



Oide

Tacú leis an bhFoghlaim
Ghairmiúil i measc Ceannairí
Scoile agus Múinteoirí

Supporting the Professional
Learning of School Leaders
and Teachers

Phase 5: Graphics Statements 2023/2024



Introductory text for JCSP Statements Supporting The Junior Cycle Graphics

The statements below were developed with input from a number of practicing Graphics teachers in JCSP schools. They are offered **as one possible model** that teachers may use to approach the new Junior Cycle Graphics Specification. They will be adjusted over time based on feedback from teachers in JCSP schools.

The new Graphics Specification may be accessed in full at www.curriculumonline.ie.

In addition, support for teaching of the Junior Cycle Specification may be accessed through the Junior Cycle for Teachers (JCT) Technologies team at www.jct.ie.

It is important to note that the statements below offer a sample approach for the creation of Junior Cycle Graphics statements. They do not cover all of the learning outcomes which are expected to be taught in the new junior cycle course.

August 2023

Area of Experience

Technical Graphics / Graphics

Technical Graphics / Graphics

Student:

Class:

At Junior Cycle level I can:

Date Commenced: / /

Date Awarded: / /

GRJC1 I am able to draw in 2D using my Graphics drawing equipment

☐ ☐ ☐

GRJC2 I am able to represent objects in 3D

☐ ☐ ☐

GRJC3 I can apply my understanding of Graphics to communicate information and ideas through a range of media

☐ ☐ ☐

4. 3D objects

Apply the knowledge and skills of drawing needed to understand the design and construction of 3D objects

☐ ☐ ☐

5. CAD programs

Apply the skills, knowledge and understanding needed to produce a graphic image using Autocad (or other suitable CAD program)

☐ ☐ ☐

10. Drawing: 2D shapes

Use basic drawing instruments to demonstrate the skills of drawing and the knowledge of basic 2D shapes

☐ ☐ ☐

11. Drawing: Complex 2D and 3D shapes

Use basic drawing instruments to demonstrate the skills of drawing and the knowledge of more complex 2D shapes and basic 3D shapes

☐ ☐ ☐

12. Scale drawings

Use the full range of drawing instruments to produce scale drawings

☐ ☐ ☐

Work begun ☐ ☐ ☐ | Work in progress ☐ ☐ ☐ | Work completed ☐ ☐ ☐

I am able to draw in 2D using my Graphics drawing equipment

Graphics

Statement Code: GRJC1

Student:

Class:

I can

I have begun ☐☐☐ | I am working on this ☐☐☐ | I can ☐☐☐

This has been demonstrated by my ability to:

- | | |
|---|--|
| 1. Identify and name the equipment I use in Graphics | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 2. Complete a drawing accurately from a given dimensioned image | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 3. Draw horizontal and vertical lines using my drawing equipment | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 4. Identify 2D shapes such as circles, triangles and rectangles in the world around me | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 5. Draw a selection of 2D shapes accurately | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 6. Draw at least three regular polygons to given dimensions | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 7. Use a protractor to draw acute and obtuse angles accurately | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 8. Draw a circle using a compass to a given measurement and label its radius, diameter and centre | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 9. Present my drawings neatly and accurately | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 10. Draw the plan and front elevation of a 3D object using my Graphics drawing equipment | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |

Reflecting on my learning...

One thing I did well...

One thing I did to improve...

I really enjoyed...

because...

I am able to represent objects in 3D

Graphics

Statement Code: GRJC2

Student:

Class:

I can

I have begun ☐☐☐ | I am working on this ☐☐☐ | I can ☐☐☐

This has been demonstrated by my ability to:

1. Identify 3D solids such as a sphere, cube and cone in the world around me
2. Identify the 3D solids that are contained within an everyday product
3. Draw objects in 3D using oblique drawing
4. Draw objects in 3D using isometric drawing
5. Draw a well-proportioned 3D sketch of an object
6. Create a 3D model, such as a cube or a pyramid, using card or paper
7. Use computer aided design software to draw a 3D model of an object
8. Sketch the 3D view of an object from its plan, elevation and end view
9. Draw a perspective view of a cube
10. Use colour and shade to improve the appearance of 3D image

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reflecting on my learning...

