

Assessment in IGCSE Mathematics

Session 3: Handout 3.15

Resource packs

This activity looks at developing resources and teaching strategies to support the teaching of a topic.

Consider the starting points to delivering a whole topic in mathematics.

- What do I want the students to learn?
- How do I scaffold the learning into individual lessons and specific learning objectives?
- How much time do I think will be needed?
- How will I assess the learning?
- How will I teach – is there a prescribed methodology within the department for this topic, and what resources will be used?

These issues may well already be addressed within the Mathematics Departments' schemes of work. Planning for individual lessons, resources and key teaching points is the main issue.

In selecting resources consider the following:

- Are the learning objectives adequately addressed by the resources?
- Do the resources offer a variety of learning opportunities and styles?
- Are key points from Examiner Reports on the topic included and are past paper questions available to use?
- Is the range of abilities and the individual needs of my students addressed? e.g. is there enough balance between challenge and support?
- Will the approach generate enthusiasm and motivate the students?
- Is there appropriate use made of IT opportunities?

(Contd.)

For individual lessons consider the following possible phases:

1. **Starter** – could be a settling activity, a recap on previous learning, a puzzle, mental work, etc. Does it necessarily have to be related to the main theme of the lesson?
2. **Main theme** – explaining the object of the lesson and teacher exposition
3. **Student activities**
4. **Plenary/conclusion**, reflecting on the learning objectives and assessing progress, perhaps setting homework

Resource development activity

At the completion of unit 3

Consider a mathematics topic at either Core or Extended level and develop a resource trail/pack to support learning on this topic. CIE offers a wealth of materials on websites and published work and there are also many other websites with ideas and resources.

In producing your pack, consider your answers to the questions already posed on this handout in making your selections.