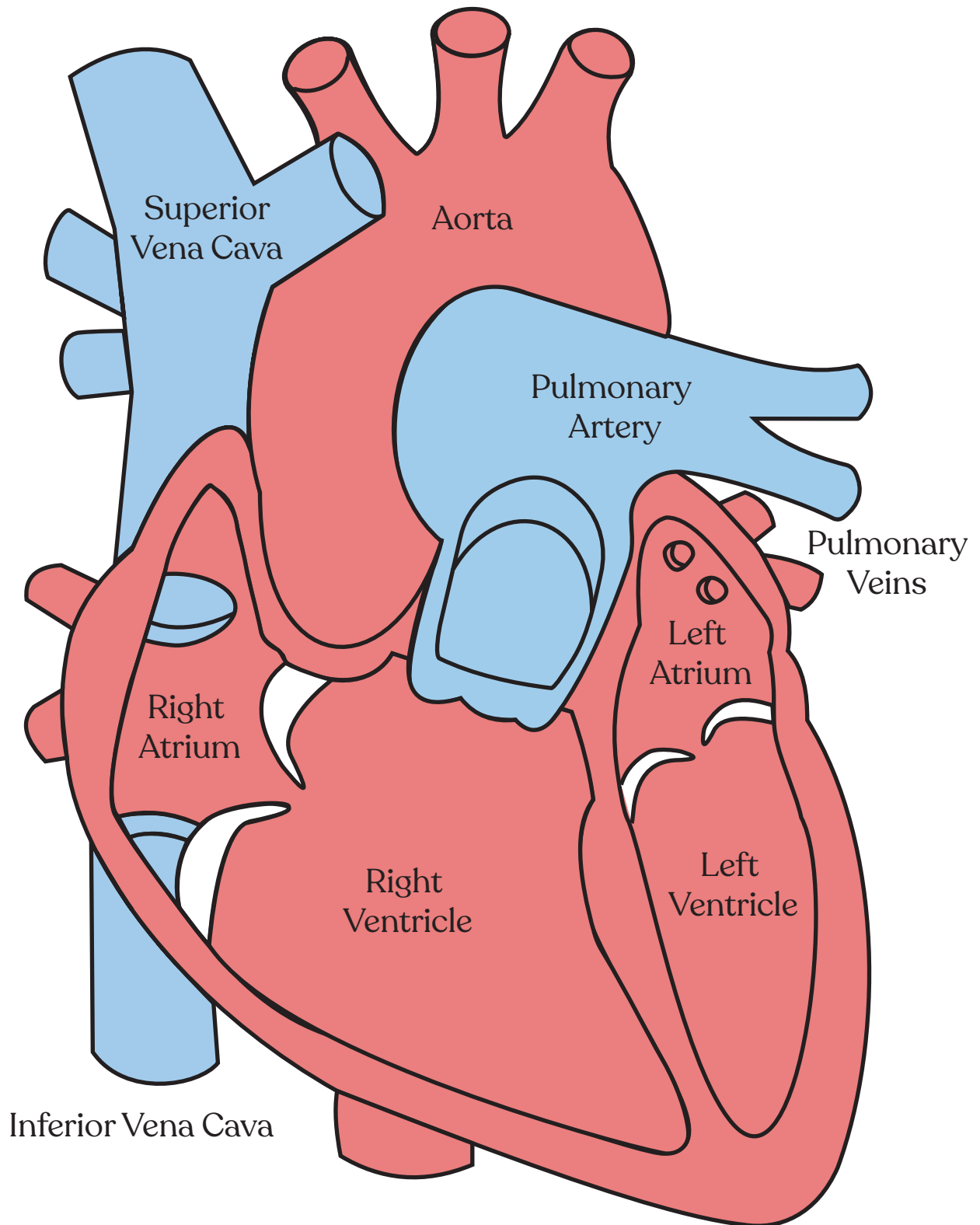
Anatomy Worksheet Directions:

1. With your child, take a look at the human heart diagram (pg. 1). Note the red and blue colors and why they are labeled that way. Talk about each area of the heart using the terms and definitions (pg 5).
2. Have your child color and label the black-and-white diagram of the heart using the worksheets provided (pg 2, 3).
3. Optional: For older children, trace or draw free-hand the anatomy of the human heart from the worksheets provided. Label the parts.