One thing I did well...

One thing I did to improve...

I really enjoyed...

because...

I can apply my understanding of Graphics to communicate information and ideas through a range of media

Graphics

Statement Code: GRJC3

Student:

Class:

I can

I have begun ☐☐☐ | I am working on this ☐☐☐ | I can ☐☐☐

This has been demonstrated by my ability to:

- | | |
|---|--|
| 1. Communicate my ideas using 2D and 3D sketching | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 2. Apply colour and labelling to a drawing to communicate material finishes | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 3. Develop ideas through modelling with material such as card, paper or foam | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 4. Identify some strengths, and some ways to improve my communication skills | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 5. Create graphics to communicate information | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 6. Use computer-aided design software to communicate my ideas | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 7. Use a camera to gather examples of 2D shapes and 3D objects in the world around me | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 8. Discuss my primary and secondary research | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 9. Present information graphically using digital technology | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 10. Work as part of a group to communicate information | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |

Reflecting on my learning...

One thing I did well...

One thing I did to improve...

I really enjoyed...

because...

3D objects

Tec.Graphics

Statement Code no: 4

Student:

Class:

At Junior Certificate level the student can:

Apply the knowledge and skills of drawing needed to understand the design and construction of 3D objects

Date Commenced: / /

Date Awarded: / /

Learning Targets - This has been demonstrated by your ability to:

- | | | |
|----|---|--|
| 1 | Recognise the following 3D shapes from your environment: sphere, cube, cuboid, cone | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 2 | Give examples of the above 3D shapes from the environment | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 3 | Recognise the following 3D shapes: square-based, triangular-based and polygonal pyramids and prisms | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 4 | Recognise and copy simple isometric objects made up of cubes and cuboids under direct teacher guidance | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 5 | Estimate and measure a small 3D object with rectangular sides and record measurements on a given 3D drawing | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 6 | Dismantle a cardboard container to show the shape of its construction | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 7 | Understand an exploded view of a container | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 8 | Draw and construct a simple 3D container from a given development drawing containing dimensions, using paper or card | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 9 | Understand plan and front elevation of a simple object by reference to a 3D solid | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 10 | Demonstrate an understanding of plan and front elevation of a simple object by colouring surfaces on given isometric drawings | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 11 | Draw a plan and front elevation of a simple everyday solid and insert dimensions | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 12 | Understand the following terms: elevation, isometric, development, envelopment | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 13 | Follow a simple design brief to draw and construct a simple container from card, plastic, metal, or wood | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |

Work begun ☐ ☐ ☐ | Work in progress ☐ ☐ ☐ | Work completed ☐ ☐ ☐

CAD programs

Tec.Graphics

Statement Code no: 5

Student:

Class:

At Junior Certificate level the student can:

Apply the skills, knowledge and understanding needed to produce a graphic image using Autocad (or other suitable CAD program)

Date Commenced: / /

Date Awarded: / /

Learning Targets - This has been demonstrated by your ability to:

- | | | |
|----|---|--|
| 1 | Identify and name computer hardware materials: monitor, mouse, mouse pad, keyboard, printer, plotter, floppy disk | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 2 | Identify software terms using 'Autocad' through MS DOS/Windows | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 3 | Understanding the following commands: draw, line, circle, polygon, modify, erase, open, exit, save, properties etc. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 4 | Use the 'assist' menu | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 5 | Draw objects to given dimensions | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 6 | Save and retrieve drawings on different drives | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 7 | Print a hard copy using a printer or a plotter | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 8 | Use the following commands: fillet, chamfer, rotate, mirror, rectangular array | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 9 | Identify which commands have been used to create a given drawing | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 10 | Use 'layers' command as a control on information | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 11 | Use CAD to produce a useful graphic image that conveys information without using words | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |

Work begun ☐ ☐ ☐ | Work in progress ☐ ☐ ☐ | Work completed ☐ ☐ ☐

Drawing: 2D shapes

Tec.Graphics

Statement Code no: 10

Student:

Class:

At Junior Certificate level the student can:

Use basic drawing instruments to demonstrate the skills of drawing and the knowledge of basic 2D shapes

Date Commenced: / /

Date Awarded: / /

Learning Targets - This has been demonstrated by your ability to:

- | | | |
|----|---|--|
| 1 | Recognise and name drawing instruments: set square, T square and compass | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 2 | Measure and transfer in mm and cm to given length | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 3 | Lay out page neatly including title box | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 4 | Draw horizontal and vertical lines using T square and set squares | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 5 | Draw neat lettering in captials using guide lines | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 6 | Name basic 2D shapes in your environment | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 7 | Draw a rectangle and a square to given dimension, using a ruler and set squares | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 8 | Construct triangles to given measurements using 90°/45° and 60°/30° angles | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 9 | Draw a circle, using compass, ruler and set squares to given measurement | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 10 | Identify circle, radius, diameter, arc and centre
(and abbreviations or symbols where appropriate) | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 11 | Recognise dimensions in a given drawing and apply set
standards for dimensioning basic 2D shapes | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 12 | Construct geometrical patterns within 2D images using drawing equipment | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |

Refer also to: All subjects except Physical Education

Work begun ☐ ☐ ☐ | Work in progress ☐ ☐ ☐ | Work completed ☐ ☐ ☐

Drawing: Complex 2D and 3D shapes

Tec.Graphics

Statement Code no: 11

Student:

Class:

At Junior Certificate level the student can:

Use basic drawing instruments to demonstrate the skills of drawing and the knowledge of more complex 2D shapes and basic 3D shapes

Date Commenced: / /

Date Awarded: / /

Learning Targets - This has been demonstrated by your ability to:

- | | |
|---|--|
| 1 Copy to given dimensions, a drawing containing rectangles, squares and circles from printed materials | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 2 Recognise and understand the line types, centre line, hidden detail and construction lines | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 3 Draw octagons and hexagons in a circle using compass, T square and set square only | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 4 Measure given angles using a protractor | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 5 Construct and explain a variety of acute and obtuse angles using set squares | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 6 Use drawing instruments to construct pictorial views of basic 3D shapes | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 7 Draw triangles using ruler, compass and protractor | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 8 Draw octagon, hexagon, and pentagon of given dimension using ruler, compass and protractor | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 9 Construct basic geometrical 3D shapes (e.g. cube, rectangular prism and cylinder) to given measurements in oblique projection | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 10 Construct basic 3D geometrical shapes (e.g. cube, rectangular prism) to given measurements in isometric projection | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 11 Draw a cube using a 2 point perspective drawing | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 12 Enhance 3D images through the use of colour and shade | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |

Refer also to: All subjects except Physical Education

Work begun ☐ ☐ ☐ | Work in progress ☐ ☐ ☐ | Work completed ☐ ☐ ☐

Scale Drawings

Tec.Graphics

Statement Code no: 12

Student:

Class:

At Junior Certificate level the student can:

Use the full range of drawing instruments to produce scale drawings

Date Commenced: / /

Date Awarded: / /

Learning Targets - This has been demonstrated by your ability to:

- | | | |
|----|--|--|
| 1 | Bisect a line using a compass | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 2 | Draw parallel lines using set squares and a T square | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 3 | Draw parallel lines using 2 set squares | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 4 | Divide a line into 3 equal parts | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 5 | Estimate and measure in meters | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 6 | Draw a plan of a room outline and insert dimensions in meters (in sketch form only) | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 7 | Understand scale drawings and identify symbols on simple house plans | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 8 | Draw a simple scale in meters and use it to draw a plan of familiar rooms or buildings | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 9 | Enlarge drawings using grid method | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 10 | Enlarge a basic shape by projection | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |

Refer also to: All subjects except Physical Education

Work begun ☐ ☐ ☐ | Work in progress ☐ ☐ ☐ | Work completed ☐ ☐ ☐