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# Food and Community

## Information for students

Below you will find links to four articles about food and community.

1. Read each article.
2. Choose one of the foods presented.
3. Pretend that you are going to bring it to a community where it will be new and unique.
4. Your task is to convince people to buy your food product.

In order to convince others, create one of the following:

- a post on a food blog
  - an advertisement (written or video)
  - a poster
  - a speech
5. Present the final product to your friends and family.

[Delicious Designs - Pastry chef Dinara Kasko serves up desserts in sweet shapes](#)

[Mac and Cheese Mania](#)

[How Pizza Came to America](#)

[Sushi Takes Over](#) (Scroll down to find the article about sushi)

## Materials required

- device with Internet access
- paper, writing and drawing materials

## Information for parents

Parents could encourage their child share their persuasive writing with you.

# #Mission FLS : Destination ailleurs

## Consignes à l'élève

Cette activité t'aidera à accomplir la mission FLS suivante : « Je planifie en français, avec ma famille ou mes amis, un projet de voyage que j'aimerais faire plus tard ».

Aujourd'hui, on rêve. Quel endroit aimerais-tu visiter ? Quel pays aimerais-tu découvrir ? Cette semaine, on te propose de planifier un voyage. Pas de budget, pas de limite : on rêve !

Voici comment tu peux le faire :

- Pense à un endroit que tu aimerais visiter.
- Écris-le et explique ton choix.
- Précise si tu ferais ce voyage seul, en famille ou avec des amis.
- Explique ce que tu aimerais faire ou découvrir lors de ton voyage.

## Pour aller plus loin

- Joue à l'agent de voyage et propose cette destination à un client potentiel en créant un dépliant publicitaire.

## Matériel requis

- Feuille de papier ou en ligne
- [Mission FLS](#)

## Information for parents

### About the activity

Children could:

- make a hypothesis about a possible future using the present conditional
- write a text about a travel destination

Parents should:

- share ideas with their child
- talk about trips they have taken and others they would like to take

# Finding the Total Area of Household Items

## Information for students

Being able to find the total area (also called surface area) of three-dimensional shapes will be helpful when you continue to deepen your understanding of mathematics in Secondary III.

### Instructions

- In the following activity, you will find the total area of common household objects (e.g. a soup can and a facial tissue box) by measuring the dimensions. If you do not have these items at home, use the shapes in Appendix A to complete the activity.
- Use the method that you were shown by your teacher this year. If you have not learned this yet, find the total area by dividing the shape into known shapes to create a net.
- If you wish, complete the extension activity.

### Materials required

- writing tools
- a 284-mL soup can and a standard size facial tissue box OR Appendix A
- ruler

## Information for parents

### About the activity

Children could:

- find the total area of each shape by decomposing the shape into known parts to create a net. For example, the cylinder can be divided into a rectangle and two circles, while the tissue box can be divided into 6 rectangles (2 for the ends, 2 for the top/bottom, 2 for the front/back)

Parents should:


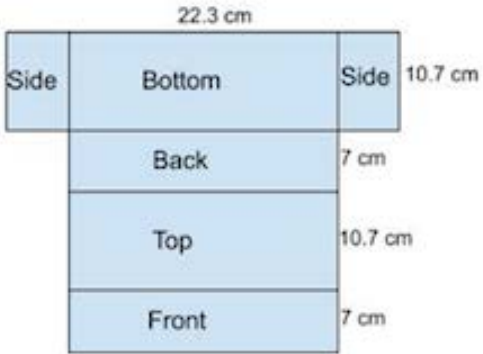
- help their child get the necessary materials organized, if needed. If they do not have the household items on the list, they can use the information in Appendix A instead
- remind their child that these questions are more challenging than simply solving equations and that they should expect to have to make a few attempts. It will be important to encourage them to persist. Hints and a possible solution are found in Appendix B

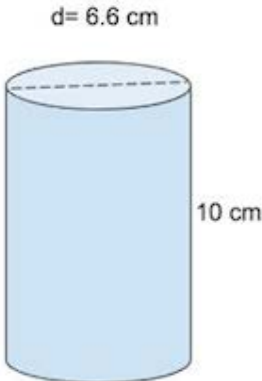
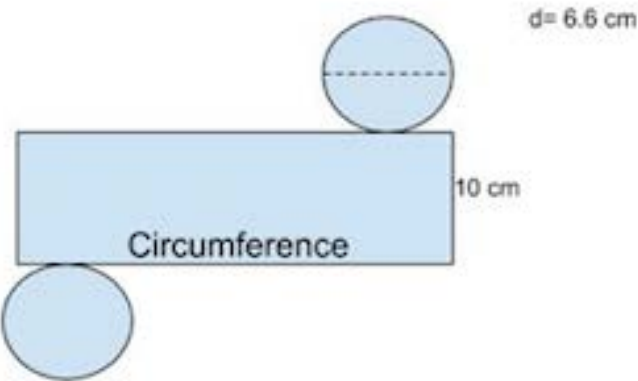
# Appendix A – Finding the Total Area of Household Items

## Information for students

If you do not have a soup can or facial tissue box, you can find the area of the following two items instead. You can also decide to use Appendix A, regardless of whether or not you have these items at home. The measurements needed to find the area of each item are indicated on the shape. You can complete the extension question if you wish.