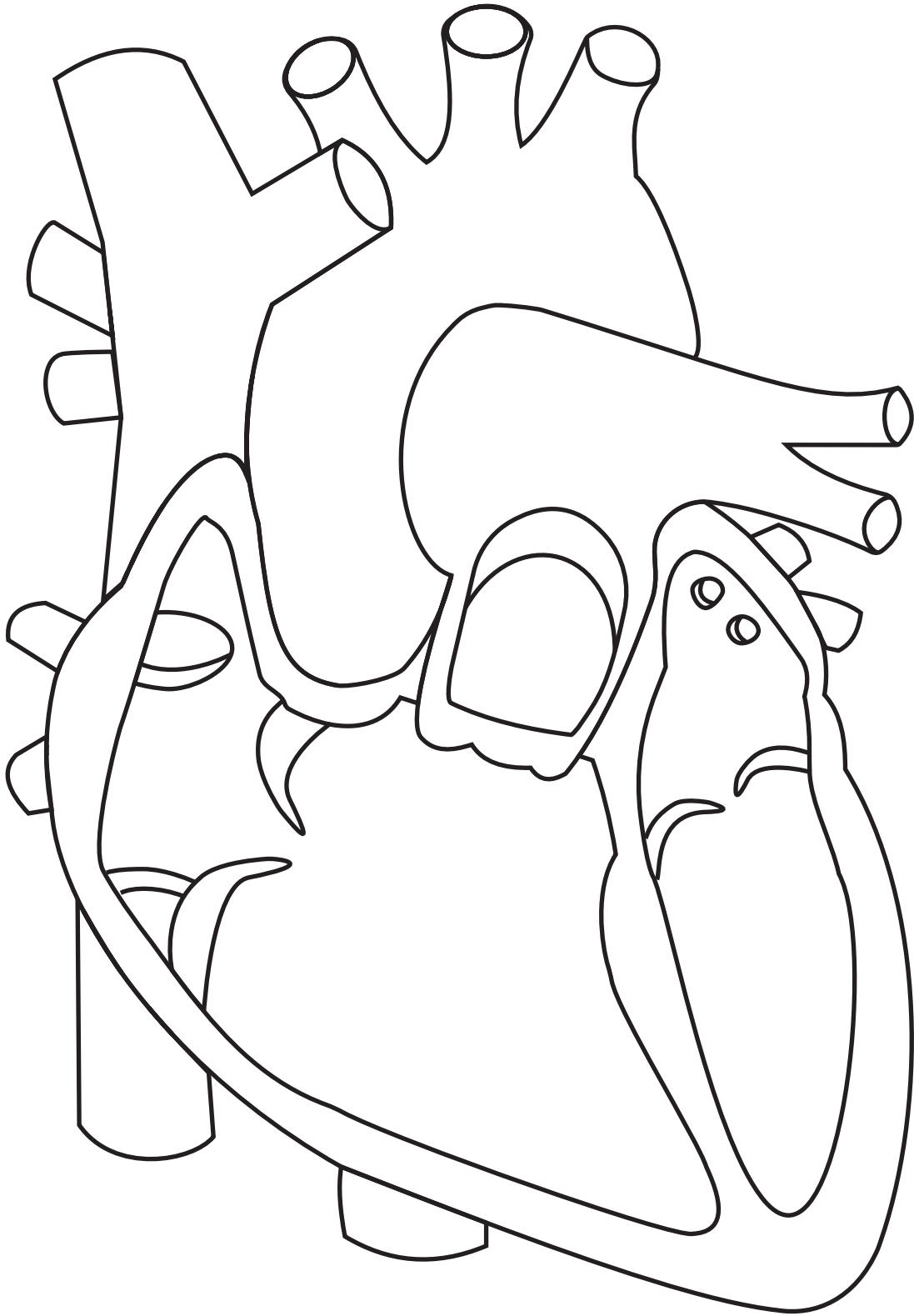
Materials Needed:

1. Printed anatomy worksheets
(pg. 2, 3)
 2. Scissors
 3. Pencil
 4. Red and Blue crayons,
markers or colored pencils
- *Optional: Tracing paper

Basic Anatomy of the Human Heart



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It's a Match!

