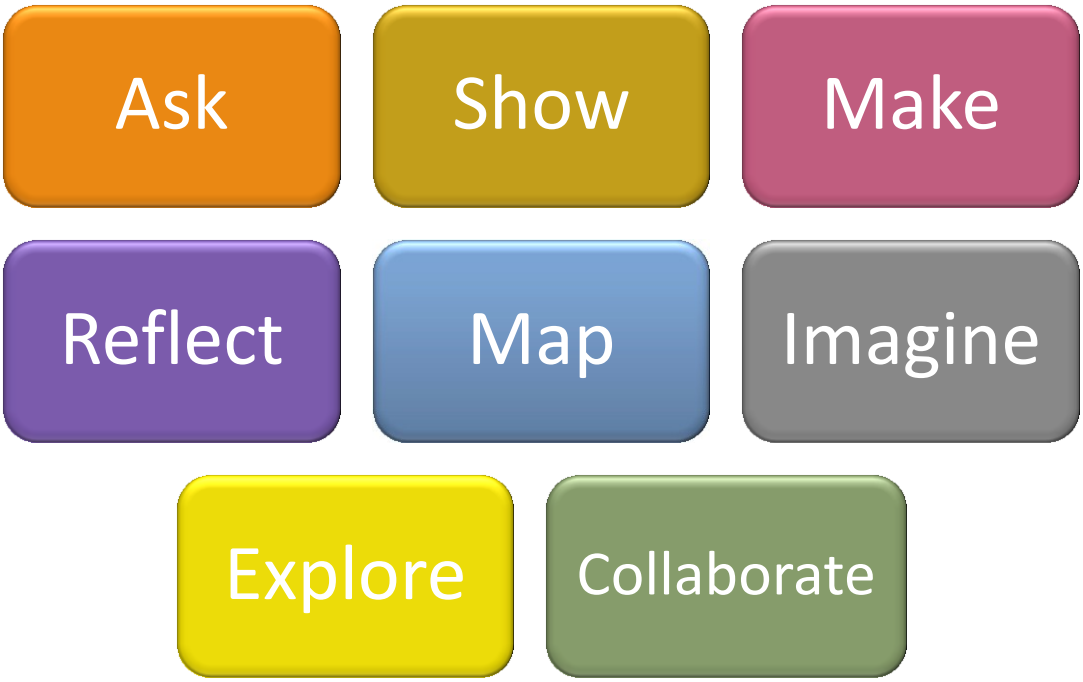
InFlow (Information Flow): An integrated model of applied information literacy

Model summary



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Acknowledgements

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Overview of InFlow

- InFlow is designed to be engaging for students and to support student-centred and individualised learning. It is focussed on authentic learning experiences and the production of creative, tangible outputs.

- It is designed as a process which flows naturally from one element to the next, rather than a set of isolated tasks.

- The elements can be undertaken in any order.

- It is likely that some elements will be repeated several times, but equally, it is not essential to use every element during an activity.

- The iterative nature of tasks is, thereby, made explicit, and students may return to each element several times during the process.

- Students are encouraged to engage with information in a variety of ways as they map, explore, ask, reflect, collaborate, imagine, show and make.

- Collaboration is an important component of InFlow and the model is designed to support group projects and team working. However, each of the elements can also be carried out as an individual task as appropriate.

- The model is designed to adaptable for different age ranges; the basic elements can be applied in tasks from infants to adult education.

- It is possible to use InFlow without drastic timetable restructuring or access to vast resources. The examples in this booklet demonstrate the flexibility of the model in terms of content, timescale and resourcing.

- As the above comments suggest, this model is intended to be refined and adapted by each individual to suit their own situation and the needs of their students. Furthermore, it can be used in a variety of ways.

Learning outcomes

Through using InFlow, students will:

- Learn how to work collaboratively, in teams with other students and also with external collaborators.
- Develop metacognitive skills by reflecting on what and how they learn and how they can progress.
- Develop creativity skills by designing outputs which take account of the needs of potential audiences.
- Understand how to engage effectively with a wide range of primary and secondary information sources.
- Learn to ask for, listen to, act on and give feedback.

Detailed description of InFlow elements

For convenience, the descriptions of the InFlow elements are presented in alphabetical order, but the model is designed to be used in any order, with elements being repeated as appropriate.

Ask

- Student teams communicate their prototypes and design ideas to potential audiences (eg younger children, family members, community members). They may do this using models, drawings, mock-ups etc. which participants are encouraged to modify and comment on prototypes and ideas.
- Students ask for feedback from other groups of students (for example, awarding 'stars' for points they like and 'wishes' for things they think could be improved).
- Students ask for feedback from their teacher (eg by sharing their work within an online learning environment or via a blog).

Collaborate

- Students form teams based on interests and/or skill sets.
- Students share their ideas and resources with other members of their team (eg using blogs or file sharing).
- Students share their resources and ideas with students from other classes/schools, or with external collaborators (eg using blogs or file sharing).

Explore

- Students explore ideas for their output by collecting information from secondary sources (books, websites, videos, blogs etc).
- Students explore ideas for their output by collecting primary data. They collect data by observing relevant practices or environments (eg using digital cameras/video recorders, notebooks and microphones). The resources they explore depend on what they are designing; the audience for their output; and the extent of secondary sources on their topic.

Imagine

- After being introduced to a task, students discuss, question and familiarise themselves with the brief provided. They identify possible needs of the intended audience and consider different options for the final output.
- Students identify possible challenges they will face and consider ways they might overcome these.
- Teams create (or refine) an activity plan, taking account of the audience for their work (eg other students, parents, local businesses), challenges identified and possible results (eg artefact, presentation, game).

Make

- Based on their initial, or revised, plans, student teams create their output. They may do this several times as they create an initial prototype, revised version(s) and final output.
- The output might take a variety of formats, including a presentation, game, learning resource, artefact (digital or non-digital).

Map

- Students organise initial (or revised) ideas and analyse their findings using mind-mapping or other visual techniques.
- They identify relations, similarities and differences between ideas and between the data they have collected.

Reflect

- Students share and record reflections and feedback of project progress, challenges and future steps (see below for ideas for reflection activities).
- Students evaluate the tools and resources they have used to support their learning.
- Student teams build a shared collection of ways to tackle challenges, which can be used after the project has ended.

Show

- Students present their outputs (to other students, teachers, parents, local community etc).
- Students present their process, learning achievements and possible future steps.

How to use InFlow

Below are some suggestions to demonstrate the different ways in which InFlow might be used. Of course, this is not an exhaustive list!

Planning information literacy teaching

The most obvious way in which InFlow can be used is to devise a project (or shorter activity) to strengthen and develop students' information literacy skills. Ideally, this will be embedded within the wider curriculum. Planning could be carried out by the library staff, but would preferably involve others such as subject teachers, students, ICT coordinator, SENCO, and external stakeholders such as local community members or business people. One planning method would be to create a number of coloured cards with each of the elements written on. Participants could then discuss different ways in which the cards could be ordered and work together to create a sequence which they feel flows most effectively.

Empowering students

InFlow could also be used to allow students greater input into the learning process, and a greater degree of control over their learning. Rather than the sequence being set out from the start, at each stage of the activity, students are presented with the 8 elements and asked to discuss which element they think should be carried out next, thereby designing their own learning sequence on an iterative basis.

As an alternative, the card sorting exercise described about could be conducted with students at the start of their project. They could then track how effectively the sequence they design works in practice and reflect on any changes they need to make.

Curriculum planning

InFlow can be used as a planning tool to integrate information literacy into the curriculum at a departmental, cross-curricular or whole school/college level. For example, a group comprising the librarian, teachers and other stakeholders such as the ICT Co-ordinator, SENCO and student representatives could review the curriculum to identify points when each of the InFlow elements might be effectively introduced, thereby making connections between various elements of the curriculum and ensuring previous information literacy teaching is continually built on during a student's course.

Ideas for reflection

Student reflection is likely to be a key component of assessment. Students should be encouraged to reflect throughout on the progress they have made; challenges they have faced; changes they have made to their original plans; and skills they feel they have gained. Reflection is likely to be one of the most difficult elements to engage students in. The following are some suggestions for more motivating reflection activities you might wish to try.

Graffiti wall: A piece of flipchart paper is pinned to the wall and at any point during the session, students can go to the wall and write a word or phrase to indicate how they are feeling about the activity at that moment (all students have to write at least once during the session).

Thumbs up/Thumbs Down/Thumbs to the Side: Students are asked to give immediate feedback about how they are feeling about an activity (eg are they confident about using a resource; have they enjoyed the activity) by indicating with thumbs up, down or sideways (if unsure).

Headlines: Students are tasked with coming up with a headline (within a minute) which sums up the session/activity for them. These should be eye-catching/sensational.

Drawing/modelling: Students create a drawing or model which represents the session/activity for them – these can be abstract! Alternatively, students can create a drawing or model of themselves before and after the activity to show what has changed for them.

Using learner response systems: If you school has learner response systems, these can be used to get immediate feedback from students. For example, students could be asked to respond about how they are feeling about the activity; what they think should be done next; what they feel they have learnt etc. If a number of your students have mobile devices (eg at least one per team), you could use a system such as Socrative (http://www.socrative.com/) as an alternative.

Video diary: Students record a Big Brother-style video diary. One student records their thoughts and another student acts as Big Brother, prompting and asking questions.

Chat show interview: One student plays the role of chat show host and interviews the 'guest' student about their experiences of the project/activity. (For less able or younger students, prepare a script for the host).

Thinking Hats: Based on Edward de Bono's Six Thinking Hats approach, students analyse their project from different perspectives (positive, negative, creative, emotion, thinking). You can make use of technology[1] to support this.

Stand on the line: Students have to stand along a line (eg the library wall) to indicate their response to a question. For example, 'How much have you learnt during the session?' 'Did you prefer working in a group or own your own?'.

If your group was…: Ask the teams of students to imagine they are an object (eg a car). Each team member has to say what part of that object their role represents for the success of the team (eg the

[1] For example, http://exchange.smarttech.com/details.html?id=c22fce6f-b61f-4bf2-a3ad-cd714228ee82

engine – driving force; horn-indicating danger/problems; seatbelt-making sure everything is safe/on track).

Group poem: The group composes a poem about their experiences during an activity; each group member adds one line.

Group sketch: At the end of a longer project, the group write and perform a sketch condensing their experiences of the project into 5 minutes.

Further ideas for assessment

Peer assessment is an important component. Students should be encouraged to give constructive feedback on each other's work. One method of structuring this would be to introduce the notion of awarding 'stars' (things you like) and 'wishes' (things you would change).

