# **Vectr: Fraction Infographic**

\*Sections with blue text denote the structure and are fixed\*

\*Black text is editable\*

INSERT: Yellow highlight indicates image/video insert (INSERT: TITLE:)

INSERT: Pink highlight indicates PDF/document insert (INSERT: TITLE:)

INSERT: Orange highlight indicates interactive/widget insert from custom CLS template (INSERT: TITLE:)

INSERT: Blue highlight indicates link in line with URL and title (INSERT: TITLE:)

### **AoE**

Communication and Media Arts

### **Product Line**

SmartLab HQ

### **Project Starter Title**

Vectr: Fraction Infographic

**Related Project Starters**

**Vectr: Character Art Symmetry**

**Activity Description:**   
Learn about graphic design and how to use Vectr to create your own art. Then, analyze your design to determine which parts of your character have lines of symmetry.

**The Challenge:** Your challenge is to create your own character using shapes and other tools in Vectr. Then you will analyze your design in order to determine which parts have line symmetry. You will describe how the symmetry or lack of symmetry adds to the style of your character.

**Math Standards:**

CCSS.MATH.CONTENT.4.G.A.3

Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

**Vectr: Edit and Scale Images**

**Activity Description:**   
Use Vectr to edit photos. Explore how cropping or enlarging an image uses scale factors. Then learn how to use filters to enhance images.

**The Challenge:** Your challenge is to use the website Vectr to crop and edit photos. You will first identify how a scale factor makes a product larger or smaller than one of its factors, just as cropping can make an image larger or smaller. Then, you will edit your own photos by scaling them up or down and applying filters.

**Math Standards:**

CCSS.MATH.CONTENT.5.NF.B.5.B

Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence a/b = (n × a)/(n × b) to the effect of multiplying a/b by 1.

### **Technology**

Vectr

### **Grade Level**

3rd Grade

### **Math Standards**

3.NF.A.1

Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b.

3.NF.A.3

Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

### **Activity Description**

Learn about graphic design and how you can use Vectr.com to create an infographic. Then, use your knowledge to create an infographic about fractions.

**Project Description**

Students will learn about fractions and how they can use infographics to display information and data. They will then use graphic design on Vectr.com to create their own infographic about fractions. Students will then share their infographic with a classmate.

# **The Challenge – Vectr: Fraction Infographic**

## **The Challenge**

Your challenge is to explore what an infographic is and how it can be used to educate others about a topic. You will then use the shapes, elements, and other pictures in Vectr to create an infographic about fractions.

INSERT: Vectr\_InfographicExample\_CLS TITLE: example of an infographic

## **What I’ll Learn**

* I CAN use Vectr to create digital art.
* I CAN explain what a numerator and denominator are.
* I CAN define an equivalent fraction.
* I CAN compare fractions.

## **Stuff I’ll Need**

* Vectr Website
* Digital Graphics or Photos
* Pencil and Paper (optional)

# **Assignment- Explore –** **Vectr: Fraction Infographic**

Explore Vectr and its tools. Answer the following questions:

1. What is an infographic?
2. What is a fraction?
3. How can I use pictures or diagrams to represent fractions?
4. How can I add text on Vectr?
5. How do I know one fraction is greater than another?
6. How can I compare fractions?

# **What You Should Know – Vectr: Fraction Infographic**

### **Important Vocabulary**

* **Infographic** - a representation of information that makes it easier to understand by using pictures and few words
* **Denominator** - the bottom number in a fraction and it represents the total number of parts that make up the whole
* **Numerator** - the top number in a fraction and it represents the number of parts out of the whole number (denominator)
* **Whole** - all of something
* **Fraction** - Part(s) of a whole
* **Equivalent** - equivalent fractions are the same or equal value but may look different
* **Compare** - to determine if a fraction is smaller or larger than another fraction

**Heading:** Infographic

**Text:** An infographic is a way to represent information and data to help educate people on a topic. The point of infographics is to make information quick and easy to understand. They typically have a lot of pictures, or visuals, such as graphs and diagrams and contain little text to make it easier for people to quickly learn about the topic the infographic is about. Infographics are usually digital or virtual to be displayed on websites, social media, or other digital platforms.

