

CREATE A TOWER GARDEN PROJECT PLANNER



3 ENTREPRENEURSHIP
EMPLOYABILITY
EDUCATION

PROJECT-BASED LEARNING | LIFE SKILLS



basic education
Department:
Basic Education
REPUBLIC OF SOUTH AFRICA



GRADE **5**

PROJECT-BASED LEARNING GRADE 5 PROJECT PLANNER

Dear teacher and coach

If this is your first experience with E³, we hope that you will soon become as excited as we are. If it's your next round, you know what is waiting for you: lots of excitement from learners and their parents, some pushback from uninitiated colleagues and lots of hard work and on-the-spot problem solving as you deal with the day-to-day challenges and joyful surprises that Project-Based Learning brings into the classroom. Stay focused and stay enthusiastic – once you have a personal plan of action that suits your style and school, things do get easier.

You will notice that we have changed the method of planning as the large bulky Excel document was becoming a little unwieldy and difficult to use. This booklet replaces the spreadsheet and we believe is more user-friendly.

The step-by-step instructions have been bulleted and simplified, but we have also added guidance to the big E³ picture: a summary of why learners are even doing the activity, how PBL is helping and what the actual project is.

Most importantly, however, is an important reminder that we should all be remembering the compelling goal that is driving this programme:

*To ensure that **youth unemployment** is seriously addressed, every South African must be gainfully employed as an entrepreneur, have a job or be pursuing an educational journey after school.*

Please pay attention to the development of the competencies learners need to develop to flourish in a challenging post school environment.

To assist you we have included a table of the competencies that E³ is promoting to ensure our learners are ready and excited to enter a changing world. Use the reflection sheets at the end of this booklet to track your own development of competencies! Use the language in the table to guide your feedback.

Have fun – laughter truly is a powerful tool for unleashing a love for learning and the confidence that we need to be successful in an uncertain future.



RUBRIC TO RATE THE LEVEL OF COMPETENCIES AND E-MINDSET



COMPETENCIES	Character	Citizenship	I am very committed and involved in various activities in my community and people regard me as someone to follow in my circle of influence.
		Curiosity	I am very curious about everything around me and all my senses are alerted to possibilities which I always put into practice.
		Resilience	When I face challenges I am always excited about the possibilities and I always get up after I have been unsuccessful. I am always enthusiastic about what I have learned in the process.
	Thinking	Creativity	I always use my imagination to come up with original ideas and/or I am always creating new things.
		Critical thinking	I always form judgements based on my ability to analyse and evaluate objectively.
		Reasoning	I always think about things in a logical and sensible way and I always come up with conclusions easily.
	Collaboration	Collaboration	I always produce good work / things by working well with people (individuals or a team).
		Communication	I am always successful in conveying or sharing ideas or feelings.
		Empathy	I have a highly developed ability to understand and share the feelings of others.
E-MINDSET	Agency	Growth mind-set	I am always open to new information and am always willing to change my beliefs, assumptions and actions as a result.
		Motivation	I always do what needs to be done without needing to be influenced by other people or situations. I always find a reason or the strength to complete a task, even when it is challenging, without giving up or needing anyone else to encourage me.
		Internal locus of control	I always have control of my life and my work is always my own and it is because of this that I experience success often. I never blame others or circumstances on my lack of success.
		Regulation of emotion	I always respond to the demands of a situation with emotions that are socially tolerable and sufficiently flexible to allow spontaneous or delayed reactions – whichever are appropriate.
	Self-efficacy	Tasting success	I have always done things successfully enough to give me “the taste of success” that makes me motivated to want more and to believe that I can get it.
		Socially relatable role model	I have always been fortunate to have been exposed to excellent role models that I can relate to and who make me motivated to want to be like them.
		Positive support	I have always been fortunate to have had someone who has been a positive support to me and who has encouraged me and seen me as a person.
	Solution seeking	Resourceful	I always find quick and clever ways to overcome difficulties and find solutions.
		Problem solving	I always find solutions to difficult or complex problems.

PROJECT-BASED LEARNING | GRADE 5 PLANNER

1



WHY

Students develop deep content knowledge, critical thinking, creativity and communication skills in the context of doing an authentic, meaningful project.

HOW

Students work on a project over an extended period of time that engages them in solving real-world problems or answering a complex question.

