2.6 Task Taxonomy

The Learning Design Studio (LDS) provides a **well-structured ontology of 12 task types**, grouped under **four categories: 1) Directed Learning, 2) Exploratory Learning, 3) Productive Learning, and 4) Reflective Learning**. These task types help make explicit the nature and intent of the learning experiences planned for students, ensuring a balanced and purposeful approach to learning design.

Directed Learning

Receiving & Interpreting Information
Students undertake prescribed activities to acquire information and develop an understanding of a topic.

STEAM Subject:

- Watching a video on photosynthesis
- Reading a textbook chapter about photosynthesis

Language Subject:

- Reading a news report
- Watching a micro movie

Practice
Students work through prescribed tasks to apply learnt content/ skills.

STEAM Subject:

- Labelling the parts of a plant cell with flash cards
- Completing the questions about photosynthesis in the H5P interactive video

Language Subject:

- Practicing pronunciation of new vocabularies in pairs
- Writing sentences using newly learned past tense verbs

Test / Assessment
Students take part in assessment activities.

STEAM Subject:

- Completing a lab report
- Taking a quiz on photosynthesis

Language Subject:

- Analysing an article and respond to questions about its content
- Having a spelling test on the week's vocabularies

Exploratory Learning

Information Exploration
Students seek out and gather existing information from various sources to deepen their understanding of a topic.

STEAM Subject:

- Asking an AI chatbot for information about the rate of photosynthesis
- Benchmarking existing thermal bags online to inform a new design

Language Subject:

- Researching common vocabulary in news reports online
- Using AI tools to analyze the tone and style of a news report

Explorations through Conversation
Students engage in exploration of issues with others through conversations.

STEAM Subject:

- Interviewing clients to identify product needs
- Discussing variables for a fair photosynthesis experiment

Language Subject:

- Interviewing stakeholders about community issues
- Discussing findings from the interview script

Tangible / Immersive Investigation
Students conduct hands-on investigations in physical or virtual settings, generating new data through experiments, surveys, or direct observation.

STEAM Subject:

- Conducting an experiment to collect data on the rate of photosynthesis
- Playing with simple circuits to explore electricity flow

Language Subject:

- Exploring a virtual museum with VR to learn about history and related vocabulary
- Visiting the supermarket to learn vocabulary related to daily life

Productive Learning

Construction: Conceptual / Visual Artefacts
Students work individually or together to construct a conceptual, visual artifact.

STEAM Subject:

- Creating a mind map on photosynthesis using information from the internet
- Designing an experiment plan

Language Subject:

- Creating the writing outline of the news report
- Using AI to develop evaluation criteria for a news report

Construction: Tangible / Manipulable Artefacts
Students work individually or together to construct a tangible, manipulable artifact.

STEAM Subject:

- Building a prototype of a thermal bag
- Building a digital thermometer with a micro:bit.

Language Subject:

- Writing a news report based on an outline
- Creating a storybook using generative AI

Presentation, Performance and Illustration
Students present, illustrate or perform individually or in group.

STEAM Subject:

- Presenting scientific findings from experiments
- Displaying a thermal bag prototype in a competition

Language Subject:

- Presenting a news report
- Screening a post-edited micro movie

Reflective Learning

Reflection
Students engage in reflecting on the learning process & experience and making the thoughts explicit.

STEAM Subject:

- Reflecting on the previous scientific investigation process and identifying its shortcomings
- Writing a journal entry about challenges faced during the prototype development

Language Subject:

- Reflecting on the pros and cons of using AI to create a storyboard for a micro movie
- Writing a reflection on the process of composing a news report

Revision
Students are given an opportunity to re-submit a piece of work, hence giving them a chance to reflect and improve.

STEAM Subject:

- Revising the thermal bag prototype
- Revising the experimental plan for a scientific investigation

Language Subject:

- Revising the content of a news report
- Revising the script of a micro movie before final filming

Self- / Peer- assessment
Students engage in peer- and/ or self- assessment (using self-generated or teacher-provided rubric)

STEAM Subject:

- Using well-designed criteria to self- and peer-assess prototypes of thermal bags
- Using well-designed criteria to self- and peer-assess experimental plans for scientific investigations

Language Subject:

- Using well-designed criteria to self- and peer-assess news reports
- Using well-designed criteria to self- and peer-assess storyboards for micro movies

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