INSERT: Vectr\_GuitarInfographic\_CLS TITLE: example of a guitar infographic

INSERT: Vectr\_PhytonutrientsInfographic\_CLS TITLE: example of a phytonutrients infographic

**Heading:** Fractions

**Text:** Fractions are used to show how many equal parts there are of a whole. When you write a fraction, you put one number above another number with a line in between. The top number is called the **numerator** and it lets you know how many of the equal parts you have. The bottom number is called the **denominator** and it lets you know how many equal parts there are total. The line in between is called the **fraction bar** and just separates the numerator and the denominator.

INSERT: Vectr\_FractionExample\_CLS TITLE: fraction with numerator, denominator, and fraction bar labeled

INSERT: Vectr\_FractionVisualExample\_CLS TITLE: circle showing with 1 part taken to show numerator and 2 parts in total to show denominator

For example, if you take an entire pie and you cut it into 8 equal pieces, or parts, you are making a fraction. If you take 1 of the 8 pieces you have one-eighth () of the pie. If you take 2 of the 8 pieces then you have two-eighths () of the pie. If you take 3 pieces, you have three-eighths () and so on.

INSERT: Vectr\_FractionPieExample\_CLS TITLE: pie cut into 8 equal pieces

Remember, fractions must represent **equal** parts of a whole. If the parts are not equal then they can not represent fractions. For example, the following pie is cut into unequal pieces. If you take one piece of the pie, you would still have one piece, but you would **not** have one-eighth () of the pie.

INSERT: Vectr\_FractionPieNonexample\_CLS TITLE: pie Cut into 8 Unequal Pieces

**Heading:** How Can Fractions be Represented Visually?

**Text:** Fractions are typically represented as numbers with a numerator, denominator, and fraction bar. However, sometimes it is easier to understand or compare fractions if you draw them using a picture. Remember, fractions represent **equal parts** of a whole, so it is important to draw the parts the same. When drawing fractions, it is usually easiest to do it by using a rectangle or circle.

To draw a fraction follow these steps:

1. Look at your fraction: ()
2. Draw your shape.

INSERT: Vectr\_Rectangle\_CLS TITLE: rectangle

1. Partition, or divide, the shape into the correct number of equal parts (the denominator).

INSERT: Vectr\_RectanglePartitioned\_CLS TITLE: rectangle divided into four parts

1. Color in the amount of equal parts that you have (the numerator).

INSERT:Vectr\_RectangledColored\_CLS TITLE: rectangle with three-fourths colored

The rectangle represents the whole. We then divided it into 4 total equal parts to represent the denominator and then colored in the 3 equal parts to show how many we have, the numerator. It is just like the pie example above.

**Heading:** How Can Fractions be Compared?

**Text:** When you compare fractions you are trying to see which fraction is larger or if they are equivalent, or equal. There are several ways that you can compare fractions, but the easiest is usually by drawing pictures (like we learned about above) and comparing them. For example, say you have the two fractions: and . You would follow these steps to compare them using pictures:

1. Look at your fractions: and
2. Draw 2 shapes that are the same size.

INSERT: Vectr\_TwoRectangles\_CLS TITLE: two same size rectangles

1. Partition, or divide, the two rectangles into the correct number of equal parts (the denominator). Remember, the fractions have different denominators so they will have different number of parts.

INSERT: Vectr\_TwoRectanglesPartitioned\_CLS TITLE: two rectangles divided into equal parts

1. Color in the amount of equal parts that you have for each fraction (the numerator). Once again, the fractions are different, so you will have different amounts colored in for each one.