WHAT

Learners build a tower garden and organise a tower garden expo.

TEACHER ACTIVITIES FOR THIS WEEK

- Show picture of tower garden to learners so they can understand what it is about.
- Tell learners (before today's class) to bring empty 2 litre bottles and vegetable seeds.
- Divide the class into groups of 6 to 8 learners.
- Let them read the instructions
- Ask the Natural Science teacher to speak to the class about different types of soil and what plants need to grow
- Show learners how to plant seeds and place in sunny spot for quicker germination

OUTCOMES TO ACHIEVE THIS LESSON

- Collect materials.
- Identification and classification of different soils.
- Learn to plant seeds and learn about what plants need to grow.

ENRICHMENT ACTIVITIES

Ask gardening expert to visit school and explain about container gardens. (YouTube: vertical gardens)

CAPS ALIGNMENT AND ASSESSMENT AND OTHER SUBJECT INTEGRATION

Healthy eating for children. SA Food-based dietary guidelines. Dietary needs of children. Saving water.

WHAT ARE THE LEARNERS DOING?

Bring empty 2 litre bottles and vegetable seeds. Learners read through instructions and groups start building their tower gardens, and planting their seeds. Draw pictures of what plants need to grow.

TEACHING TOOLS TO USE IN THIS LESSON (PROCESSES)

Planting seeds and making sure it is well-irrigated

COMPETENCIES TO LOOK FOR IN THIS LESSON

- Teamwork
- Problem solving
- Communication
- Interpersonal skills
- Organisation and leadership skills
- Results orientation

RESOURCES YOU WILL NEED FOR THIS LESSON

- Illustrated instructions
- Writing paper
- Pens, scissors, ruler
- Markers
- Hammer and nails
- Twin or wire
- Garden potting mix
- Seeds (vegetable)
- Plastic bottles
- Text book
- Worksheets

CLASSROOM MANAGEMENT AND LAYOUT

- Give clear instructions
- Manage time
- Active classroom monitoring
- Organisation
- Give feedback

POSSIBLE EXPANDED LEARNING-OPPORTUNITY FOR THIS PROJECT

Create a garden competition and get a professional from outside to adjudicate. Ask follow-up questions. Know your learners.

PROJECT-BASED LEARNING | GRADE 5 PLANNER

2



WHY

Students develop deep content knowledge, critical thinking, creativity and communication skills in the context of doing an authentic, meaningful project.

HOW

Students work on a project over an extended period of time that engages them in solving real-world problems or answering a complex question.

WHAT

Learners build a tower garden and organise a tower garden expo.

TEACHER ACTIVITIES FOR THIS WEEK

- Divide class into groups (again)
- Ask them to discuss where they think (on the school grounds) a tower garden could successfully grow.
- Let them complete the tower gardens and plant seedlings.
- For homework remind them to bring real fruit and vegetables and other healthy foods to school for next lesson (or pictures).
- Start conversations, if time allows, about eating disorders.

OUTCOMES TO ACHIEVE THIS LESSON

- How to build a tower garden.

ENRICHMENT ACTIVITIES

A dietician or community nurse visits to address issues around healthy eating.

CAPS ALIGNMENT AND ASSESSMENT AND OTHER SUBJECT INTEGRATION

Healthy eating for children. SA Food-based dietary guidelines. Dietary needs of children. Saving water.

WHAT ARE THE LEARNERS DOING?

Learners complete their tower garden. For homework they must bring pictures of food or real food items.

TEACHING TOOLS TO USE IN THIS LESSON (PROCESSES)

- Teacher's Project Notes
- Ability to explain major steps in the building process
- Integrate natural sciences, creative arts, technology and languages.

COMPETENCIES TO LOOK FOR IN THIS LESSON

- Teamwork
- Problem solving
- Communication
- Interpersonal skills
- Organisation and leadership skills
- Brainstorming
- Commercial awareness

RESOURCES YOU WILL NEED FOR THIS LESSON

- Illustrated instructions
- Writing paper
- Pens, scissors, ruler
- Markers
- Hammer and nails
- Twin or wire
- Garden potting mix
- Seeds (vegetable)
- Plastic bottles
- Text book
- Worksheets

CLASSROOM MANAGEMENT AND LAYOUT

- Give clear instructions.
- Manage time.
- Active classroom monitoring.
- Organisation
- Give feedback

POSSIBLE EXPANDED LEARNING-OPPORTUNITY FOR THIS PROJECT

Learners can write books/stories to publish online about healthy eating, e.g. an affluent girl who diets too much, a poor child who learns how to survive, etc.



