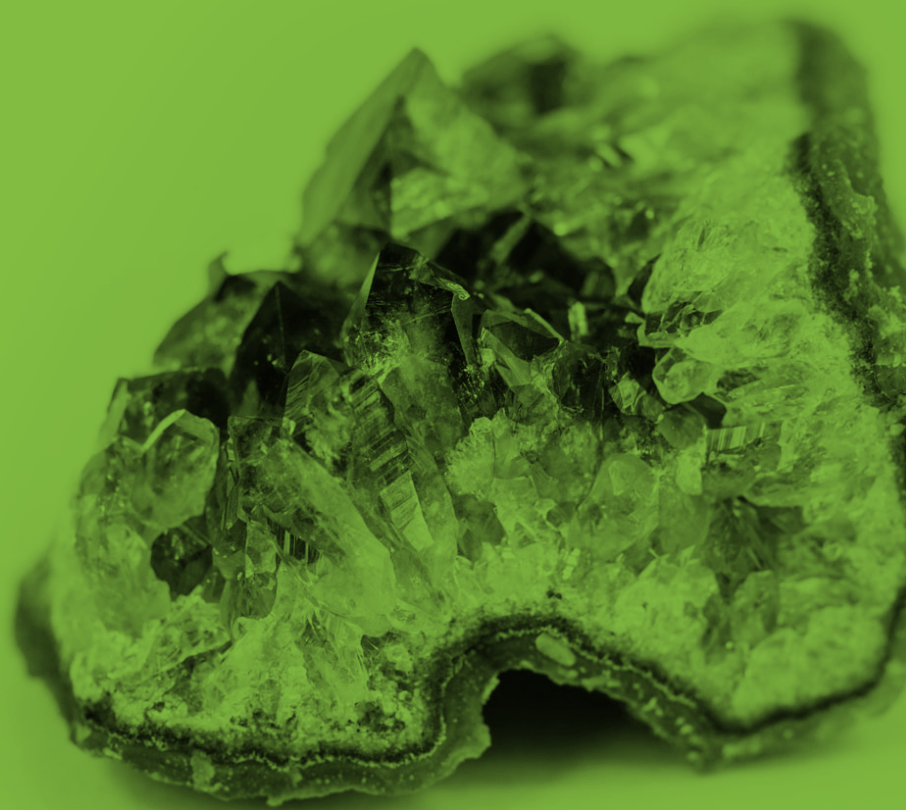


GCSE (9-1)

WJEC Eduqas GCSE (9-1) in  
**GEOLOGY**

Practical Guidance Sheet 5



## GCSE Geology Practical Guidance Sheet 5

Title: The use of photomicrographs to identify minerals and rock textures

Specification reference: 1.2a, 1.3b, 1.3d, 1.4c

Appendix B. The requirement to use photomicrographs to identify minerals and rock textures is stated in Appendix B.

**Aim:** To use photomicrographs to identify minerals and rock textures of igneous, sedimentary and metamorphic rocks.

**Apparatus:**

Photomicrographs or drawings of photomicrographs of a range of igneous, sedimentary and metamorphic rocks

Ruler

Mineral data sheet.

**Method (igneous rocks):**

1. Select a photomicrograph of an igneous rock.
2. Describe the texture of the rock:
  - crystalline
  - crystal size (s): coarse (>3mm), medium (1-3mm), fine (<1mm)
  - other textural features: equicrystalline, porphyritic
3. Describe and identify the minerals within the rock.

**Method (sedimentary rocks):**

1. Select a photomicrograph of a sedimentary rock.
2. Describe the texture of the rock:
  - clastic/fragmental/granular
  - grain size (s)
  - grain shape
  - the degree of sorting of the grains
3. Describe and identify the minerals within the rock.

**Method (metamorphic rocks):**

1. Select a photomicrograph of a metamorphic rock.
2. Describe the texture of the rock:
  - crystalline
  - foliated, including type of foliation (slaty cleavage, schistosity) or non-foliated
  - crystal size (s)
3. Describe and identify the minerals within the rock.

If petrological microscopes are available learners could be provided with thin sections of a variety of rock types which could be drawn and annotated.

Alternatively learners could draw and annotate images of thin sections using internet sources or learners could be provided with copies of images for annotation.

Websites containing thin section images of a variety of rocks include:

<https://goo.gl/MyKPRx>

<https://goo.gl/hy0iaS>