INSERT: Vectr\_TwoRectanglesColored\_CLS TITLE: one rectangle with five-sixths colored and one rectangle with two-sevenths colored

1. Look at your pictures.The picture that has more colored in is the larger fraction. The one with less colored in is the smaller fraction. If the pictures have the same amount colored in, they are equivalent, or equal.

INSERT: Vectr\_TwoEqualRectangles\_CLS Title: example of two equivalent fraction pictures)

In this example, the first rectangle has more colored in, so you know that is larger than .

INSERT: Vectr\_RectanglesCircled\_CLS TITLE: rectangle with larger portion colored circled

**Career Connection and Real-World Application**

**Heading:** Web Content Developer

**Text:** A web Content Developer is a person that creates original content to be published on websites. This content can include graphics, advertisements, videos, pictures or any other content that is available to be seen through the web. They are in charge of collecting, organizing, writing, and gathering data and information to put on webpages. Their job is to make sure what is being put on the page is interesting, exciting, and/or attractive to users.

INSERT: Vectr\_WebContentDeveloper\_Pixabay TITLE: web content developer

**Heading:** Nurse

**Text:** Nurses work in hospitals, doctor offices and other health care facilities to help take care of patients. One important job that nurses have is to give their patients medication that they need. It is very important that they give their patients the correct amount because giving too little or too much can be very dangerous for hthe patients. Nurses can ensure they are giving their patient the correct dosage by using fractions, decimals, and other ratios.

INSERT: Vectr\_Nurse\_Pixabay TITLE: nurse giving medication

**Heading:** Infographic Designer

**Text:** Infographic designers work to create different types of infographics to make information easier to understand for people. They make infographics for schools, doctor offices, lawyer, etc. They will take information that is given to them and create sketches, a layout, and different visuals to make a template to help them plan what the finished infographic will look like. They will then use a computer design software to make the infographic come to life.

INSERT: Vectr\_InfographicDesigner\_Pixabay TITLE: infographic designer working

# **Assignment- Plan and SMART Goal – Vectr: Fraction Infographic**

**Plan and SMART Goal – Vectr: Fraction Infographic**

Before you start your challenge, make a plan for your project and set a SMART goal. Your goal should be Specific, Measurable, Attainable, Relevant, and Time Based.

1. What information do you want those who see your infographic to learn?
2. What’s the best way to teach someone about fractions?
3. How can you display information visually?
4. How can you use Vectr to create your infographic?
5. Write your project SMART Goal: We will use (name of kit/program) to (detailed description product) by (due date). We are creating this because (personal interest or purpose).

# **Do It! Vectr: Fraction Infographic**

## **The Challenge**

Your challenge is to explore what an infographic is and how it can be used to educate others about a topic. You will then use the shapes, elements and other pictures in Vectr to create an infographic about fractions.

INSERT: Vectr\_InfographicExample\_CLS TITLE: example of an Infographic

**Project Steps**

1. Plan Your Infographic
2. Create Your Infographic
3. Present Your Infographic

**Heading:** Plan Your Infographic

**Text:** Before you can make your infographic you need to make a plan. Look at some examples of infographics online to help you brainstorm and gather ideas. INSERT: <https://infographicsite.com/> TITLE: Infographic Site and INSERT: <https://visual.ly/view> TITLE: Visually have some great examples to get you started.

As you are browsing consider the following questions:

* How do you want your infographic to look?
* What information do you think is important to include?
* Are there any specific pictures, visuals, or diagrams that you want to include?

Keep in mind that this infographic is meant to be a resource to teach someone about fractions that has no prior knowledge of them.You may find it helpful to think back to when you were learning about fractions and what was useful for you. Some possible ideas to include in your infographic may be:

* Using pictures of pizza to show how the pieces can represent different fractions when divided like (,,, etc)
* Showing how you can compare fractions by using food pictures such as, pieces of watermelon, pieces of cake, or packs of cookies

INSERT: Vectr\_CookieFractions\_CLS TITLE: example of fractions with packs of cookies

* Using a number line to draw and compare fractions
* Using shapes like triangles, rectangles, heart and stars to explain equivalent fractions
* Using pictures of dominos pieces to learn how to write fractions

INSERT: Vectr\_DominoFractions\_CLS TITLE: fractions with dominoes example

Think of what pictures, diagrams, or visuals you may want to include. Make a list of the topics and visuals that you think are important. Many infographic designers sketch their designs or plans while they are brainstorming to help them see their vision and guide them as they make their final product.