PROJECT-BASED LEARNING | GRADE 5 PLANNER

3



WHY

Students develop deep content knowledge, critical thinking, creativity and communication skills in the context of doing an authentic, meaningful project.

HOW

Students work on a project over an extended period of time that engages them in solving real-world problems or answering a complex question.

WHAT

Learners build a tower garden and organise a tower garden expo.

TEACHER ACTIVITIES FOR THIS WEEK

- Pack the foods/pictures brought by learners on a table.
- Ask learners to sort these items or pictures into different food groups.
- Teacher introduces class to Thumi. Let them read the story and lead the discussion afterwards.

OUTCOMES TO ACHIEVE THIS LESSON

- Healthy eating exhibition
- Knowledge about food groups
- Knowledge about healthy eating

ENRICHMENT ACTIVITIES

A dietician or community nurse can organise a professional display about eating disorders

CAPS ALIGNMENT AND ASSESSMENT AND OTHER SUBJECT INTEGRATION

Healthy eating for children. SA Food-based dietary guidelines. Dietary needs of children. Saving water.

WHAT ARE THE LEARNERS DOING?

Learners pack all the food items or pictures on the table provided and sort into different food groups. They write a letter to Thumi, giving advice for healthy eating.

TEACHING TOOLS TO USE IN THIS LESSON (PROCESSES)

- Poster with all the food groups
- SA dietary guidelines
- Cards with food groups written on them
- Pie chart to show

COMPETENCIES TO LOOK FOR IN THIS LESSON

- Teamwork
- Problem solving
- Communication
- Interpersonal skills
- Organisation and leadership skills
- Brainstorming
- Commercial awareness

RESOURCES YOU WILL NEED FOR THIS LESSON

- Pictures or actual food items
- Writing paper
- Pens
- Table for display
- Text book
- Worksheet

CLASSROOM MANAGEMENT AND LAYOUT

- Give clear instructions
- Manage time
- Active classroom monitoring
- Organisation
- Give feedback

POSSIBLE EXPANDED LEARNING-OPPORTUNITY FOR THIS PROJECT

Learners can create pamphlets on healthy eating to distribute in the community. Teach learners to pickle vegetables, cook jam or can fruit. Interdisciplinary, lifelong learning, mind mapping, use of diverse tools.

PROJECT-BASED LEARNING | GRADE 5 PLANNER

4



WHY

Students develop deep content knowledge, critical thinking, creativity and communication skills in the context of doing an authentic, meaningful project.

HOW

Students work on a project over an extended period of time that engages them in solving real-world problems or answering a complex question.

WHAT

Learners build a tower garden and organise a tower garden expo.

TEACHER ACTIVITIES FOR THIS WEEK

- Open conversation on the importance of water.
- Ask how the quality of water can be protected, and how we can save water and write answers on flash cards.
- Divide the class into groups and ask them to design a poster according to information on flash cards.
- Refer back to tower garden.
- Remind class to keep checking on tower garden, to water, etc.
- Help them to decide on day/hour to exhibit their tower garden and plan finer details.

OUTCOMES TO ACHIEVE THIS LESSON

- Importance of water
- Ways to save water
- Organising skills (tower garden expo)
- Poster design skills

ENRICHMENT ACTIVITIES

A dietician or community nurse can organise a professional display about eating disorders.

CAPS ALIGNMENT AND ASSESSMENT AND OTHER SUBJECT INTEGRATION

Water as an important basic need. Arts and Culture, Natural Science, Languages

WHAT ARE THE LEARNERS DOING?

Learners brainstorm ideas on how to save water. They create a poster about the importance of water. They check on their tower garden. They brainstorm the exhibition of the tower gardens.

