



# Effective Educational Resource Development

## Advice for providers



These principles of effective educational resources describe the quality features that the Ministry of Education builds into the resources it produces for New Zealand schools.

These resources include materials for students, such as the *School Journal*, and materials for teachers, such as the support materials that accompany the *School Journal*, 'handbooks' like *Effective Literacy Practice*, and online resources, such as *Assessment Online*. Some of the principles relate more closely to teachers' materials; others are more relevant to resources for students.

The eight principles are based on New Zealand approaches to teaching and learning. They draw on extensive research about effective teaching and the kinds of resources that support it.

Each principle includes questions that publishers and resource developers can ask to ensure that the materials they produce will support effective teaching and have a positive impact on students' learning.

## The Principles

Effective educational resources:	
1	have a clear instructional purpose
2	make positive connections with learners' knowledge, experience, and identity
3	build knowledge about what is required for achieving particular tasks
4	are engaging
5	support the use of assessment to enhance learning
6	help teachers to understand what research is saying about effective teaching and to put it into practice
7	are ethical, just, inclusive, and fair
8	are well crafted, structured, and appropriate for their purpose

## Principle 1

### **Effective educational resources have a clear instructional purpose.**

Effective educational resources help to improve educational outcomes for students by positively influencing teaching and learning.

The New Zealand Curriculum (NZC) sets out the learning outcomes we value as a nation, in the form of values, key competencies, and achievement objectives. Together, these outcomes contribute to the vision of young people who are 'confident, connected, actively involved, lifelong learners' in a world characterised by rapid technological and social change.

The curriculum is designed and interpreted at three levels: the national curriculum, the school curriculum, and the classroom curriculum. At the school and classroom levels, teachers, students, and whānau work together to create a local curriculum that meets the needs and supports the achievements of all students. Effective educational resources are a critical support in this active and collaborative process. Teachers combine knowledge of their students and of the curriculum to select and use these resources in ways that provide rich opportunities for learning.

### **Key questions**

- Does the resource support the values, key competencies, and achievement objectives of the New Zealand Curriculum, while also being responsive to local goals and aspirations?
- Does it clearly indicate its audience and purpose?
- Will it foster the development of the skills and knowledge that contribute to success for students, giving them the competencies needed for lifelong learning?
- Does it support teaching and learning of curriculum area content at an appropriate level?
- Can it be tailored to support differentiated teaching that will take account of students' particular learning needs and scaffold and accelerate their learning?
- Does it help teachers and students work together to identify intended learning outcomes, to give and receive feedback, and to set directions for learning?

## Principle 2

### **Effective educational resources make positive connections with learners' knowledge, experience, and identity.**

Learning is an active process that involves many different kinds of connections. People learn best when they are able to connect new learning with what they already know and can do. And they also learn best when they feel that their culture and identity is valued and acknowledged.

Effective teachers help students learn by recognising and valuing the diversity of knowledge, skills, interests, and experience that the students bring to their learning. In a reciprocal learning community, everyone is a learner, and everyone has something to offer to the learning of others.

Effective curriculum materials support teachers to make deliberate and positive connections with the languages and cultural practices of their students' whānau and communities. A single resource could not be expected to do this for all students in a school, but a series of resources should reflect the cultural balance of New Zealand society.

### Key questions

- Can students see themselves in the resource, and is it relevant to their goals and interests?
- Does it help students make links with prior knowledge or related learning and with their aspirations for the future?
- Does it support diversity as a resource for learning by encouraging inclusive practices and avoiding stereotyping or deficit thinking?
- Will it help teachers make connections with students' diverse languages, cultures, and ways of learning?
- Does it support reciprocal learning relationships, both within the classroom and with the students' whānau and communities?
- Does it support teachers to listen and respond to the voices of students?
- Will it help teachers to monitor their own learning and identify next steps for their professional development?

### Principle 3

#### **Effective educational resources build knowledge about what is required for achieving particular tasks.**

When we are learning how to accomplish a particular task, we need to actively build knowledge of the disciplines associated with the task. For example, a student working on a maths task needs to develop specialised knowledge about mathematical concepts, practices, symbols, and terms.

Effective teachers build a 'community of practice' in which everyone working on a particular task shares their knowledge, resources, and perspectives as they move from being 'novices' to becoming 'experts'. Within such a community, teachers scaffold students' learning in ways that are appropriate for their developing expertise. To do so, teachers blend their content knowledge with their knowledge of effective pedagogy to develop the 'pedagogical content knowledge' needed to teach effectively within a specific discipline.

Effective resources provide support for this scaffolding; for the building of teachers' pedagogical content knowledge; and for the creation of classroom communities of practice.

### Key questions

- Does the resource support students to develop the knowledge, skills, and learning strategies they need for a particular task?
- Will it encourage collaborative problem solving and support inquiry learning?
- Does it help students and teachers to understand what successful completion of the task would look like?
- Is it levelled appropriately to provide support for students' diverse learning needs, including their ability to cope with the literacy demands of the task?
- Does it support students to understand what and how they are learning so that they can transfer their new knowledge and skills to successive tasks?
- Will it support teachers to develop both their content knowledge and their pedagogical content knowledge?
- Does it recognise that students belong to a community of learning and can draw on multiple sources of information to solve problems?

## Principle 4

### **Effective educational resources are engaging.**

Effective educational resources hold learners' interest, stimulate thinking, fuel their imaginations, and reward repeated use. They captivate both the mind and emotions and build on the learners' cultural and linguistic backgrounds.

Teachers can use such materials to design worthwhile learning activities that are connected to the real world. Such activities may include opportunities for students to create and share similar resources for themselves.

#### **Key questions**

- Does the resource include rich and compelling content that asks provocative questions, stimulates critical thinking, and rewards repeated use?
- Does it draw on and affirm students' cultural knowledge, experience, and values?
- Will its design appeal to students and encourage them to engage with it?
- Does it allow learners to explore topics and choose activities that will arouse their interest, fuel their imaginations, and generate memorable learning?
- Does it offer access to knowledge through a range of learning modes (for example, visual, auditory, and kinaesthetic modes)?
- Will it inspire students to create similar resources of their own and to put what they have learnt into practice?

## Principle 5

### **Effective educational resources support the use of assessment to enhance learning.**

The main purpose of assessment is to enable learning. An essential part of assessment is the ability to give and respond to feedback. Effective feedback involves the questions "Where am I going?"; "How am I doing?"; and "Where to next?"

Effective teachers are able to gather and analyse a range of assessment information and use it to improve teaching and learning. They understand the expected levels of achievement for a particular task, and they draw on a range of assessment tools and sources to help them gauge their students' progress and measure the success of their own teaching.

Students learn to reflect on and direct their own learning and achievement. They understand the assessment tools being used and what their results mean. In partnership with their teachers and peers, they learn to self-assess and to give and receive feedback.

#### **Key questions**

- Does the resource help teachers to assess students' existing knowledge and skills, as a basis for new learning?
- Will it support self assessment and peer assessment while promoting access to immediate, frequent, and constructive feedback?
- Does it provide information about what expected levels of achievement would look like?
- Does it describe a range of assessment tools and approaches for monitoring students' progress?
- Does it show teachers how to analyse assessment information and use it to monitor students' progress, engage in learning conversations with them, and plan next steps for their learning?

## Principle 6

### **Effective educational resources help teachers to understand what research is saying about effective teaching and to put it into practice.**

Effective teachers understand current research about teaching and learning, and they know how to put these theories into practice. They recognise that learning takes place when people critically and collaboratively reflect on new information in terms of their existing knowledge, experience, and beliefs. They seek out repeated opportunities to try out their new learning, reflect on what happened, and consider what their next steps should be.

Effective educational resources convey important ideas about teaching and learning in ways that can be understood and implemented in the classroom. They are deliberately designed to help teachers understand the insights from research and their implications for practice. They support teachers to make confident and informed decisions about their programmes, while allowing space for teachers and students to work together to construct new learning.

#### **Key questions**

- Is the resource based on sound research about what works best for students' learning?
- Does it clearly explain the reasons for a suggested change in practice, the purpose of the change, and the evidence that supports it?
- Does it build teachers' understanding of key concepts and terms?
- Does it include examples that will help teachers to translate theory into practice in a range of contexts?
- Will it encourage collaborative teacher learning within communities of practice?
- Does it treat teachers and students as active participants in building new knowledge?
- Does it promote access to additional learning supports, such as online communities of practice or professional learning facilitators?

## Principle 7

### **Effective educational resources are ethical, just, inclusive, and fair.**

All educational resources used in New Zealand schools must be consistent with the principles and values of the New Zealand Curriculum (NZC) and with national and international policies on rights and responsibilities with regard to social justice.

While most New Zealanders believe in these principles, values, and policies, they can be challenging to translate into practice. Resources can help users to see what they mean and how they might enact them in their own lives.

#### **Key questions**

- Does the resource embody and convey the NZC's principles: high expectations, Treaty of Waitangi, cultural diversity, inclusion, learning to learn, community engagement, coherence, and future focus?
- Does it embody and convey the NZC's values: excellence; innovation, enquiry, and curiosity; diversity; equity; community and participation; ecological sustainability; integrity; and respect?
- Is it consistent with schools' legal obligations and with government policies?
- Does it support teachers and students to value diversity as a resource for learning?

- Is it respectful in tone and inclusive of all users (for example, in its content, layout, presentation, and accessibility)?
- Does it acknowledge and respect the copyright of all its sources of information and images?
- Is it affordable, and can it be accessed in a variety of ways?

## Principle 8

### **Effective educational resources are well crafted, structured, and appropriate for their purpose.**

Educational resources will only achieve their instructional purpose if their content and suggested activities are aligned with their purpose and with the needs of the learner.

Effective resources are clearly written and designed in a way that makes them easy to understand and use. They incorporate deliberate learning supports that help learners understand key concepts. At the same time, they take account of the need to organise material as clearly as possible to avoid overloading the user.

### **Key questions**

- Is the resource clearly written, logically structured, error-free, and coherent?
- Does it have a clear purpose, and does it meet this purpose?
- Does it use key terms accurately and consistently, connecting abstract ideas to relevant examples?
- Does it include developmentally appropriate text features, such as glossaries, footnotes, and web links?
- Is the format suitable for its audience, with clear and appropriate fonts, visual features, and layout?
- Was it developed in collaboration with its intended users?
- Does it include engaging and culturally appropriate visual images that enhance meaning and do not distract from the key messages?
- Is the design and layout accessible to all users, and, in the case of digital resources, able to be accessed flexibly by diverse users?

For examples of Ministry-funded resources for schools, visit our *Down the Back of the Chair* website ([www.thechair.co.nz](http://www.thechair.co.nz)) for printed resource orders or *Te Kete Ipurangi* ([www.tki.org.nz](http://www.tki.org.nz)) which provides online support for teaching and learning.