INSERT:Vectr\_InfographicPlan\_CLS TITLE: infographic planning sketch example

**Heading:** Create Your Infographic

**Text:** Now is the fun part! You have decided the information you want to include and how you would like your infographic to look. It is now time to make it. The first step is to go to INSERT: vectr.com TITLE: Vectr and click on “New Artwork”. Most infographics are recommended to be about 600 pixels wide and about 1000 pixels high.

INSERT: Vectr\_InfographicSizeExample\_CLS TITLE: example of infographic size

You can customize the size on the right by adjusting the width and height.

INSERT: Vectr\_CreateArtwork\_CLS TITLE: screenshot of size customization in Vectr

Once you have it the size that you would like make sure that you name it so you can easily find it in case you have to edit it again a different day. A suggestion may be something like: “Fraction\_Infographic”. You can then begin creating your infographic!

**Heading:** Present Your Infographic

**Text:** The final step is using your infographic to educate others! Show a classmate what you have and ask them what they think. You could try quizzing them on a couple of fraction problems to see if they learned what you hoped to teach them. Does your infographic accomplish what you hoped?

INSERT: Vectr\_StudentPresenting\_Pexels TITLE: student presenting her work

# **Assignment- Daily Project Journal – Vectr: Fraction Infographic**

### **Daily Project Journal –** **Vectr: Fraction Infographic**

Use this space to answer the following questions every day by collaborating with your partner - this is a group assignment.

1. *What did we do today?*
2. *What did we learn?*
3. *What math did we use?*
4. *What could we have done differently?*
5. *What new questions do we have based on our work today/this week?*
6. *What is our plan for next time?*

# **Assignment- Project Submission - Vectr: Fraction Infographic**

### **Project Submission – Vectr: Fraction Infographic**

1. Upload a screenshot of your infographic.
2. Reflect on the following questions:

* What did we do today and what did we learn?
* What would we do differently next time?
* How can we use infographics to educate others or present information?
* Why is it important to know about fractions?
* How can we teach fractions?

1. Revisit your SMART goal. Remember, your goal should be Specific, Measurable, Attainable, Relevant, and Time Based.

* *Did you meet your SMART goal? Why or why not?*
* *How did you manage your time? How could you improve your time management?*
* *Did you have to modify your SMART goal?*
* *What will you do differently next time?*

# **Extend Yourself – Vectr: Fraction Infographic**

**Heading:** Create a PSA Infographic

**Text:** A public service announcement (PSA) is something that informs or educates the public about an important issue or topic. Infographics can be an easy way to display this information! Choose a topic or issue that is important to you and create an infographic to educate the public.

INSERT: Vectr\_StudentsWorking\_Pixabay TITLE: students working on infographic)

**Heading:** Make a Fraction Collage

**Text:** We use fractions a lot in our every day lives! A collage is a collection of various pictures combined together randomly. Find pictures of fractions being used in real time and make a fraction collage using Vectr.

INSERT:Vectr\_CollageExample\_Pixabay TITLE: example of a collage

**Heading:** Quiz Your Classmates

**Text:** See what your classmates know! Use Vectr to create various fraction problems based off of your infographic. When you are finished, give it to a classmate to test what they know!