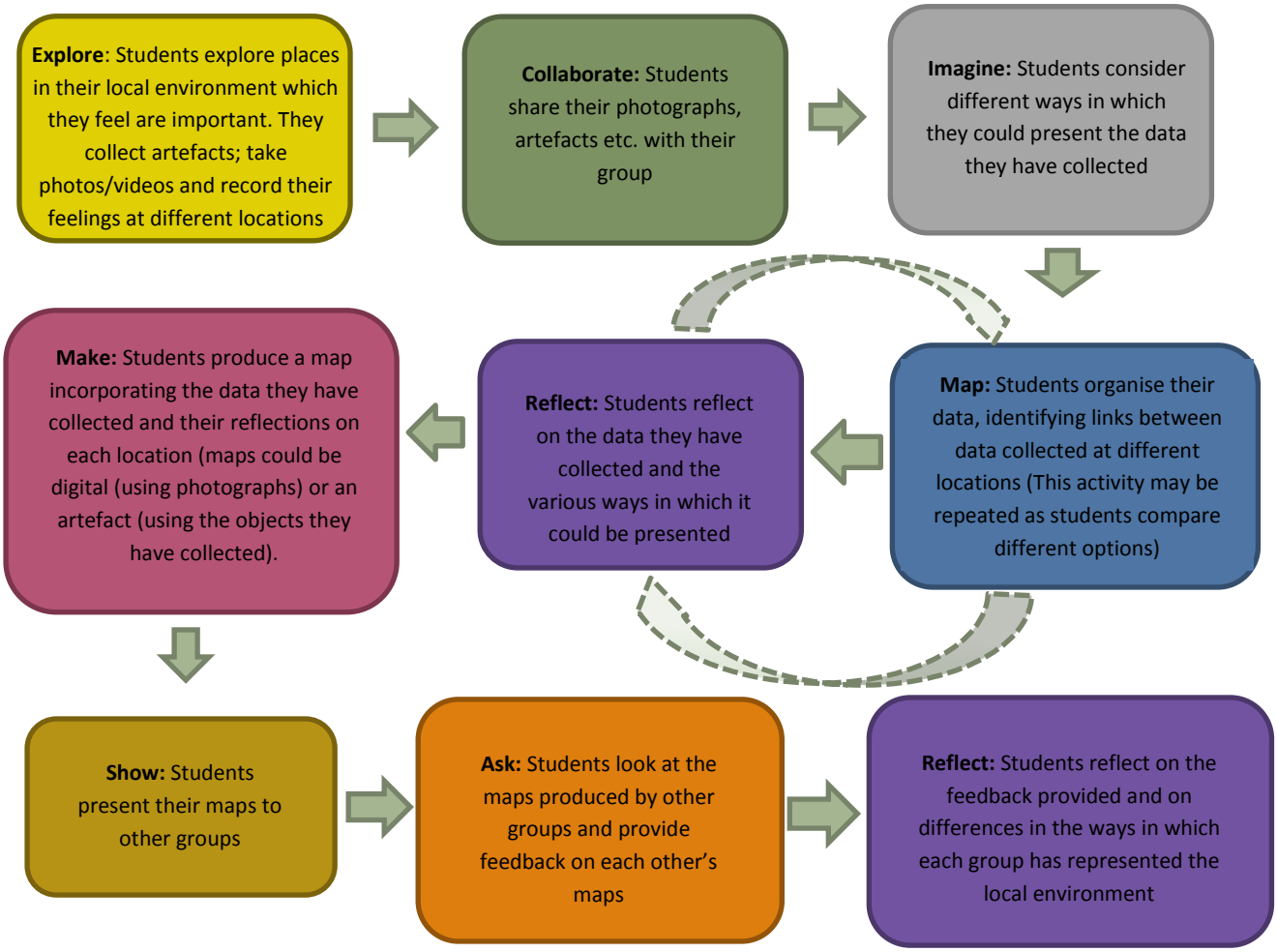
'Expert' feedback could also be introduced as those with expertise in a particular area (usually the people students are designing their final output for) are asked to provide feedback on students' work (experts might include other staff, community members or younger students who are the intended audience for an output).

Librarian/teacher assessment is likely to be based on a number of sources, including reading/listening to students' reflections; observation; and discussions with groups/individual students. If students are involved in determining the sequence of elements undertaken this discussion is also likely to provide valuable assessment information about students' understanding of the learning process. All these can help to identify where students are struggling and need additional support, as well as highlighting progress.

