

Project approach

A project approach is an in-depth exploration of a topic that may be child-or teacher-initiated and involve an individual, a group of children, or the whole class. A project may be short-term or long-term depending on the level of children's interests. What differentiates the project approach from an inquiry one is that within the project approach there is an emphasis on the creation of a specific outcome that might take the form of a spoken report, a multimedia presentation, a poster, a demonstration or a display. The project approach provides opportunities for children to take agency of their own learning and represent this learning through the construction of personally meaningful artefacts.

The benefits of a project approach are that young learners are directly involved in making decisions about the topic focus and research questions, the processes of investigation and in the selection of the culminating activities. When young learners take an active role in decision-making agency and engagement is promoted.

As young learners take ownership of their learning they, 'feel increasingly competent and sense their own potential for learning so they develop feelings of confidence and self-esteem' (Chard, 2001).

Teacher decision-making

When selecting a project approach teachers consider:

- young learners' interests and capabilities and dispositions to learning
- their own interests, skills, capabilities and philosophies
- the Australian Curriculum learning area content
- evidence of learning
- school and community contexts.

The questions that inform teacher decision-making when planning a project may include:

- is there a readily available supply of resources to support the project that enables young learners to make discoveries using multiple senses, for example, read, listen to, manipulate, explore, lift and hold? Such opportunities can help young learners to generate research questions.
- does the project topic have clear links to Australian Curriculum content descriptions and will it help young learners to meet year level achievement standards?
- are young learners interested in the project topic and is it culturally and contextually relevant?
- how are young learners supported to develop meaningful questions related to the project?
- what skill will young learners require to participate in the project?
- what opportunities will young learners have to represent their learnings using multiple modes?
- how will the project fit within the existing timetable and what human resources will be needed, for example to support group work?



Key drivers of a project approach

The key drivers that underpin a project approach provide a framework for teachers to discuss the benefits of this approach with colleagues and parents. The capacity to articulate why a particular approach is used helps to reassure parents of the potential benefits for their child in terms of short-term and long-term educational outcomes. The key drivers also help to shape teachers' decisions in ways that support young learners' holistic development, a critical aspect of contemporary education (see *Age-appropriate pedagogies for the early years of schooling: Foundation paper*). While meeting the requirements of the Australian Curriculum, a project approach affords opportunities for young learners to develop the skills and dispositions needed for 21st century learning. Young learners are encouraged to develop meta-learning skills. These include the capacity to observe, theorise, hypothesise and make predictions, to test out theories, to document and record ideas, questions and findings multi-modally, and to reflect on and evaluate their learning.

Ownership of learning is shared: Learning is an active process. Opportunities for young learners to participate in decision-making and make choices are a central feature of project approach to learning.

Learning experiences are purposeful: Projects connect curriculum requirements and the interest of young learners providing opportunities for deeper engagement.

Prior learning is valued: Projects draw on young learners' prior knowledge of a topic and investigative skills. Young learners are encouraged to share their ideas and contributions are valued.

Collaboration supports learning: Projects provide opportunities for cooperation and collaborative learning in small and large group experiences that transcend ability and friendship groups.

Feedback facilitates new learning: Feedback is timely and specific. It provides opportunities for teachers to model how to give and accept feedback.

Time: The time required for a project will vary according to the focus for the project, young learners' experiences, skills in group work, and any monitoring or assessment task linked to the project.

What knowledge, skills and dispositions do young learners need to engage in a project approach?

The effectiveness of a project approach to learning is enhanced when young learners have experience and skills associated with collaboration and co-operation, problem solving, giving and accepting feedback, working as part of a team, recalling and sharing information. The knowledge, skills, and dispositions for working in a group as part of a project are closely linked to those identified in the Australian Curriculum general capabilities, specifically personal and social capability. When teachers model the desired language and behaviours for personal and social capability they enhance young learners' capacity to interact in ways that support learning.

Personal and social capability: Teachers discuss and model ways to:

Recognise emotions	‘When I’m feeling really cross, I take some deep breaths, and think to myself, it will be okay. Just try again.’
Expresses emotions appropriately	‘Jasper when someone in your group isn’t sharing you can use words to solve the problem. Next time try “It’s my turn to use iPad, please pass it to me.”’
Work collaboratively	‘Thanks for sharing the pencils Maisie. Now all the children in your group can draw their plans.’
Share ideas with others	‘I’m making a sign for the puppet show. It’s going to say, “Welcome everyone”.’
Communicate effectively	‘When you talk about your discoveries with the class you need to look at the group, stand up tall and use a clear voice.’
Negotiate and resolve conflict	‘When you disagree with someone instead of saying, “You’re wrong” in an angry voice, try saying, “Why don’t we all take a turn to share our ideas”, then decide what to do next.’
Use words to solve problems	‘Why don’t we draw a plan and then talk about what each of us will do?’
Develop leadership skills	‘Maybe Keira can help us with the sign, she knows lots of words.’

Personal and social capability is a key aspect of working collaboratively and co-operatively with others. To support young learners to develop these skills and dispositions teachers use a range of classroom group experiences. When selecting the size of the team for group work, the larger the group the more potential there is for interaction, and also for challenges to arise. Working in pairs, is therefore, often used in the initial phases of helping young learners develop the skills for working collaboratively. In pair activities, individuals are assigned the role of listener or speaker. As these skills develop other roles are introduced, for example, speaker and questioner. When introducing these skills, teachers may model the desired behaviours with individuals for the whole class. There are numerous teaching strategies for introducing group work and collaborative skill development including, pair/triad/quad, think-pair-share, think-pair share square, jigsaws, snowballing, inner/outer circles and placemat grouping. Detailed explanations of each strategy can be found at the following website.

Promoting group work, collaborative and co-operative learning in the primary school. <http://www.pdst.ie/sites/default/files/Session%203%20PS%20Co%20Op%20%E8%A2%20Group%20Work.pdf>

Jolliffe, W. (2007). Cooperative learning in the classroom: Putting it into practice.

In addition to personal and social capability, the project approach connects closely with the Australian Curriculum general capabilities critical and creative thinking capability as young learners are encouraged to generate and test out ideas, seek out information, consider possibilities and problem solve.

Critical and creative thinking capability: Teachers discuss and model ways to:

Pose questions	'I'm really interested in animal camouflage. I wonder why only some animals use camouflage to protect themselves?'
Identify and clarify information and ideas	'Can you tell me what you were thinking when you...?'
Organise and process information	'I might use a table or a graph to organise this information.'
Imagine possibilities and connect ideas	'I wonder how the story might have changed if Goldilocks wrote an apology letter to the 3 bears?'
Consider alternatives	'How many different ways can we represent a group of 10?'
Seek solutions and put ideas into action	'Perhaps if we make some posters about the magpies the signs will warn everyone that the magpies are swooping because they have babies in their nests.'
Think about thinking (metacognition)	'When I'm not sure how to solve a problem I ask myself, "Where can I get more information?", "Who might be able to help?" or "What's another way I could do this?"'
Reflect on processes	'Let's think about when the Year 6 buddies come to help with papier maché. What can we do to make sure that we don't get glue everywhere?'
Transfer knowledge into new contexts	Remember when we made Mother's Day cards that they started with the words "Dear Mum." If you write an email or a letter they need to start with "Dear."
Apply logic and reasoning	'If we don't have air holes in our bug catcher the bugs won't be able to breathe and they will die.'
Draw conclusions and design a course of action	'The paintbrushes have all gone stiff. Maybe if we put them in a jar of water the bristles on the brushes might become softer?'
Evaluate procedures and outcomes	'When you think you've finished your papier maché, step back, look at it from every direction and ask yourself, "Do I need to do anything more?"'

Implementing a project approach: the phases

Initial phase of project

A project approach is typically characterised by several phases. In the initial phase the teacher-decision making is anticipatory and focused on curricula, knowledge of learners and organisational considerations.

Project Phase 1

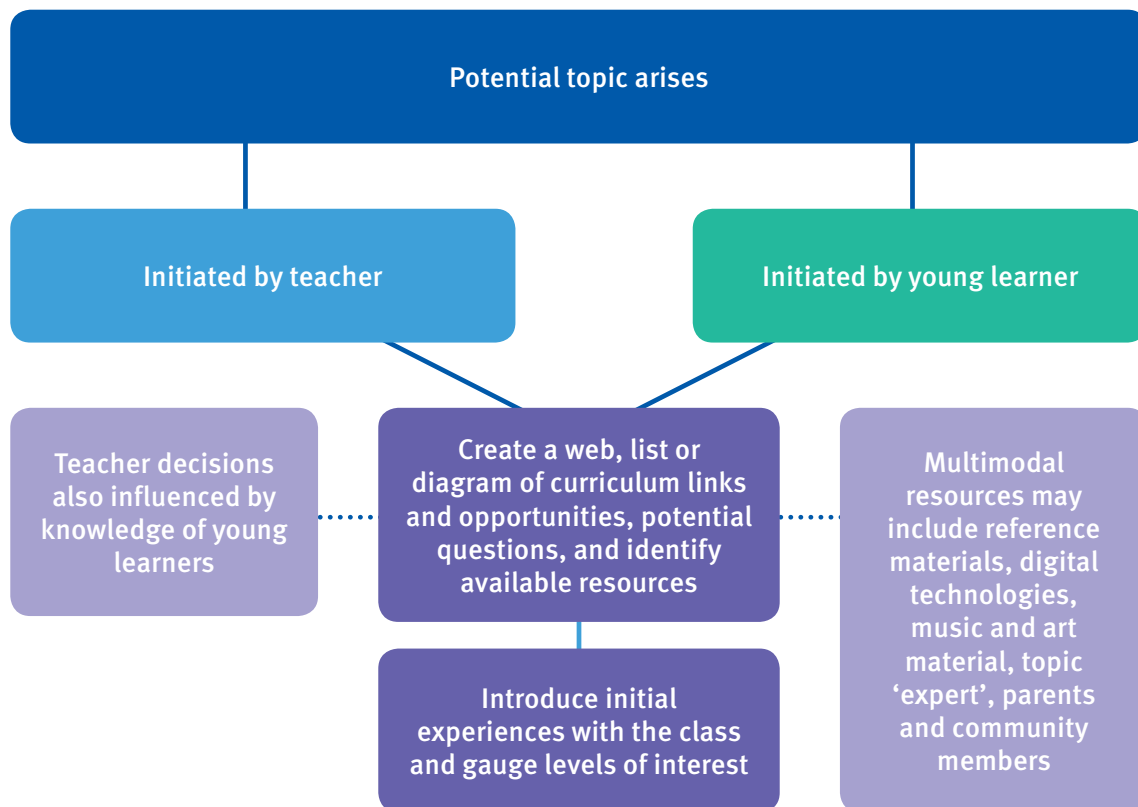


Figure 2 is adapted from the work of Helm, J. H., & Katz, L. G. (2001) *Young Investigators: The project approach in the early years*. New York: Teachers College Press.

Second phase of a project

In the second phase of a project teachers draw on young learners' existing knowledge during class or group discussions to develop a set of research questions. They questions may be broadly focused including:

- What do we know about this topic?
- What do we want to find out/investigate?
- How can we find out more information?
- What did we discover/learn?

In the second phase, as young learners share their ideas for further investigation, teachers may explicitly teach learners to identify what makes a

good question and how to pose and ask questions with examples that keep the focus of the topic linked to the curriculum. A range of helpful information may be found at:

Activities to encourage children's questions
<http://www3.hants.gov.uk/questioningtips.doc>

Teachers also engage young learners in regular reflection sessions to discuss the development and progress of the project, to explore new possibilities within the project and to monitor individual learning in relation to curriculum expectations. During the second phase of a project 'community experts' may be invited to share their knowledge or opportunities for further investigations sought through excursions.

Final Phase

In the final phase of a project, young learners are encouraged to decide how their learning is best represented, for example as a PowerPoint, Photo Story, poster, through music and dance, as a 3D object or a narrated report. In conjunction with this work, teachers may incorporate the requirements of the assessment task into the reported learning.

Teacher self-reflection on understandings of a project approach to learning

- In what ways does the project support a three-step process that includes planning, exploration and culmination?
- In what ways do I orientate young learners towards a shared outcome or the creation of an artefact?
- How do I provide opportunities for individual young learners or small groups to explore aspects of the project that are of specific interest to them?
- How do I provide opportunities for young learners to negotiate the medium used for creating and sharing their project?
- In what ways does my planning demonstrate a strong understanding of the Australian Curriculum learning area/s and associated achievement standard/s that underpin this approach?