



Republic of the Philippines
Department of Education
REGION III
SCHOOLS DIVISION OFFICE OF NUEVA ECIJA

LEARNING ACTIVITY SHEET
SPECIAL PROGRAM IN ICT 8
FREEHAND DESIGN 8
Third Quarter, Week 1

Name of Learner: _____ Date: _____

Grade Level /Section: _____

Drawing Tools, Materials and Equipment
Company Rules, Regulations and SOP

BACKGROUND INFORMATION FOR LEARNERS

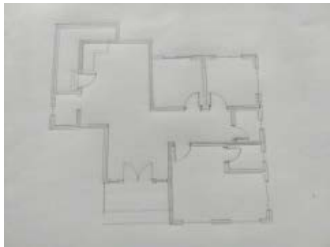
Being part of the millennial generation includes being inclined in technology. But though there are huge changes in the past generations than what we have today, drawing or drafting is still part of our day to day lives. How does this drawings helps us? What is the big part it plays in our everyday living?

What is Technical Drafting

Technical drafting or drawing is making drawings that tells how a product will be constructed. Technical drawing is essential in the industry or engineering because it illustrates how something should be done.

DRAFTING TOOLS, MATERIALS AND THEIR FUNCTIONS

There are variety of drafting materials and tools used in technical drafting. The following are basic technical drafting tools and materials used to complete drafts of a projected product.

ILLUSTRATIONS	MATERIALS, DESCRIPTION AND FUNCTION
 Drawing Paper	<u>Drawing Paper</u> A drawing paper is a thin sheet material used for drawing. It comes in various types (rough or fine) and thickness like 80gsm, 120gsm etc. The abbreviation “GSM” means “grams per square meter”. Like Oslo paper, bond paper is usually used.








Address: Brgy. Rizal, Santa Rosa, Nueva Ecija 3101
Tel. No.: (044) 940-3121
Email Address: nueva.ecija@deped.gov.ph
Facebook: <https://www.facebook.com/groups/DepEDNuevaEcijalssuances>





Republic of the Philippines
Department of Education
REGION III
SCHOOLS DIVISION OFFICE OF NUEVA ECIJA

 Masking tape	<u>Masking tape</u> Masking tape is used to fasten paper to drawing table to avoid unnecessary movement of drawing paper, without damaging it after unfastening it.
 Eraser	<u>Eraser</u> An eraser is a drawing tool that is used for removing marks from paper (e.g. parchment or vellum). Erasers have a rubbery consistency and come in a variety of shapes, sizes and colours. Erasing Shield
 Erasing Shield	<u>Erasing Shield</u> An erasing shield has irregular holes. It usually made up of thin metal and is used to protect the drawing when erasing unnecessary lines.
 Pencil sharpener	<u>Pencil sharpener</u> A pencil sharpener is a tool for sharpening a worn out point of a pencil. It maybe used manually or by an electric motor.
 Pencil	<u>Pencil</u> A pencil is a tool for drawing, sketching or writing. It is made with solid narrow pigment core inside a wooden casing. It comes in different types and shades. 1-hard, 2-medium, 3-soft H pencils are hard, less graphite and lighter. B pencils are softer, more graphite and darker. F means fine point. They are hard and sharp. HB pencil is in the middle of the pencil scale. B's pencils are soft. 8B and 9XXB pencils are softer and darker




Address: Brgy. Rizal, Santa Rosa, Nueva Ecija 3101
Tel. No.: (044) 940-3121
Email Address: nueva.ecija@deped.gov.ph
Facebook: <https://www.facebook.com/groups/DepEDNuevaEcijalssuances>




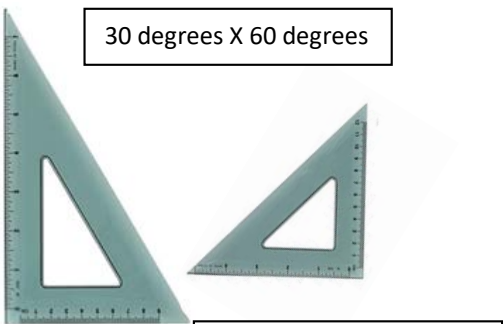
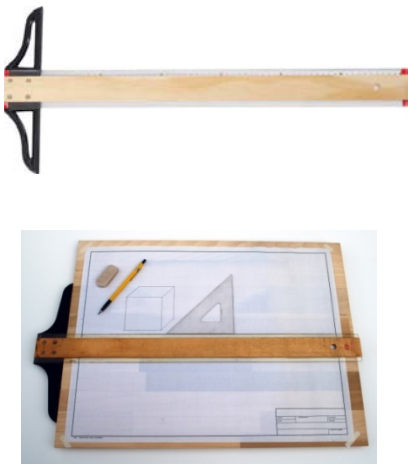


Republic of the Philippines
Department of Education
REGION III
SCHOOLS DIVISION OFFICE OF NUEVA ECIIJA

	<p>A technical pen is an instrument used to make specific line width for architectural, engineering or technical drawings.</p> <p>Technical pens comes in different point sizes and uses either a refillable ink tank or a replaceable ink cartridge.</p>
---	---

DRAWING INSTRUMENTS

Drawing instruments are used for drawing, sketching or designing. Consider its quality before purchasing one if you want to ensure good outcome.