Examples

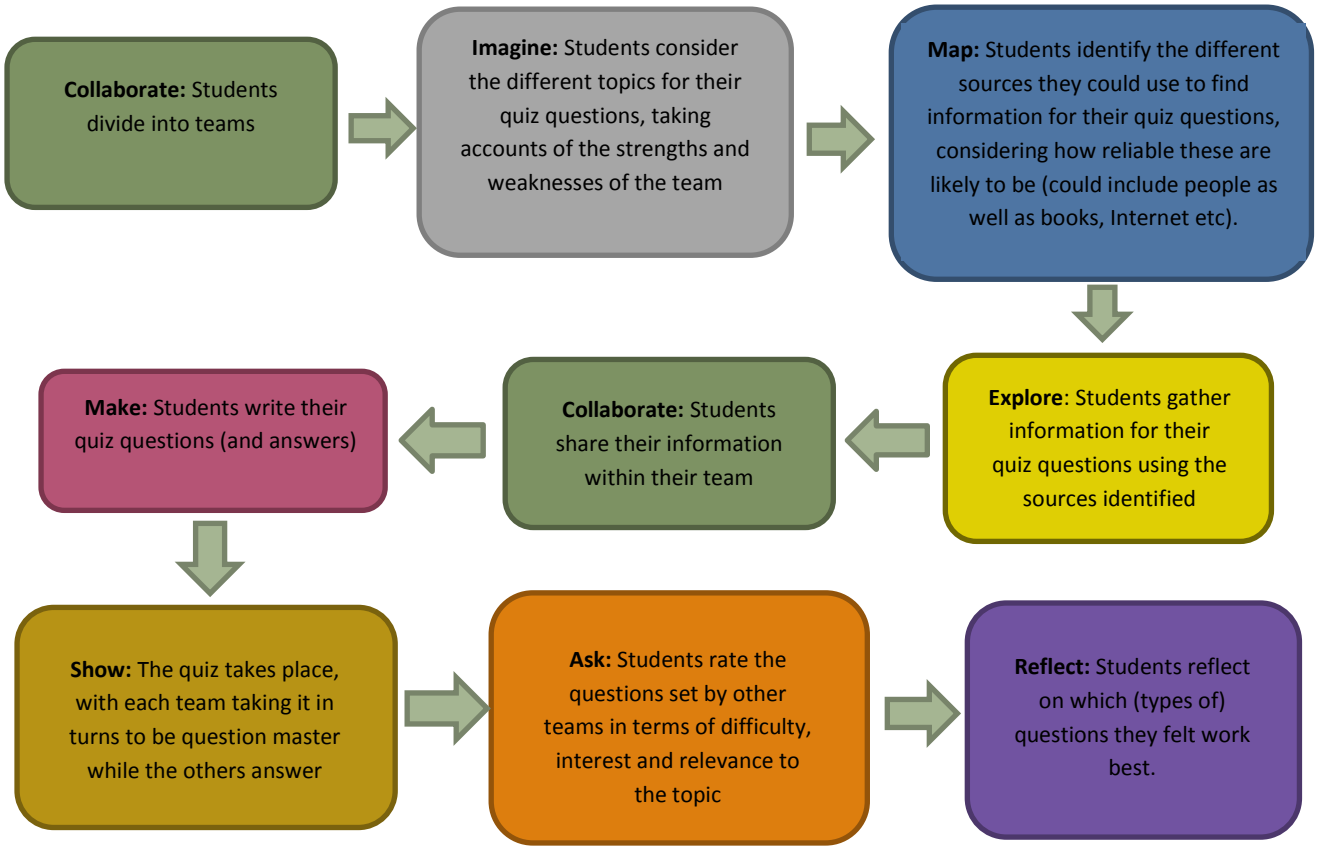
Example 1: Exploring the local environment

Task: Students create their own map of their local environment. (3-4 sessions)



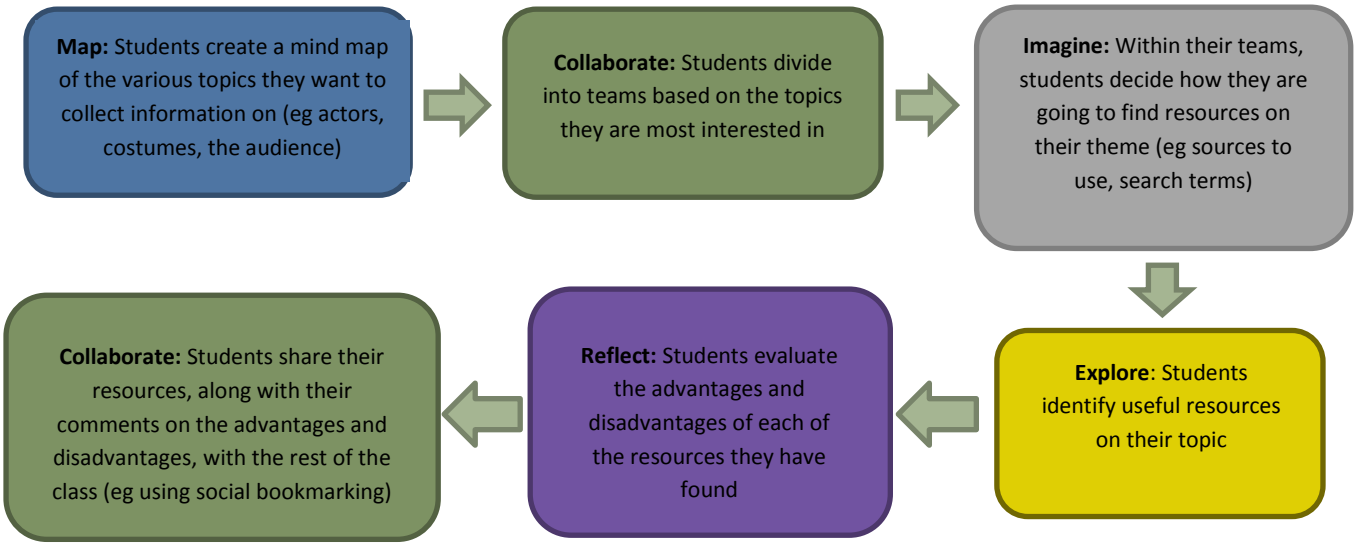
Example 2: Designing a quiz for other students