How to Play:

1. Review the terms and definitions on page 5.
2. Cut out the terms on page 7 along the dotted lines.
3. Shuffle the terms and give them to your child.
4. Using the diagram that your child colored and labeled along with the terms and definitions you went over on page 5, match the cards to the correct definition on page 5, placing the cards on top of the appropriate answer.

Materials Needed:

1. Printed It's a Match game
(pg. 5, 6, 7)
2. Scissors
3. You're colored and labeled
heart diagram (pg. 2)

Heart Terms and Definitions

Anatomy- A field in the biological sciences concerned with the identification and description of the body structures of living things.

Aorta- Largest artery in the body. Carries blood from the heart to the rest of the body.

Pulmonary Artery- Carries blood from the heart to the lungs.

Pulmonary Veins- Carries blood from the lungs to the heart.

Left Atrium- Receives blood full of oxygen from the lungs and then empties the blood into the left ventricle.

Left Ventricle- The heart's main pumping chamber.

Inferior Vena Cava- The largest vein in the body. Carries oxygen-depleted blood back to your heart from the lower part of your body.

Right Atrium- Receives blood low in oxygen from the body and then empties the blood into the right ventricle.

Right Ventricle- Pumps blood low in oxygen through the pulmonary valve into the pulmonary artery. The blood goes to the lungs, where it gets fresh oxygen.

Superior Vena Cava- The second largest vein in the body. Brings oxygen-poor blood from your upper body to your heart.

Largest artery in the body.
Carries blood from the heart
to the rest of the body

Carries blood from the heart
to the lungs.

Carries blood from the lungs
to the heart.

Receives blood full of oxygen
from the lungs and then empties
the blood into the left ventricle.

The heart's main pumping
chamber.

The largest vein in the body.
Carries oxygen-depleted blood
back to your heart from the
lower part of your body

Receives blood low in oxygen
from the body and then empties
the blood into the right ventricle.

Pumps blood low in oxygen
through the pulmonary valve
into the pulmonary artery. From
there the blood goes to the lungs
where it gets fresh oxygen.

The second largest vein
in the body. Brings oxygen-
poor blood from your upper
body to your heart

Aorta

Pulmonary
Artery

Pulmonary
Veins

Left Atrium

Left Ventricle

Inferior
Vena Cava

Right Atrium

Right Ventricle

Superior
Vena Cava

Fact or Fiction?

There is an endless amount of information written on about any subject you can think of. There's so much information that it can sometimes be hard to know if what you are reading is factual, misleading, or even on some occasions, just incorrect, especially information you might find on the internet or hear second-hand. Today, we are going to read an excerpt about the human heart. Some information is correct, some is misleading, and some is entirely false. You will decide which parts of the excerpt are fact and fiction using the information provided.

Before we get started, there is some important information you should know and questions you should ask yourself when deciding if information you are taking in is indeed factual.

Words to know:

Fact- Something is known to have happened or to exist, especially something for which proof exists or about which there is information. "I can undoubtedly prove it."

Opinion- The idea that a person or a group of people have about something or someone is based mainly on their feelings and beliefs or a single view of this type. "I can't prove it, but I feel real strongly about it, and many people I care about have said it's true."

Fiction- The type of book or story written about imaginary characters and events does not describe real people or deal with facts, or a false report or statement that you pretend is true. A make-believe story.

Non-Fiction- Writing that is about real events and facts, rather than stories that have been invented. A true and factual account of events.

Credible- Able to be belived or trusted.

Non-credible or Unreliable- Not able to be trusted or believed.

Source- The place something comes from or starts at, or the cause of something.

Primary Source- Primary sources are the original documents and objects which were created at the time under study. A primary source provides direct or firsthand evidence about an event, object, person, or work of art. Primary sources include historical and legal documents, eyewitness accounts, results of experiments, statistical data, creative writing pieces, audio and video recordings, speeches, and art objects. Primary sources are more credible as evidence. But good research uses both primary and secondary sources.

Secondary Source- A secondary source was later created by someone who did not experience firsthand or participate in the events the author is writing about. Secondary sources often summarize, interpret, analyze or comment on information found in primary sources. Some examples of secondary sources are; books, biographies, essays, literary criticism, encyclopedias, and journal articles that do not present new research.