- Find the area, using the method of your choice: with a formula or by dividing the shape into parts to create a net


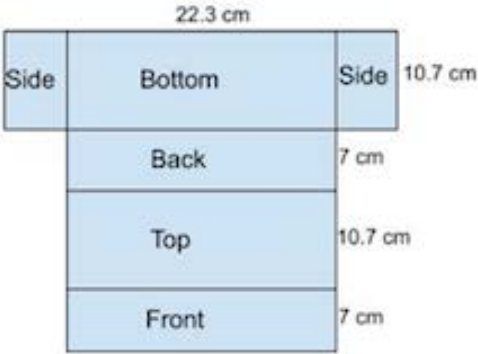
Shape	Net and Calculations
<p>Tissue Box</p> 	 <ul style="list-style-type: none"> <li></li> </ul>

Shape	Net and Calculations
<p>Cylinder</p>  <p>A 3D diagram of a cylinder. The top circular face is shown with a dashed line for the back edge. A horizontal line across the top face is labeled "d= 6.6 cm". A vertical line along the side of the cylinder is labeled "10 cm".</p>	 <p>A net of a cylinder. It consists of a central rectangle and two circles. The rectangle is labeled "Circumference" and has a vertical side labeled "10 cm". One circle is attached to the top edge of the rectangle, and another is attached to the bottom edge. A horizontal dashed line across the top circle is labeled "d= 6.6 cm".</p>
<p><u>Extension Question</u>            Create a cube and a pyramid that have a total area between <math>100 \text{ cm}^2</math> and <math>150 \text{ cm}^2</math>.</p>	

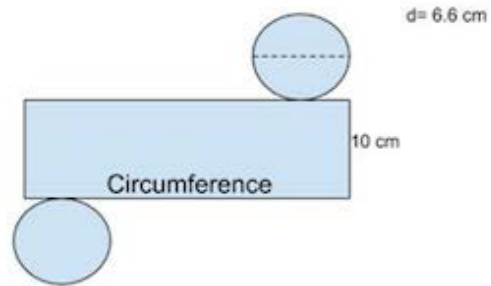
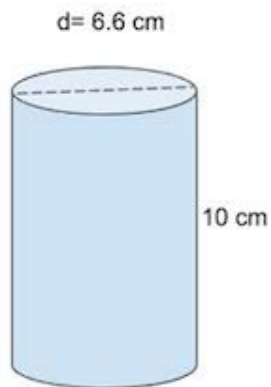
## Appendix B – Finding the Total Area of Household Items (Solutions)

### Information for students

Below is a possible solution for the total area of both the tissue box and the soup can. The solution is shown in two ways: (1) by decomposing the shape into 2D plane figures and calculating the area of each figure and (2) by using the formula for determining the total area of the shape.

Shape	Net and Calculations
<p>Tissue Box</p> 	 <p><b>Solution with nets (decomposed shapes):</b></p> $  \begin{aligned}  \text{Total Area} &= 2(\text{Area Front}) + 2(\text{Area Bottom}) \\  &\quad + 2(\text{Area sides}) \\  &= 2(7 \times 22.3) + 2(10.7 \times 22.3) + 2(7 \times 10.7) \\  &= 2(156.1) + 2(238.61) + 2(74.9) \\  &= 312.2 + 477.22 + 149.8 \\  &= 939.22 \text{ cm}^2  \end{aligned}  $ <p><b>Solution using formula</b>    <b>**'bottom' (22.3 by 10.7) as base</b></p> $  \begin{aligned}  \text{Total Area} &= (Pb \times h) + 2AB \\  &= (66 \times 7) + 2(238.61) \\  &= 462 + 477.22 \\  &= 939.22 \text{ cm}^2  \end{aligned}  $

## Soup Can

Solution with nets (decomposed shapes):

$$\begin{aligned}
 \text{Total Area} &= 2(\text{Area Circle}) + \text{Area Rectangle} \\
 &= 2(\pi r^2) + (\pi d \times 10) \\
 &= 2(\pi \times 3.32) + (\pi \times 6.6 \times 10) \\
 &= 2(\pi \times 10.89) + 207.2 \\
 &= 2(34.19) + 207.2 \\
 &= 66.39 + 207.2 \\
 &= 275.58 \text{ cm}^2
 \end{aligned}$$

Solution using formula

\*\*circle (d= 6.6cm, r= 3.3 cm) is base

$$\begin{aligned}
 \text{Total Area} &= (Pb \times h) + 2AB \\
 &= (\pi d \times 10) + 2(\pi r^2) \\
 &= (\pi \times 6.6 \times 10) + 2(\pi \times 3.32) \\
 &= 207.2 + 68.39 \\
 &= 275.58 \text{ cm}^2
 \end{aligned}$$



# Separation of Mixtures

## Information for students

A **mixture** is the result of a physical change that occurs when two or more substances are combined. If you want to separate the substances in a mixture, you can use several techniques to do so. The techniques for separating mixtures are summarized in the table below. An example of decantation is provided. Try to find an example of each of the other techniques for separating mixtures.

Techniques	Principle	Example
Decantation	Decantation uses gravity to separate substances in a mixture.	A mixture of oil and water is left to settle. The oil will sink to the bottom of the container (because it is denser) and the water can be carefully poured into a different container.
Sieving	Sieving involves running a mixture through a sieve (a tool that uses a metal or plastic mesh) that has holes of a certain size.	
Filtration	Filtration involves running a mixture through a filter (often made of paper or fabric).	
Evaporation	Evaporation involves letting the liquid component of a mixture evaporate (go from liquid to gas form) at room temperature.	
Distillation	Distillation involves heating a mixture until it boils in order to collect the gases produced.	

## Materials required

- Salt
- Pepper
- Rice (or something of similar size)

## Experiment

1. Combine the salt, pepper and rice and shake well.
2. Choose a technique (or techniques) for separating the newly created mixture into its original substances. Make a prediction about what will happen, and record your procedure and observations in the Experiment Report in Appendix A.
3. Did your technique successfully separate one or more substances? If not, reflect on why and choose a new technique to test.

## Information for parents

### About the activity

Children should:

- use the sieving technique to separate the rice
- add water to the remaining mixture (because salt is soluble and pepper is not), and then use the filtration technique to separate the pepper
- use the evaporation technique to separate the salt and water. It is possible to introduce heat to speed up the process

Parents could:

- be supportive if the first technique is not successful
- encourage the child to reflect on why the technique did not work and try again
- provide as many copies of Appendix A as necessary to complete the experiment
- assist their child in adding heat for the evaporation technique

# Appendix A – Experiment Report

**Substance:**

Salt    Pepper    Rice

<b>Technique:</b>	
<b>Procedure:</b>	
<b>Observations:</b>	
<b>Results:</b>	

# Learn About Muscle Strengthening Activities and Get Moving!

## Information for students

### Activity 1

Last week, you looked at [Canada's 24-Hour Movement Guidelines](#). According to the guidelines, how many times a week should you be doing **muscle strengthening activities**? (If you forgot, check out the recommendations under the SWEAT category to find out.)

- The following are examples of **muscle strengthening activities**:

<ul style="list-style-type: none"> <li>Games (e.g. tug of war)</li> <li>Push-ups or modified push-ups (with knees on the floor)</li> <li>Resistance exercises using body weight, resistance bands, weight machines or hand-held weights</li> </ul>	<ul style="list-style-type: none"> <li>Rope or tree climbing</li> <li>Sit-ups (curl-ups or crunches)</li> <li>Swinging on playground equipment/bars</li> <li>Chores that require lifting and carrying</li> </ul>
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*Examples by the Canadian Society of Exercise Science*

- Muscular strength and endurance are components of **health-related fitness**. Muscular strength is not just about getting big or toned muscles and looking better. Everyone needs a certain amount of muscular strength to do everyday activities and enjoy a good quality of life.
- What are the muscle strengthening activities you do throughout the week? Do you meet the Movement Guidelines' recommendations of doing muscle strengthening activities **at least three times** throughout the week? If not, what could you do to include more muscle strengthening activities in your week?
- Discuss with a parent or a family member. What muscle strengthening activities do they do?

### Activity 2

- Speaking of muscles, let's pump it up! Complete [this muscle strengthening workout](#). Don't forget to read the cues and choose which exercise to do according to your personal fitness level.

### Materials required

- None

## Information for parents

### About the activity

Children should:

- learn about the muscle strengthening recommendations in Canada's 24-Hour Movement Guidelines
- carry out a muscle strengthening workout

Parents could:

- discuss the movement guidelines with their children
- carry out the muscle strengthening workout with their children

# Let's Write a Jingle!

## Information for students

- A jingle is a catchy phrase or slogan often set to a tune that is used to advertise a product.
- Jingles are usually very short and very memorable.
- Your task is to write a catchy advertising jingle!

## Materials required

- Pencil or pen
- Paper
- Keyboard, guitar, small percussion instruments (optional)
- Recording device

## Instructions

- Step 1: Select a product or service to advertise. It can be an imaginary product or service but it must be appropriate for school.
- Step 2: Determine the positive characteristics of your product. Make a list of the things that would make the audience want to purchase your product or choose your service.
- Step 3: Write a short poem using the characteristics determined in Step 2. Consider using a simple rhyming scheme.
- Step 4: Compose a simple melody for your jingle. Remember to keep it simple! You want your audience to be able to hum it easily. **This is a key feature.**
- Step 5: Create an accompaniment for your jingle. You may use guitars, keyboards, body percussion (snapping, clapping, patsching, etc.), vocalize (humming, oohing, etc.) or small percussion instruments.
- Step 6: Record your jingle and share it with a friend.
- Step 7: Make any necessary revisions. Do you like the way it sounds? If not, go back and make some changes. Revision is an important part of composing.

## Information for parents

### About the activity

For students:

- A video which further explains this activity can be found at: <https://www.youtube.com/watch?v=JZKYTSqPgtI>
- Use the brainstorming tool in the appendix
- Need inspiration? Check out <https://www.youtube.com/watch?v=gs3R6ufsHAU> for examples of existing jingles

Parents could:

- encourage the student during the brainstorming portion of the activity
- help the student generate ideas for the lyrics of their jingle (if needed)
- help the student with the recording portion of the activity.

## Appendix: Let's Write a Jingle!

"LET'S WRITE A JINGLE" BRAINSTORMING CHART	
<b>NAME OF PRODUCT</b>	
<b>PRODUCT OBSERVATION</b>	
<b>What is the purpose of your product/service?</b>	
<b>Positive Characteristic #1</b>	
<b>Positive Characteristic #2</b>	
<b>Positive Characteristic #3</b>	
<b>Positive Characteristic #4</b>	
<b>Positive Characteristic #5</b>	
<b>Who will use your product/service (audience)?</b>	

<b>WRITING YOUR JINGLE</b>
<p>Write down <b>all</b> of your ideas.            Consider all of the characteristics in your brainstorm.            Think about your audience.</p>



# Natural Resources and Industries

## Information for students

The study of Geography is also the study of regions and their natural resources and how these are connected to industries and the environment. In this task, you will explore an industry in your area and the factors affecting its location.

## Instructions

- Begin by **identifying the characteristics of an industrial region**. For example, companies that are thinking about establishing a factory in certain areas will consider many elements. Here are a few factors to take into account:
  - **Raw materials** – What natural resources are available for the production of their product?
  - **Labour** – Do they have the labour force needed to work in their factories?
  - **Energy source** – What energy sources are needed for this company?
  - **Transportation** – How will supplies be brought in and how will the product be distributed? What is needed? (Roads, boats, trains...?)
- Consult the [CanadianVisa](#) site to find out more about Canada's natural resources.
- Refer to the factors determining the location of industries in the Appendix.
- Look around your own region or choose a region described in your [Issues and Territories](#) textbook (pages 124-135).
- Complete the table in the Appendix based on what you have found out about your industrial region.

## Materials required

Useful resources, depending on personal preferences and availability:

- device with Internet access
- writing materials (paper, pencils, etc.)
- printer

## Information for parents

### About the activity

Children could:

- do the task with a friend; they could also research other areas online if they wish to look beyond their own region

Parents should:

- discuss with their child the various factors companies consider when choosing a location to establish a factory or industry

# Appendix - Natural Resources and Industries

## Factors determining the location of industries

- Availability of raw materials, land, water, labour, power, capital and transport
- Proximity to markets or consumers
- Approval of the authorities after thorough assessment of the impact of industrial activities on the environment
- Provision of government incentives to industries located in outlying regions: subsidized power, low transport costs and infrastructure
- Access to ports, mines, railways, low-cost energy, hydroelectric dam, etc.
- Climate

Complete the table based on what you have found out about your industrial region:

Region	Industry	Raw Materials/Natural Resource	Factors determining location
Example: Trois-Rivières (page 129 in textbook)	Paper manufacturer	<ul style="list-style-type: none"> <li>• Forest/Trees</li> <li>• Wood chips</li> </ul>	<ul style="list-style-type: none"> <li>• Transportation networks</li> <li>• Sawmills</li> <li>• Labour force</li> </ul>