Task: Teams of students research and devise questions for a class quiz. (1-2 sessions)



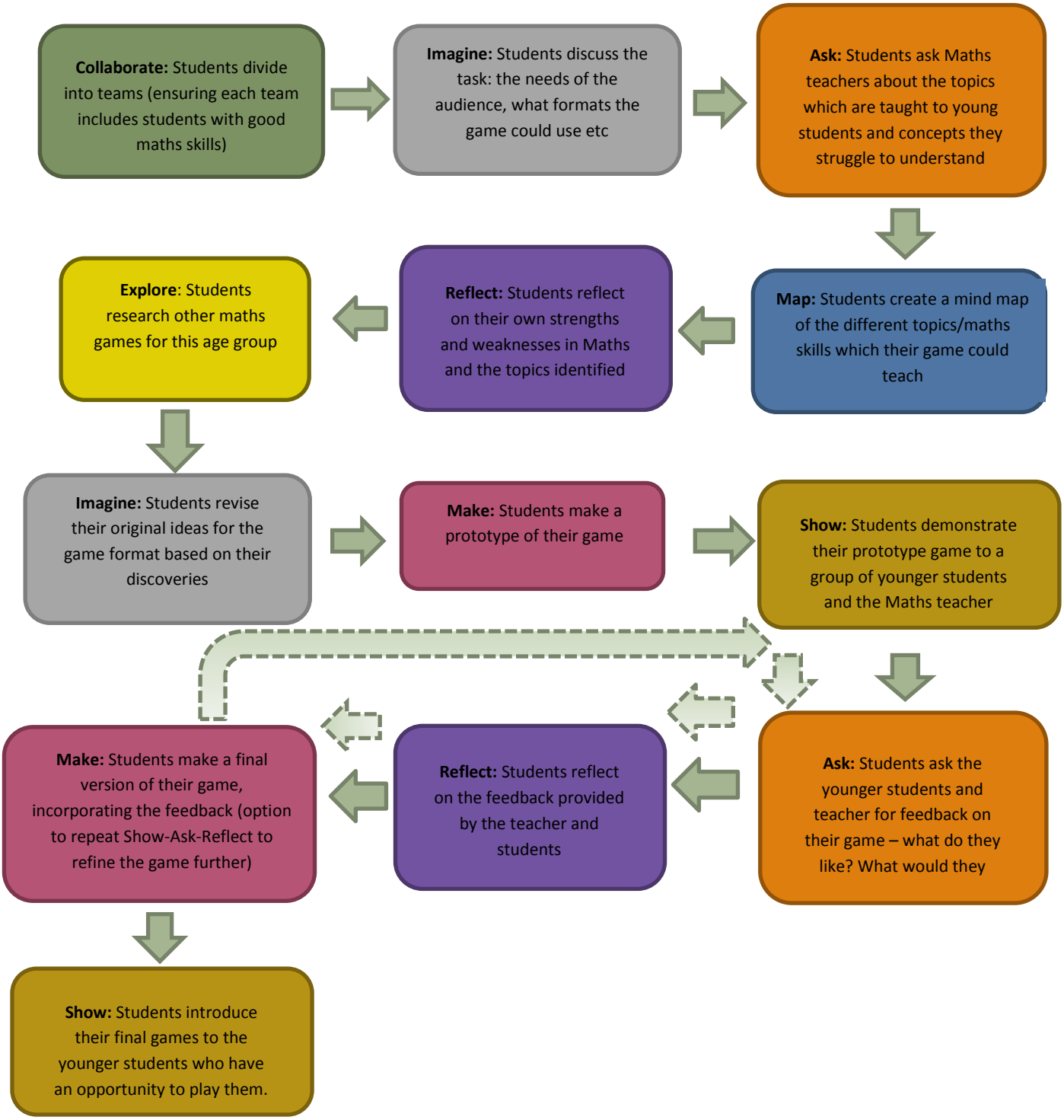
Example 3: Identifying resources about Shakespearean theatre