TEACHING TOOLS TO USE IN THIS LESSON (PROCESSES)

- Information on the importance of water
- Research on saving water and the quality of water

COMPETENCIES TO LOOK FOR IN THIS LESSON

- Teamwork
- Problem solving
- Communication
- Interpersonal skills
- Organisation and leadership skills
- Brainstorming

RESOURCES YOU WILL NEED FOR THIS LESSON

- Flip-chart paper
- Coloured Koki's
- Writing paper and pens
- Magazines
- Scissors
- Glue
- Textbook
- Worksheet 4.1

CLASSROOM MANAGEMENT AND LAYOUT

- Guide class through the conversation about water and give time for ideas.
- Active classroom monitoring during poster design
- Clear instructions on what should appear on a poster.

POSSIBLE EXPANDED LEARNING-OPPORTUNITY FOR THIS PROJECT

Learners can prepare a speech/presentation on the importance of water and present it at the exhibition to friends/parents.

PROJECT-BASED LEARNING | GRADE 5 PLANNER

5



WHY

Students develop deep content knowledge, critical thinking, creativity and communication skills in the context of doing an authentic, meaningful project.

HOW

Students work on a project over an extended period of time that engages them in solving real-world problems or answering a complex question.

WHAT

Learners build a tower garden and organise a tower garden expo.

TEACHER ACTIVITIES FOR THIS WEEK

- Help learners to get set-up for the tower garden exhibition.
- Ask learners to reflect on the project.

OUTCOMES TO ACHIEVE THIS LESSON

- Organising skills (tower garden expo)
- Presentation skills
- Teamwork
- Introspection and reflection

ENRICHMENT ACTIVITIES

Let the learners download and play Hayday – digital farming game.

CAPS ALIGNMENT AND ASSESSMENT AND OTHER SUBJECT INTEGRATION

Water as an important basic need. Healthy eating for children. Arts and Natural Sciences

WHAT ARE THE LEARNERS DOING?

Learners put up posters, arrange chairs and welcome guests to the tower garden expo. Learners present what they have researched and learned in their posters, etc. Learners reflect on the project.

TEACHING TOOLS TO USE IN THIS LESSON (PROCESSES)

Explain reflection

COMPETENCIES TO LOOK FOR IN THIS LESSON

- Teamwork
- Problem solving
- Communication
- Organisation and leadership skills

RESOURCES YOU WILL NEED FOR THIS LESSON

- Tables, chairs, displays
- Finished tower gardens
- Prestik, tacks
- Visitors (parents, etc.)
- Worksheet 5

CLASSROOM MANAGEMENT AND LAYOUT

- Guide class through putting up the exhibition.
- Give enough time for reflection

POSSIBLE EXPANDED LEARNING-OPPORTUNITY FOR THIS PROJECT

Learners can prepare a speech/presentation on the importance of water and present it at the exhibition to friends/parents.

REFLECTION

3 ENTREPRENEURSHIP
EMPLOYABILITY
EDUCATION

DATE:

TOPIC:

This activity went well because:

1

What I shall do differently the next time I do this is:

I have learned the following about my:

Technical Teaching skills:

Mindset:

REFLECTION

3 ENTREPRENEURSHIP
EMPLOYABILITY
EDUCATION

DATE:

TOPIC:

This activity went well because:

2

What I shall do differently the next time I do this is:

I have learned the following about my:

Technical Teaching skills:

Mindset:

REFLECTION

3 ENTREPRENEURSHIP
EMPLOYABILITY
EDUCATION

DATE:

TOPIC:

This activity went well because:

3

What I shall do differently the next time I do this is:

I have learned the following about my:

Technical Teaching skills:

Mindset:

REFLECTION

3 ENTREPRENEURSHIP
EMPLOYABILITY
EDUCATION

DATE:

TOPIC:

This activity went well because:

4

What I shall do differently the next time I do this is:

I have learned the following about my:

Technical Teaching skills:

Mindset:

REFLECTION

3 ENTREPRENEURSHIP
EMPLOYABILITY
EDUCATION

DATE:

TOPIC:

This activity went well because:

5

What I shall do differently the next time I do this is:

I have learned the following about my:

Technical Teaching skills:

Mindset:

REFLECTION

3 ENTREPRENEURSHIP
EMPLOYABILITY
EDUCATION

DATE:

TOPIC:

This activity went well because:

6

What I shall do differently the next time I do this is:

I have learned the following about my:

Technical Teaching skills:

Mindset: