# **Core Skills Analysis**

## **English**

- Developed following sequential instructions by reading and interpreting a macaroni cheese recipe.
- Expanded food-related vocabulary including ingredients, cooking terms, and kitchen equipment.
- Practiced communication skills by possibly documenting or discussing the cooking process.
- Enhanced comprehension and procedural understanding through hands-on engagement.

#### Math

- Applied measurement skills by accurately measuring ingredients such as macaroni, cheese, and milk.
- Practiced fractions and proportions when adjusting recipe quantities or combining ingredients.
- Used timing concepts related to cooking and baking durations.
- Demonstrated spatial reasoning in mixing and layering ingredients.

#### **Science**

- Explored physical and chemical changes during cooking, such as melting cheese and boiling pasta.
- Understood heat transfer processes including boiling and baking.
- Observed transformations in food texture and consistency through heat application.
- Experienced basic principles of nutrition involved in ingredients used.

### PASS (Personal and Social Capability)

- Built independence and confidence by preparing a meal without prescriptive guidance.
- Developed organizational and time management skills to sequence cooking steps effectively.
- Exercised decision-making in ingredient selection and recipe adjustments.
- Fostered responsibility through safe handling of kitchen tools and ingredients.

### Food Technology

- Practiced foundational cooking techniques such as boiling pasta and making cheese sauce from scratch.
- Understood ingredient functions and interactions within a recipe.
- Gained insight into recipe composition, taste balance, and texture creation.
- Enhanced practical skills in kitchen safety, hygiene, and tool usage.

### **Tips**

To deepen Katherine's understanding and skills from making macaroni cheese, she can experiment with varying the recipe using alternative ingredients to explore taste and nutritional outcomes. Encouraging her to write her own step-by-step recipe with tips or modifications will reinforce sequencing and explanatory writing. A comparative study of different cheese varieties and their melting properties can extend scientific learning. Additionally, organizing a small cooking demonstration or group activity can enhance social skills and confidence, while reflecting on nutritional balance supports a health-conscious mindset.

#### **Book Recommendations**

• The Science of Cooking: Every Question Answered to Perfect Your Cooking by Dr. Stuart Farrimond: Explains the chemistry and physics behind everyday cooking processes in an engaging way for teens.

Mastering Macaroni Cheese: A Hands-On Lesson in Cooking, Science, and Measurement / Subject Explorer / LearningCorner.co

- <u>Kitchen Math for Kids: Everyday Math Made Simple</u> by Carole Marsh: Connects mathematical concepts to cooking activities, helping teens grasp measurement and proportions practically.
- <u>MasterChef Junior Cookbook</u> by Lara Clevenger and MasterChef Junior: Provides approachable recipes and cooking tips geared towards young cooks to build confidence and skills.

## **Learning Standards**

- ACELA1552 Understanding and using specialised vocabulary related to cooking in English.
- ACMMG230 Using measurement and number skills to measure ingredients accurately in Mathematics.
- ACSSU155 Exploring heat and its effects on materials in Science.
- ACPPS015 Developing personal skills such as independence and time management in PASS.
- ACTDEK025 Applying techniques and skills in Food Technology for meal preparation.

## **Try This Next**

- Create a worksheet to calculate ingredient amounts for doubling or halving the recipe including conversion between metric and imperial units.
- Conduct an experiment comparing the melting points and flavors of different cheeses used in macaroni cheese.

# **Growth Beyond Academics**

Katherine's independent preparation of macaroni cheese likely fostered self-confidence and pride in her accomplishments. Managing timing and steps could have supported her focus and organizational skills, while the tangible outcome of a completed meal may encourage positive reinforcement and motivation to try new challenges in the kitchen.