Task: Students compile a list of resources to support their studies about Shakespearean Theatre (1 session)

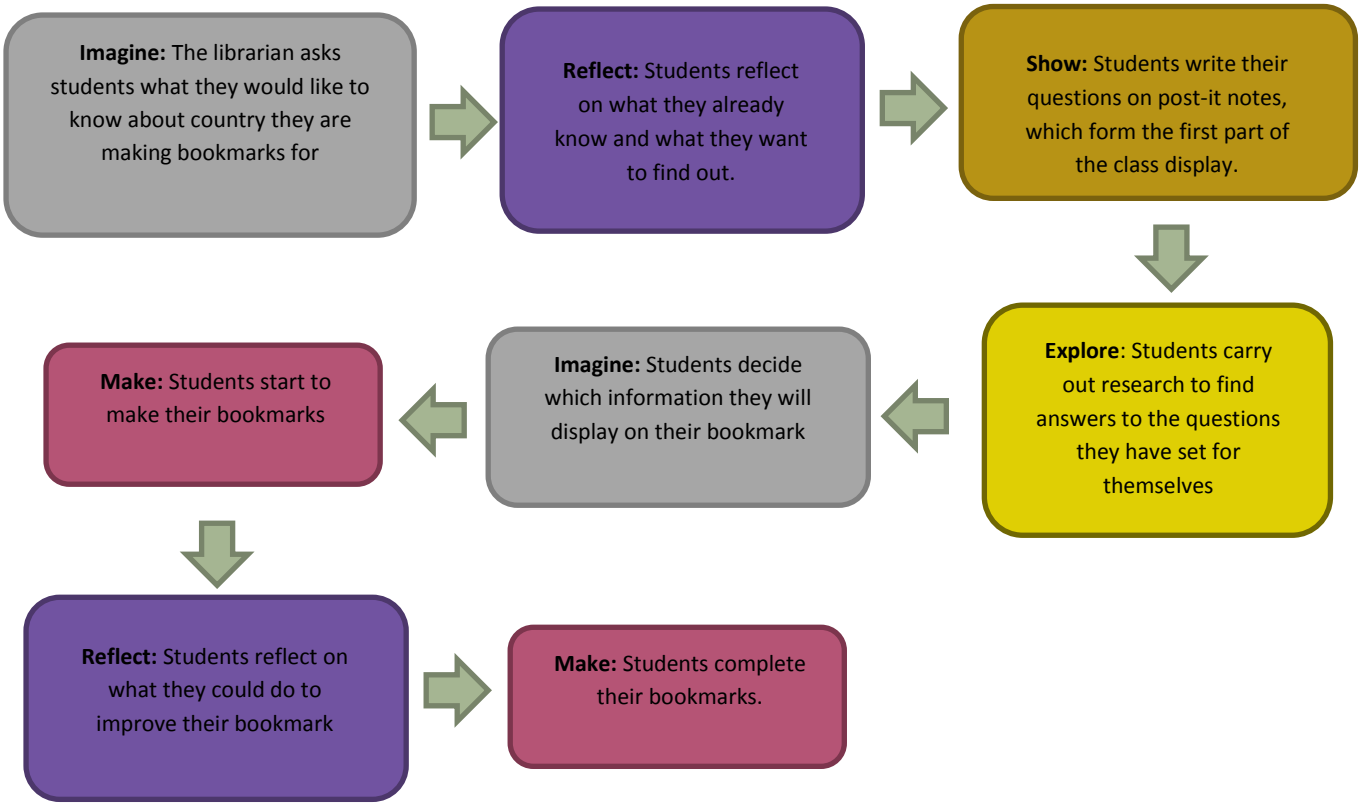


Example 4: Making a game for younger students

Task: Students make a game to support Maths learning among younger student (4-6 sessions)



Example 5: Making a bookmark



Example 6: Creating a 3D model building

Task: Students make a 3D model of a religious building (6-8 sessions)