PICTURES	DESCRIPTION/ FUNCTIONS
 <p>Ruler</p>	<p><u>Ruler</u></p> <p>It is the most common type of measuring tool, it is usually made plastic, steel or wood with or 12 inches in length</p>
 <p>Triangles</p>	<p><u>Triangles</u></p> <p>It is a three sided ruler with 90⁰x30x60 and 90x45x45 inclination. The triangle rest on the blade of the Tsquare to measure and create lines accurately.</p> <p>Commonly used triangles are:</p> <ul style="list-style-type: none">• 30 degrees x 60 degrees• 45 degrees x 45 degrees
	<p><u>T-Square</u></p> <p>A T-square is a technical drawing instrument that is used as a guide for drawing horizontal lines on a drafting table. It may also guide triangles to draw vertical or diagonal lines. Its name comes from its resemblance to the letter T.</p> <p>Types of T-square:</p> <ol style="list-style-type: none">1. <i>Fixed Head</i>. It is used for ordinary work that is why its head is fastened to the blade.




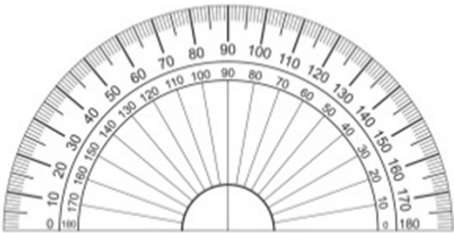


Address: Brgy. Rizal, Santa Rosa, Nueva Ecija 3101
Tel. No.: (044) 940-3121
Email Address: nueva.ecija@deped.gov.ph
Facebook: <https://www.facebook.com/groups/DepEDNuevaEcijalssuances>





Republic of the Philippines
Department of Education
REGION III
SCHOOLS DIVISION OFFICE OF NUEVA ECIJA

<p>T-Square</p>	<p>2. <i>Movable Head or Adjustable Head.</i> It maybe made with fixed head and one adjustable head that is only occasionally used.</p> <p>3. <i>Detachable Head or Removable Head.</i> It has detachable head. Usually used by students for the purpose of ease in carrying.</p>
 <p>Triangular Scales</p>	<p><u>Triangular Scales</u></p> <p>This is a tool used when reproducing a drawing in an enlarged or reduced form to some regular proportion. Its main function is to reproduce the measurements of an object in full size, reduced size, and enlarged size.</p>
 <p>Compass</p>	<p><u>Compass</u></p> <p>A compass is used to draw arcs and circles. A compass has two legs, one compose of spike to point the center of an arc and the other leg has a pencil led than can be replaced with pen holder in the instance of drawing an arc or circle using ink.</p>
 <p>Divider</p>	<p><u>Divider</u></p> <p>Divider is used to transfer measurements and divide lines of an arc or circle into the desired number of equal parts. It is necessary to constantly practice using it to achieve easy control and accuracy of the expected output. It is used similarly with compass, the only difference is the divider adjust its leg at the center.</p>
 <p>Protractor</p>	<p><u>Protractor</u></p> <p>This drawing tool is usually made with plastic material. It's semi-circular shape is divided into 180 equal parts that is called degree. It used to determine or measure degrees of the arcs, angles and circle.</p>





Republic of the Philippines
Department of Education
REGION III
SCHOOLS DIVISION OFFICE OF NUEVA ECIJA

Company Rules, Regulations and SOP

Businesses including the construction industry plays a big role in the development of our country thus, it involves million workers. In this situation, companies set and follow rules, regulations and standard operating procedure.

A standard operating procedure (SOP) is an overview of the processes behind an operation task. A standard operating procedure provides formal (typically written) guidelines for workers about how to proceed in completing the activity.

Meanwhile, during the pandemic period, the government agency in-charge of constructions has set SOP for construction sites operating during the Coronavirus (COVID-19) pandemic to ensure that companies are protecting their workforce by implementing measures to minimize the risk and spread of infection. Cleaning, disinfecting, and other maintenance and security services performed by building service employees are critical to protecting the public health by reducing COVID19 infections.

LEARNING COMPETENCY

Plan and prepare for work

ACTIVITIES

ACTIVITY 1

Directions: Arrange the jumbled letters to reveal the tools or equipment.

1. ETCIASNGULARAL _____
2. ROCRPORTAT _____
3. TANLESRIG _____
4. ASCPSOM _____
5. DESIELRHANGSI _____

ACTIVITY 2

Directions: Write **true** if the statement is true and **false** if it is false.

- _____ 1. Construction companies follow rules and SOP in completing the activity
- _____ 2. Protractor is usually made with plastic material. It's semi-circular shape is divided into 180 equal parts that is called degree.
- _____ 3. B pencils are softer, more graphite and darker.
- _____ 4. H pencils are soft.
- _____ 5. Divider is used to transfer measurements and divide lines of an arc or circle into the desired number of equal parts.



Address: Brgy. Rizal, Santa Rosa, Nueva Ecija 3101
Tel. No.: (044) 940-3121
Email Address: nueva.ecija@deped.gov.ph
Facebook: <https://www.facebook.com/groups/DepEDNuevaEcijaIssuances>





Republic of the Philippines
Department of Education
REGION III
SCHOOLS DIVISION OFFICE OF NUEVA ECIJA

ACTIVITY 3

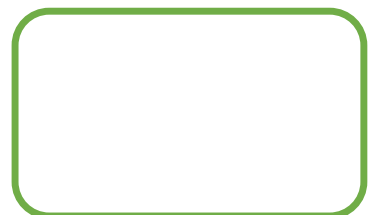
Directions: Draw the tool or equipment.



T-Square



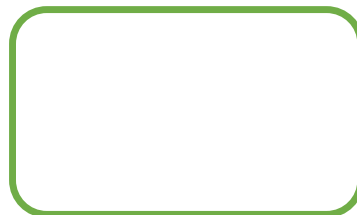
Eraser



Erasing shield



Divider



Compass

ACTIVITY 4

Directions: Multiple choice. Select the best answer that the sentence described. Select and write your answer on the space provided before the number.

- ____ 1. Among the following, which type of pencil is in between soft and hard.
a. FB b. HB c. H d. HF
- ____ 2. Which of the following drafting tool is used in dividing lines, transferring measurements?
a. Compass b. Triangle c. Divider d. Triangular Scales
- ____ 3. A drafting material used for fastening the drawing paper on the drawing table
a. Compass b. Divider c. Masking Tape d. Triangle
- ____ 4. What drafting tool is used to protect the rest of the drawing from accidentally erasing essential lines.
a. erasing shield b. pencil sharpener c. eraser d. masking tape
- ____ 5. The type of t-square that has detachable head.
a. fixed head b. detachable head c. movable head d. unattached head
- ____ 6. To layout an angle or an arc, which measuring tool used?
a. eraser b. Divider c. Protractor d. Tape ruler
- ____ 7. The most common type of measuring tool.
a. Tape ruler b. Triangle c. Ruler d. Scale
- ____ 8. How does an erasing shield made?


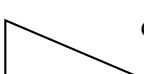
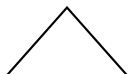
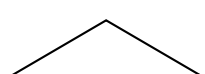


Address: Brgy. Rizal, Santa Rosa, Nueva Ecija 3101
Tel. No.: (044) 940-3121
Email Address: nueva.ecija@deped.gov.ph
Facebook: <https://www.facebook.com/groups/DepEDNuevaEcijaIssuances>





Republic of the Philippines
Department of Education
REGION III
SCHOOLS DIVISION OFFICE OF NUEVA ECIJA

- a. Made with circles and squares
b. Made with thin lines
c. made with curves and triangles
d. made with irregular holes
9. This tool is used when reproducing a drawing in an enlarged or reduced form to some regular proportion
a. Compass b. Protractor c. Triangle d. Triangular Scales
10. This tool comes in various thickness and comes with soft and hard surfaces for best drawing result.
a. Cloth b. paper c. plastic d. board
11. A drafting tool that is used to sharpen pencils.
c. Erasing shield b. sharpener c. cutter d. triangles
12. Which of the following tool is best to use in drawing a horizontal line?
a. Compass b. Triangle c. T-square d. Triangular Scales
13. Along with the t square, this tool is used to draw vertical lines.
a. ruler b. triangle c. compass d. ruler
14. The pencil type soft, medium and hard is represented by what numbers?
a. 1, 3, 4 b. 2, 3, 4 c. 1, 3, 5 d. 1, 2, 3
15. How does a $45^\circ \times 45^\circ \times 90^\circ$ triangle look like?
a.  b.  c.  d. 

Reflection

How did you find the lesson given? Among the drafting materials and drawing tools and instruments, which caught your attention and found it interesting?

In the lesson given, you have learned basic tools used in technical drafting. Some of them look familiar but they will help you a lot in creating your best output or drawing.

REFERENCES FOR LEARNERS

<https://www.google.com/search?q=paper+gsm+meaning&oq=paper+gsm&aqs=chrome..69j0l7j69j52j0j7&sourceid=chrome&ie=UTF-8>

https://en.wikipedia.org/wiki/Pencil_sharpener#cite_note-CoughlanHughes2007-1



Address: Brgy. Rizal, Santa Rosa, Nueva Ecija 3101
Tel. No.: (044) 940-3121
Email Address: nueva.ecija@deped.gov.ph
Facebook: <https://www.facebook.com/groups/DepEDNuevaEcijaIssuances>





Republic of the Philippines
Department of Education
REGION III
SCHOOLS DIVISION OFFICE OF NUEVA ECija

https://www.google.com/search?q=masking+tape&safe=active&sxsrf=ALeKk01JIZUuPDmrBACwAPMcXQ-4LA3XJg:1594298624649&tbm=isch&source=iu&ictx=1&fir=GrwsBqmCifMXyM%252CfmBnQG6TYEcW9M%252C%252Fm%252F049pcz&vet=1&usg=AI4_-kTqwfJya4DEsQmi8LzohETCFwwY4Q&sa=X&ved=2ahUKEwiAmMCZmcDqAhXOEQYKHXAkBiUQ_B16BAgMEA4&biw=1366&bih=657#imgsrc=GrwsBqmCifMXyM

https://en.wikipedia.org/wiki/Pencil_sharpener#cite_note-CoughlanHughes2007-1

<https://www.doityourself.com/stry/how-to-use-a-t-square>

https://www.google.com/search?q=eraser&safe=active&sxsrf=ALeKk02p39H9rFOCuSrW9GiX9bGaya0-cA:1594360102989&tbm=isch&source=iu&ictx=1&fir=cjk8yhfhzHqtGqM%252CtA9MQ6nlBqtWAM%252C_&vet=1&usg=AI4_-kRpWwwIOoEy2mmnv32F8XIV-vyOrQ&sa=X&ved=2ahUKEwjXldSc_sHqAhWVwosBHRfPDH0Q9QEwBXoECACQOg&biw=1366&bih=657#imgsrc=27ZZhUeGiKdMEM
<https://ae01.alicdn.com/kf/HTB1w6lYLXXXXXXzXXXXXq6xXFXXX3/Staedtler-Mars-Matic-700-Technical-Pen-Fine-Point-Pen-refillable-Tubular-Tip-0-1-0-13.jpg>

<https://media.buzzle.com/media/images-en/illustrations/education/1200-610884-protractor-to-measure-and-draw-angles.jpg>

<https://banner2.cleanpng.com/20190226/yyi/kisspng-tape-measures-vector-graphics-tool-illustration-me-5c759f28bba455.5614372715512123287686.jpg>

<https://i.ebayimg.com/images/g/96UAAOSwSs1cFLiY/s-l300.jpg>

Prepared by: **IRMA I. TRINIDAD**
Name of Writer

Noted by: **LABERNE A. LADIGNON, JR**
Division ICT Coordinator/ OIC EPS



Address: Brgy. Rizal, Santa Rosa, Nueva Ecija 3101
Tel. No.: (044) 940-3121
Email Address: nueva.ecija@deped.gov.ph
Facebook: <https://www.facebook.com/groups/DepEDNuevaEcijaIssuances>





Republic of the Philippines
Department of Education
REGION III
SCHOOLS DIVISION OFFICE OF NUEVA ECIJA

1. B
2. C
3. C
4. A
5. C
6. C
7. C
8. D
9. D
10. B
11. B
12. C
13. B
14. D
15. A

Assessment

1. Protractor
2. 180
3. Degree
4. Gradations
5. Drawing paper
6. Drawing
7. Grams per square meter
8. Fixed head
9. Movable or adjustable head
10. Detachable head

Fill in the Blanks

What I have Learned

1. True
 2. True
 3. True
 4. False
 5. True
- True or False

Activity 2

1. Triangular scale
2. Protractor
3. Triangles
4. Compass
5. Erasing shield

Activity 1

Answer Key



Address: Brgy. Rizal, Santa Rosa, Nueva Ecija 3101
Tel. No.: (044) 940-3121
Email Address: nueva.ecija@deped.gov.ph
Facebook: <https://www.facebook.com/groups/DepEDNuevaEcijaIssuances>

