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| **Minor Award Name** | **PATTERN & RELATIONSHIP** |
| **Minor Award Code** | **M2N06** |
| **Level** | **2** |

**Suggested resources to support delivery:**

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| **Theme/Topic** | **Type** | **Relevance** | **Author/Source** | **Web Link** |
| Reflective journal | Online journal | Customizable online learning journal template, explains the importance of reflective learning   * ICT skills * Critical thinking skills | PENZU | <https://penzu.com/reflective-journal-template> |
| Photographic research | Blog | How to take great photos, even on your cell phone   * Visual research and archiving skills * ICT skills * Communications skills | Emily Pidgeon  TEDBlog.com | <http://blog.ted.com/how-to-take-great-photos-even-on-your-cell-phone/> |
| Patterns in Nature | Website | Visual archive of patterns in nature to stimulate awareness   * Communication skills * ICT research skills | National Geographic | <http://www.nationalgeographic.com/photography/patterns-in-nature/> |
| Patterns in Nature | Pinterest | Visual archive of patterns in nature to stimulate awareness   * Communication skills * ICT research skills | Multiple author  Pinterest | <https://www.pinterest.ie/search/pins/?q=patterns%20in%20nature&rs=typed&term_meta%5B%5D=patterns%20in%20nature%7Ctyped> |
| Maths patterns in nature | YouTube video | Why Fibonacci numbers are important in nature | EHow Education | <https://youtu.be/-GVQ2-3Nv2s> |
| Maths patterns in nature | Printable Exercise | Counting Fibonacci spirals   * Recognising patterns * Numeracy skills | National Museum of Mathematics, New York | <https://momath.org/home/fibonacci-numbers-of-sunflower-seed-spirals/> |
| Maths Patterns in Nature | YouTube tutorial | How to draw - the Fibonacci sequence / golden spiral - step by step tutorial   * Creating Patterns * Recognising patterns * Listening and following instructions * Communications | Sein Selbst Sein | <https://youtu.be/qTw_qay54WI> |
| Maths patterns in nature | Printable Worksheet | * Mathematical patterns in nature | www.havefunteaching.com | <http://files.havefunteaching.com/free-worksheets/grade/third/math/patterns-worksheet-2.pdf> |
| Patterns in nature | Book | Visual archive of patterns in nature to stimulate awareness | Cat Martin | <https://www.amazon.co.uk/Surface-Texture-Bible-Samples-Furnishing/dp/1584794526/ref=sr_1_31?s=books&ie=UTF8&qid=1502387553&sr=1-31&keywords=texture> |
| Pattern in the manmade world | Book | Patterns - Manmade   * Recognising manmade and constructed patterns | Victoria Rose  ISBN-13: 978-1521020203 | <https://www.amazon.co.uk/Patterns-Man-made-Victoria-Rose/dp/1521020205/ref=sr_1_2?s=books&ie=UTF8&qid=1502561102&sr=1-2&keywords=man+made+pattern> |
| Designing simple patterns | Online tessellation creator | Move, resize, colour and create patterns   * Design skills * Visual pattern recognition skills * ICT skills | The National Council of Teachers of Mathematics (Inc) US | <https://illuminations.nctm.org/Lesson.aspx?id=3112> |
| Designing simple patterns | Printable worksheet | Cut out and move shapes for designing tessellation patterns   * Design skills * Visual pattern recognition skills | The National Council of Teachers of Mathematics (Inc) US | <https://illuminations.nctm.org/uploadedFiles/Content/Lessons/Resources/6-8/Tessellations-AS-Polygons.pdf> |
| Colour use in design | Adult Colouring book | Swirls Coloring Book: Relaxing Designs: Paisleys, Swirls & Geometric Patterns; Stress Relieving Coloring Pages; Art Therapy & Meditation Practice For Relaxation   * Colour placement * Pattern recognition | Art Therapy Colouring  ISBN-13: 978-1641260657 | <https://www.amazon.co.uk/Swirls-Coloring-Book-Meditation-Relaxation/dp/1641260653/ref=sr_1_4?ie=UTF8&qid=1507710112&sr=8-4&keywords=geometric+meditations> |
| Pattern design | Book | Pattern   * Recognising and understanding pattern use in design | Orla Kiely  ISBN-13: 978-1840917628 | <https://www.amazon.co.uk/Pattern-Orla-Kiely/dp/1840917628/ref=sr_1_9?s=books&ie=UTF8&qid=1502449282&sr=1-9&keywords=orla+kiely> |
| Materials | Online supplier | Paint, paper, printing accessories | The Art Materials Company | <http://www.artmaterials.ie/> |
| Pattern recognition and use | Book | Codes, Ciphers and Secret Writing   * Recognising and using patterns | Martin Gardner  ISBN-13: 978-0486247618 | <https://www.amazon.co.uk/Ciphers-Secret-Writing-Childrens-Activity/dp/0486247619/ref=sr_1_6?s=books&ie=UTF8&qid=1502440981&sr=1-6&keywords=The+secret+code+book> |
| Patterns in language | Printable worksheets | Alphabetizing words   * Using letter patterns to organise information * Improving literacy skills | Enchanted Learning | <http://www.enchantedlearning.com/alphabet/alphabeticalorder/> |
| Patterns in language | Printable worksheets | Spelling patterns   * Recognising patterns in spelling * Improving literacy skills | Jerry and Leanne Charles  K12 Reader | <http://www.k12reader.com/subject/spelling-skills/spelling-patterns/> |
| Glossary of pattern terms | Pattern descriptor list | * Literacy and communication skills * Pattern recognition | Artlandia | <http://artlandia.com/wonderland/glossary/> |
| Numerical patterns and relationships | Downloadable PDF & Docs | * Improving numeracy skills * Improving communication skills | TES Global Ltd | <https://www.tes.com/teaching-resource/year-3-numeracy-homework-sequences-6196598> |
| Pattern and sequencing | Online quiz | Improving   * Pattern recognition skills * Sequencing and numeracy skills * Communication skills | Rochester for Kids | <http://www.rochesterforkids.com/patternquiz.html> |
| Rhythm and timing | Online resource | * Counting rhythms and rests | Music Tech Teacher | <http://www.musictechteacher.com/music_learning_theory/music_rhythms_and_rests1.htm> |
| Recognising rhythms | Online quiz | * Recognising rhythms * Synthesizing visual and aural information * Communication skills * ICT skills | Music Tech Teacher | <http://www.musictechteacher.com/music_quizzes/quiz_rhythm_listen_to_patterns.htm> |
| Clapping rhythms | Printable worksheets | * Counting rhythms * Synthesizing visual and kinaesthetic information * Communication skills | Krammer Music | <http://krammermusic.com/index.php?option=com_content&view=article&id=59&Itemid=98> |
| Repeated rhythm example | YouTube video | Amhrán na gCupán - When I'm gone as Gaeilge   * Recognising rhythm in music | TG Lurgan | <https://www.youtube.com/watch?v=Hz63M3v11nE> |
| Creating and repeating rhythms | Website | Lesson plans, examples, videos, exercises to give students an insight into recognising and using rhythm | Michelle Wirth, B.M., M.Ed | <http://www.bodypercussionclassroom.com/> |

**Useful Organisations:**

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| **Name** | **Contact Information** |
| Art Teachers Association of Ireland | [www.artteachers.ie](http://www.artteachers.ie) |
| Design and Crafts Council of Ireland | [www.dccoi.ie](http://www.dccoi.ie) |
| Arts Council of Ireland | [www.artscouncil.ie](http://www.artscouncil.ie) |
| Arts + Health | [www.artsandhealth.ie](http://www.artsandhealth.ie) |
| National Alliance for Arts, Health and Wellbeing | [www.artshealthandwellbeing.org.uk](http://www.artshealthandwellbeing.org.uk) |
| Age and Opportunity | [www.ageandopportunity.ie](http://www.ageandopportunity.ie) |

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| **MOOCs (Massive Online Open Courses)** | |
| Free access to online courses  Search regularly for new courses and new start dates | https://www.mooc-list.com/ |
| What is a MOOC | <https://www.youtube.com/watch?v=eW3gMGqcZQc> |
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