



Lowerhouse Junior School Computing Overview Sheet



Year 5 – Vector Drawing

National
Centre for
Computing
Education

Rationale: In this unit learners will find out that vector images are made up of shapes. They will learn how to use the different drawing tools and how images are created in layers. They will explore the ways in which images can be grouped and duplicated to support them in creating more complex pieces of work. This unit is planned using the Google Drawings app other alternative pieces of software are available.

Progression: This unit progresses students' knowledge and understanding of digital painting and has some links to desktop publishing in which learners used digital images. They are now creating the images that they could use in desktop publishing documents.

Overview:

Lesson 1: To identify that drawing tools can be used to produce different outcomes
Lesson 2: To create a vector drawing by combining shapes
Lesson 3: To use tools to achieve a desired effect
Lesson 4: To recognise that vector drawings consist of layers
Lesson 5: To group objects to make them easier to work with
Lesson 6: To evaluate my vector drawing

Subject Knowledge

Lesson 1: In this lesson learners will be introduced to vector drawings and begin to have an understanding that they are made up of simple shapes and lines. Learners will use the main drawing tools within a software package. This unit is written assuming the use of [Google Drawings](#)
Lesson 2: During this lesson learners will begin to identify the shapes that are used to make vector drawings. They will be able to explain that each element of a vector drawing is called an **object**. Learners will create their own vector drawing by moving, resizing, rotating, and changing the colours of a selection of objects.
Lesson 3: During this lesson learners will continue to increase the complexity of their vector drawings by using the zoom tool to help them add detail. They will begin to understand how grids and resize handles can be used to improve consistency in their drawings and use tools to modify objects, creating different effects.
Lesson 4: During this lesson learners will gain an understanding of layers and how they are used in vector drawings. They will learn that each object is built on a new layer and that these layers can be moved forward and backward to create effective vector drawings.
Lesson 5: During this lesson learners will be taught how to duplicate multiple objects. They will learn how to group objects to make them easier to work with, how to copy and paste these images, and then make simple alterations.
Lesson 6: During this lesson learners will understand how digital images can be made from shapes or pixels. They will suggest and implement improvements to vector drawings and complete the unit by creating their own labels for the classroom using the skills they have learned.

Assessment/Key Skills

Formative assessment

Assessment opportunities are detailed in each lesson plan. The learning objective and success criteria are introduced in the slide deck at the beginning of each lesson and then reviewed at the end. Learners are invited to assess how well they feel they have met the learning objective using thumbs up, thumbs sideways, or thumbs down.

Summative assessment

Learners are invited to assess how well their videos met the objectives of the unit. Please see the assessment rubric document for this unit.