Objective- Not influenced by personal feelings or opinions in considering and representing facts.

Subjective- Based on or influenced by personal feelings, tastes, or opinions.

Now that we have defined our terms let's talk about some questions we can ask ourselves when deciphering whether the information is true or false.

1. Who said it? Are they knowledgeable in this area and have they proven to be of good character?
2. What is the source of information being provided, and is it a **credible source**? What makes them credible?
3. Are there at least three **credible primary sources** that can corroborate the information you are reading or being told?
4. Is the author of the information you are taking in giving **objective** information

i.e. sticking to the facts, or are they giving **subjective** information based on personal feelings and opinions?

5. . The best question you can ask yourself when you're deciding if information is **fact or fiction** is, "Do I want to believe this?" If the answer is yes, it's a good sign you should slow down and check the source and evidence more closely.

Read the information below about the human heart and determine which information is fact or fiction using the discussed questions. Talk with a parent or your teacher about why you think the information is an opinion or fact, credible or non-credible, subjective or objective. There are many credible resources at your local library and even online that you can use for your fact-checking. It's also a good idea to check the bibliography and/or sources of the information you are taking. You may check the sources listed on the following pages to ensure correct answers.

What's so Wonderful about Your Ticker?

The heart has four quadrants; two **ventricles** on the bottom and two **atria** on the top. The heart is a part of the **circulatory system**, which is made up of three major parts; the **heart, blood vessels (arteries, veins, and capillaries)**, and **blood** (red and white blood cells and platelets).

There are an amazing amount of blood vessels in the human body. So many in fact, that if one child lined all of their blood vessels one after the other, there would be approximately 60,000 miles of blood vessels. An adult has around 100,00 miles of blood vessels, and that's as many miles as it would take to circle the earth five times!

The heart's job is to pump blood throughout the body, sending essential nutrients, water, emotions, and hormones to and from cells while also removing waste products your body needs to get rid of, like carbon dioxide and jealousy.

The heart is a magical organ, and one of the most important things it is responsible for is sending oxygenated blood throughout the entire body. The heart is two pumps, one that pumps red, fully oxygenated blood to the lungs and the rest of the body through **the arteries**. The second pump sends purpleish-blue blood, which is oxygen deprived, back to the heart through the **veins** to become re-oxygenated.

Look at the veins in your arms. What color do you see? That blood is moving to your heart as we speak and then sending it to your muscles with the oxygen they need to move and grow, to your stomach to help digest food, your lungs so that you breathe, run fast, and jump high, and even to your brain to help you read and understand this very lesson.

When we are at rest, our heart beats slower than when we are active. When we sit for long periods, we can start to feel sluggish and tired. Our body can feel heavy, our brain slows down, and we can even get more frustrated than usual. Can you remember a time you felt this way? When this happens, try getting up and moving around. Maybe do a little dance in your kitchen, go

for a walk, or even jump rope. When you are active your heart beats faster and more reoxygenated blood is sent throughout your body at a quicker rate. Within a short period of time, you will begin to feel more energized. Your mind might be more awake, your mood lighten, and you will feel better overall.

The heart is an incredible machine, and it's very important to take good care of it. Taking care of your heart means getting plenty of sleep, exercising daily, drinking plenty of fluids, and eating a healthy diet full of saturated fats and sugar. Sugar and saturated fats help blood move swifter through the arteries and veins for quicker oxygenation.

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How did it go?

Go over the mistakes highlighted on the previous pages and discuss why they are considered errors.

I'm sure that finding errors in this pretend article wasn't too difficult. Even still, this was an excellent opportunity to go through a publication intended to give facts but also has opinions, subjective, and false information woven within true and credible information. Even though some of these errors could seem harmless, information to give facts, i.e., academic and medical publications, news, and biographies, to name a few, need to be held to the highest standard of truth. Information presented as fact needs to be absent of persuasion tactics, emotion, and false information that seemingly could sound truthful at first glance. While there is a place in our world for writing to be persuasive, imaginative, and fun, we must be careful not to confound these types of writing as factual. The endless amount of information at our fingertips can sometimes be confusing. Still, luckily you're well on your way to learning the great skill of navigating factual information and fallacies and becoming a great critical thinker!