|  |  |  |  |
| --- | --- | --- | --- |
| **IMAGE AND RESOURCE INFORMATION**  INSERT: Yellow highlight indicates image/video insert (INSERT: TITLE:)  INSERT: Pink highlight indicates PDF/document insert (INSERT: TITLE:)  INSERT: Orange highlight indicates interactive/widget insert from custom CLS template (INSERT: TITLE:)  INSERT: Blue highlight indicates link in line with URL and title (INSERT: TITLE:) | | | |
| **Title** | **Alt Text** | **Original URL** | **Date** |
| Vectr\_InfographicDesigner\_Pixabay | Infographic Designer Working | https://pixabay.com/photos/phone-tablet-screen-mobile-smart-793046/ | 8/7/23 |
| Vectr\_Nurse\_Pixabay | Nurse Giving Medication | https://pixabay.com/photos/injection-nurse-hospital-syringe-5722329/ | 8/7/23 |
| Vectr\_WebContentDeveloper\_Pixabay | Web Content Developer | https://pixabay.com/photos/software-developer-web-developer-6521720/ | 8/7/23 |
| Vectr\_InfographicExample\_CLS | Example of an Infographic |  | 8/7/23 |
| Vectr\_FractionPieNonexample\_CLS | Pie Cut into Unequal Pieces |  | 8/8/23 |
| Vectr\_GuitarInfographic\_CLS | Example of a guitar Infographic | https://infographicsite.com/wp-content/uploads/2020/07/Guitar-Effects-Infographic-History.jpg | 8/9/23 |
| Vectr\_PhytonutrientsInfographic\_CLS | Example of a Phytonutrients Infographic | https://infographicsite.com/wp-content/uploads/2020/07/What-are-Phytonutrients.png | 8/9/23 |
| Vectr\_StudentPresenting\_Pexels | Student Presenting Her Work | https://www.pexels.com/photo/children-studying-on-computer-at-school-5621938/ | 8/9/23 |
| Vectr\_StudentsWorking\_Pixabay | Students Working on Infographic | https://pixabay.com/photos/students-computer-young-boy-99506/ | 8/9/23 |
| Vectr\_CollageExample\_Pixabay | Example of a picture collage | https://pixabay.com/photos/pictures-photos-photo-collection-381937/ | 8/9/23 |
| <https://infographicsite.com/> | Infographic Site |  | 8/9/23 |
| https://visual.ly/view | Visually |  | 8/9/23 |
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| Vectr\_FractionVisualExample\_CLS | Circle showing with 1 part taken to show numerator and 2 parts in total to show denominator |  | 8/8/23 |
| Vectr\_FractionPieExample\_CLS | Pie cut into 8 equal pieces |  | 8/8/23 |
| Vectr\_RectanglePartitioned\_CLS | Rectangle divided into 4 parts |  | 8/8/23 |
| Vectr\_RectangleColored\_CLS | Rectangle with three-fourths colored |  | 8/8/23 |
| Vectr\_TwoRectangles\_CLS | Two Same Size rectangles |  | 8/8/23 |
| Vectr\_Rectangle\_CLS | Rectangle |  | 8/8/23 |
| Vectr\_TwoRectanglesPartitioned\_CLS | Two Rectangles Divided into Equal Parts |  | 8/8/23 |
| Vectr\_TwoRectanglesColored\_CLS | One Rectangle with five-sixths colored and one rectangle with two-sevenths colored |  | 8/8/23 |
| Vectr\_TwoEqualRectangles\_CLS | Example of Two Equivalent Fraction Pictures |  | 8/8/23 |
| Vectr\_InfographicPlan\_CLS | Infographic Planning Sketch Example |  | 8/8/23 |
| Vectr\_RectanglesCircled\_CLS | Rectangle with larger portion colored circled |  | 8/8/23 |
| Vectr\_CreateArtwork\_CLS | Screenshot of size customization in Vectr | Vectr.com | 8/9/23 |
| Vectr\_InfographicSizeExample\_CLS | Example of Infographic Size | Vectr.com | 8/9/23 |
| Vectr\_DominoFractions\_CLS | Fractions with Dominoes Example |  | 8/11/23 |
| Vectr\_CookieFraction\_CLS | Example of fractions with Packs of Cookies |  | 8/11/23 |