Idioms

There are many different types of writing for many different purposes. We learned about writing for the news and scientific and educational publications, which both require factual information. This type of writing is called Expository writing and is meant to expose. A topic will be introduced and laid out logically without referencing the author's personal opinions. Expository writing is intended to inform and does not leave room for creativity, self-expression, feelings, or the intent to persuade.

However, in other types of writing, such as Narrative, Descriptive, and Persuasive writing, the author can be more creative and include their feelings and opinions. Examples of these types of writing are in advertising, poetry, journal writing, fiction stories, novels and editorial pieces, and more.

William Shakespeare might be considered one of the most legendary creative writers of all time. He wrote many plays and even some poems. Shakespeare seems to have greatly understood the importance of words and how they can evoke great emotion regarding the human condition. He is infamous for inventing many words and phrases we still use today. In the play Henry V, William Shakespeare coined the term “a heart of gold,” describing the king as kind, generous, and of good character. Phrases like these are called idioms. An idiom is a word or phrase which means something different from its literal meaning. Idioms are common phrases or terms whose meaning is changed but can easily be understood by their popular use.

Idioms, like similes and metaphors, are figurative language. Figurative language is used to create excitement and interest and is a creative tool to describe something in an interesting way but is not literal. For example, if it were raining outside, we could say, “Wow, it's raining very hard outside!” This is a very literal way to describe the rain coming down. However, to describe something using an idiom, you might say, “Wow, it's raining cats and dogs!” There are not cats and dogs falling from the sky; instead, you have used a group of words that have figurative meaning and are not easily understood from their literal definition outside of their common use in our culture.

Many common idioms include the heart to describe how we might feel about someone or something and to describe someone's character. Why do you think that is?

The heart is arguably the most important organ in the body, and it provides our body with what it needs to survive and is our source of physical life. It makes sense that we might say, "My heart is broken." When describing that we can't live without something or are so sad, we feel like we can't go on. It also makes sense that we would describe someone as having a "big heart" when saying that person is full of love and compassion, making people feel alive and vibrant.

On the next page is a list of idioms that William Shakespeare used in his sonnets and plays and some common idioms we often hear. Choose your favorites and create Valentine's Day cards for your family and friends. You may use the ones already made or come up with your own.

Materials Needed:

1. Printed Valentine's day cards (pg)
2. Scissors
3. Color crayons, colored pencils, and/or markers

Shakespearian Idioms

All that glitters is not gold- Gold is a precious metal, while glitter is made of very inexpensive materials like polyester and aluminum. While both look similar on the outside, they are not of the same value, so when we use this phrase, we are saying that even though something/ someone has an attractive external appearance, this is not a reliable indication of its true nature.

Green-eyed-monster- Jealousy personified. The color green is often symbol of jealousy. The green-eyed-monster is a symbol of someone who is filled with envy and jealousy.

Wild goose chase- If you've ever tried to catch a goose, then you might already understand this idiom. If not, imagine a crazy pursuit in which you would have very little chance of actually catching one.

A charmed life- A charmed life means a life that is protected, easy, lucky, and without hardships seemingly protected by magic, enchantment, or the supernatural.

Mum's the word- This phrase is said when you tell someone or agree with someone, to keep something a secret. Interestingly, the word mum is thought to come from the middle English term for silent similar to the English word mime (a silent actor).

Heart of gold- A compliment used for someone who has great and admirable character; someone who is giving, thoughtful, and kind.

Other Popular Idioms

See if you can guess their meaning or look them up and discuss.

Two peas in a pod

Thick as thieves

Monkey business

Best thing since sliced bread

Go bananas

Head over heels

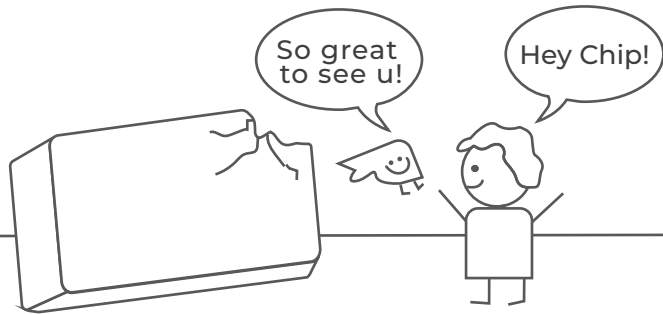
Main squeeze

Match made in heaven

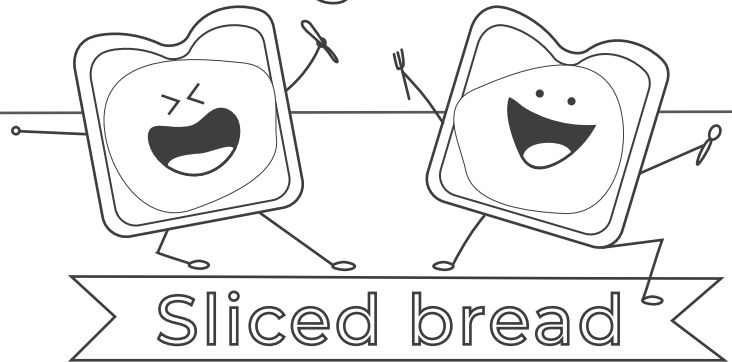
Birds of a feather

Chip off the old block

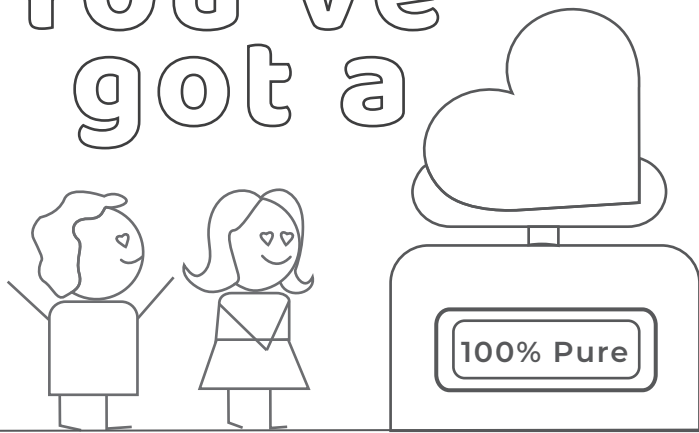
You're a chip
off the old block!



You're the
BEST
thing since...

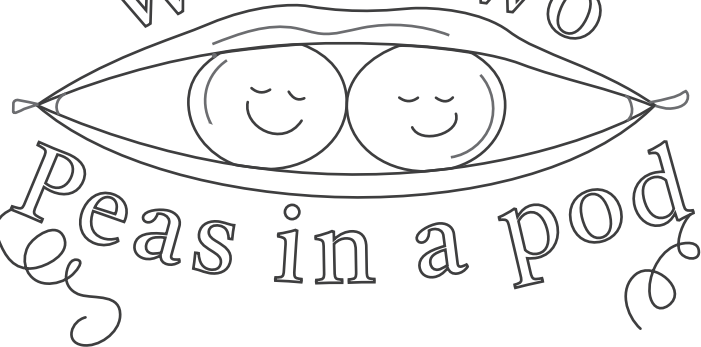


You've
got a



HEART OF GOLD!

We're two
Peas in a pod

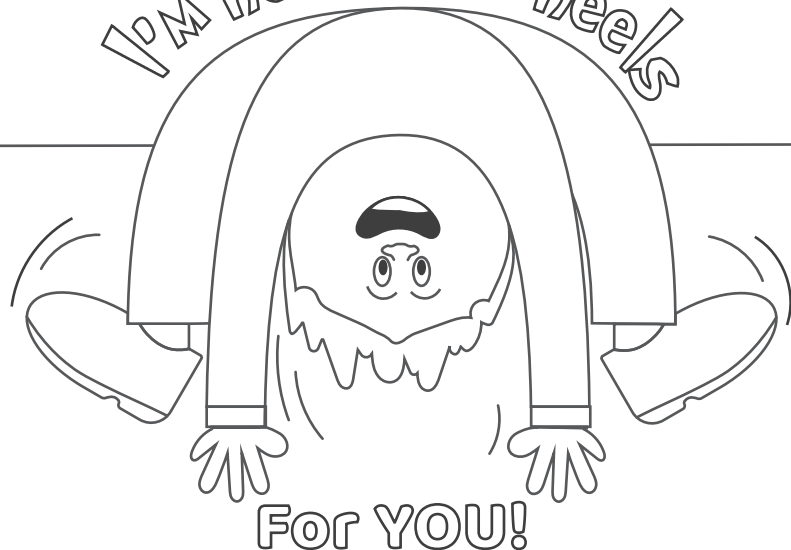


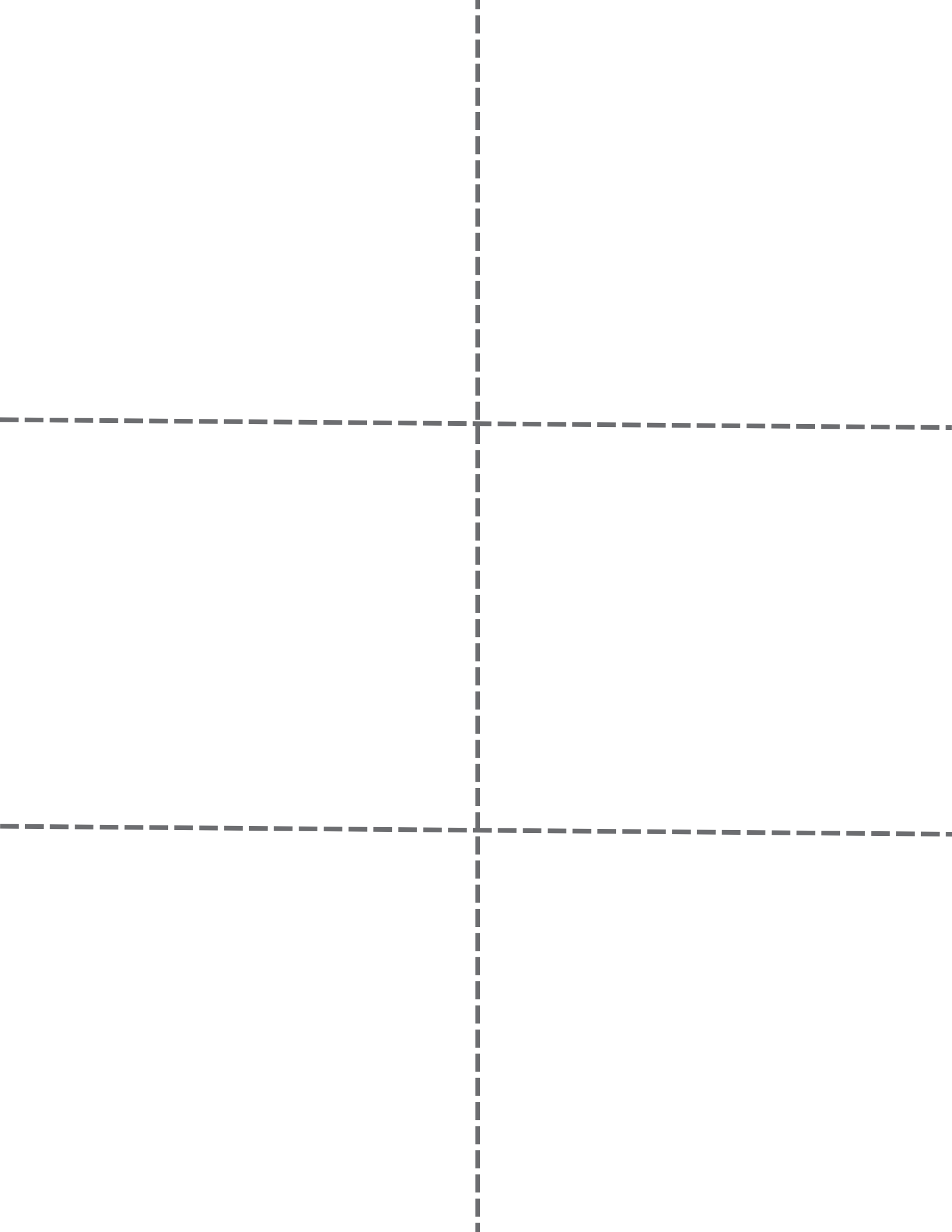
Let's go
bananas...

and celebrate
our
friendship



I'm head over heels





Book List

Continue your learning with these fun books!

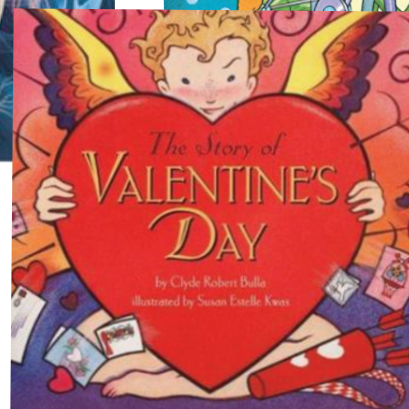
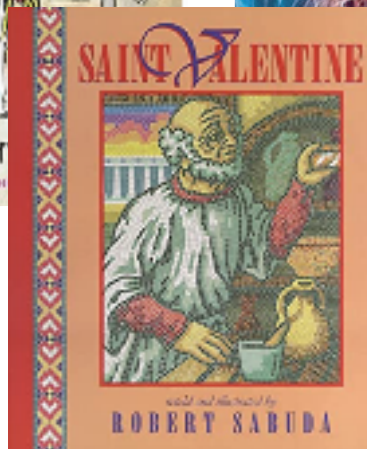
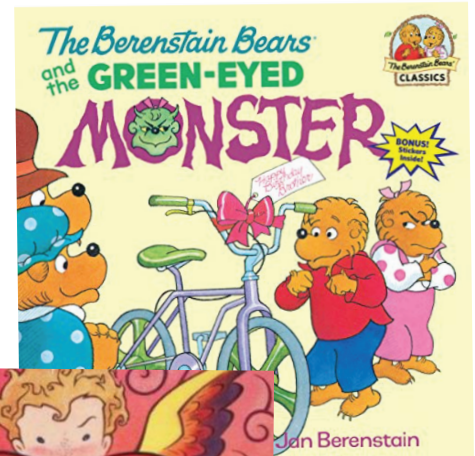
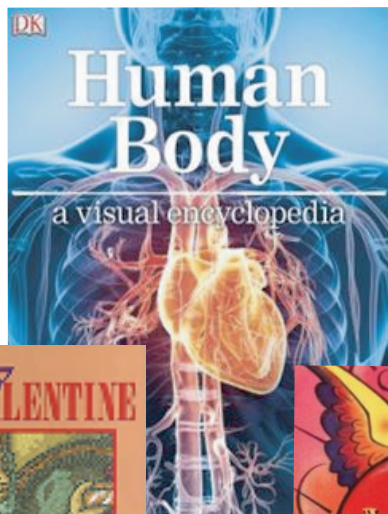
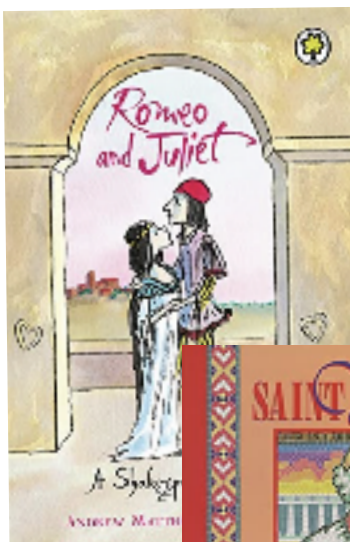
Berenstain Bears and the Green-Eyed Monster-
Berenstain, Stan; Berenstain, Jan

Romeo and Juliet (Shakespeare Stories)-
Shakespeare, William; Matthew, Andrew

Saint Valentine (How did Valentine's Day, one of our most popular holidays, begin?)- Robert Sabuda

The Story of Valentine's Day (Part of the A Crowell Holiday Book Series)- by Clyde Robert Bulla

Human Body: A Visual Encyclopedia (Part of the Definitive Visual Guides Series and Smithsonian Visual Encyclopedia Series)-D.K. Publishing



Sources

The Human Heart

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- www.dictionary.cambridge.org/us/
- www.vocabulary.com
- www.kids.britannica.com/kids/article/heart/353235
- www.theconversation.com/how-can-you-tell-if-something-is-true-here-are-3-questions-to-ask-yourself-about-what-you-see-hear-and-read-192803
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Idioms

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- www.ecenglish.com/learnenglish/lessons/idioms-shakespeare
- Khan Academy (Figurative language)- www.youtube.com/watch?v=lzKj-bLvrYQ
- www.grammarly.com/blog/types-of-writing/